ILLINOIS REGISTER

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POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

- 1) <u>Heading of the Part</u>: Standards Applicable to Generators of Hazardous Waste
- 2) <u>Code Citation</u>: 35 Ill. Adm. Code 722
- 3) <u>Section Numbers</u>: <u>Proposed Actions</u>: 722.132 Amendment 722.158 Amendment
- 4) Statutory Authority: 415 ILCS 5/7.2, 22.4, and 27
- 5) <u>A Complete Description of Subjects and Issues Involved</u>: The amendments to Part 722 are a single segment of the docket R16-7 rulemaking that also affects 35 Ill. Adm. Code 703, 720, 721, 724, 725, 726, 727, 728, and 733, each of which is covered by a separate notice in this issue of the *Illinois Register*. To save space, a more detailed description of the subjects and issues involved in the docket R16-7 rulemaking in this issue of the *Illinois Register* only in the answer to question 5 is stated in the Notice of Adopted Amendments for 35 Ill. Adm. Code 703. A comprehensive description is contained in the Board's opinion and order of March 3, 2016, proposing amendments in docket R16-7, which opinion and order is available from the address below.

Specifically, the amendments to Part 722 make corrections suggested by USEPA based on review of the Illinois rules for the purpose of authorization of the Illinois RCRA Subtitle C program.

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

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

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

6)

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- Will this rulemaking replace any emergency rule currently in effect? No 7)
- Does this rulemaking contain an automatic repeal date? No 8)
- Does this rulemaking contain incorporations by reference? No 9)
- Are there any other rulemakings pending on this Part? No 11)

2 16

- Statement of Statewide Policy Objective: These proposed rulemakings do not create or enlarge a State mandate as defined in C enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805]. 10)
- Time, Place and Manner in which interested persons may comment on this proposed rulemaking: The Board will constant in the proposal for a pe rulemaking: The Board will accept written public comment on this proposed for a Period of 45 days after the date of this multisetter. of 45 days after the date of this publication. Comments should reference docket R16-7 and be addressed to: 12)

John T. Therriault, 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 R16-7:

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

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

Request copies of the Board's opinion and order at 312/81 4-3 620, or download a copy from the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the state of the Board's Website at the provide the Board's Website at the Boar from the Board's Website at http://www.ipcb.state.il.us.

13) Initial Regulatory Flexibility Analysis:

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

- A) <u>Types of small businesses, small municipalities, and not-for-profit corporations</u> <u>affected</u>: This rulemaking may affect those small businesses, small municipalities, and not-for-profit corporations that generate, transport, treat, store, or dispose of hazardous waste. These proposed amendments do not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805].
- B) <u>Reporting, bookkeeping or other procedures required for compliance</u>: The existing rules and proposed amendments require extensive reporting, bookkeeping and other procedures, including the preparation of manifests and annual reports, waste analyses and maintenance of operating records. These proposed amendments do not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805].
- C) <u>Types of professional skills necessary for compliance</u>: Compliance with the existing rules and proposed amendments may require the services of an attorney, certified public accountant, chemist, and registered professional engineer. These proposed amendments do not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805].
- 14) <u>Regulatory Agenda on which this rulemaking was summarized</u>: December 4, 2015; 39 Ill. Reg. 15637-39

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

<u>3</u> 16

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

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

PART 722 STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE

SUBPART A: GENERAL

Section	
722.110	Purpose, Scope, and Applicability
722.111	Hazardous Waste Determination
722.112	USEPA Identification Numbers
722.113	Electronic Reporting

SUBPART B: THE MANIFEST

Section	
722.120	General Requirements
722.121	Manifest Tracking Numbers, Manifest Printing, and Obtaining Manifests
722.122	Number of Copies
722.123	Use of the Manifest
722.124	Use of the Electronic Manifest
722.125	Electronic Manifest Signatures
722.127	Waste Minimization Certification

SUBPART C: PRE-TRANSPORT REQUIREMENTS

Section

- 722.130 Packaging
- 722.1 31 Labeling
- 722.1.32 Marking
- 722.133 Placarding
- 722.13 4 Accumulation Time

SUBPART D: RECORDKEEPING AND REPORTING

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

Section

722.140	Recordkeeping
122.11.0	recordinophing

- 722.141 Annual Reporting
- 722.142 **Exception Reporting**
- 722.143
- Special Requirements for Generators of between 100 and 1,000 kilograms per 722.144 month

SUBPART E: EXPORTS OF HAZARDOUS WASTE

Section

722.150	Applicability
122.100	reppiredonity

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

SUBPART F: IMPORTS OF HAZARDOUS WASTE

Section

722.160 Imports of Hazardous Waste

SUBPART G: FARMERS

Section

722.170 Farmers

SUBPART H: TRANS-BOUNDARY SHIPMENTS OF HAZARDOUS WASTE FOR RECOVERY WITHIN THE OECD

722.180	Applicability
722.181	Definitions

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

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

SUBPART K: ALTERNATIVE REQUIREMENTS FOR HAZARDOUS WASTE DETERMINATION AND ACCUMULATION OF UNWANTED MATERIAL FOR LABORATORIES OWNED BY ELIGIBLE ACADEMIC ENTITIES

Section

- 722.300 Definitions
- 722.301 Applicability
- 722.302 Opting into the Subpart K Requirements
- 722.303 Notice of Election into the Subpart K Requirements
- 722.304 Notice of Withdrawal from the Subpart K Requirements
- 722.305 Summary of the Requirements of this Subpart K
- 722.306 Container Standards in the Laboratory
- 722.307 Personnel Training
- 722.308 Removing Unwanted Material from the Laboratory
- 722.309 Hazardous Waste Determination and Removal of Unwanted Material from the Laboratory
- 722.310 Hazardous Waste Determination in the Laboratory
- 722.311 Hazardous Waste Determination at an On-Site Central Accumulation Area
- 722.312 Hazardous Waste Determination at an On-Site Treatment, Storage, or Disposal Facility
- 722.313 Laboratory Clean-Outs
- 722.314 Laboratory Management Plan
- 722.315 Unwanted Material That Is Not Solid Waste or Hazardous Waste
- 722.316 Non-Laboratory Hazardous Waste Generated at an Eligible Academic Entity

722.APPENDIX A Hazardous Waste Manifest

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

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

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 R84-9 at 9 Ill. Reg. 11950, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1131, effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14112, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20709, effective December 2, 1986; amended in R86-46 at 11 Ill. Reg. 13555, effective August 4, 1987; amended in R87-5 at 11 Ill. Reg. 19392, effective November 12, 1987; amended in R87-39 at 12 Ill. Reg. 13129, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 452, effective December 27, 1988; amended in R89-1 at 13 Ill. Reg. 18523, effective November 13, 1989; amended in R90-10 at 14 Ill. Reg. 16653, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9644, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14562, effective October 1, 1991; amended in R91-13 at 16 Ill. Reg. 9833, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg. 17696, effective November 6, 1992; amended in R93-4 at 17 Ill. Reg. 20822, effective November 22, 1993; amended in R95-6 at 19 Ill. Reg. 9935, effective June 27, 1995; amended in R95-20 at 20 Ill. Reg. 11236, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 603, effective December 16, 1997; amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. 17950, effective September 28, 1998; amended in R00-5 at 24 Ill. Reg. 1136, effective January 6, 2000; amended in R00-13 at 24 Ill. Reg. 9822, effective June 20, 2000; expedited correction at 25 Ill. Reg. 5105, effective June 20, 2000; amended in R05-2 at 29 Ill. Reg. 6312, effective April 22, 2005; amended in R06-5/R06-6/R06-7 at 30 III. Reg. 3138, effective February 23, 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 871, effective December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 11927, effective July 14, 2008; amended in R09-16/R10-4 at 34 Ill. Reg. 18817, effective November 12, 2010; amended in R11-2/R11-16 at 35 Ill. Reg. 17888, effective October 14, 2011; amended in R12-7 at 36 Ill. Reg. 8773, effective June 4, 2012; amended in R13-15 at 37 Ill. Reg. 17763, effective October 24, 2013; amended in R15-1 at 39 Ill. Reg. 1700, effective January 12, 2015; amended in R16-7 at 40 Ill. Reg. — , effective

SUBPART C: PRE-TRANSPORT REQUIREMENTS

Section 722.132 Marking

a) Before transporting or offering hazardous waste for transportation off-site, a generator must mark each package of hazardous waste in accordance with the applicable USDOT regulations on hazardous materials under 49 CFR 172_ (Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements), incorporated by reference in 35 Ill. Adm. Code 720.111(b);

POLLUTION CONTROL BOARD

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 b) Marking small containers. Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each container of 119 gallons (450 liters) (110 gallons) or less that is used in such transportation with the following words and information displayed in accordance with the requirements of 49 CFR 172.304 (Marking Requirements), incorporated by reference in 35 Ill. Adm. Code 720.111(b):

HAZARDOUS WASTE—__Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Generator¹'s Name and Address

Generator²'s USEPA Identification Number

Manifest Tracking Number

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

SUBPART E: EXPORTS OF HAZARDOUS WASTE

Section 722.158 International Agreements

- a) Any person that exports or imports waste hazardous under U.S. national procedures, as defined in Section 722.181, to or from any of the_designated member countries of the Organisation for Economic Co-operation and Development (OECD), as listed in subsection (a)(1) of this Section, for purposes of recovery is subject to the requirements of Subpart H of this Part. The requirements of Subparts E and F of this Part do not apply where Subpart H of this Part applies.
 - For the purposes of this Subpart E, the designated OECD countries are Australia, Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Poland,

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Portugal, the Republic of Korea, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

 Only for the purposes of Subpart E of this Part, Canada and Mexico are considered OECD member countries.

BOARD NOTE: USEPA used identical language in 40 CFR 262.10(d), corresponding 262.58(a), and 262.80(a) to define when a waste is considered hazardous under U.S. national procedures. The Board has chosen to create the term "waste hazardous under U.S. national procedures"; add a definition in Section 722.181, the centralized listing of definitions for Subpart H of this Part; and replace USEPA? s defining language in this subsection (a) with a cross-reference to the definition in Section 722.181.

b) Any person that exports hazardous waste to or imports hazardous waste from any designated OECD member country for purposes other than recovery (e.g., incineration, disposal, etc.), Mexico (for any purpose), or Canada (for any purpose) remains subject to the requirements of Subparts E and F of this Part, and that person is not subject to the requirements of Subpart H of this Part.

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

Document comparison by Workshare Compare on Monday, March 14, 2016 11:39:32 AM

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Format changed		0
Total changes		25



1		TITLE 35: ENVIRONMENTAL PROTECTION
2		SUBTILLE G: WASTE DISPOSAL
2	CT	UDCHAPTER I: POLLUTION CONTROL BOARD
4	SU	JBCHAPTER C: HAZARDOUS WASTE OPERATING REQUIREMENTS
5		D & DT 700
0		PART 722
/		STANDARDS APPLICABLE TO
8		GENERATORS OF HAZARDOUS WASTE
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10		SUBPARTA: GENERAL
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13	722.110	Purpose, Scope, and Applicability
14	722.111	Hazardous waste Determination
15	722.112	Electronic Deporting
10	722.115	Electronic Reporting
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10		SUBPART B: THE MANIFEST
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20	Section 722,120	Concerd Bequirements
21	722.120	General Requirements Manifest Tracking Numbers Manifest Printing and Obtaining Manifests
22	722.121	Number of Conjer
23	722.122	Number of Copies
24	722.123	Use of the Electronic Manifest
25	722.124	Use of the Electronic Manifest
26	722.125	Electronic Manifest Signatures
21	/22.12/	waste Minimization Certification
28		GUDDART C. DRE TRANGDORT DEOLUDEMENTS
29		SUBPART C: PRE-TRANSPORT REQUIREMENTS
30	Casting	
31	Section 722 120	Destasies
32	722.130	Packaging
22	722.131	Labeling
34	722.132	Marking
35	722.133	Placarding A successful time
30	722.134	Accumulation Time
3/		SUDDART D. RECORDIZEERIC AND REPORTING
38		SUBPART D: RECORDREEPING AND REPORTING
39	C	
40	Section	Development
41	722.140	A model Demonstration
42	722.141	Annual Reporting
43	722.142	Exception Reporting

44	722.143	Additional Reporting
45	722.144	Special Requirements for Generators of between 100 and 1,000 kilograms pe
46		month
47		
48		SUBPART E: EXPORTS OF HAZARDOUS WASTE
49		
50	Section	
51	722.150	Applicability
52	722.151	Definitions
53	722.152	General Requirements
54	722.153	Notification of Intent to Export
55	722.154	Special Manifest Requirements
56	722.155	Exception Report
57	722.156	Annual Reports
58	722.157	Recordkeeping
59	722.158	International Agreements
60		
61		SUBPART F: IMPORTS OF HAZARDOUS WASTE
62		
63	Section	
64	722.160	Imports of Hazardous Waste
65		
66		SUBPART G: FARMERS
67		
68	Section	
69	722.170	Farmers
70		
71		SUBPART H: TRANS-BOUNDARY SHIPMENTS OF
72		HAZARDOUS WASTE FOR RECOVERY WITHIN THE OECD
73		
74	Section	
75	722.180	Applicability
76	722.181	Definitions
77	722.182	General Conditions
78	722.183	Notification and Consent
79	722.184	Movement Document
80	722.185	Contracts
81	722.186	Provisions Relating to Recognized Traders
82	722.187	Reporting and Recordkeeping
83	722.189	OECD Waste Lists
84		

85	SUE	PART K: ALTERNATIVE REQUIREMENTS FOR HAZARDOUS WASTE
86	DETI	ERMINATION AND ACCUMULATION OF UNWANTED MATERIAL FOR
87		LABORATORIES OWNED BY ELIGIBLE ACADEMIC ENTITIES
88		
89	Section	
90	722.300	Definitions
91	722.301	Applicability
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103	722.312	Hazardous Waste Determination at an On-Site Treatment, Storage, or Disposal
104		Facility
105	722.313	Laboratory Clean-Outs
106	722.314	Laboratory Management Plan
107	722.315	Unwanted Material That Is Not Solid Waste or Hazardous Waste
108	722.316	Non-Laboratory Hazardous Waste Generated at an Eligible Academic Entity
109		
110	722.APPE	NDIX A Hazardous Waste Manifest
111		
112	AUTHORI	TY: Implementing Sections 7.2 and 22.4 and authorized by Section 27 of the
113	Environme	ntal Protection Act [415 ILCS 5/7.2, 22.4, and 27].
114		
115	SOURCE:	Adopted in R81-22 at 5 Ill. Reg. 9781, effective May 17, 1982; amended and
116	codified in	R81-22 at 6 Ill. Reg. 4828, effective May 17, 1982; amended in R82-18 at 7 Ill. Reg.
117	2518, effec	tive February 22, 1983; amended in R84-9 at 9 Ill. Reg. 11950, effective July 24,
118	1985; amer	nded in R85-22 at 10 Ill. Reg. 1131, effective January 2, 1986; amended in R86-1 at
119	10 Ill. Reg.	14112, effective August 12, 1986; amended in R86-19 at 10 Ill. Reg. 20709,
120	effective D	ecember 2, 1986; amended in R86-46 at 11 Ill. Reg. 13555, effective August 4, 1987;
121	amended in	n R87-5 at 11 Ill. Reg. 19392, effective November 12, 1987; amended in R87-39 at 12
122	Ill. Reg. 13	129, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 452, effective
123	December	27, 1988; amended in R89-1 at 13 Ill. Reg. 18523, effective November 13, 1989;
124	amended in	n R90-10 at 14 Ill. Reg. 16653, effective September 25, 1990; amended in R90-11 at
125	15 Ill. Reg.	9644, effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14562, effective
126	October 1,	1991; amended in R91-13 at 16 Ill. Reg. 9833, effective June 9, 1992; amended in
127	R92-1 at 10	5 Ill. Reg. 17696, effective November 6, 1992; amended in R93-4 at 17 Ill. Reg.

128 20822, effective November 22, 1993; amended in R95-6 at 19 Ill. Reg. 9935, effective June 27, 129 1995; amended in R95-20 at 20 Ill. Reg. 11236, effective August 1, 1996; amended in R96-130 10/R97-3/R97-5 at 22 Ill. Reg. 603, effective December 16, 1997; amended in R97-21/R98-131 3/R98-5 at 22 Ill. Reg. 17950, effective September 28, 1998; amended in R00-5 at 24 Ill. Reg. 132 1136, effective January 6, 2000; amended in R00-13 at 24 Ill, Reg. 9822, effective June 20, 133 2000; expedited correction at 25 Ill. Reg. 5105, effective June 20, 2000; amended in R05-2 at 29 134 Ill. Reg. 6312, effective April 22, 2005; amended in R06-5/R06-6/R06-7 at 30 Ill. Reg. 3138, 135 effective February 23, 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 871, effective 136 December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 11927, effective July 14, 2008; 137 amended in R09-16/R10-4 at 34 Ill. Reg. 18817, effective November 12, 2010; amended in R11-138 2/R11-16 at 35 Ill. Reg. 17888, effective October 14, 2011; amended in R12-7 at 36 Ill. Reg. 139 8773, effective June 4, 2012; amended in R13-15 at 37 Ill. Reg. 17763, effective October 24, 140 2013; amended in R15-1 at 39 Ill. Reg. 1700, effective January 12, 2015; amended in R16-7 at 141 40 Ill. Reg. _____, effective _____. 142 143 SUBPART C: PRE-TRANSPORT REQUIREMENTS 144 145 Section 722.132 Marking 146 147 Before transporting or offering hazardous waste for transportation off-site, a a) generator must mark each package of hazardous waste in accordance with the 148 149 applicable USDOT regulations on hazardous materials under 49 CFR 172 150 (Hazardous Materials Table, Special Provisions, Hazardous Materials 151 Communications, Emergency Response Information, and Training 152 Requirements), incorporated by reference in 35 Ill. Adm. Code 720.111(b); 153 154 b) Marking small containers. 155 Before transporting hazardous waste or offering hazardous waste for transportation 156 off-site, a generator must mark each container of 119 gallons (450 liters) (110 157 gallons) or less that is used in such transportation with the following words and 158 information displayed in accordance with the requirements of 49 CFR 172.304 159 (Marking Requirements), incorporated by reference in 35 Ill. Adm. Code 160 720.111(b): 161 162 HAZARDOUS WASTE - Federal Law Prohibits Improper Disposal. If 163 found, contact the nearest police or public safety authority or the U.S. 164 Environmental Protection Agency. 165 166 Generator's Name and Address 167 Generator's USEPA Identification Number 168 169 Manifest Tracking Number _____. 170

172 (Source: Amended at 40 Ill. Reg, effective) 173	
173	
1/5	
174 SUBPART E: EXPORTS OF HAZARDOUS WASTE	
175	
 Section 722.158 International Agreements 177 	
178 a) Any person that exports or imports waste hazardous under U.S. national	
179 procedures, as defined in Section 722.181, to or from any of the designated	
180 member countries of the Organisation for Economic Co-operation and	
181 Development (OECD), as listed in subsection (a)(1) of this Section, for pur	ooses
182 of recovery is subject to the requirements of Subpart H of this Part. The	
183 requirements of Subparts E and F of this Part do not apply where Subpart H	of
184 this Part applies.	
185	
186 1) For the purposes of this Subpart E, the designated OECD countries	are
187 Australia, Austria, Belgium, the Czech Republic, Denmark, Estonia	
188 Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israe	. Italy,
189 Japan, Luxembourg, the Netherlands, New Zealand, Norway, Polan	<u>d.</u>
190 Portugal, the Republic of Korea, the Slovak Republic, Slovenia, Spa	in,
191 Sweden, Switzerland, Turkey, the United Kingdom, and the United	States.
192	
193 2) Only for the purposes of Subpart E of this Part, Canada and Mexico	are
194 considered OECD member countries.	
195	
196 BOARD NOTE: USEPA used identical language in 40 CFR 262.10(d),	
197 corresponding 262.58(a), and 262.80(a) to define when a waste is considered	d
198 hazardous under U.S. national procedures. The Board has chosen to create	the
199 term "waste hazardous under U.S. national procedures"; add a definition in	
200 Section 722.181, the centralized listing of definitions for Subpart H of this	Part;
201 and replace USEPA's defining language in this subsection (a) with a cross-	
202 reference to the definition in Section 722.181.	
203	
204 b) Any person that exports hazardous waste to or imports hazardous waste fro	m any
205 designated OECD member country for purposes other than recovery (e.g.,	
206 incineration, disposal, etc.), Mexico (for any purpose), or Canada (for any	
207 purpose) remains subject to the requirements of Subparts E and F of this Pa	rt, and
208 that person is not subject to the requirements of Subpart H of this Part.	
209	
210 (Source: Amended at 40 Ill. Reg, effective)	

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

- 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)	Section Numbers:	Proposed Actions:
	725.173	Amendment
	725.440	Amendment
	725.502	Amendment
	725.933	Amendment
	725.934	Amendment
	725.935	Amendment
	725.952	Amendment
	725.964	Amendment
	725.983	Amendment
	725.984	Amendment
	725.985	Amendment
	725.987	Amendment
	725.1101	Amendment

- 4) <u>Statutory Authority</u>: 415 ILCS 5/7.2, 22.4, and 27
- 5) <u>A Complete Description of Subjects and Issues Involved</u>: The amendments to Part 725 are a single segment of the docket R16-7 rulemaking that also affects 35 Ill. Adm. Code 703, 720, 721, 722, 724, 726, 727, 728, and 733, each of which is covered by a separate notice in this issue of the *Illinois Register*. To save space, a more detailed description of the subjects and issues involved in the docket R16-7 rulemaking in this issue of the *Illinois Register* only in the answer to question 5 is stated in the Notice of Adopted Amendments for 35 Ill. Adm. Code 703. A comprehensive description is contained in the Board's opinion and order of March 3, 2016, proposing amendments in docket R16-7, which opinion and order is available from the address below.

Specifically, the amendments to Part 725 are corrections and clarifying amendments that are not directly derived from the instant federal amendments. This includes corrections submitted by USEPA as a result of review of the rules for the purpose of authorization of the Illinois RCRA Subtitle C program.

Tables appear in the Board's opinion and order of March 3, 2016 in docket R16-7 that list numerous corrections and amendments that are not based on current federal amendments. The tables contain deviations from the literal text of the federal amendments underlying

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Illinois Pollution Control Board 100 W. Randolph 11-500 Chicago IL 60601

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

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

- 13) Initial Regulatory Flexibility Analysis:
 - A) <u>Types of small businesses, small municipalities, and not-for-profit corporations affected</u>: This rulemaking may affect those small businesses, small municipalities, and not-for-profit corporations that generate, transport, treat, store, or dispose of hazardous waste. These proposed amendments do not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805].
 - B) <u>Reporting, bookkeeping or other procedures required for compliance</u>: The existing rules and proposed amendments require extensive reporting, bookkeeping and other procedures, including the preparation of manifests and annual reports, waste analyses and maintenance of operating records. These proposed amendments do not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805].
 - C) <u>Types of professional skills necessary for compliance</u>: Compliance with the existing rules and proposed amendments may require the services of an attorney, certified public accountant, chemist, and registered professional engineer. These proposed amendments do not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805].
- 14) <u>Regulatory Agenda on which this rulemaking was summarized</u>: December 4, 2015; 39 Ill. Reg. 15637-39

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

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- 725.104 Imminent Hazard Action

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725.APPENDIX F	Compounds with Henry 's Law Constant Less Than 0.1 Y/X (at $25^{\circ}C$)

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 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,

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2011; amended in R13-15 at 37 Ill. Reg. 17811, effective October 24, 2013; amended in R15-1 at 39 Ill. Reg. 1746, effective January 12, 2015; amended in R16-7 at 40 Ill. Reg. _____, effective ______.

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING

Section 725.173 Operating Record

- a) The owner or operator must keep a written operating record at the facility.
- b) The following information must be recorded as it becomes available and maintained in the operating record for three years unless otherwise provided as follows:
 - A description and the quantity of each hazardous waste received and the methods and dates of its treatment, storage, or disposal at the facility, as required by Appendix A to this Part. This information must be maintained in the operating record until closure of the facility;
 - 2) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities the location and quantity of each hazardous waste must be recorded on a map or diagram that shows each cell or disposal area. For all facilities this information must include cross-references to manifest document numbers if the waste was accompanied by a manifest. This information must be maintained in the operating record until closure of the facility;

BOARD NOTE: See Sections 725.219, 725.379, and 725.409 for related requirements.

- 3) Records and results of waste analysis, waste determinations, and trial tests performed, as specified in Sections 725.113, 725.300, 725.325, 725.352, 725.373, 725.414, 725.441, 725.475, 725.502, 725.934, 725.963, and 725.984 and 35 Ill. Adm. Code 728.104(a) and 728.107;
- 4) Summary reports and details of all incidents that require implementing the contingency plan, as specified in Section 725.156(j);

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- 5) Records and results of inspections, as required by Section 725.115(d) (except these data need be kept only three years);
- 6) Monitoring, testing, or analytical data, where required by Subpart F of this Part or Sections 725.119, 725.194, 725.291, 725.293, 725.295, 725.324, 725.326, 725.355, 725.360, 725.376, 725.378, 725.380(d)(1), 725.402, 725.404, 725.447, 725.477, 725.934(c) through (f), 725.935, 725.963(d) through (i), 725.964, and 725.1083 725.983725.1083 through 725.990. Maintain in the operating record for three years, except for records and results pertaining to groundwater monitoring and cleanup, and response action plans for surface impoundments, waste piles, and landfills, which must be maintained in the operating record until closure of the facility;

BOARD NOTE: As required by Section 725.194, monitoring data at disposal facilities must be kept throughout the post-closure period.

- All closure cost estimates under Section 725.242 and, for disposal facilities, all post-closure cost estimates under Section 725.244 must be maintained in the operating record until closure of the facility;
- 8) Records of the quantities (and date of placement) for each shipment of hazardous waste placed in land disposal units under an extension of the effective date of any land disposal restriction granted pursuant to 35 Ill. Adm. Code 728.105, a petition pursuant to 35 Ill. Adm. Code 728.106, or a certification under 35 Ill. Adm. Code 728.108 and the applicable notice required of a generator under 35 Ill. Adm. Code 728.107(a). All of this information must be maintained in the operating record until closure of the facility;
- 9) For an off-site treatment facility, a copy of the notice and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;
- For an on-site treatment facility, the information contained in the notice (except the manifest number) and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;

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- For an off-site land disposal facility, a copy of the notice and the certification and demonstration, if applicable, required of the generator or the owner or operator of a treatment facility under 35 Ill. Adm. Code 728.107 or 728.108;
- 12) For an on-site land disposal facility, the information contained in the notice required of the generator or owner or operator of a treatment facility under 35 III. Adm. Code 728.107, except for the manifest number, and the certification and demonstration, if applicable, required under 35 III. Adm. Code 728.107 or 728.108;
- 13) For an off-site storage facility, a copy of the notice and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;
- 14) For an on-site storage facility, the information contained in the notice (except the manifest number) and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108; and
- 15) Monitoring, testing or analytical data, and corrective action, where required by Sections 725.190 and 725.193(d)(2) and (d)(5), and the certification, as required by Section 725.196(f) 725.296(f) 725.196(f), must be maintained in the operating record until closure of the facility.

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

SUBPART O: INCINERATORS

Section 725.440 Applicability

- a) The regulations in this Subpart O apply to owners or operators of hazardous waste incinerators (as defined in 35 Ill. Adm. Code 720.110), except as 35 Ill. Adm. Code 724.101 provides otherwise.
- b) Integration of the MACT standards.

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- Except as provided by subsections (b)(2) and (b)(3) of this Section, the standards of this Part no longer apply when an owner or operator demonstrates compliance with the maximum achievable control technology (MACT) requirements of subpart EEE of 40 CFR 63 (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors), incorporated by reference in 35 Ill. Adm. Code 720.111(b), by conducting a comprehensive performance test and submitting to the Agency a Notification of Compliance, under 40 CFR 63.1207(j) and 63.1210(bd)_63.1210(db), documenting compliance with the requirements of subpart EEE of 40 CFR 63.
- 2) The MACT standards of subpart EEE of 40 CFR 63 do not replace the closure requirements of Section 724.451 or the applicable requirements of Subparts A through H, BB, and CC of this Part.
- 3) Section 725.445, generally prohibiting burning of hazardous waste during startup and shutdown, remains in effect if the owner or operator elects to comply with 35 Ill. Adm. Code 703.320(b)(1)(A) to minimize emissions of toxic compounds from startup and shutdown.

BOARD NOTE: Operating conditions used to determine effective treatment of hazardous waste remain effective after the owner or operator demonstrates compliance with the standards of subpart EEE of 40 CFR 63. Sections 9.1 and 39.5 of the Environmental Protection Act [415 ILCS 5/9.1 and 39.5] make the federal MACT standards directly applicable to entities in Illinois and authorize the Agency to issue permits based on the federal standards.

- c) An owner or operator of an incinerator that burns hazardous waste is exempt from all of the requirements of this Subpart O, except Section 725.451 (Closure), provided that the owner or operator has documented, in writing, that the waste would not reasonably be expected to contain any of the hazardous constituents listed in Appendix H to 35 Ill. Adm. Code 721 and such documentation is retained at the facility, if the waste to be burned is one of the following:
 - It is listed as a hazardous waste in Subpart D of 35 Ill. Adm. Code 721, solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both;

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- 2) It is listed as a hazardous waste in Subpart D of 35 Ill. Adm. Code 721, solely because it is reactive (Hazard Code R) for characteristics other than those listed in 35 Ill. Adm. Code 721.123(a)(4) and (a)(5), and will not be burned when other hazardous wastes are present in the combustion zone;
- It is a hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous wastes under Subpart C of 35 Ill. Adm. Code 721; or
- 4) It is a hazardous waste solely because it possesses the reactivity characteristics described by 35 Ill. Adm. Code 721.123 (a)(1), (a)(2), (a)(3), (a)(6), (a)(7), or (a)(8) and will not be burned when other hazardous wastes are present in the combustion zone.

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

SUBPART Q: CHEMICAL, PHYSICAL, AND BIOLOGICAL TREATMENT

Section 725.502 Waste Analysis and Trial Tests

- a) In addition to the waste analysis required by Section 725.113(b) of this Section applies whenever either of the following conditions exist:
 - 1) A hazardous waste that is substantially different from waste previously treated in a treatment process or equipment at the facility is to be treated in that process or equipment, or
 - A substantially different process from any previously used at the facility is to be used to chemically treat hazardous waste.
- b) To show that this proposed treatment will meet all applicable requirements of Section 725.501(a) and (b), the owner or operator must, before treating the different waste or using the different process or equipment:
 - Conduct waste analyses and trial treatment tests (e.g., bench scale or pilot plant scale tests);

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2) Obtain written, documented information on similar treatment of similar waste under similar operating conditions.

BOARD NOTE: As required by Section 725.113, the waste analysis plan must include analyses needed to comply with Sections 725.505 and 725.506. As required by Section 725.173, the owner or operator must place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.

BOARD NOTE: As required by Section 725.113, the waste analysis plan must include analyses needed to comply with Sections 725.505 and 725.506. As required by Section 725.173, the owner or operator must place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.

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

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

Section 725.933 Standards: Closed-Vent Systems and Control Devices

- a) Compliance Required.
 - Owners or operators of closed-vent systems and control devices used to comply with provisions of this Part must comply with the provisions of this Section.
 - 2) Implementation Schedule.
 - A) The owner or operator of an existing facility that cannot install a closed-vent system and control device to comply with the provisions of this Subpart AA on the effective date that the facility becomes subject to the provisions of this Subpart AA must prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but

b)

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the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this Subpart AA for installation and startup.

- B) Any unit that begins operation after December 21, 1990, and which is subject to the provisions of this Subpart AA when operation begins, must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 30-month implementation schedule does not apply.
- C) The owner or operator of any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to this Subpart AA must comply with all requirements of this Subpart AA as soon as practicable but no later than 30 months after the effective date of the amendment. When control equipment required by this Subpart AA cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator must prepare an implementation schedule that includes the following information: specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this Subpart AA. The owner or operator must enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.
- D) An owner or operator of a facility or unit that becomes newly subject to the requirements of this Subpart AA after December 8, 1997, due to an action other than those described in subsection (a)(2)(iii) of this Section must comply with all applicable requirements immediately (i.e., the facility or unit must have control devices installed and operating on the date the facility or unit becomes subject to this Subpart AA; the 30-month implementation schedule does not apply).
- A control device involving vapor recovery (e.g., a condenser or adsorber) must be

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designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Section 725.932(a)(1) for all affected process vents is attained at an efficiency less than 95 weight percent.

- c) An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) must be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to three percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 degrees Celsius (° C). If a boiler or process heater is used as the control device, then the vent stream must be introduced into the flame combustion zone of the boiler or process heater.
- d) Flares.
 - A flare must be designed for and operated with no visible emissions as determined by the methods specified in subsection (e)(1) of this Section except for periods not to exceed a total of five minutes during any two consecutive hours.
 - 2) A flare must be operated with a flame present at all times, as determined by the methods specified in subsection $(f)(2)(\underline{C})(\underline{f})(2)(\underline{c})$ of this Section, $(\underline{f})(2)(\underline{C})$.
 - 3) A flare must be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted, or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted must be determined by the methods specified in subsection (e)(2) of this Section.
 - 4) Exit Velocity.
 - A) A steam-assisted or nonassisted flare must be designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, less than 18.3 m/s (60)

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ft/s), except as provided in subsections (d)(4)(B) and (d)(4)(C) of this Section.

- B) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).
- C) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, less than the velocity, V as determined by the method specified in subsection (e)(4) and less than 122 m/s (400 ft/s) is allowed.
- 5) An air-assisted flare must be designed and operated with an exit velocity less than the velocity, V, as determined by the method specified in subsection (e)(5) of this Section.
- A flare used to comply with this Section must be steam-assisted, air-assisted, or nonassisted.
- e) Compliance determination and equations.
 - Reference Method 22 (Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), must be used to determine the compliance of a flare with the visible emission provisions of this Subpart AA. The observation period is two hours and must be used according to Reference Method 22.
 - 2) The net heating value of the gas being combusted in a flare must be calculated using the following equation:

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

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H _∓ =	the net heating value of the sample in MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25° C and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mole is 20° C
<u>K</u> =	1.74×10 ⁻⁷ (1/ppm)(g mol/scm)(MJ/kcal) where the standar temperature for (g mol/scm) is 20° C
$\Sigma X_i =$	the sum of the values of X for each component i, from i=1 to n
C _i =	the concentration of sample component i in ppm on a wet- basis, as measured for organics by Reference Method 18- (Measurement of Gaseous Organic Compound Emissions- by Gas Chromatography) in appendix A to 40 CFR 60 (Ter Methods), and for carbon monoxide, by ASTM D 1946-90 (Standard Practice for Analysis of Reformed Gas by Gas Chromatography), each incorporated by reference in 35 Ill. Adm. Code 720.111
H _i is th at 25° determ Heat o (High Adm. cannot	the net heat of combustion of sample component i, keal/gmol C and 760 mm Hg. The heats of combustion must be nined using ASTM D 2382-88 (Standard Test Method for f Combustion of Hydrocarbon Fuels by Bomb Calorimeter Precision Method)), incorporated by reference in 35 Ill. Code 720.111(a), if published values are not available or be calculated.

 $H_T \equiv$ the net heating value of the sample in MJ/scm; where the
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- net enthalpy per mole of offgas is based on combustion at 25° C and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mole is 20° C
- $K \equiv 1.74 \times 10^{-7} (1/\text{ppm}) (\text{g mol/scm}) (\text{MJ/kcal}) \text{ where the} \\ \text{standard temperature for (g mol/scm) is } 20^{\circ} \text{ C}$
- $\sum X_i \equiv \frac{1}{\sum n} \text{ the sum of the values of } X \text{ for each component i, from i=1}$
- C_i ≡ the concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography) in appendix A to 40 CFR 60 (Test Methods), and for carbon monoxide, by ASTM D 1946-90 (Standard Practice for Analysis of Reformed Gas by Gas Chromatography), each incorporated by reference in 35 Ill. Adm. Code 720.111
- Hi ≡ is the net heat of combustion of sample component i. kcal/gmol at 25° C and 760 mm Hg. The heats of combustion must be determined using ASTM D 2382-88 (Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method)), incorporated by reference in 35 Ill. Adm. Code 720.111(a), if published values are not available or cannot be calculated.
- 3) The actual exit velocity of a flare must be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)), 2A (Direct Measurement of Gas Volume through Pipes and Small Ducts), 2C (Determination of Gas Velocity and Volumetric Flow Rate in Small Stacks or Ducts (Standard Pitot Tube)), or 2D (Measurement of Gas Volume Flow Rates in Small Pipes and Ducts) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.
- 4) The maximum allowed velocity in m/s, V for a flare complying with subsection (d)(4)(C) of this Section must be determined by the following equation:

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

Where:

 $log_{10} = logarithm$ to the base 10

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

logi	E	logarithm to the base 10
Hr	Ξ	the net heating value as determined in subsection (e)(2) of
		this Section.

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

$$V = 8.706 + 0.7084 H_T$$

Where:

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

 $H_T \equiv \frac{\text{the net heating value as determined in subsection (e)(2) of this Section.}$

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

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control device by implementing the following requirements:

- Install, calibrate, maintain, and operate according to the manufacturer²'s specifications a flow indicator that provides a record of vent stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor must be installed in the vent stream at the nearest feasible point to the control device inlet but before being combined with other vent streams.
- Install, calibrate, maintain, and operate according to the manufacturer²'s specifications a device to continuously monitor control device operation, as specified below:
 - A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must have accuracy of ± 1 percent of the temperature being monitored in ° C or $\pm 0.5^{\circ}$ C, whichever is greater. The temperature sensor must be installed at a location in the combustion chamber downstream of the combustion zone.
 - B) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature at two locations and have an accuracy of ± 1 percent of the temperature being monitored in ° C or $\pm 0.5^{\circ}$ C, whichever is greater. One temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.
 - C) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.
 - D) For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device must have an accuracy of ± 1 percent of the temperature being monitored in ° C or $\pm 0.5^{\circ}$ C, whichever is greater. The temperature sensor must be installed at a

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location in the furnace downstream of the combustion zone.

- E) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure parameters that indicate good combustion operating practices are being used.
- F) For a condenser, either of the following:
 - A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser; or
 - ii) A temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of ±1 percent of the temperature being monitored in degrees Celsius (° C) or ±0.5° C, whichever is greater. The temperature sensor must be installed at a location in the exhaust vent stream from the condenser exit (i.e., product side).
- G) For a carbon adsorption system, such as a fixed-bed carbon adsorber that regenerates the carbon bed directly in the control device, either of the following:
 - A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed; or
 - A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.
- 3) Inspect the readings from each monitoring device required by subsections (f)(1) and (f)(2) of this Section at least once each operating day to check control device operation and, if necessary, immediately implement the

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corrective measures necessary to ensure the control device operates in compliance with the requirements of this Section.

- g) An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device must replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Section 725.935(b)(4)(C)(vi).
- h) An owner or operator using a carbon adsorption system, such as a carbon canister, that does not regenerate the carbon bed directly onsite in the control device must replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:
 - Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency must be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of Section 725.935(b)(4)(C)(vii), whichever is longer.
 - Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of Section 725.935(b)(4)(C)(vii).
- i) An owner or operator of an affected facility seeking to comply with the provisions of this Part by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.
- j) A closed-vent system must meet either of the following design requirements:
 - A closed-vent system must be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv

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above background, as determined by the methods specified at Section 725.934(b), and by visual inspections; or

- 2) A closed-vent system must be designed to operate at a pressure below atmospheric pressure. The system must be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.
- k) The owner or operator must monitor and inspect each closed-vent system required to comply with this Section to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:
 - Each closed-vent system that is used to comply with subsection (j)(1) of this Section must be inspected and monitored in accordance with the following requirements:
 - A) An initial leak detection monitoring of the closed-vent system must be conducted by the owner or operator on or before the date that the system becomes subject to this Section. The owner or operator must monitor the closed-vent system components and connections using the procedures specified in Section 725.934(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background.
 - B) After initial leak detection monitoring required in subsection (k)(1)(A) of this Section, the owner or operator must inspect and monitor the closed-vent system as follows:
 - Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) must be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator must monitor a component or connection using the procedures specified in Section 725.934(b) to demonstrate that it operates with no

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detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).

- Closed-vent system components or connections other than those specified in subsection (k)(1)(B)(i) of this Section must be monitored annually and at other times as requested by the Agency, except as provided for in subsection (n) of this Section, using the procedures specified in Section 725.934(b) to demonstrate that the components or connections operate with no detectable emissions.
- C) In the event that a defect or leak is detected, the owner or operator must repair the defect or leak in accordance with the requirements of subsection (k)(3) of this Section.
- D) The owner or operator must maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 725.935.
- 2) Each closed-vent system that is used to comply with subsection (j)(2) of this Section must be inspected and monitored in accordance with the following requirements:
 - A) The closed-vent system must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.
 - B) The owner or operator must perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this Section. Thereafter, the owner or operator must perform the inspections at least once every year.
 - C) In the event that a defect or leak is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (k)(3) of this Section.

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- D) The owner or operator must maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 725.935.
- 3) The owner or operator must repair all detected defects as follows:
 - A) Detectable emissions, as indicated by visual inspection or by an instrument reading greater than 500 ppmv above background, must be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in subsection (k)(3)(C) of this Section.
 - B) A first attempt at repair must be made no later than five calendar days after the emission is detected.
 - C) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment must be completed by the end of the next process unit shutdown.
 - D) The owner or operator must maintain a record of the defect repair in accordance with the requirements specified in Section 725.935.
- A closed-vent system or control device used to comply with provisions of this Subpart AA must be operated at all times when emissions may be vented to it.
- m) The owner or operator using a carbon adsorption system to control air pollutant emissions must document that all carbon removed that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the volatile organic concentration of the carbon:
 - It is regenerated or reactivated in a thermal treatment unit that meets one of the following:

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- A) The owner or operator of the unit has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart X of 35 Ill. Adm. Code 724; or
- B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of Subparts AA and CC of this Part or 35 Ill. Adm. Code 724; or
- C) The unit is equipped with and operating air emission controls in accordance with a federal national emission standard for hazardous air pollutants under 40 CFR 61 (National Emission Standards for Hazardous Air Pollutants) or 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).
- 2) It is incinerated in a hazardous waste incinerator for which the owner or operator has done either of the following:
 - A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart O of 35 Ill. Adm. Code 724; or
 - B) The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of Subpart O of this Part.
- 3) It is burned in a boiler or industrial furnace for which the owner or operator has done either of the following:
 - A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or
 - B) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Subpart H of 35 Ill. Adm. Code 726.
- n) Any components of a closed-vent system that are designated, as described in

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Section 725.935(c)(9), as unsafe to monitor are exempt from the requirements of subsection (k)(1)(B)(ii) of this Section if both of the following conditions are fulfilled:

- The owner or operator of the closed-vent system has determined that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (k)(1)(B)(ii) of this Section; and
- 2) The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in subsection (k)(1)(B)(ii) of this Section as frequently as practicable during safe-to-monitor times.

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

Section 725.934 Test Methods and Procedures

- a) Each owner or operator subject to the provisions of this Subpart AA must comply with the test methods and procedures requirements provided in this Section.
- b) When a closed-vent system is tested for compliance with no detectable emissions, as required in Section 725.933(k), the test must comply with the following requirements:
 - Monitoring must comply with Reference Method 21 (Determination of Volatile Organic Compound Leaks) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b).
 - The detection instrument must meet the performance criteria of Reference Method 21.
 - 3) The instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.
 - 4) Calibration gases must be:

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- A) Zero air (less than 10 ppm of hydrocarbon in air).
- B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.
- 5) The background level must be determined as set forth in Reference Method 21.
- 6) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible, as described in Reference Method 21.
- 7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.
- c) Performance tests to determine compliance with Section 725.932(a) and with the total organic compound concentration limit of Section 725.933(c) must comply with the following:
 - Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices must be conducted and data reduced in accordance with the following reference methods and calculation procedures:
 - A) Reference Method 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for velocity and volumetric flow rate.
 - B) Reference Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography) or 25A (Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for organic content. If Reference Method 25A is used, the organic hazardous air pollutant (HAP) used as the calibration gas must be the single HAP that represents the largest percent by volume of the emissions. The use of Reference Method 25A is

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acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

- C) Each performance test must consist of three separate runs, each run conducted for at least 1 hour under the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs applies. The average must be computed on a time-weighed weighted basis.
- D) Total organic mass flow rates must be determined by the following equation:
 - i) For a source utilizing Reference Method 18:

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

Where:

 $E_{h} =$ The total organic mass flow rate, kg/h;

Q_{2sd} = The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by <u>Reference</u> Method 2

n = The number of organic compounds in the vent gas

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- C_i= The organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by <u>Reference Method 18</u>
- MW_i = The molecular weight of organic compound i in the vent gas, kg/kg-mol
- 0.0416 = The conversion factor for molar volume, kg-mol/m³, at 293 K and 760 mm Hg

 10^{-6} = The conversion factor from ppm.

Eh :		The total organic mass flow rate, kg/h;
Q2sd :	=	The volumetric flow rate of gases entering or
		exiting control device, dscm/h, as
		determined by Reference Method 2
<u>n</u> :	=	The number of organic compounds in the
		vent gas
<u>C</u>	Ξ	The organic concentration in ppm, dry basis.
		of compound i in the vent gas, as determined
		by Reference Method 18
<u>MW</u> _i	=	The molecular weight of organic compound i
		in the vent gas, kg/kg-mol
0.0416	Ξ	The conversion factor for molar volume,
		kg-mol/m ³ , at 293 K and 760 mmHg
10-6	=	The conversion factor from ppm.

ii) For a source utilizing Reference Method 25A:

 $E_h = Q \times C \times MW \times 0.0416 \times 10^{-6}$

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Where:

E _h =	The total organic mass flow rate, kg/h
Q =	The volumetric flow rate of gases entering- or exiting control device, dscm/h, as- determined by <u>Reference Method 2</u>
C -=	The organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by <u>Reference Method 25A</u>
MW =	= The molecular weight of propane, 44 kg/kg-mol
0.041	6 = The conversion factor for molar volume, kg-mol/m ³ , at 293 K and 760 mm Hg
10 -6_	The conversion factor from ppm.
En Q	 The total organic mass flow rate, kg/h The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Reference Method 2 The organic concentration in ppm, dry basis, o compound i in the vent gas, as determined by
	Reference Method 25A

, of

- MW = The molecular weight of propane, 44 kg/kg-mol
- 0.0416 = The conversion factor for molar volume. kg-mol/m³, at 293 K and 760 mmHg
- 10^{-6} = The conversion factor from ppm.

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

 $A = F \times H$

$$A = F \times H$$

Where:

- = total organic emission rate, kg/y
- F = the total organic mass flow rate, kg/h, as calculated in subsection (c)(1)(D) of this Section
- H = the total annual hours of operation for the affected unit.
- A ≡ total organic emission rate, kg/y
 E ≡ the total organic mass flow rate, kg/h, as calculated in subsection (c)(1)(D) of this Section
 H ≡ the total annual hours of operation for the affected unit.
- F) Total organic emissions from all affected process vents at the facility must be determined by summing the hourly total organic mass emissions rates (F, as determined in subsection (c)(1)(D) of this Section) and by summing the annual total organic mass emission rates (A, as determined in subsection (c)(1)(E) of this Section) for all affected process vents at the facility.
- 2) The owner or operator must record such process information as is necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction do not constitute representative conditions for the purpose of a performance test.
- 3) The owner or operator of an affected facility must provide, or cause to be

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provided, performance testing facilities as follows:

- A) Sampling ports adequate for the test methods specified in subsection (c)(1) of this Section.
- B) Safe sampling platforms.
- C) Safe access to sampling platforms.
- D) Utilities for sampling and testing equipment.
- 4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs must apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator²'s control, compliance may, upon the Agency²'s approval, be determined using the average of the results of the two other runs.
- d) To show that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this Subpart AA, the owner or operator must make an initial determination that the time-weighted, annual average total organic concentration of the waste managed by the waste management unit is less than 10 ppmw using one of the following two methods:
 - Direct measurement of the organic concentration of the waste using the following procedures:
 - A) The owner or operator must take a minimum of four grab samples of waste for each wastestream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.
 - B) For waste generated onsite, the grab samples must be collected at a point before the waste is exposed to the atmosphere, such as in an enclosed pipe or other closed system that is used to transfer the

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

- C) Each sample must be analyzed and the total organic concentration of the sample must be computed using Method 9060A (Total Organic Carbon) of ⁴⁶"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,²²" USEPA publication number EPA-530/SW-846, incorporated by reference under 35 Ill. Adm. Code 720.111(a), or analyzed for its individual constituents.
- D) The arithmetic mean of the results of the analyses of the four samples apply for each wastestream managed in the unit in determining the time-weighted, annual average total organic concentration of the waste. The time-weighted average is to be calculated using the annual quantity of each waste stream processed and the mean organic concentration of each wastestream managed in the unit.
- 2) Using knowledge of the waste to determine that its total organic concentration is less than 10 ppmw. Documentation of the waste determination is required. Examples of documentation that must be used to support a determination under this subsection (d)(2) include the following:
 - Production process information documenting that no organic compounds are used;
 - B) Information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a wastestream having a total organic content less than 10 ppmw; or
 - C) Prior speciation analysis results on the same wastestream where it

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is documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.

- e) The determination that distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with time-weighted, annual average total organic concentrations less than 10 ppmw must be made as follows:
 - By the effective date that the facility becomes subject to the provisions of this Subpart AA or by the date when the waste is first managed in a waste management unit, whichever is later; and
 - 2) For continuously generated waste, annually; or
 - 3) Whenever there is a change in the waste being managed or a change in the process that generates or treats the waste.
- f) When an owner or operator and the Agency do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation manages a hazardous waste with organic concentrations of at least 10 ppmw based on knowledge of the waste, the dispute may be resolved using direct measurement, as specified in subsection (d)(1) of this Section.

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

Section 725.935 Recordkeeping Requirements

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

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- b) Owners and operators must record the following information in the facility operating record:
 - For facilities that comply with the provisions of Section 725.933(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule must also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule must be in the facility operating record by the effective date that the facility becomes subject to the provisions of this Subpart AA.
 - Up-to-date documentation of compliance with the process vent standards in Section 725.932, including the following:
 - A) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit (e.g., identify the hazardous waste management units on a facility plot plan).
 - B) Information and data supporting determination of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or vent stream organic compounds and concentrations) that represent the conditions that result in maximum organic emissions, such as when the waste management unit is operating at the highest load or capacity level reasonably expected to occur. If the owner or operator takes any action (e.g., managing a waste of different composition or increasing operating hours of affected waste management units) that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.

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- 3) Where an owner or operator chooses to use test date to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan. The test plan must include the following:
 - A) A description of how it is determined that the planned test is going to be conducted when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. This must include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.
 - B) A detailed engineering description of the closed-vent system and control device including the following:
 - Manufacturer²'s name and model number of control device;
 - ii) Type of control device;
 - iii) Dimensions of the control device;
 - iv) Capacity; and
 - v) Construction materials.
 - C) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.
- Documentation of compliance with Section 725.933 must include the following information:
 - A list of all information references and sources used in preparing the documentation;
 - B) Records, including the dates of each compliance test required by

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Section 725.933(j);

- C) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," USEPA publication number EPA-450/2-81-005, incorporated by reference in 35 Ill. Adm. Code 720.111(a); or other engineering texts, approved by the Agency, that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with subsections (b)(4)(C)(i) through (b)(4)(C)(vii) of this Section may be used to comply with this requirement. The design analysis must address the vent stream characteristics and control device operation parameters as specified below.
 - For a thermal vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.
 - For a catalytic vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.
 - iii) For a boiler or process heater, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average flame zone temperatures, combustion zone residence time and description of method and location where the vent stream is introduced into the combustion zone.
 - iv) For a flare, the design analysis must consider the vent

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stream composition, constituent concentrations, and flow rate. The design analysis must also consider the requirements specified in Section 725.933(d).

- v) For a condenser, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis must also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream and design average temperatures of the coolant fluid at the condenser inlet and outlet.
- vi) For a carbon adsorption system, such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design exhaust vent stream organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time and design service life of carbon.
- vii) For a carbon adsorption system, such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed and design carbon replacement interval based on the total carbon working capacity of the control device and source

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operating schedule;

- D) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur;
- E) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit of Section 725.932(a) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of Section 725.932(a) for affected process vents at the facility are attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement; and
- F) If performance tests are used to demonstrate compliance, all test results.
- c) Design documentation and monitoring operating and inspection information for each closed-vent system and control device required to comply with the provisions of this Part must be recorded and kept up-to-date in the facility operating record. The information must include the following:
 - Description and date of each modification that is made to the closed-vent system or control device design;
 - Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with Section 725.933(f)(1) and (f)(2);
 - Monitoring, operating and inspection information required by Section 725.933(f) through (k);

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- 4) Date, time, and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis, as specified below:
 - A) For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature of $760^{\circ\circ}$ C, any period when the combustion temperature is below $760^{\circ\circ}$ C.
 - B) For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 percent or greater, any period when the combustion zone temperature is more than 28° C below the design average combustion zone temperature established as a requirement of subsection (b)(4)(C)(i) of this Section.
 - C) For a catalytic vapor incinerator, any period when either of the following occurs:
 - Temperature of the vent stream at the catalyst bed inlet is more than 28° C below the average temperature of the inlet vent stream established as a requirement of subsection (b)(4)(C)(ii) of this Section; or
 - Temperature difference across the catalyst bed is less than 80 percent of the design average temperature difference established as a requirement of subsection (b)(4)(C)(ii) of this Section.
 - D) For a boiler or process heater, any period when either of the following occurs:
 - i) Flame zone temperature is more than 28° C below the design average flame zone temperature established as a requirement of subsection (b)(4)(C)(iii) of this Section; or
 - Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of subsection (b)(4)(C)(iii) of this Section.

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- E) For a flare, period when the pilot flame is not ignited.
- F) For a condenser that complies with Section 725.933(f)(2)(F)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement of subsection (b)(4)(C)(v) of this Section.
- G) For a condenser that complies with Section 725.933(f)(2)(F)(ii), any period when either of the following occurs:
 - Temperature of the exhaust vent stream from the condenser is more than 6° C above the design average exhaust vent stream temperature established as a requirement of subsection (b)(4)(C)(v) of this Section; or
 - Temperature of the coolant fluid exiting the condenser is more than 6° C above the design average coolant fluid temperature at the condenser outlet established as a requirement of subsection (b)(4)(C)(v) of this Section.
- H) For a carbon adsorption system₅ such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and <u>whichthat</u> complies with Section 725.933(f)(2)(G)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of subsection (b)(4)(C)(vi) of this Section.
- For a carbon adsorption system₅ such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and <u>whichthat</u> complies with Section 725.933(f)(2)(G)(ii), any period when the vent stream continues to flow through the control device beyond the predetermined carbon

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bed regeneration time established as a requirement of subsection (b)(4)(C)(vi) of this Section;

- 5) Explanation for each period recorded under subsection (c)(4) of this Section of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation;
- 6) For carbon adsorption systems operated subject to requirements specified in Section 725.933(g) or (h)(2), any date when existing carbon in the control device is replaced with fresh carbon;
- 7) For carbon adsorption systems operated subject to requirements specified in Section 725.933(h)(1), a log that records:
 - A) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading.
 - B) Date when existing carbon in the control device is replaced with fresh carbon;
- 8) Date of each control device startup and shutdown;
- 9) An owner or operator designating any components of a closed-vent system as unsafe to monitor pursuant to Section 725.933(n) must record in a log that is kept in the facility operating record the identification of closed-vent system components that are designated as unsafe to monitor in accordance with the requirements of Section 725.933(n), an explanation for each closed-vent system component stating why the closed-vent system component is unsafe to monitor, and the plan for monitoring each closed-vent system component; and
- 10) When each leak is detected, as specified in Section 725.933(k), the following information must be recorded:
 - A) The instrument identification number, the closed-vent system component identification number, and the operator name, initials, or identification number;

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- B) The date the leak was detected and the date of first attempt to repair the leak;
- C) The date of successful repair of the leak;
- D) Maximum instrument reading measured by Reference Method 21 (Determination of Volatile Organic Compound Leaks) of appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), after it is successfully repaired or determined to be nonrepairable; and
- E) <u>"Repair delayed</u>" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
 - The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.
 - ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion_; and
- d) Records of the monitoring, operating and inspection information required by subsections (c)(3) through (c)(10) of this Section must be maintained by the owner or operator for at least three years following the date of each occurrence, measurement, corrective action, or record.
- e) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser or carbon adsorption system, monitoring and inspection information indicating proper operation and maintenance of the control device must be recorded in the facility operating record.
- f) Up-to-date information and data used to determine whether or not a process vent

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is subject to the requirements in Section 725.932, including supporting documentation as required by Section 725.934(d)(2), when application of the knowledge of the nature of the hazardous wastestream waste stream or the process by which it was produced is used, must be recorded in a log that is kept in the facility operating record.

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

SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

Section 725.952 Standards: Pumps in Light Liquid Service

- a) Monitoring.
 - Each pump in light liquid service must be monitored monthly to detect leaks by the methods specified in Section 725.963(b), except as provided in subsections (d), (e), and (f) of this Section.
 - 2) Each pump in light liquid service must be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.
- b) Leaks.
 - If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
 - If there are indications of liquids dripping from the pump seal, a leak is detected.
- c) Repairs.
 - When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 725.959.
 - 2) A first attempt at repair (e.g., tightening the packing gland) must be made no later than 5 calendar days after each leak is detected.

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- d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of subsection (a) of this Section, provided the following requirements are met:
 - 1) Each dual mechanical seal system must be as follows:
 - A) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressures;
 - B) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 725.960; or
 - C) Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere;
 - 2) The barrier fluid system must not be a hazardous waste with organic concentrations 10 percent or greater by weight;
 - 3) Each barrier fluid system must be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both;
 - Each pump must be checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals;
 - 5) Alarms.
 - A) Each sensor, as described in subsection (d)(3) of this Section, must be checked daily or be equipped with an audible alarm that must be checked monthly to ensure that it is functioning properly.
 - B) The owner or operator must determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both; and
 - 6) Leaks.

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- A) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion determined in subsection (d)(5)(B) of this Section, a leak is detected.
- B) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 725.959.
- C) A first attempt at repair (e.g., relapping the seal) must be made no later than five calendar days after each leak is detected.
- e) Any pump that is designated, as described in Section 725.964(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsections (a), (c), and (d) of this Section, if the pump meets the following requirements:
 - 1) Must have no externally actuated shaft penetrating the pump housing;
 - Must operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in Section 725.963(c); and
 - 3) Must be tested for compliance with subsection (e)(2) of this Section, initially upon designation, annually and at other times as specified by the Agency pursuant to Section 725.950(e).
- f) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of Section 725.960, it is exempt from the requirements of subsections (a) through (e) of this Section.

(Source: Amended at 40 Ill. Reg. _____, effective ______)
SUBPART BB: AIR EMISSION STANDARDS FOR EOUIPMENT LEAKS

Section 725.964 Recordkeeping Requirements

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- a) Lumping Units.
 - 1) Each owner or operator subject to the provisions of this Subpart BB must comply with the recordkeeping requirements of this Section.
 - 2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart BB may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.
- b) Owners and operators must record the following information in the facility operating record:
 - For each piece of equipment to which this Subpart BB applies, the following:
 - A) Equipment identification number and hazardous waste management unit identification;
 - B) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan);
 - C) Type of equipment (e.g., a pump or pipeline valve);
 - D) Percent-by-weight total organics in the hazardous wastestream at the equipment;
 - E) Hazardous waste state at the equipment (e.g., gas/vapor or liquid); and
 - F) Method of compliance with the standard (e.g., ""monthly leak detection and repair" or ""equipped with dual mechanical seals");
 - For facilities that comply with the provisions of Section 725.933(a)(2), an implementation schedule, as specified in that Section;

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- 3) Where an owner or operator chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan, as specified in Section 725.935(b)(3); and
- Documentation of compliance with Section 725.960, including the detailed design documentation or performance test results specified in Section 725.935(b)(4).
- c) When each leak is detected, as specified in Section 725.952, 725.953, 725.957, or 725.958, the following requirements apply:
 - A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with Section 725.958(a), and the date the leak was detected, must be attached to the leaking equipment;
 - The identification on equipment except on a valve, may be removed after it has been repaired; and
 - 3) The identification on a valve may be removed after it has been monitored for two successive months as specified in Section 725.957(c) and no leak has been detected during those two months.
- d) When each leak is detected, as specified in Sections 725.952, 725.953, 725.957, or 725.958, the following information must be recorded in an inspection log and must be kept in the facility operating record:
 - 1) The instrument and operator identification numbers and the equipment identification number;
 - 2) The date evidence of a potential leak was found in accordance with Section 725.958(a);
 - The date the leak was detected and the dates of each attempt to repair the leak;

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- Repair methods applied in each attempt to repair the leak;
- 5) <u>"Above 10,000,"</u> if the maximum instrument reading measured by the methods specified in Section 725.963(b) after each repair attempt is equal to or greater than 10,000 ppm;
- ""Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak;
- Documentation supporting the delay of repair of a valve in compliance with Section 725.959(c);
- The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a hazardous waste management unit shutdown;
- The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days; and
- 10) The date of successful repair of the leak.
- e) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of Section 725.960 must be recorded and kept up-to-date in the facility operating record as specified in Section 725.935(c)(1) and (c)(2), and monitoring, operating and inspection information in Section 725.935(c)(3) through (c)(8).
- f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, monitoring and inspection information indicating proper operation and maintenance of the control device must be recorded in the facility operating record.
- g) The following information pertaining to all equipment subject to the requirements in Sections 725.952 through 725.960 must be recorded in a log that is kept in the facility operating record:
 - 1) A list of identification numbers for equipment (except welded fittings)

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subject to the requirements of this Subpart BB.

- 2) List of Equipment.
 - A) A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Sections 725.952(e), 725.953(i), and 725.957(f).
 - B) The designation of this equipment as subject to the requirements of Section 725.952(e), 725.953(i), or 725.957(f) must be signed by the owner or operator.
- 3) A list of equipment identification numbers for pressure relief devices required to comply with Section 725.954(a).
- 4) Compliance tests.
 - A) The dates of each compliance test required in Sections 725.952(e), 725.953(i), 725.954, and 725.957(f).
 - B) The background level measured during each compliance test.
 - C) The maximum instrument reading measured at the equipment during each compliance test.
- 5) A list of identification numbers for equipment in vacuum service.
- 6) Identification, either by list or location (area or group) of equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for less than 300 hours per year.
- h) The following information pertaining to all valves subject to the requirements of Section 725.957(g) and (h) must be recorded in a log that is kept in the facility operating record:
 - 1) A list of identification numbers for valves that are designated as unsafe to

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monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve; and

- A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.
- i) The following information must be recorded in the facility operating record for valves complying with Section 725.962:
 - 1) A schedule of monitoring; and
 - 2) The percent of valves found leaking during each monitoring period.
- j) The following information must be recorded in a log that is kept in the facility operating record:
 - Criteria required in Sections 725.952(d)(5)(B) and 725.953(e)(2) and an explanation of the criteria; and
 - 2) Any changes to these criteria and the reasons for the changes.
- k) The following information must be recorded in a log that is kept in the facility operating record for use in determining exemptions, as provided in Section 725.950 and other specific Subparts:
 - An analysis determining the design capacity of the hazardous waste management unit;
 - A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the requirements in Section-Sections 725.952 through Section 725.960 and an analysis determining whether these hazardous wastes are heavy liquids; and
 - 3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Sections 725.952 through 725.960. The record must include supporting documentation, as required by Section 725.963(d)(3), when application of

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the knowledge of the nature of the hazardous wastestream or the process by which it was produced is used. If the owner or operator takes any action (e.g., changing the process that produced the waste) that could result in an increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements in Sections 725.952 through 725.960, then a new determination is required.

- Records of the equipment leak information required by subsection (d) of this Section and the operating information required by subsection (e) of this Section need be kept only three years.
- m) The owner or operator of any facility with equipment that is subject to this Subpart and to federal regulations at 40 CFR 60, 61, or 63 may elect to determine compliance with this Subpart BB by documentation of compliance either pursuant to Section 725.964 or by documentation of compliance with the regulations at 40 CFR 60 (Standards of Performance for New Stationary Sources), 61 (National Emission Standards for Hazardous Air Pollutants), or 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), pursuant to the relevant provisions of 40 CFR 60, 61, or 63, each incorporated by reference in 35 Ill. Adm. Code 720.111(b). The documentation of compliance under the regulation at 40 CFR 60, 61, or 63 must be kept with or made readily available with the facility operating record.

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

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

Section 725.983 Standards: General

- a) This Section applies to the management of hazardous waste in tanks, surface impoundments, and containers subject to this Subpart CC.
- b) The owner or operator must control air pollutant emissions from each hazardous waste management unit in accordance with the standards specified in Sections 725.985 through 725.988, as applicable to the hazardous waste management unit, except as provided for in subsection (c) of this Section.
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- c) A tank, surface impoundment, or container is exempted from standards specified in Sections 725.985 through 725.988, provided that all hazardous waste placed in the waste management unit is one of the following:
 - A tank, surface impoundment, or container for which all hazardous waste entering the unit has an average VO concentration at the point of waste origination of less than 500 parts per million by weight (ppmw). The average VO concentration must be determined by the procedures specified in Section 725.984(a). The owner or operator must review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit;
 - 2) A tank, surface impoundment, or container for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves any one of the following conditions:
 - A) The process removes or destroys the organics contained in the hazardous waste to such a level that the average VO concentration of the hazardous waste at the point of waste treatment is less than the exit concentration limit (C_t) established for the process. The average VO concentration of the hazardous waste at the point of waste treatment and the exit concentration limit for the process must be determined using the procedures specified in Section 725.984(b);
 - B) The process removes or destroys the organics contained in the hazardous waste to such a level that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the average VO concentration of the hazardous waste at the point of waste treatment is less than 100 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste treatment must be determined using the procedures specified in Section 725.984(b);

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- C) The process removes or destroys the organics contained in the hazardous waste to such a level that the actual organic mass removal rate (MR) for the process is equal to or greater than the required organic mass removal rate (RMR) established for the process. The required organic mass removal rate and the actual organic mass removal rate for the process must be determined using the procedures specified in Section 725.984(b);
- D) The process is a biological process that destroys or degrades the organics contained in the hazardous waste so that either of the following conditions is met:
 - The organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the organic biodegradation efficiency (R_{bio}) for the process is equal to or greater than 95 percent. The organic reduction efficiency and the organic biodegradation efficiency for the process must be determined using the procedures specified in Section 725.984(b); and
 - The total actual organic mass biodegradation rate (MR_{bio}) for all hazardous waste treated by the process is equal to or greater than the required organic mass removal rate (RMR). The required organic mass removal rate and the actual organic mass biodegradation rate for the process must be determined using the procedures specified in Section 725.984(b);
- E) The process is one that removes or destroys the organics contained in the hazardous waste and meets all of the following conditions:
 - From the point of waste origination through the point where the hazardous waste enters the treatment process, the hazardous waste is continuously managed in waste management units that use air emission controls in accordance with the standards specified in Section 725.985 through Section 725.988, as applicable to the waste management unit;

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

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

- iii) The average VO concentration of the hazardous waste at the point of waste treatment is less than the lowest average VO concentration at the point of waste origination determined for each of the individual hazardous waste streams entering the process or 500 ppmw, whichever value is lower. The average VO concentration of each individual hazardous waste stream at the point of waste origination must be determined using the procedures specified in Section 725.984(a). The average VO concentration of the hazardous waste at the point of waste treatment must be determined using the procedures specified in Section 725.984(b);
- F) A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent and the owner or operator certifies that the average VO concentration at the point of waste origination for each of the individual waste streams entering the process is less than 10,000 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste origination must be determined using the procedures specified in Section Sections 724.983(b) 725.984(b)Section 724.983(c) 725.984(a), respectively;

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- G) A hazardous waste incinerator for which either of the following conditions is true:
 - i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart O of 35 Ill. Adm. Code 724; or
 - ii) The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of Subpart O of this Part;
- H) A boiler or industrial furnace for which either of the following conditions is true:
 - i) The owner or operator has been issued a final permit under 35 III. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 III. Adm. Code 726; or
 - ii) The owner or operator has designed and operates the industrial furnace or incinerator in accordance with the interim status requirements of Subpart H of 35 Ill. Adm. Code 726; and
- For the purpose of determining the performance of an organic destruction or removal process in accordance with the conditions in each of subsections (c)(2)(A) through (c)(2)(F) of this Section, the owner or operator must account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:
 - i) If Reference Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 III. Adm. Code 720.111(b), is used for the analysis, one-half the blank value determined in the method at Section 4.4 of Reference Method 25D or a value of 25 ppmw, whichever is less; and

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- ii) If any other analytical method is used, one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry²'s law constant value at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the -liquid-phase (0.1 Y/X) (which can also be expressed as 1.8 ×x 10⁻⁶ atmospheres/gram-mole/m³) at 25° C;
- A tank or surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of subsection (c)(2)(D) of this Section;
- 4) A tank, surface impoundment, or container for which all hazardous waste placed in the unit fulfills either of the following two conditions:
 - A) It meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified in Table T to 35 Ill. Adm. Code 728; or
 - B) The organic hazardous constituents in the waste have been treated by the treatment technology established by USEPA for the waste, as set forth in 35 Ill. Adm. Code 728.142(a), or treated by an equivalent method of treatment approved by the Agency pursuant to 35 Ill. Adm. Code 728.142(b); or
- 5) A tank used for bulk feed of hazardous waste to a waste incinerator, and all of the following conditions are met:
 - A) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under federal subpart FF of 40 CFR 61 (National Emission Standards for Benzene Waste Operations), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams (11 tons) per year;
 - B) The enclosure and control device serving the tank were installed and began operation prior to November 25, 1996; and

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C) The enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in ""Procedure T—__Criteria for and Verification of a Permanent or Temporary Total Enclosure" under appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b). The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical or electrical equipment; or to direct air flow into the enclosure. The owner or operator must perform the verification procedure for the enclosure as specified in Section 5.0 to ""Procedure T—_Criteria for and Verification of a Permanent or Temporary Total Enclosure" annually.

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

- The waste determination for average VO concentration of a hazardous waste at the point of waste origination must be performed using direct measurement in accordance with the applicable requirements of Section 725.984(a). The waste determination for a hazardous waste at the point of waste treatment must be performed in accordance with the applicable requirements of Section 725.984(b);
- 2) In performing a waste determination pursuant to subsection (d)(1) of this Section, the sample preparation and analysis must be conducted as follows:
 - A) In accordance with the method used by the owner or operator to perform the waste analysis, except in the case specified in subsection (d)(2)(B) of this Section; and
 - B) If the Agency determines that the method used by the owner or operator was not appropriate for the hazardous waste managed in the tank, surface impoundment, or container, then the Agency may

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choose an appropriate method;

- Where the owner or operator is requested to perform the waste determination, the Agency may elect to have an authorized representative observe the collection of the hazardous waste samples used for the analysis;
- 4) Where the results of the waste determination performed or requested by the Agency do not agree with the results of a waste determination performed by the owner or operator using knowledge of the waste, then the results of the waste determination performed in accordance with the requirements of subsection (d)(1) of this Section must be used to establish compliance with the requirements of this Subpart CC; and
- 5) Where the owner or operator has used an averaging period greater than one hour for determining the average VO concentration of a hazardous waste at the point of waste origination, the Agency may elect to establish compliance with this Subpart CC by performing or requesting that the owner or operator perform a waste determination using direct measurement, based on waste samples collected within a 1-hour period_{*} as follows:
 - A) The average VO concentration of the hazardous waste at the point of waste origination must be determined by direct measurement in accordance with the requirements of Section 725.984(a);
 - B) Results of the waste determination performed or requested by the Agency showing that the average VO concentration of the hazardous waste at the point of waste origination is equal to or greater than 500 ppmw must constitute noncompliance with this Subpart CC, except in a case as provided for in subsection (d)(5)(C)(d)(4)(C) of this Section: and (d)(5)(C); and
 - C) Where the average VO concentration of the hazardous waste at the point of waste origination previously has been determined by the owner or operator using an averaging period greater than one hour to be less than 500 ppmw but because of normal operating process variations the VO concentration of the hazardous waste determined

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by direct measurement for any given 1-hour period may be equal to or greater than 500 ppmw, information that was used by the owner or operator to determine the average VO concentration of the hazardous waste (e.g., test results, measurements, calculations, and other documentation) and recorded in the facility records in accordance with the requirements of Sections 725.984(a) and 725.990 must be considered by the Agency together with the results of the waste determination performed or requested by the Agency in establishing compliance with this Subpart CC.

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

Section 725.984 Waste Determination Procedures

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

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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.
- 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.
 - 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.
 - 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

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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 Reference Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b).
- iv) Sufficient information, as specified in the "site sampling plan" required under subsection (a)(3)(B)(iii) of this Section, must be prepared and recorded to document the waste quantity represented by the samples and, as applicable, the operating conditions for the source or process generating the hazardous waste represented by the samples.
- C) Analysis. Each collected sample must be prepared and analyzed in accordance with Reference 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 Henry²'s law constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase

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(0.1 Y/X) (which can also be expressed as $1.8 \times x 10^{-6}$ 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 Henry²'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 Henry²'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 in writing from the Agency by contacting the USEPA, Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711 in writing from the Agency 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.

- 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
- Any other analysis method that has been validated in accordance with the procedures specified in Section 5.1 or 5.3, and the corresponding calculations in Section 6.1 or 6.3, of Method 301 (Field Validation of Pollutant Measurement Methods from Various Waste Media) in appendix A to 40 CFR 63 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b). The data are acceptable if they meet the criteria specified in Section

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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 (C) on a mass-weighted basis must be calculated by using the results for all waste determinations conducted in accordance with subsections (a)(3)(B) and (a)(3)(C) of this Section and the following equation:

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

Where:

- 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 wastedetermination "i," as determined in accordance with subsection (a)(3)(C) of this Section (i.e., the average of the four or moresamples specified in subsection (a)(3)(B)(ii) of this Section), in ppmw.
- <u>C</u> ≡ Average VO concentration of the hazardous waste at the point of waste origination on a mass-weighted basis, in ppmw
- i
 <u>Individual waste determination "i" of the</u>
 <u>hazardous waste</u>
- n = Total number of waste determinations of the hazardous waste conducted for the averaging period (not to exceed one year)
- $\underline{Q}_i \equiv \underline{Mass \ quantity \ of \ the \ hazardous \ waste \ stream}_{represented \ by \ C_i \ in \ kg/hr}$
- $Q_T \equiv Total mass quantity of the hazardous wasteduring the averaging period, in kg/hr$
- <u>C</u>_i ≡ <u>Measured VO concentration of waste</u> 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,
- 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)

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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:
 - 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.
 - 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:
 - If Reference Method 25D is used for the analysis, the VO concentration must be considered to be one-half the blank value determined in the <u>Method method</u> at Section 4.4 of Reference 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 Henry³'s law constant value at least 0.1

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mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquidphase (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)(i) 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.

- 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 owner²'s or operator²'s knowledge of the hazardous waste stream²'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 Reference Method 25D. To adjust

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these data, the measured concentration for each individual chemical constituent contained in the waste is multiplied by the appropriate constituent-specific adjustment factor (f_{m25D}).

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

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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.
- 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.
 - 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.
 - 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

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the complete range of waste compositions and quantities that occur during the entire averaging period due to normal variations in the operating conditions for the process generating or treating the hazardous waste stream. Examples of such normal variations are seasonal variations in waste quantity or fluctuations in ambient temperature.

- iii) All samples must be collected and handled in accordance with written procedures prepared by the owner or operator and documented in a site sampling plan. This plan must describe the procedure by which representative samples of the hazardous waste stream are collected so that a minimum loss of organics occurs throughout the sample collection and handling process, and by which sample integrity is maintained. A copy of the written sampling plan must be maintained on-site in the facility operating records. An example of an acceptable sample collection and handling procedures for a total organic constituent concentration may be found in Reference Method 25D.
- iv) Sufficient information, as specified in the ""site sampling plan²" 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 Reference 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 Henry²'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 $25^{\circ}C_{-25}^{\circ}$ ° C (75° F). When the owner or operator is making a waste determination for a treated

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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 Henry2'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 (fm25D). If the owner or operator elects to adjust test data, the adjustment must be made to all individual chemical constituents with a Henry²'s law constant value greater than or equal to 0.1 Y/X at 25° C contained in the waste. Constituent-specific adjustment factors (fm25D) can be obtained by in writing from the Agencyby contacting the USEPA, Waste and Chemical Processes Group, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711 in writing from the Agency. 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 Henry²'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.

- 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
- 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,

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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 (<u>C</u>) 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:

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

Where:

-	Average VO concentration of the hazardous waste- at the point of waste treatment on a mass-weighted- basis, in ppmw
i-	Individual determination "i" of the hazardous waste
n =	Total number of waste determinations of the hazardous waste collected for the averaging period (not to exceed one year)
Q _i =	Mass quantity of the hazardous waste stream represented by C _i , in kg/hr

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- Q_T= Total mass quantity of hazardous waste during the averaging period, in kg/hr
- C_i = Measured VO concentration of wastedeterminations "i," as determined in accordancewith the requirements of subsection (b)(3)(C) of this-Section (i.e., the average of the four or moresamples specified in subsection (b)(3)(B)(ii) of this-Section), in ppmw.
- = Average VO concentration of the hazardous C waste at the point of waste treatment on a mass-weighted basis, in ppmw = Individual determination "i" of the hazardous waste = Total number of waste determinations of the n hazardous waste collected for the averaging period (not to exceed one year) $Q_i \equiv Mass quantity of the hazardous waste stream$ represented by Ci in kg/hr $Q_T \equiv$ Total mass quantity of hazardous waste during the averaging period, in kg/hr $C_i \equiv Measured VO concentration of waste$ determinations "i," as determined in accordance
 - with the requirements of subsection (b)(3)(C) of this Section (i.e., the average of the four or more samples specified in subsection (b)(3)(B)(ii) of this Section), in ppmw.
- E) Provided that the test method is appropriate for the waste as required under subsection (b)(3)(C) of this Section, compliance must be determined based on the test method used by the owner or operator as recorded pursuant to Section 725.990(f)(1).
- 4) Procedure to determine the exit concentration limit (C_t) for a treated

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

$$C_{t} = \frac{\sum_{x=1}^{m} (Q_{x} \times \overline{C}_{x}) + \sum_{y=1}^{n} (Q_{y} \times 500 \, ppmw)}{\sum_{x=1}^{m} Q_{x} + \sum_{y=1}^{n} Q_{y}}$$

Where:

C_i = 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

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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
<u>m</u> =	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
Qy=	Annual mass quantity of hazardous waste stream- "y," in kg/yr
-	Average VO concentration of hazardous waste- stream "x" at the point of waste origination, as determined in accordance with the requirements of subsection (a) of this Section, in ppmw.
$\underline{C}_{t} \equiv \underline{E}_{w}$	xit concentration limit for treated hazardous
x = Ir ar pr	naividual hazardous waste stream "x" that has naverage VO concentration less than 500 pmw at the point of waste origination, as
⊻ ≡ Ir an th	etermined in accordance with the requirements f subsection (a) of this Section adividual hazardous waste stream "y" that has a average VO concentration equal to or greater an 500 ppmw at the point of waste origination.

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- 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
 Qx ≡ Annual mass quantity of hazardous waste stream "x." in kg/yr.
 Qx ≡ Annual mass quantity of hazardous waste stream "y." in kg/yr.
 Qx ≡ Average VO concentration of hazardous waste stream "y." in kg/yr.
 Cx ≡ Average VO concentration of hazardous waste stream 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:
 - 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

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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:

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

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

Where:

<u>₽</u> _a =	Waste volatile organic mass flow exiting the process, in kg/hr
₽,=	Waste volatile organic mass flow entering the process, in kg/hr
m=	Total number of runs (at least 3);
j.=	Individual run "j"

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- 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 processduring run "j," in kg/hr
- Average VO concentration of hazardous waste exiting the process during run "j," as determined in accordance with the requirements of subsection-(b)(3) of this Section, in ppmw
- Average VO concentration of hazardous wasteentering the process during run "j," as determined inaccordance with the requirements of subsection-725.984 (a)(3) of this Section, in ppmw.
- $E_a \equiv$ Waste volatile organic mass flow exiting the process, in kg/hr $E_b \equiv Waste volatile organic mass flow entering the$ process, in kg/hr \equiv Total number of runs (at least 3) m = Individual run "i" $O_{bi} \equiv Mass quantity of hazardous waste entering the$ process during run "j," in kg/hr $Q_{ai} = Average mass quantity of waste exiting the$ process during run "j," in kg/hr $C_{ai} = Average VO concentration of hazardous waste$ exiting the process during run "i," as determined in accordance with the requirements of subsection (b)(3) of this Section, in ppmw $C_{bi} \equiv Average VO concentration of hazardous waste$ entering the process during run "j." as determined in accordance with the requirements of subsection 725.984(a)(3) of this Section, in

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ppmw.

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

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

Where:

Organic reduction efficiency, in percent R= Waste volatile organic mass flow entering the-Eh-= process, as determined in accordance with therequirements 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. $R \equiv Organic reduction efficiency, in percent$ $E_b \equiv$ 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 $E_a = Waste volatile organic mass flow exiting the process as$

- $E_a \equiv$ 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

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treated hazardous waste-

- A) The fraction of organics biodegraded (F_{bio}) must be determined using the procedure specified in appendix C to 40 CFR 63 (Determination of the Fraction Biodegraded (F_{bio}) in a Biological Treatment Unit), incorporated by reference in 35 Ill. Adm. Code 720.111(b).
- B) The organic biodegradation efficiency (R_{bio}) must be calculated by using the following equation:

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

Where:

R_{bio} = Organic biodegradation efficiency, in percent

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

R_{bio} = Organic biodegradation efficiency, in percent

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

- 7) Procedure to determine the required organic mass removal rate (RMR) for a treated hazardous waste-
 - A) All of the hazardous waste streams entering the treatment process must be identified.
 - B) The average VO concentration of the hazardous waste stream at the point of waste origination must be determined in accordance with

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the requirements of subsection (a) of this Section.

- C) For each individual hazardous waste stream that has an average volatile organic concentration equal to or greater than 500 ppmw at the point of waste origination, the average volumetric flow rate of hazardous waste and the density of the hazardous waste stream at the point of waste origination must be determined.
- D) The required organic mass removal rate (RMR) for the hazardous waste must be calculated by using the average VO concentration, average volumetric flow rate, and density determined for each individual hazardous waste stream, and the following equation:

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

Where:

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

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

- n = Total number of "y" hazardous waste streams treated by process
- Vy = Average volumetric flow rate of hazardous waste stream "y" at the point of waste origination, in m³/hr

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- = Density of hazardous waste stream "y," in kg/m³
- 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.

<u>RMR</u> ≡	Required organic mass removal rate, in kg/hr
¥ Ξ	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
<u>V</u> _x =	Average volumetric flow rate of hazardous waste
	stream "y" at the point of waste origination. in
	m ³ /hr
k _¥ Ξ	Density of hazardous waste stream "y," in kg/m ³
<u>C</u> _x =	Average VO concentration of hazardous waste
	stream "y" at the point of waste origination, as
	determined in accordance with the requirements
	of subsection (a) of this Section, in ppmw.

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

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

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

Where:

MRbie = Actual organic mass biodegradation rate, in kg/hr

Eb= 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

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

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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

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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 acceptable sample collection and handling procedures may be found in Reference 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:
 - Reference 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);
 - 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 owner²'s or operator²'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

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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 Reference Method 21 (Determination of Volatile Organic Compound Leaks) of appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b). 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 Reference Method 21, except the instrument response factor criteria in Section 3.1.2(a) of Reference 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 Reference Method 21.
 - 5) Calibration gases must be as follows:
 - A) Zero air (less than 10 ppmv hydrocarbon in air), and

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- 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 Reference 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 Reference Method 21. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface must be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet must be placed at approximately the center of the exhaust area to the atmosphere.
- 8) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level must be compared with the value of 500 ppmv except when monitoring a seal around a rotating shaft that passes through a cover opening, in which case the comparison must be as specified in subsection (d)(9) of this Section. If the difference is less than 500 ppmv, then the potential leak interface is determined to operate with no detectable organic emissions.
- 9) For the seals around a rotating shaft that passes through a cover opening, the arithmetic difference between the maximum organic concentration indicated by the instrument and the background level must be compared with the value of 10,000 ppmw. If the difference is less than 10,000 ppmw, then the potential leak interface is determined to operate with no detectable organic emissions.

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

Section 725.985 Standards: Tanks

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

- b) The owner or operator must control air pollutant emissions from each tank subject to this Section in accordance with the following requirements, as applicable:
 - For a tank that manages hazardous waste that meets all of the conditions specified in subsections (b)(1)(A) through (b)(1)(C) of this Section, the owner or operator must control air pollutant emissions from the tank in accordance with the Tank Level 1 controls specified in subsection (c) of this Section or the Tank Level 2 controls specified in subsection (d) of this Section.
 - A) The hazardous waste in the tank has a maximum organic vapor pressure that is less than the maximum organic vapor pressure limit for the tank³'s design capacity category, as follows:
 - For a tank design capacity equal to or greater than 151 m³ (5333 ft³ or 39,887 gal), the maximum organic vapor pressure limit for the tank is 5.2 kPa (0.75 psia or 39 mm-HgmmHg);
 - For a tank design capacity equal to or greater than 75 m³ (2649 ft³ or 19,810 gal) but less than 151 m³ (5333 ft³ or 39,887 gal), the maximum organic vapor pressure limit for the tank is 27.6 kPa (4.0 psia or 207 mm-HgmmHg); 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 HgmmHg).
 - 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

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- 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 tank²'s design capacity category, as specified in subsection (b)(1)(A) of this Section.
- 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).

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- 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:
 - 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
 - The opening or manifold system is connected by a closed-vent system that is vented to a control device. The control device must remove or destroy organics in the vent stream, and it must be operating whenever hazardous waste is managed in the tank, except as provided for in subsection (c)(2)(E).
- D) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and which will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.
- E) The control device operated pursuant to subsection (c)(2)(C) of this Section needs not remove or destroy organics in the vent stream

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under the following conditions:

- 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
- 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)(i) 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:
 - 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.

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- ii) To remove accumulated sludge or other residues from the bottom of tank.
- Opening of a spring-loaded pressure-vacuum relief valve, B) conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device must be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens must be established so that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations; applicable regulations; fire protection and prevention codes; standard engineering codes and practices; or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the tank internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.
- C) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 4) The owner or operator must inspect the air emission control equipment in accordance with the following requirements:
 - A) The fixed roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

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

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

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- 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 manufacturer²'s recommended setting.
- 3) The owner or operator must inspect the internal floating roof in accordance with the procedures specified as follows:
 - A) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, the following: when the internal floating roof is not floating on the surface of the liquid inside the tank; when liquid has accumulated on top of the internal floating roof; when any portion of the roof seals have detached from the roof rim; when holes, tears, or other openings are visible in the seal fabric; when the gaskets no longer close off the hazardous waste surface from the atmosphere; or when the slotted membrane has more than 10 percent open area;
 - B) The owner or operator must inspect the internal floating roof components as follows, except as provided in subsection (e)(3)(C)

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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
- 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:
 - 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
 - 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

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

- E) In the event that a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (k) of this Section; and
- F) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b).
- 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

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

- ii) The secondary seal must be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal must not exceed 21.2 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:
 - 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;
 - 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;
 - 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;
 - 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

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opening;

- vi) Each unslotted and slotted guide pole well must be equipped with a gasketed sliding cover or a flexible fabric sleeve seal;
- vii) Each unslotted guide pole must be equipped with a gasketed cap on the end of the pole;
- viii) Each slotted guide pole must be equipped with a gasketed float or other device that closes off the liquid surface from the atmosphere; and
- ix) Each gauge hatch and each sample well must be equipped with a gasketed cover.
- 2) The owner or operator must operate the tank in accordance with the following requirements:
 - A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical;
 - B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be secured and maintained in a closed position at all times except when the closure device must be open for access;
 - C) Covers on each access hatch and each gauge float well must be bolted or fastened when secured in the closed position;
 - D) Automatic bleeder vents must be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports;
 - E) Rim space vents must be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer²'s recommended

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setting;

- F) The cap on the end of each unslotted guide pole must be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank;
- G) The cover on each gauge hatch or sample well must be secured in the closed position at all times except when the hatch or well must be opened for access; and
- H) Both the primary seal and the secondary seal must completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.
- 3) The owner or operator must inspect the external floating roof in accordance with the procedures specified as follows:
 - A) The owner or operator must measure the external floating roof seal gaps in accordance with the following requirements:
 - i) The owner or operator must perform measurements of gaps between the tank wall and the primary seal within 60 calendar days after initial operation of the tank following installation of the floating roof and, thereafter, at least once every five years;
 - 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;

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- 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) of this Section;
- v) In the event that the seal gap measurements do not conform to the specifications in subsection (f)(1)(B) of this Section, the owner or operator must repair the defect in accordance with the requirements of subsection (k) of this Section; and
- vi) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b);
- B) The owner or operator must visually inspect the external floating roof in accordance with the following requirements:
 - i) The floating roof and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to any of the following: holes, tears, or other openings in the rim seal or seal fabric of the floating roof; a rim seal detached from the floating roof; all or a portion of the floating roof deck being submerged below the surface of the liquid in the tank; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices;
 - 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

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must repair the defect in accordance with the requirements of subsection (k) of this Section; and

- iv) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 725.990(b);
- C) Prior to each inspection required by subsection (f)(3)(A) or (f)(3)(B) of this Section, the owner or operator must notify the Agency in advance of each inspection to provide the Agency with the opportunity to have an observer present during the inspection. The owner or operator must notify the Agency of the date and location of the inspection as follows:
 - 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;
 - 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
 - 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

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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;
 - Seal gaps, if any, must be measured around the entire perimeter of the floating roof in each place where a 0.32-cm (¼-inch) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location;
 - iii) For a seal gap measured under this subsection (f)(3), the gap surface area must be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance; and
 - iv) The total gap area must be calculated by adding the gap surface areas determined for each identified gap location for the primary seal and the secondary seal individually, and then dividing the sum for each seal type by the nominal diameter of the tank. These total gap areas for the primary seal and secondary seal are then compared to the respective standards for the seal type, as specified in subsection (f)(1)(B) of this Section; and

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

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

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

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

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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 (1) 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;
 - 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

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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_725.988.725.988724.987.
- The owner or operator that controls air pollutant emissions by using an enclosure vented through a closed-vent system to an enclosed combustion control device must meet the requirements specified in subsections (i)(1) through (i)(4) of this Section.
 - 1) The tank must be located inside an enclosure. The enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure, as specified in "Procedure T—___Criteria for and Verification of a Permanent or Temporary Total Enclosure" under appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b). The enclosure may have permanent or temporary openings to allow worker access; passage of material into or out of the enclosure by conveyor, vehicles, or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator must perform the verification procedure for the enclosure as specified in Section 5.0 to "Procedure T—__Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually;
 - 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

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- 4) The owner or operator must inspect and monitor the closed-vent system and control device, as specified in Section 725.988.
- j) The owner or operator must transfer hazardous waste to a tank subject to this Section in accordance with the following requirements:
 - 1) Transfer of hazardous waste, except as provided in subsection (j)(2) of this Section, to the tank from another tank subject to this Section or from a surface impoundment subject to Section 725.986 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of subpart RR of 40 CFR 63 (National Emission Standards for Individual Drain Systems), incorporated by reference in 35 Ill. Adm. Code 720.111(b); and
 - 2) The requirements of subsection (j)(1) of this Section do not apply when transferring a hazardous waste to the tank under any of the following conditions:
 - A) The hazardous waste meets the average VO concentration conditions specified in Section 725.983(c)(1) at the point of waste origination;
 - B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 725.983(c)(2); and
 - C) The hazardous waste meets the requirements of Section 725.983(c)(4).
- k) The owner or operator must repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(4), (e)(3), (f)(3), or (g)(3) of this Section as follows:
 - 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

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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.
- 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:
 - 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 <u>"unsafe to inspect and monitor cover</u> and comply with all of the following requirements:
 - 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 40 Ill. Reg. _____, effective _____)

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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 <u>those</u> such air emission control.
- b) General requirements-
 - 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
 - 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

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process when the hazardous waste in the container is exposed to the atmosphere.

- c) Container Level 1 standards-
 - 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 ⁱⁱⁱ portable tankⁱⁱⁱ or bulk cargo container equipped with a screw-type cap); and
 - C) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container so that no hazardous waste is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.
 - 2) A container used to meet the requirements of subsection (c)(1)(B) or (c)(1)(C) of this Section must be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of contact with the hazardous waste or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.

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- 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:
 - 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:
 - 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

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- ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container, as defined in 35 Ill. Adm. Code 721.107(b), the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first;
- C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container;
- D) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the container internal pressure in accordance with the design specifications of the container. The device must be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens must be established so that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open

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

- E) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 4) The owner or operator of containers using Container Level 1 controls must inspect the containers and their covers and closure devices as follows:
 - A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, as set forth in the appendix to 40 CFR 262 (Uniform Hazardous Waste Manifest and Instructions (EPA Forms 8700-22 and 8700-22A and Their Instructions)), incorporated by reference in 35 Ill. Adm. Code 720.111(b), as required under Section 725.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (c)(4)(C) of this Section;
 - B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator must visually inspect the container and its cover and

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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 Reference Method 27 (Determination of Vapor Tightness of Gasoline Delivery Tank Using Pressure-Vacuum Test) in appendix A to 40 CFR 60 (Test

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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:
 - 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

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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:
 - 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

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position or reinstall the cover, as applicable to the container;

- D) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device must be designed to operate with no detectable organic emission when the device is secured in the closed position. The settings at which the device opens must be established so that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations; and
- E) Opening of a safety device, as defined in Section 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 4) The owner or operator of containers using Container Level 2 controls must inspect the containers and their covers and closure devices as follows:
 - A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of

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the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, in the appendix to 40 CFR 262 (Uniform Hazardous Waste Manifest and Instructions (USEPA Forms 8700-22 and 8700-22A and Their Instructions)), as required under Section 725.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (d)(4)(C) of this Section;

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

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a control device in accordance with the requirements of subsection (e)(2)(B) of this Section; or

- B) A container that is vented inside an enclosure that is exhausted through a closed-vent system to a control device in accordance with the requirements of subsections (e)(2)(A) and (e)(2)(B) of this Section.
- 2) The owner or operator must meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator:
 - A) The container enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure, as specified in "Procedure T-Criteria for and Verification of a Permanent or Temporary Total Enclosure²²¹¹ 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 Enclosure21 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.
- Owners and operators using Container Level 3 controls in accordance with the provisions of this Subpart CC must inspect and monitor the

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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:
 - 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);

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- 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 Reference 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 Reference 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

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at which the container is to be tested for vapor tightness; and

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

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

SUBPART DD: CONTAINMENT BUILDINGS

Section 725.1101 Design and Operating Standards

- All containment buildings must comply with the following design and operating standards:
 - The containment building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements (e.g. precipitation, wind, run on) and to assure containment of managed wastes;
 - 2) The floor and containment walls of the unit, including the secondary containment system if required under subsection (b) of this Section, must be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls. The unit must be designed so that it has sufficient structural strength to prevent collapse or other failure. All surfaces to be in contact with hazardous wastes must be chemically compatible with those wastes. The containment building must meet the structural integrity requirements established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM). If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and
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windows that meet these criteria:

- A) They provide an effective barrier against fugitive dust emissions under subsection (c)(1)(D) of this Section; and
- B) The unit is designed and operated in a fashion that assures that wastes will not actually come in contact with these openings;
- 3) Incompatible hazardous wastes or treatment reagents must not be placed in the unit or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail; and
- 4) A containment building must have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit and appropriate for the physical and chemical characteristics of the waste to be managed.
- b) For a containment building used to manage hazardous wastes containing free liquids or treated with free liquids (the presence of which is determined by the paint filter test, a visual examination, or other appropriate means), the owner or operator must include the following design features:
 - 1) A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (e.g., a geomembrane covered by a concrete wear surface).
 - 2) A liquid collection and removal system to minimize the accumulation of liquid on the primary barrier of the containment building:
 - A) The primary barrier must be sloped to drain liquids to the associated collection system; and
 - B) Liquids and waste must be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time.
 - 3) A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the

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barrier, and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.

- A) The requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum, as follows:
 - It is constructed with a bottom slope of 1 percent or more; and
 - ii) It is constructed of a granular drainage material with a hydraulic conductivity of 1 ∗x 10⁻² cm/sec or more and a thickness of 12 inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of 3 ∗x 10⁻⁵ m²/sec or more.
- B) If treatment is to be conducted in the building, an area in which such treatment will be conducted must be designed to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.
- C) The secondary containment system must be constructed of materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building. (Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions. A containment building can serve as an external liner system for a tank, provided it meets the requirements of Section 725.293(e)(1). In addition, the containment building must meet the requirements of subsections 725.293(b) and (c) to be an acceptable secondary containment system for a tank.)
- 4) For existing units other than 90-day generator units, USEPA may delay the secondary containment requirement for up to two years, based on a demonstration by the owner or operator that the unit substantially meets

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the standards of this Subpart DD. In making this demonstration, the owner or operator must do each of the following:

- Provide written notice to USEPA of their request by November 16, 1992. This notification must describe the unit and its operating practices with specific reference to the performance of existing systems, and specific plans for retrofitting the unit with secondary containment;
- B) Respond to any comments from USEPA on these plans within 30 days; and
- C) Fulfill the terms of the revised plans, if such plans are approved by USEPA.
- c) Owners or operators of all containment buildings must do each of the following:
 - 1) It must use controls and practice to ensure containment of the hazardous waste within the unit, and at a minimum do each of the following:
 - A) It must maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier;
 - B) It must maintain the level of the stored or treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;
 - C) It must take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area must be designated to decontaminate equipment and any rinsate must be collected and properly managed; and
 - D) It must take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (see Reference Method 22 (Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares) in appendix A to 40 CFR 60 (Test

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

BOARD NOTE: At 40 CFR 264.1101(c)(1)(iv), USEPA cites "40 CFR part 60, subpart 292." At 57 Fed. Reg. 37217 (August 18, 1992), USEPA repeats this citation in the preamble discussion of adoption of the rules. No such provision exists in the Code of Federal Regulations. While 40 CFR 60.292 of the federal regulations pertains to control of fugitive dust emissions, that provision is limited in its application to glass melting furnaces. The Board has chosen to use the general citation: "40 CFR 60.2"

- It must obtain and keep on-site a certification by a qualified Professional Engineer that the containment building design meets the requirements of subsections (a) through (c) of this Section;
- 3) Throughout the active life of the containment building, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, it must repair the condition promptly, in accordance with the following procedures:
 - A) Upon detection of a condition that has caused to a release of hazardous wastes (e.g., upon detection of leakage from the primary barrier) the owner or operator must do the following:
 - Enter a record of the discovery in the facility operating record;
 - ii) Immediately remove the portion of the containment building affected by the condition from service;
 - iii) Determine what steps must be taken to repair the

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containment building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the cleanup and repairs; and

- Within seven days after the discovery of the condition, notify the Agency in writing of the condition, and within 14 working days, provide a written notice to the Agency with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work;
- B) The Agency must review the information submitted, make a determination regarding whether the containment building must be removed from service completely or partially until repairs and cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing; and
- C) Upon completing all repairs and cleanup the owner and operator must notify the Agency in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with subsection (c)(3)(A)(iv) of this Section; and
- 4) It must inspect and record in the facility²'s operating record at least once every seven days, data gathered from monitoring and leak detection equipment as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.-
- d) For a containment building that contains areas both with and without secondary containment, the owner or operator must do the following:
 - 1) Design and operate each area in accordance with the requirements enumerated in subsections (a) through (c) of this Section;
 - Take measures to prevent the release of liquids or wet materials into areas without secondary containment; and

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- 3) Maintain in the facility²'s operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.
- e) Notwithstanding any other provision of this Subpart DD, the Agency must, in writing, allow the use of alternatives to the requirements for secondary containment for a permitted containment building where the Agency has determined that the facility owner or operator has adequately demonstrated that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and where containment of managed wastes and liquids can be assured without a secondary containment system.

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

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Deletions	244	
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117		SUBDART I. TANK SVSTEMS
117		SOBLART J. TANK STSTEMS
110	Section	
119	725 200	Applicability
120	725.290	Application of Existing Tank System Integrity
121	725.291	Assessment of Existing Tank System Integrity
122	725.292	Design and Installation of New Tank Systems or Components
123	725.293	Containment and Detection of Releases
124	725.294	General Operating Requirements
125	725.295	Inspections
126	725.296	Response to Leaks or Spills and Disposition of Tank Systems
127	725.297	Closure and Post-Closure Care
128	725.298	Special Requirements for Ignitable or Reactive Wastes
129	725.299	Special Requirements for Incompatible Wastes

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173	725.380	Closure and Post-Closure Care
174	725.381	Special Requirements for Ignitable or Reactive Wastes
175	725.382	Special Requirements for Incompatible Wastes
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177		SUBPART N: LANDFILLS
178		
179	Section	
180	725.400	Applicability
181	725.401	Design Requirements
182	725.402	Action Leakage Rate
183	725.403	Response Actions
184	725.404	Monitoring and Inspections
185	725.409	Surveying and Recordkeeping
186	725.410	Closure and Post-Closure Care
187	725.412	Special Requirements for Ignitable or Reactive Wastes
188	725.413	Special Requirements for Incompatible Wastes
189	725.414	Special Requirements for Liquid Wastes
190	725.415	Special Requirements for Containers
191	725.416	Disposal of Small Containers of Hazardous Waste in Overpacked Drums (Lab
192		Packs)
193		
194		SUBPART O: INCINERATORS
195		
196	Section	
197	725.440	Applicability
198	725.441	Waste Analysis
199	725.445	General Operating Requirements
200	725.447	Monitoring and Inspections
201	725.451	Closure
202	725.452	Interim Status Incinerators Burning Particular Hazardous Wastes
203		
204		SUBPART P: THERMAL TREATMENT
205		
206	Section	
207	725.470	Other Thermal Treatment
208	725.473	General Operating Requirements
209	725.475	Waste Analysis
210	725.477	Monitoring and Inspections
211	725.481	Closure
212	725.482	Open Burning; Waste Explosives
213	725.483	Interim Status Thermal Treatment Devices Burning Particular Hazardous Wastes
214		
215	SU	JBPART Q: CHEMICAL, PHYSICAL, AND BIOLOGICAL TREATMENT

216		
217	Section	
218	725.500	Applicability
219	725.501	General Operating Requirements
220	725,502	Waste Analysis and Trial Tests
221	725.503	Inspections
222	725 504	Closure
223	725 505	Special Requirements for Ignitable or Reactive Wastes
224	725 506	Special Requirements for Incompatible Wastes
225	125.500	special requirements for meenipatione wastes
226		SUBPART R. UNDERGROUND INJECTION
220		SOBIARI R. UNDERGROUND INJECTION
228	Section	
220	725 530	Applicability
220	125.550	Applicability
230		SUBDADT W. DDID DADS
221		SUBFART W. DRIFTADS
232	Section	
233	5ection 725 540	A sealing hilling
234	725.540	Applicability
235	725.541	Assessment of Existing Drip Pad Integrity
230	725.542	Design and Installation of New Drip Pads
237	725.543	Design and Operating Requirements
238	725.544	Inspections
239	725.545	Closure
240		
241		SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS
242		
243	Section	Sector and the sector of the s
244	725.930	Applicability
245	725.931	Definitions
246	725.932	Standards: Process Vents
247	725.933	Standards: Closed-Vent Systems and Control Devices
248	725.934	Test Methods and Procedures
249	725.935	Recordkeeping Requirements
250		
251		SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS
252		
253	Section	
254	725.950	Applicability
255	725.951	Definitions
256	725.952	Standards: Pumps in Light Liquid Service
257	725.953	Standards: Compressors
		Standards, Danie Dalla (Daniera in Cardy and Sania

2	259	725.955	Standards: Sampling Connecting Systems
	260	725.956	Standards: Open-Ended Valves or Lines
	261	725.957	Standards: Valves in Gas/Vapor or Light Liquid Service
3	262	725.958	Standards: Pumps, Valves, Pressure Relief Devices, Flanges, and Other
3	263		Connectors
	264	725.959	Standards: Delay of Repair
1	265	725.960	Standards: Closed-Vent Systems and Control Devices
	266	725.961	Percent Leakage Alternative for Valves
3	267	725.962	Skip Period Alternative for Valves
12	268	725.963	Test Methods and Procedures
	269	725.964	Recordkeeping Requirements
	270		
	271		SUBPART CC: AIR EMISSION STANDARDS FOR TANKS, SURFACE
	272		IMPOUNDMENTS, AND CONTAINERS
	273	Section	
	274	725.980	Applicability
	275	725.981	Definitions
	276	725.982	Schedule for Implementation of Air Emission Standards
	277	725.983	Standards: General
	278	725.984	Waste Determination Procedures
	279	725.985	Standards: Tanks
	280	725.986	Standards: Surface Impoundments
	281	725.987	Standards: Containers
	282	725.988	Standards: Closed-Vent Systems and Control Devices
	283	725.989	Inspection and Monitoring Requirements
	284	725.990	Recordkeeping Requirements
	285	725.991	Alternative Tank Emission Control Requirements (Repealed)
	286		
	287		SUBPART DD: CONTAINMENT BUILDINGS
	288		
	289	Section	
	290	725.1100	Applicability
	291	725.1101	Design and Operating Standards
	292	725.1102	Closure and Post-Closure Care
	293		
	294	SUBF	PART EE: HAZARDOUS WASTE MUNITIONS AND EXPLOSIVES STORAGE
	295	1	
	296	Section	
	297	725.1200	Applicability
	298	725.1201	Design and Operating Standards
	299	725.1202	Closure and Post-Closure Care
	300	Care a car	
	301	725.APPI	ENDIX A Recordkeeping Instructions

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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: Imple	ementing Sections 7.2 and 22.4 and authorized by Section 27 of the				
309	Environmental Protec	tion Act [415 ILCS 5/7.2, 22.4, and 27].				
310						
311	SOURCE: Adopted i	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 Febru	ary 22, 1983; amended in R82-19 at 7 Ill. Reg. 14034, effective October 12,				
314	1983; amended in R8	4-9 at 9 Ill. Reg. 11869, effective July 24, 1985; amended in R85-22 at 10				
315	Ill. Reg. 1085, effectiv	ve January 2, 1986; amended in R86-1 at 10 Ill, Reg. 14069, effective				
316	August 12, 1986; ame	ended 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 1	0. 1987: amended in R87-26 at 12 Ill. Reg. 2485, effective January 15,				
319	1988; amended in R8	7-39 at 12 Ill. Reg. 13027, effective July 29, 1988; amended in R88-16 at				
320	13 Ill. Reg. 437, effec	tive December 28, 1988; amended in R89-1 at 13 Ill. Reg. 18354, effective				
321	November 13, 1989; a	amended in R90-2 at 14 Ill. Reg. 14447, effective August 22, 1990;				
322	amended in R90-10 a	t 14 Ill. Reg. 16498, effective September 25, 1990; amended in R90-11 at				
323	15 Ill. Reg. 9398, effe	ective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14534, effective				
324	October 1, 1991; ame	ended 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	n 26, 1993; amended in R93-4 at 17 Ill. Reg. 20620, effective November 22.				
327	1993; amended in R9	3-16 at 18 Ill. Reg. 6771, effective April 26, 1994; amended in R94-7 at 18				
328	Ill. Reg. 12190, effect	tive 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, effectiv	e December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7620, effective				
332	April 15, 1998; amen	ded in R97-21/R98-3/R98-5 at 22 Ill. Reg. 17620, effective September 28,				
333	1998; amended in R9	8-21/R99-2/R99-7 at 23 Ill. Reg. 1850, effective January 19, 1999;				
334	amended in R99-15 a	t 23 Ill. Reg. 9168, effective July 26, 1999; amended in R00-5 at 24 Ill.				
335	Reg. 1076, effective J	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; amen	ded in R06-5/R06-6/R06-7 at 30 Ill. Reg. 3460, effective February 23,				
339	2006: amended in R0	6-16/R06-17/R06-18 at 31 III. Reg. 1031, effective December 20, 2006;				
340	amended in R07-5/R0	07-14 at 32 Ill. Reg. 12566, effective July 14, 2008: amended in R09-3 at 33				
341	Ill. Reg. 1155, effecti	ve 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 III. Reg. 18052, effective October					
343	14, 2011; amended in	R13-15 at 37 Ill. Reg. 17811, effective October 24, 2013; amended in				
	and the second second second second					

R15-1 at 39	l. Reg. 1746, effecti	ve January 12, 2015; amended in R16-7 at 40 Ill. Reg,		
effective	· · ·			
SUL	PARTE: MANIFES	T SYSTEM, RECORDKEEPING, AND REPORTING		
Section 725	73 Operating Rec	ord		
a)	The owner or oper	ator must keep a written operating record at the facility.		
b)	The following info	The following information must be recorded as it becomes available and		
	maintained in the o	operating record for three years unless otherwise provided as		
	follows:			
	1) A descripti	on and the quantity of each hazardous waste received and the		
	methods ar	d dates of its treatment, storage, or disposal at the facility, as		
	required by	Appendix A to this Part. This information must be maintained		
	in the oper	ating record until closure of the facility.		
	m the open	and record and crossic of the facincy,		
	2) The location	on of each hazardous waste within the facility and the quantity		
	at each loc:	ation. For disposal facilities the location and quantity of each		
	hazardous	waste must be recorded on a man or diagram that shows each		
	cell or disp	osal area. For all facilities this information must include cross-		
	references	to manifest document numbers if the waste was accompanied		
	hy a manif	This information must be maintained in the operating		
	by a manne	Lelegure of the facility		
	record unu	r closure of the facility,		
	DOADDN	OTE: See Sections 725 210, 725 270, and 725 400 for related		
	BOARD N	OTE: See Sections 725.219 , 725.579 , and 725.409 for related		
	requiremen	IIS.		
	2) D 1			
	3) Records an	d results of waste analysis, waste determinations, and trial tests		
	performed,	as specified in Sections 725.113, 725.300, 725.325, 725.352,		
	125.313, 1.	25.414, 725.441, 725.475, 725.502, 725.934, 725.963, and		
	725.984 an	a 35 III. Adm. Code 728.104(a) and 728.107;		
	1) C			
	4) Summary 1	eports and details of all incidents that require implementing the		
	contingenc	y plan, as specified in Section 725.156(1);		
	5) Records an	d results of inspections, as required by Section 725.115(d)		
	(except the	se data need be kept only three years);		
	ten de la de			
	6) Monitoring	, testing, or analytical data, where required by Subpart F of this		
	Part or Sec	tions 725.119, 725.194, 725.291, 725.293, 725.295, 725.324,		
	725.326, 7	25.355, 725.360, 725.376, 725.378, 725.380(d)(1), 725.402,		

387		725.404, 725.447, 725.477, 725.934(c) through (f), 725.935, 725.963(d)
388		through (i), 725.964, and 725.983725.1083 through 725.990. Maintain in
389		the operating record for three years, except for records and results
390		pertaining to groundwater monitoring and cleanup, and response action
391		plans for surface impoundments, waste piles, and landfills, which must be
392		maintained in the operating record until closure of the facility;
393		
394		BOARD NOTE: As required by Section 725,194, monitoring data at
395		disposal facilities must be kept throughout the post-closure period.
396		and some many set which and a set of the set
397	7)	All closure cost estimates under Section 725 242 and for disposal
398	1)	facilities all post-closure cost estimates under Section 725 244 must be
399		maintained in the operating record until closure of the facility:
400		maintained in the operating record until closure of the facility,
401	8)	Records of the quantities (and date of placement) for each shipment of
402	0)	hazardous waste placed in land disposal units under an extension of the
403		effective date of any land disposal restriction granted pursuant to 35 III
404		Adm Code 728 105 a petition pursuant to 35 III Adm Code 728 106 or
405		a certification under 35 Ill Adm. Code 728 108 and the applicable notice
405		required of a generator under 35 III. Adm. Code 728 107(a). All of this
400		information must be maintained in the operating record until closure of the
407		facility:
408		lacinty,
409	0)	For an off site treatment facility, a convert the notice and the cortification
410	9)	For an on-she treatment facility, a copy of the notice and the certification
411		and demonstration, if applicable, required of the generator of the owner of
412		operator under 35 III. Adm. Code 728.107 or 728.108;
413	10)	The second site to start the fifth the information contained in the mation
414	10)	For an on-site treatment facility, the information contained in the nouce
415		(except the manifest humber) and the certification and demonstration, if
416		applicable, required of the generator of the owner of operator under 35 III .
41/		Adm. Code /28.10/ or /28.108;
418	115	
419	11)	For an off-site land disposal facility, a copy of the notice and the
420		certification and demonstration, if applicable, required of the generator or
421		the owner or operator of a treatment facility under 35 III. Adm. Code
422		728.107 or 728.108;
423		
424	12)	For an on-site land disposal facility, the information contained in the
425		notice required of the generator or owner or operator of a treatment facility
426		under 35 Ill. Adm. Code 728.107, except for the manifest number, and the
427		certification and demonstration, if applicable, required under 35 Ill. Adm.
428		Code 728.107 or 728.108;
429		

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430 431 432 433		13)	For an off-site storage facility, a copy of the notice and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;
433 434 435 436 437 438		14)	For an on-site storage facility, the information contained in the notice (except the manifest number) and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108; and
439 440 441 442 443		15)	Monitoring, testing or analytical data, and corrective action, where required by Sections 725.190 and 725.193(d)(2) and (d)(5), and the certification, as required by Section $\underline{725.296(f)}$, $\underline{725.196(f)}$, must be maintained in the operating record until closure of the facility.
444 445 446	(Sou	rce: An	nended at 40 Ill. Reg, effective) SUBPART O: INCINERATORS
447 448 449	Section 725	.440 Aj	pplicability
450 451 452 453	a)	The n incin Code	regulations in this Subpart O apply to owners or operators of hazardous waste erators (as defined in 35 Ill. Adm. Code 720.110), except as 35 Ill. Adm. e 724.101 provides otherwise.
454 455	b)	Integ	ration of the MACT standards.
456 457 458 459 460 461 462 463 464 465 466 467		1)	Except as provided by subsections (b)(2) and (b)(3) of this Section, the standards of this Part no longer apply when an owner or operator demonstrates compliance with the maximum achievable control technology (MACT) requirements of subpart EEE of 40 CFR 63 (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors), incorporated by reference in 35 Ill. Adm. Code 720.111(b), by conducting a comprehensive performance test and submitting to the Agency a Notification of Compliance, under 40 CFR 63.1207(j) and <u>63.1210(d)63.1210(b)</u> , documenting compliance with the requirements of subpart EEE of 40 CFR 63.
467 468 469 470		2)	The MACT standards of subpart EEE of 40 CFR 63 do not replace the closure requirements of Section 724.451 or the applicable requirements of Subparts A through H, BB, and CC of this Part.
471 472		3)	Section 725.445, generally prohibiting burning of hazardous waste during startup and shutdown, remains in effect if the owner or operator elects to

473			comply with 35 Ill. Adm. Code 703.320(b)(1)(A) to minimize emissions
4/4			of toxic compounds from startup and shutdown.
475		DOA	DD NOTE: Or set in a set it is a set of the later is a feating to the test of the
4/0		BUA	RD NOTE: Operating conditions used to determine effective treatment of
4//		hazar	dous waste remain effective after the owner or operator demonstrates
4/8		comp	bliance with the standards of subpart EEE of 40 CFR 63. Sections 9.1 and
479		39.5	of the Environmental Protection Act [415 ILCS 5/9.1 and 39.5] make the
480		feder	al MACT standards directly applicable to entities in Illinois and authorize
481		the A	gency to issue permits based on the federal standards.
482			
483	c)	An o	wner or operator of an incinerator that burns hazardous waste is exempt from
484		all of	the requirements of this Subpart O, except Section 725.451 (Closure),
485		provi	ded that the owner or operator has documented, in writing, that the waste
486		woul	d not reasonably be expected to contain any of the hazardous constituents
487		listed	l in Appendix H to 35 Ill. Adm. Code 721 and such documentation is retained
488		at the	e facility, if the waste to be burned is one of the following:
489			
490		1)	It is listed as a hazardous waste in Subpart D of 35 Ill. Adm. Code 721,
491			solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C),
492			or both;
493			
494		2)	It is listed as a hazardous waste in Subpart D of 35 Ill. Adm. Code 721,
495			solely because it is reactive (Hazard Code R) for characteristics other than
496			those listed in 35 Ill. Adm. Code 721.123(a)(4) and (a)(5), and will not be
497			burned when other hazardous wastes are present in the combustion zone:
498			· · · · · · · · · · · · · · · · · · ·
499		3)	It is a hazardous waste solely because it possesses the characteristic of
500		-	ignitability, corrosivity, or both, as determined by the tests for
501			characteristics of hazardous wastes under Subpart C of 35 Ill. Adm. Code
502			721: or
503			.21,01
504		4)	It is a hazardous waste solely because it possesses the reactivity
505		.,	characteristics described by 35 III Adm. Code 721 123(a)(1) (a)(2)
506			(a)(3) $(a)(6)$ $(a)(7)$ or $(a)(8)$ and will not be burned when other bazardous
507			wastes are present in the combustion zone
508			wastes are present in the combustion zone.
500	(Sou	ree An	nended at 40 III Reg effective)
510	(bou	ICC. AI	nended at 40 m. Reg, encenve)
511	SIT	DDADT	OF CHEMICAL DUVSICAL AND DIOLOGICAL TREATMENT
512	301	DFARI	Q. CHEMICAL, FHI SICAL, AND BIOLOGICAL TREATMENT
512	Section 725	502 W	Vanta Amalusia and Taial Taata
514	Section 725	.302 W	aste Analysis and Trial Tests
515		In al	dition to the wests analyzin required by Section 705 112/h) of this Section
515	a)	in ad	anion to the waste analysis required by Section 725.115(b) of this Section

516		appli	s whenever either of the following conditions exist:	
510		1)	A bozordowa waste that is substantially different from waste proviously	
510		1)	tracted in a tractment process or agginment at the facility is to be tracted in	n
520			thet process or equipment: or	
520			that process of equipment _{25} or	
522		2)	A substantially different process from any providualy used at the facility i	0
522		2)	A substantially different process from any previously used at the facility is	5
523			to be used to chemically treat hazardous waste.	
524	b)	Tool	ow that this proposed treatment will most all applicable requirements of	
525	0)	Secti	on 725 501(a) and (b) the owner or operator must before treating the	
520		diffe	in 725.501(a) and (b), the owner of operator must, before treating the	
527		diffe	ent waste or using the different process or equipment.	
520		1)	Conduct words analyzes and trial treatment tests (a.s. hereb scale annilat	
529		1)	Conduct waste analyses and trial treatment tests (e.g., bench scale of pilot	
530			plant scale tests) _a , or	
531		2)		
532		2)	Obtain written, documented information on similar treatment of similar	
533			waste under similar operating conditions.	
534	DO	DDM	FE. As serviced by Section 725 112, the waste analysis also associated	
535	BUA	ARD NO	Let to comply with Sections 725 505 and 725 506 As required by Section	
530	anar	172 the	even of comply with sections 725.505 and 725.506. As required by section	
520	723.	1/5, the	owner of operator must place the results from each waste analysis and that	
520	test,	or the d	cumented information, in the operating record of the facility.	
540	(Can		and at 40 III Bag officiative	
541	(300	irce. Ai	ended at 40 m. Keg, enecuve)	
541		TIDDAT	T A A + A ID EMISSION STANDADDS FOD DDOCESS VENTS	
542	-	ODFAI	TAA. AIR EMISSION STANDARDS FOR FROCESS VENTS	
544	Section 725	033 5	undards. Closed-Vent Systems and Control Devices	
545	Section 725		indurus. Closed vent Systems and Control Devices	
546	a)	Com	liance Required	
547	u)	com	marce required.	
548		1)	Owners or operators of closed-vent systems and control devices used to	
549		•)	comply with provisions of this Part must comply with the provisions of	
550			this Section	
551			this beenon.	
552		2)	Implementation Schedule	
553		2)	implementation Schedule.	
554			A) The owner or operator of an existing facility that cannot install a	
555			closed-vent system and control device to comply with the	
556			provisions of this Subnart A A on the effective date that the facility	v
557			becomes subject to the provisions of this Subpart A A must prepar	e
558			an implementation schedule that includes dates by which the	-
550			an implementation selecture that merades dates by when the	

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560 operation. The controls must be installed as soon as possible, b 561 the implementation schedule may allow up to 20 menths after	111
561 the implementation schedule may allow up to 20 menths after	uu
the implementation schedule may allow up to 30 months after	he
562 effective date that the facility becomes subject to this Subpart	AA
563 for installation and startup.	
564	
565 B) Any unit that begins operation after December 21, 1990, and w	hich
566 is subject to the provisions of this Subpart AA when operation	
567 begins, must comply with the rules immediately (i.e., must hav	e
568 control devices installed and operating on startup of the affecte	d
569 unit): the 30-month implementation schedule does not apply.	-
570	
571 C) The owner or operator of any facility in existence on the effect	ive
572 date of a statutory or regulatory amendment that renders the	
573 facility subject to this Subpart AA must comply with all	
574 requirements of this Subpart A A as soon as practicable but no	later
575 than 30 months after the effective date of the amendment. Wh	en
575 control equipment required by this Subpart AA cannot be insta	lled
570 control equipment required by this Subpart AA calliot be hista	a
578 facility owner or operator must prepare on implementation	-
578 Tachity owner of operator must prepare an implementation	ndor
579 schedule that includes the following information: specific cale	the
580 dates for award of contracts or issuance of purchase orders for	une
581 control equipment, initiation of on-site installation of the contr	
582 equipment, completion of the control equipment installation, a	nd
583 performance of any testing to demonstrate that the installed	
584 equipment meets the applicable standards of this Subpart AA.	The
585 owner or operator must enter the implementation schedule in the	ne
586 operating record or in a permanent, readily available file locate	d at
587 the facility.	
588	
589 D) An owner or operator of a facility or unit that becomes newly	
590 subject to the requirements of this Subpart AA after December	8,
591 1997, due to an action other than those described in subsection	
592 (a)(2)(iii) of this Section must comply with all applicable	
593 requirements immediately (i.e., the facility or unit must have	
594 control devices installed and operating on the date the facility	or
595 unit becomes subject to this Subpart AA; the 30-month	
596 implementation schedule does not apply).	
597	
598 b) A control device involving vapor recovery (e.g., a condenser or adsorber) mu	st be
599 designed and operated to recover the organic vapors vented to it with an	
600 efficiency of 95 weight percent or greater unless the total organic emission lir	nits
601 of Section 725.932(a)(1) for all affected process vents is attained at an efficie	ncy

602		less th	an 95 weight percent.
603			
604	c)	An end	closed combustion device (e.g., a vapor incinerator, boiler, or process
605		heater) must be designed and operated to reduce the organic emissions vented to it
606		by 95	weight percent or greater; to achieve a total organic compound
607		concer	ntration of 20 ppmy, expressed as the sum of the actual compounds, not
608		carbon	equivalents, on a dry basis corrected to three percent oxygen; or to provide
609		a mini	mum residence time of 0.50 seconds at a minimum temperature of 760
610		degree	s Celsius (°C). If a boiler or process heater is used as the control device.
611		then th	be vent stream must be introduced into the flame combustion zone of the
612		boiler	or process heater
613		ooner	or process nearer.
614	(b	Flares	
615	ц)	T luies.	
616		1)	A flare must be designed for and operated with no visible emissions as
617		1)	determined by the methods specified in subsection (e)(1) of this Section
618			except for periods not to exceed a total of five minutes during any two
619			consecutive hours
620			consecutive nours.
621		2)	A flare must be operated with a flame present at all times as determined
622		2)	by the methods specified in subsection $(f)(2)(C)(f)(2)(c)$ of this Section
623			by the methods specified in subsection $(1/2)(c)$ of this section.
624		3)	A flare must be used only if the net heating value of the gas being
625		5)	combusted is 11.2 MI/scm (300 Btu/scf) or greater if the flare is steam.
626			assisted or air-assisted or if the net heating value of the gas being
627			combusted is 7.45 MI/scm (200 Btu/scf) or greater if the flare is
628			nonassisted. The net heating value of the gas being combusted must be
629			determined by the methods specified in subsection (e)(2) of this Section
630			determined by the methods specified in subsection $(c)(2)$ or this section.
631		4)	Exit Velocity
632		т)	Exit velocity:
633			A) A steam-assisted or nonassisted flare must be designed for and
634			aperated with an exit velocity as determined by the methods
635			specified in subsection (a)(3) of this Section less than 18.3 m/s (60)
636			specified in subsection $(C)(S)$ of this section, less than 18.5 m/s (O)
637			this Section
638			uns section.
630			B) A steam-assisted or nonassisted flare designed for and operated
640			with an evit velocity, as determined by the methods specified in
641			with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section equal to or greater than 18.3 m/s
642			(60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net
642			heating value of the gas being combusted is greater than 27.2
045			MI/gom (1.000 Dty/gof)
611			

645 646 C) A steam-assisted or nonassisted flare designed for and operated 647 with an exit velocity, as determined by the methods specified in 648 subsection (e)(3) of this Section, less than the velocity, V as determined by the method specified in subsection (e)(4) and less 649 650 than 122 m/s (400 ft/s) is allowed. 651 652 5) An air-assisted flare must be designed and operated with an exit velocity 653 less than the velocity, V, as determined by the method specified in 654 subsection (e)(5) of this Section. 655 656 6) A flare used to comply with this Section must be steam-assisted, air-657 assisted, or nonassisted. 658 659 Compliance determination and equations. e) 660 661 1) Reference Method 22 (Visual Determination of Fugitive Emissions from 662 Material Sources and Smoke Emissions from Flares) in appendix A to 40 663 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), must be used to determine the compliance of a flare with the 664 visible emission provisions of this Subpart AA. The observation period is 665 two hours and must be used according to Reference Method 22. 666 667 The net heating value of the gas being combusted in a flare must be 668 2) 669 calculated using the following equation: 670 $H_T = K \times \sum_{i=1}^n C_i \times H_i$ 671 672 673 Where: 674 the net heating value of the sample in MJ/scm; where the HT = net enthalpy per mole of offgas is based on combustion at 25° C and 760 mm Hg, but the standard temperature for determining the volume corresponding to 1 mole is 20° C K ÷ 1.74×10^{-7} (1/ppm) (g mol/scm) (MJ/kcal) where the standard temperature for (g mol/scm) is 20° C ΣX_i = the sum of the values of X for each component i, from i=1 to n C_i = the concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography) in appendix A to 40 CFR 60

(Test Methods), and for carbon monoxide, by ASTM D 1946-90 (Standard Practice for Analysis of Reformed Gas by Gas Chromatography), each incorporated by reference in 35 Ill. Adm. Code 720.111

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

676 3) The actual exit velocity of a flare must be determined by dividing the 677 volumetric flow rate (in units of standard temperature and pressure), as 678 determined by Reference Methods 2 (Determination of Stack Gas Velocity 679 and Volumetric Flow Rate (Type S Pitot Tube)), 2A (Direct Measurement 680 of Gas Volume through Pipes and Small Ducts), 2C (Determination of Gas 681 Velocity and Volumetric Flow Rate in Small Stacks or Ducts (Standard 682 Pitot Tube)), or 2D (Measurement of Gas Volume Flow Rates in Small 683 Pipes and Ducts) in appendix A to 40 CFR 60 (Test Methods), 684 incorporated by reference in 35 Ill. Adm. Code 720.111(b), as appropriate, 685 by the unobstructed (free) cross-sectional area of the flare tip. 686

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

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

Where:

675

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698 699

700 701 $log_{10} = logarithm$ to the base 10

- H_T = the net heating value as determined in subsection (e)(2)-of this Section.
- 5) The maximum allowed velocity in m/s, V, for an air-assisted flare must be determined by the following equation:

 $V = 8.706 + 0.7084 H_{T}$

Where:

702				
702			1	H_T = the net heating value as determined in subsection (e)(2) of this Section.
703				
704	f)	The c	wner of	r operator must monitor and inspect each control device required to
705		comp	ly with	this Section to ensure proper operation and maintenance of the
706		contr	ol devic	e by implementing the following requirements:
707				5 1 5 5 1
708		1)	Instal	L calibrate, maintain, and operate according to the manufacturer's
709		-/	speci	fications a flow indicator that provides a record of vent stream flow
710			from	each affected process vent to the control device at least once every
711			hour	The flow indicator sensor must be installed in the vent stream at the
712			neare	st feasible point to the control device inlet but before being combined
713			with	other vent streams
714			witch	onici vent sucuns.
715		2)	Instal	I calibrate maintain and operate according to the manufacturer's
716		2)	speci	fications a device to continuously monitor control device operation
717			as sne	ecified below:
718			as sp	cented below.
719			A)	For a thermal vapor incinerator, a temperature monitoring device
720			<i>(</i> 1)	equipped with a continuous recorder. The device must have
721				accuracy of ± 1 percent of the temperature being monitored in ° C
722				$r \pm 0.5^{\circ}$ C whichever is greater. The temperature sensor must be
723				installed at a location in the combustion chamber downstream of
724				the combustion zone
725				the combustion zone.
726			B)	For a catalytic vapor incinerator, a temperature monitoring device
727			D)	equipped with a continuous recorder. The device must be canable
728				of monitoring temperature at two locations and have an accuracy
720				of ± 1 percent of the temperature being monitored in °C or $\pm 0.5^{\circ}$
730				C whichever is greater. One temperature sensor must be installed
731				in the vent stream at the nearest feasible point to the catalyst bed
732				in the vent stream at the nearest reasone point to the entaryst bed
733				stream at the nearest feasible point to the catalyst bed outlet
734				stream at the hearest reasone point to the eatalyst bed outlet.
735			C)	For a flare, a heat sensing monitoring device equipped with a
736			0)	continuous recorder that indicates the continuous ignition of the
737				nilot flame
739				phot name.
730			D)	For a boiler or process bester baying a design best input consulty
740			D)	less than 44 MW a temperature monitoring device equipped with a
740				continuous recorder. The device must have an accuracy of ± 1
741				percent of the temperature being monitored in $^{\circ}$ C or $\pm 0.5^{\circ}$ C
/42				percent of the temperature being monitored in C of ± 0.5 C,

743				whic	hever is greater. The temperature sensor must be installed at a
744				locat	tion in the furnace downstream of the combustion zone.
745					
746			E)	For a	a boiler or process heater having a design heat input capacity
747				great	ter than or equal to 44 MW, a monitoring device equipped
748				with	a continuous recorder to measure parameters that indicate
749				good	combustion operating practices are being used.
750			-	1.2	
751			F)	For a	a condenser, either of the following:
752					
753				i)	A monitoring device equipped with a continuous recorder
754					to measure the concentration level of the organic
755					compounds in the exhaust vent stream from the condenser;
756					or
757					
758				ii)	A temperature monitoring device equipped with a
759					continuous recorder. The device must be capable of
760					monitoring temperature with an accuracy of ±1 percent of
761					the temperature being monitored in degrees Celsius (° C) or
762					$\pm 0.5^{\circ}$ C, whichever is greater. The temperature sensor must
763					be installed at a location in the exhaust vent stream from
764					the condenser exit (i.e., product side).
765					
766			G)	For	a carbon adsorption system, such as a fixed-bed carbon
767			()	adso	rber that regenerates the carbon bed directly in the control
768				devi	ce, either of the following:
769					
770				i)	A monitoring device equipped with a continuous recorder
771					to measure the concentration level of the organic
772					compounds in the exhaust vent stream from the carbon bed:
773					or
774					
775				ii)	A monitoring device equipped with a continuous recorder
776)	to measure a parameter that indicates the carbon bed is
777					regenerated on a regular, predetermined time cycle.
778					regenerated on a regarat, preactorninica ante ejete.
779		3)	Inspe	ect the	readings from each monitoring device required by subsections
780		2)	(f)(1)	and (f	O(2) of this Section at least once each operating day to check
781			contr	ol devi	ice operation and if necessary immediately implement the
782			corre	ctiven	neasures necessary to ensure the control device operates in
783			com	liance	with the requirements of this Section
784			com	manee	whit the requirements of this section.
785	a)	Ano	wher or	onerot	or using a carbon adsorption system such as a fixed-bed
105	B)	All 0	wher or	operat	tor using a carbon ausorption system such as a fixed-bed

786		carbon adsorber that regenerates the carbon bed directly onsite in the control
787		device must replace the existing carbon in the control device with fresh carbon at
788		a regular, predetermined time interval that is no longer than the carbon service life
789		established as a requirement of Section 725.935(b)(4)(C)(vi).
790		
791	h)	An owner or operator using a carbon adsorption system, such as a carbon canister.
792		that does not regenerate the carbon bed directly onsite in the control device must
793		replace the existing carbon in the control device with fresh carbon on a regular
794		basis by using one of the following procedures:
795		busis by using one of the following procedures.
796		1) Monitor the concentration level of the organic compounds in the exhaust
797		yent stream from the carbon adsorption system on a regular schedule, and
798		replace the existing carbon with fresh carbon immediately when carbon
700		breakthrough is indicated. The monitoring frequency must be daily or at
800		an interval no greater than 20 percent of the time required to consume the
800		total carbon working capacity established as a requirement of Section
802		725.935(h)(A)(C)(vii), whichever is longer
802		725.555(b)(4)(C)(VII), whenever is longer.
803		2) Penlace the existing carbon with fresh carbon at a regular predetermined
805		2) Replace the existing carbon with fiesh carbon at a regular, predetermined
005		astablished as a requirement of Section 725 025(b)(4)(C)(viii)
800		established as a requirement of Section $723.935(0)(4)(C)(VII)$.
007	-	An owner or energter of an offected facility cooking to comply with the provisions
800	1)	All owner of operator of an affected facility seeking to comply with the provisions
009		of this Part by using a control device other than a thermal vapor incinerator,
010		adacentice system is required to develop decumentation including sufficient
011		adsorption system is required to develop documentation including sufficient
012		mormation to describe the control device operation and identify the process
013		parameter of parameters that indicate proper operation and maintenance of the
814		control device.
815	~	
810])	A closed-vent system must meet either of the following design requirements:
81/		
818		1) A closed-vent system must be designed to operate with no detectable
819		emissions, as indicated by an instrument reading of less than 500 ppmv
820		above background, as determined by the methods specified at Section
821		725.934(b), and by visual inspections; or
822		
823		2) A closed-vent system must be designed to operate at a pressure below
824		atmospheric pressure. The system must be equipped with at least one
825		pressure gauge or other pressure measurement device that can be read
826		from a readily accessible location to verify that negative pressure is being
827		maintained in the closed-vent system when the control device is operating.
828		

829 The owner or operator must monitor and inspect each closed-vent system required k) 830 to comply with this Section to ensure proper operation and maintenance of the 831 closed-vent system by implementing the following requirements: 832 833 1) Each closed-vent system that is used to comply with subsection (i)(1)-of 834 this Section must be inspected and monitored in accordance with the 835 following requirements: 836 837 A) An initial leak detection monitoring of the closed-vent system must 838 be conducted by the owner or operator on or before the date that 839 the system becomes subject to this Section. The owner or operator 840 must monitor the closed-vent system components and connections 841 using the procedures specified in Section 725.934(b) to 842 demonstrate that the closed-vent system operates with no 843 detectable emissions, as indicated by an instrument reading of less 844 than 500 ppmv above background. 845 846 B) After initial leak detection monitoring required in subsection 847 (k)(1)(A) of this Section, the owner or operator must inspect and 848 monitor the closed-vent system as follows: 849 850 i) Closed-vent system joints, seams, or other connections that 851 are permanently or semi-permanently sealed (e.g., a welded 852 joint between two sections of hard piping or a bolted and 853 gasketed ducting flange) must be visually inspected at least 854 once per year to check for defects that could result in air 855 pollutant emissions. The owner or operator must monitor a 856 component or connection using the procedures specified in 857 Section 725.934(b) to demonstrate that it operates with no 858 detectable emissions following any time the component is 859 repaired or replaced (e.g., a section of damaged hard piping 860 is replaced with new hard piping) or the connection is 861 unsealed (e.g., a flange is unbolted). 862 863 ii) Closed-vent system components or connections other than 864 those specified in subsection (k)(1)(B)(i) of this Section must be monitored annually and at other times as requested 865 866 by the Agency, except as provided for in subsection (n)-of 867 this Section, using the procedures specified in Section 725.934(b) to demonstrate that the components or 868 869 connections operate with no detectable emissions. 870 871 C) In the event that a defect or leak is detected, the owner or operator

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872			must repair the defect or leak in accordance with the requirements
873			of subsection (k)(3) of this Section.
874		1.1	
875		D)	The owner or operator must maintain a record of the inspection
876			and monitoring in accordance with the requirements specified in
877			Section 725.935.
878			
879	2)	Each	closed-vent system that is used to comply with subsection $(j)(2) \rightarrow j$
880		this a	Section must be inspected and monitored in accordance with the
881		follo	wing requirements:
882			
883		A)	The closed-vent system must be visually inspected by the owner or
884			operator to check for defects that could result in air pollutant
885			emissions. Defects include, but are not limited to, visible cracks,
880			noies, or gaps in ductwork or piping or loose connections.
88/		D)	The entropy on encounter must negligary on initial inspection of the
000		Б)	aloged want system on or before the date that the system becomes
800			closed-vent system on or before the date that the system becomes
890			subject to this section. Thereafter, the owner of operator must
802			perform the hispections at least once every year.
892		C	In the event that a defect or leak is detected the owner or operator
894		0)	must repair the defect in accordance with the requirements of
895			subsection $(k)(3)$ of this Section
896			subsection (R)(5) of this section.
897		D)	The owner or operator must maintain a record of the inspection
898		2)	and monitoring in accordance with the requirements specified in
899			Section 725.935.
900			
901	3)	The	owner or operator must repair all detected defects as follows:
902			
903		A)	Detectable emissions, as indicated by visual inspection or by an
904			instrument reading greater than 500 ppmv above background, must
905			be controlled as soon as practicable, but not later than 15 calendar
906			days after the emission is detected, except as provided for in
907			subsection (k)(3)(C) of this Section.
908			
909		B)	A first attempt at repair must be made no later than five calendar
910			days after the emission is detected.
911			
912		C)	Delay of repair of a closed-vent system for which leaks have been
913			detected is allowed if the repair is technically infeasible without a
914			process unit shutdown, or if the owner or operator determines that

915 916 917 918				emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment must be completed by the end of the next process unit shutdown.
920 921			D)	The owner or operator must maintain a record of the defect repair in accordance with the requirements specified in Section 725.935.
922 923 924	1)	A clo Subp	sed-ver art AA	It system or control device used to comply with provisions of this must be operated at all times when emissions may be vented to it.
925 926 927 928 929 929	m)	The c emiss that i mann	owner o sions mu s remov aers, reg	r operator using a carbon adsorption system to control air pollutant ust document that all carbon removed that is a hazardous waste and yed from the control device is managed in one of the following gardless of the volatile organic concentration of the carbon:
930 931 932		1)	It is r of the	egenerated or reactivated in a thermal treatment unit that meets one e following:
933 934 935 936			A)	The owner or operator of the unit has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart X of 35 Ill. Adm. Code 724; or
937 938 939 940 941			B)	The unit is equipped with and operating air emission controls in accordance with the applicable requirements of Subparts AA and CC of this Part or 35 Ill. Adm. Code 724; or
942 943 944 945 946 947			C)	The unit is equipped with and operating air emission controls in accordance with a federal national emission standard for hazardous air pollutants under 40 CFR 61 (National Emission Standards for Hazardous Air Pollutants) or 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).
948 949 950		2)	It is i opera	ncinerated in a hazardous waste incinerator for which the owner or ator has done either of the following:
952 953 954			A)	The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart O of 35 Ill. Adm. Code 724; or
955 956 957			B)	The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of Subpart O of

959 3) It is burned in a boiler or industrial furnace for which the owner or operator has done either of the following: 962 A) The owner or operator has been issued a final permit under 35 III. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 III. Adm. Code 726; or 966 B) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Subpart H of 35 III. Adm. Code 726, 97 970 B) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Subpart H of 35 III. Adm. Code 726, 970 971 n) Any components of a closed-vent system that are designated, as described in Section 725.935(c)(9), as unsafe to monitor are exempt from the requirements of subsection (k)(1)(B)(ii)-of-this-Section if both of the following conditions are fulfilled: 975 1) The owner or operator of the closed-vent system has determined that the components of the closed-vent system has determined that the components of the closed-vent system contoritor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (k)(1)(B)(ii)-of-this-Section; and series and that requires monitoring the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in subsection (k)(1)(B)(ii)-of-this-Section as frequently as practicable during safe-to-monitor times. 986 (Source: Amended at 40 III. Reg, effective)	958				this Part.				
960 3) It is burned in a boiler or industrial furnace for which the owner or operator has done either of the following: 962 A) The owner or operator has been issued a final permit under 35 III. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 III. Adm. Code 726; or 966 B) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Subpart H of 35 III. Adm. Code 726. 970 B) Any components of a closed-vent system that are designated, as described in Section 725.935(c)(9), as unsafe to monitor are exempt from the requirements of subsection (k/1)(B)(ii)-of-this-Section if both of the following conditions are fulfilled: 975 1) The owner or operator of the closed-vent system has determined that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (k)(1)(B)(ii)-of-this-Section; and 981 2) The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in subsection (k)(1)(B)(ii)-of-this-Section; and 982 2) The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in subsection (k)(1)(B)(ii)-of-this-Section; and 983 that requires dang afe-to-monitor times. 986 <td< td=""><td>959</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	959								
961 operator has done either of the following: 962 A) The owner or operator has been issued a final permit under 35 III. 964 Adm. Code 702, 703, and 705 that implements the requirements of 965 Subpart H of 35 III. Adm. Code 726; or 966 B) The owner or operator has designed and operates the boiler or 966 industrial furnace in accordance with the interim status 969 requirements of Subpart H of 35 III. Adm. Code 726. 970 n) Any components of a closed-vent system that are designated, as described in 972 Section 725.935(c)(9), as unsafe to monitor are exempt from the requirements of 973 subsection (k)(1)(B)(ii) of this Section if both of the following conditions are 974 fulfilled: 975 1) The owner or operator of the closed-vent system has determined that the 978 components of the closed-vent system animediate danger as a 979 consequence of complying with subsection (k)(1)(B)(ii)-of-this-Section; and 981 and 982 2) The owner or operator of the closed-vent system components using the 984 procedure specified in subsection (k)(1)(B)(ii)-of-this-Section; and 985 fulfilled: <td>960</td> <td></td> <td>3)</td> <td>It is b</td> <td>ourned in a boiler</td> <td>or industrial furna</td> <td>ace for wh</td> <td>ich the owner or</td> <td></td>	960		3)	It is b	ourned in a boiler	or industrial furna	ace for wh	ich the owner or	
962 A) The owner or operator has been issued a final permit under 35 III. 964 Adm. Code 702, 703, and 705 that implements the requirements of 965 Subpart H of 35 III. Adm. Code 726; or 966 B) The owner or operator has designed and operates the boiler or 967 B) The owner or operator has designed and operates the boiler or 968 industrial furnace in accordance with the interim status 969 requirements of Subpart H of 35 III. Adm. Code 726. 971 n) Any components of a closed-vent system that are designated, as described in 972 Section (X)(1)(B)(ii)-of this Section if both of the following conditions are 974 fulfilled: 975 1) The owner or operator of the closed-vent system has determined that the 974 components of the closed-vent system are unsafe to monitor because 975 1) The owner or operator of the closed-vent system adheres to a written plan 978 consequence of complying with subsection (k)(1)(B)(ii)-of this Section; and 981 2) The owner or operator of the closed-vent system adheres to a written plan 982 2) The owner or operator of the closed-vent system adheres to a written plan 983 that requires monitoring the closed-vent system components using the <	961			opera	tor has done eithe	er of the following	g:		
963 A) The owner or operator has been issued a final permit under 35 Ill. 964 Adm. Code 702, 703, and 705 that implements the requirements of 965 Subpart H of 35 Ill. Adm. Code 726; or 966 B) The owner or operator has designed and operates the boiler or 968 industrial furnace in accordance with the interim status 969 requirements of a closed-vent system that are designated, as described in 970 N) Any components of a closed-vent system that are designated, as described in 972 Section 725.935(c)(9), as unsafe to monitor are exempt from the requirements of 973 subsection (k)(1)(B)(ii)-of this Section if both of the following conditions are 974 fulfilled: 975 1) The owner or operator of the closed-vent system has determined that the 976 1) The owner or operator of the closed-vent system are unsafe to monitor because 978 monitoring personnel would be exposed to an immediate danger as a 979 consequence of complying with subsection (k)(1)(B)(ii)-of-this-Section; 981 2) The owner or operator of the closed-vent system adheres to a written plan 982 2) The owner or operator of the closed-vent system components using the 983 procedure specified in su	962								
964 Adm. Code 702, 703, and 705 that implements the requirements of 965 Subpart H of 35 Ill. Adm. Code 726; or 966 967 B) The owner or operator has designed and operates the boiler or 968 industrial furnace in accordance with the interim status 969 requirements of Subpart H of 35 Ill. Adm. Code 726. 970 n) Any components of a closed-vent system that are designated, as described in 971 n) Any components of a closed-vent system that are designated, as described in 972 subsection (k)(1)(B)(ii)-of this Section if both of the following conditions are 974 fulfilled: 975 976 976 1) The owner or operator of the closed-vent system has determined that the 977 components of the closed-vent system are unsafe to monitor because 978 monitoring personnel would be exposed to an immediate danger as a 979 consequence of complying with subsection (k)(1)(B)(ii)-of this Section; and 981 982 2) 982 2) The owner or operator of the closed-vent system adheres to a written plan 984 procedure specified in subsection (k)(1)(B)(ii)-of this Section as frequently 985 as practi	963			A)	The owner or o	perator has been	issued a fi	nal permit under 35	Ill.
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1000 Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b).	999			Volat	tile Organic Com	pound Leaks) in a	appendix A	A to 40 CFR 60 (Tes	st
	1000			Meth	ods), incorporate	d by reference in	35 Ill. Adı	m. Code 720.111(b)	

1001					
1002		2)	The o	detection instrument must meet the performance criteria of Reference	
1003			Method 21.		
1004					
1005		3)	The instrument must be calibrated before use on each day of its use by the		
1006			proce	edures specified in Reference Method 21.	
1007			procedures specified in reference wellow 21.		
1008		4)	Calib	bration gases must be:	
1009					
1010			A)	Zero air (less than 10 ppm of hydrocarbon in air).	
1011					
1012			B)	A mixture of methane or n-hexane and air at a concentration of	
1013				approximately, but less than, 10,000 ppm methane or n-hexane.	
1014					
1015		5)	The	background level must be determined as set forth in Reference	
1016			Method 21.		
1017					
1018		6)	The	instrument probe must be traversed around all potential leak interfaces	
1019			as close to the interface as possible, as described in Reference Method 21.		
1020					
1021		7)	The	arithmetic difference between the maximum concentration indicated	
1022			by th	ie instrument and the background level is compared with 500 ppm for	
1023			deter	mining compliance.	
1024				0 1	
1025	c)	Perfe	ormance	e tests to determine compliance with Section 725.932(a) and with the	
1026		total	organic	compound concentration limit of Section 725.933(c) must comply	
1027		with	the foll	owing:	
1028					
1029		1)	Perfe	ormance tests to determine total organic compound concentrations and	
1030			mass	flow rates entering and exiting control devices must be conducted	
1031			and o	data reduced in accordance with the following reference methods and	
1032			calcu	ulation procedures:	
1033					
1034			A)	Reference Method 2 (Determination of Stack Gas Velocity and	
1035				Volumetric Flow Rate (Type S Pitot Tube)) in appendix A to 40	
1036				CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm.	
1037				Code 720.111(b), for velocity and volumetric flow rate.	
1038					
1039			B)	Reference Method 18 (Measurement of Gaseous Organic	
1040			-1	Compound Emissions by Gas Chromatography) or 25A	
1041				(Determination of Total Gaseous Organic Concentration Using a	
1042				Flame Ionization Analyzer) in appendix A to 40 CFR 60 (Test	
1043				Methods), incorporated by reference in 35 Ill. Adm. Code	
				······································	

1044 1045 1046		720.111(b), for orga the organic hazardou gas must be the sing	nic content. If <u>Reference</u> Method 25A is used, us air pollutant (HAP) used as the calibration le HAP that represents the largest percent by
1047		volume of the emiss	ions. The use of Reference Method 25A is
1048		acceptable if the res	ponse from the high-level calibration gas is at
1049		least 20 times the sta	andard deviation of the response from the zero
1050		calibration gas when	the instrument is zeroed on the most sensitive
1051		scale.	
1052			
1053	C)	Each performance to	est must consist of three separate runs, each run
1054	0)	conducted for at lea	st 1 hour under the conditions that exist when
1055		the hazardous waste	management unit is operating at the highest
1056		load or canacity leve	el reasonably expected to occur. For the
1057		purpose of determin	ing total organic compound concentrations and
1058		mass flow rates the	average of results of all runs applies. The
1059		average must be cor	nnuted on a time-weighted basis
1060		average must be con	nputed on a time worgined busis.
1061	D)	Total organic mass	flow rates must be determined by the following
1062	D)	equation.	now rates must be determined by the following
1063		equation.	
1064		i) For a source	utilizing Reference Method 18.
1065		i) i or a source	utilizing <u>reference</u> wieniou 18.
1005			(n)
1066		E_h	$= Q_{2sd} \times \left(\sum_{i=1}^{n} C_i \times MW_i\right) \times 0.0416 \times 10^{-6}$
1067			
1068		Where:	
1069			
		Eh	= The total organic mass flow rate, kg/h;
		Q _{2sd}	 The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by <u>Reference</u> Method 2
		n	= The number of organic compounds in the
			vent gas
		Ci	= The organic concentration in ppm, dry
			basis, of compound i in the vent gas, as
			determined by Reference Method 18
		MWi	= The molecular weight of organic
		817 C.	compound i in the vent gas, kg/kg-mol
		0.0416	= The conversion factor for molar volume.
			kg-mol/m ³ , at 293 K and 760 mmHg
		10-6	= The conversion factor from ppm.
1050			4.1

1070

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1071		ii) For a source utilizing <u>Reference</u> Method 25A:
1072		$E_h = Q \times C \times MW \times 0.0416 \times 10^{-6}$
1074		
1075		Where:
1076		$F_{\rm E}$ = The total organic mass flow rate kg/h
		Q = The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Reference Method 2
		C = The organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Paference Method 25A
		MW = The molecular weight of propane, 44 kg/kg- mol
		0.0416 = The conversion factor for molar volume, kg- mol/m ³ , at 293 K and 760 mmHg
		10^{-6} = The conversion factor from ppm.
1077		
1078	E)	The annual total organic emission rate must be determined by the
1079		following equation:
1080		
1081		$A = F \times H$
1082		Where
1083		where.
1004		A = total organic emission rate, kg/y
		F = the total organic mass flow rate, kg/h, as calculated in
		subsection (c)(1)(D) of this Section
		H = the total annual hours of operation for the affected
1005		unit.
1085	E)	Tetel complexity of the form all affected and an end of the
1086	F)	focility must be determined by summing the hourly total organic
1088		mass emissions rates (F as determined in subsection (c)(1)(D) \rightarrow f
1089		this Section) and by summing the annual total organic mass
1090		emission rates (A, as determined in subsection (c)(1)(E) $-$ of this
1091		Section) for all affected process vents at the facility.
1092		
1093	2) Th	e owner or operator must record such process information as is
1094	ne	cessary to determine the conditions of the performance tests. Operations
1095	du	ring periods of startup, shutdown and malfunction do not constitute
1096	re	presentative conditions for the purpose of a performance test.

1097				
1098		3)	The c	owner or operator of an affected facility must provide, or cause to be
1099			provi	ided, performance testing facilities as follows:
1100				
1101			A)	Sampling ports adequate for the test methods specified in
1102				subsection (c)(1) of this Section.
1103				
1104			B)	Safe sampling platforms.
1105				
1106			C)	Safe access to sampling platforms.
1107			· · ·	
1108			D)	Utilities for sampling and testing equipment.
1109				
1110		4)	For t	he purpose of making compliance determinations, the time-weighted
1111			avera	age of the results of the three runs must apply. In the event that a
1112			samp	ble is accidentally lost or conditions occur in which one of the three
1113			runs	must be discontinued because of forced shutdown, failure of an
1114			irrep	laceable portion of the sample train, extreme meteorological
1115			cond	itions, or other circumstances beyond the owner or operator's control,
1116			comp	pliance may, upon the Agency's approval, be determined using the
1117			avera	age of the results of the two other runs.
1118				
1119	d)	To sł	now that	t a process vent associated with a hazardous waste distillation,
1120		fracti	ionation	h, thin-film evaporation, solvent extraction, or air or steam stripping
1121		opera	ation is	not subject to the requirements of this Subpart AA, the owner or
1122		opera	ator mus	st make an initial determination that the time-weighted, annual
1123		avera	ige total	l organic concentration of the waste managed by the waste
1124		mana	igement	t unit is less than 10 ppmw using one of the following two methods:
1125				
1126		1)	Direc	ct measurement of the organic concentration of the waste using the
1127			follo	wing procedures:
1128				
1129			A)	The owner or operator must take a minimum of four grab samples
1130				of waste for each wastestream managed in the affected unit under
1131				process conditions expected to cause the maximum waste organic
1132				concentration.
1133				
1134			B)	For waste generated onsite, the grab samples must be collected at a
1135				point before the waste is exposed to the atmosphere, such as in an
1136				enclosed pipe or other closed system that is used to transfer the
1137				waste after generation to the first affected distillation,
1138				fractionation, thin-film evaporation, solvent extraction, or air or
1139				steam stripping operation. For waste generated offsite, the grab

1140			samples must be collected at the inlet to the first waste	
1141			management unit that receives the waste provided the waste has	
1142			been transferred to the facility in a closed system such as a tank	
1143			truck and the waste is not diluted or mixed with other waste.	
1144				
1145		C)	Each sample must be analyzed and the total organic concentration	
1146		- /	of the sample must be computed using Method 9060A (Total	
1147			Organic Carbon) of "Test Methods for Evaluating Solid Waste.	
1148			Physical/Chemical Methods." USEPA publication number EPA-	
1149			530/SW-846, incorporated by reference under 35 Ill, Adm, Code	
1150			720.111(a), or analyzed for its individual constituents.	
1151				
1152		D)	The arithmetic mean of the results of the analyses of the four	
1153		-,	samples apply for each wastestream managed in the unit in	
1154			determining the time-weighted, annual average total organic	
1155			concentration of the waste. The time-weighted average is to be	
1156			calculated using the annual quantity of each waste stream	
1157			processed and the mean organic concentration of each wastestream	
1158			managed in the unit.	
1159				
1160		2) Usin	g knowledge of the waste to determine that its total organic	
1161		conc	entration is less than 10 ppmw. Documentation of the waste	
1162		deter	mination is required. Examples of documentation that must be used	
1163		to su	pport a determination under this subsection $(d)(2)$ include the	
1164		follo	wing:	
1165				
1166		A)	Production process information documenting that no organic	
1167		•••	compounds are used:	
1168			somponias are assa;	
1169		B)	Information that the waste is generated by a process that is	
1170		2)	identical to a process at the same or another facility that has	
1171			previously been demonstrated by direct measurement to generate a	
1172			wastestream having a total organic content less than 10 ppmw; or	
1173			nastosu tam naving a tean ergante content too man to ppinn, er	
1174		C)	Prior speciation analysis results on the same wastestream where it	
1175		0)	is documented that no process changes have occurred since that	
1176			analysis that could affect the waste total organic concentration	
1177				
1178	e)	The determi	nation that distillation, fractionation, thin-film evaporation, solvent	
1179	-)	extraction or air or steam stripping operations that manage hazardous wastes with		
1180		time-weight	ed, annual average total organic concentrations less than 10 pnmw	
1181		must be mad	le as follows:	
1182		and ov mut		

1183 1184		1)	By the effective date that the facility becomes subject to the provisions of this Subpart AA or by the date when the waste is first managed in a waste		
1185			management unit, whichever is later; and		
1186					
1187		2)	For continuously generated waste, annually; or		
1188					
1189		3)	Whenever there is a change in the waste being managed or a change in the		
1190			process that generates or treats the waste.		
1191					
1192	f)	When an owner or operator and the Agency do not agree on whether a distillation,			
1193		fracti	ionation, thin-film evaporation, solvent extraction, or air or steam stripping		
1194		opera	ation manages a hazardous waste with organic concentrations of at least 10		
1195		ppm	w based on knowledge of the waste, the dispute may be resolved using direct		
1196		meas	surement, as specified in subsection (d)(1) of this Section.		
1197					
1198	(Sou	rce: Ar	nended at 40 Ill. Reg., effective)		
1199					
1200	Section 725	.935 R	ecordkeeping Requirements		
1201			1 0 1		
1202	a)	Com	pliance Required.		
1203		0.000	I man I man I		
1204		1)	Each owner or operator subject to the provisions of this Subpart AA must		
1205		-)	comply with the record keeping requirements of this Section.		
1206			comply that are recorded parts reflected on the section		
1207		2)	An owner or operator of more than one hazardous waste management unit		
1208		2)	subject to the provisions of this Subpart AA may comply with the		
1200			record keeping requirements for these hazardous waste management units		
1210			in one record keeping system if the system identifies each record by each		
1211			hazardous waste management unit		
1212			nazardous waste management ann.		
1212	b)	Own	ers and operators must record the following information in the facility		
1213	0)	oper	ating record:		
1215		open	uting record.		
1215		1)	For facilities that comply with the provisions of Section $725, 933(a)(2)$ an		
1210		1)	implementation schedule that includes dates by which the closed vent		
1217			system and control device will be installed and in operation. The schedule		
1210			must also include a rationale of why the installation cannot be completed		
1219			at an earlier date. The implementation schedule must be in the facility		
1220			operating record by the effective date that the facility becomes subject to		
1221			the provisions of this Subpart		
1222			the provisions of this subpart.		
1223		2)	Up to date desumantation of compliance with the process went standards		
1224		2)	in Section 725.932, including the following:		
1226					
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1227		A)	Information and data identifying all affected process vents, annual		
1228			throughput and operating hours of each affected unit, estimated		
1229			emission rates for each affected vent and for the overall facility		
1230			(i.e., the total emissions for all affected vents at the facility), and		
1231			the approximate location within the facility of each affected unit		
1232			(e.g., identify the hazardous waste management units on a facility		
1233			plot plan).		
1234			1 1 3		
1235		B)	Information and data supporting determination of vent emissions		
1236		~	and emission reductions achieved by add-on control devices based		
1237			on engineering calculations or source tests. For the purpose of		
1238			determining compliance, determinations of vent emissions and		
1239			emission reductions must be made using operating parameter		
1240			values (e.g., temperatures, flow rates, or vent stream organic		
1241			compounds and concentrations) that represent the conditions that		
1242			result in maximum organic emissions, such as when the waste		
1243			management unit is operating at the highest load or capacity level		
1244			reasonably expected to occur. If the owner or operator takes any		
1245			action (e.g., managing a waste of different composition or		
1246			increasing operating hours of affected waste management units)		
1247			that would result in an increase in total organic emissions from		
1248			affected process vents at the facility, then a new determination is		
1249			required.		
1250					
1251	3)	When	e an owner or operator chooses to use test date to determine the		
1252		organ	ic removal efficiency or total organic compound concentration		
1253		achie	ved by the control device, a performance test plan. The test plan must		
1254		includ	de the following:		
1255					
1256		A)	A description of how it is determined that the planned test is going		
1257			to be conducted when the hazardous waste management unit is		
1258			operating at the highest load or capacity level reasonably expected		
1259			to occur. This must include the estimated or design flow rate and		
1260			organic content of each vent stream and define the acceptable		
1261			operating ranges of key process and control device parameters		
1262			during the test program.		
1263					
1264		B)	A detailed engineering description of the closed-vent system and		
1265			control device including the following:		
1266					
1267			i) Manufacturer's name and model number of control device;		
1268					

1270 iii) Dimensions of the control device; 1272 iv) Capacity; and 1275 v) Construction materials. 1276 C) A detailed description of sampling and monitoring procedures, including sampling and monitoring frequency, and planned analytical procedures for sample analysis. 1280 Documentation of compliance with Section 725.933 must include the following information: 1284 A) A list of all information references and sources used in preparing the documentation; 1285 A) A list of all information references and sources used in preparing the documentation; 1286 B) Records, including the dates of each compliance test required by Section 725.933(j); 1290 C) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTT Course 415: Control of Gaseous Emissions," USEP A publication number EPA-450/2-81-005, incorporated by reference in 35 III. Adm. Code 720.111(a) or other engineering texts, approved by the Agency, that present basic control device design in accordance with subsections (b)(4)(C)(i) through (b)(4)(C)(vii) may be used to comply with this requirement. The design analysis must consider the vent stream characteristics and control device operation parameters as specified below. 1306 i) For a thermal vapor incinerator, the design analysis must consider the vent stream composition, constituent co	1269			ii) Type of control device;
1271 mi) Dimensions of the control device; 1272 iv) Capacity; and 1275 v) Construction materials. 1276 C) A detailed description of sampling and monitoring procedures, including sampling and monitoring frequency, and planned analytical procedures for sample analysis. 1280 Documentation of compliance with Section 725.933 must include the following information: 1281 A List of all information references and sources used in preparing the documentation; 1284 A) A list of all information references and sources used in preparing the documentation; 1285 A) A list of all informations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emisions," USEPA publication number EPA-450/2-81-005, incorporated by reference in 51 II. Adn. Code 720.111(a) or other engineering texts, approved by the Agency, that present basic control device design in accordance with subsections (b)(4)(C)(vin) 1300 maccordance with subsections (b)(4)(C)(C)(i) 1301 may be used to comply with this requirement. The design analysis must consider the vent stream characteristics and control device operation parameters as specified below. 1304 i) For a thermal vapor incinerator, the design analysis must also establish the design minimum and average temperature in the combustion zone resi	1270			
1272 iv) Capacity; and 1274 v) Construction materials. 1275 v) Construction materials. 1276 C) A detailed description of sampling and monitoring procedures, including sampling and monitoring frequency, and planned analytical procedures for sample analysis. 1280 panned analytical procedures for sample analysis. 1281 4) Documentation of compliance with Section 725.933 must include the following information: 1283 following information: 1284 A) A list of all information references and sources used in preparing the documentation; 1285 A) A list of all informations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," USEPA 1290 C) If engineering calculations are used, a design analysis, specification number EPA-450/2-81-005, incorporated by reference in 35 Ill. Adm. Code 720.111(a) or other engineering texts, approved by the Agency, that present basic control device design information. Documentation provided by the control device design information. Documentation provided by the control device design information. Documentation provided by the control device operation parameters as specified below. 1296 information. Documentation provided by the control device design information. Documentation provided by the control device operatin para	1271			111) Dimensions of the control device;
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1275 v) Construction materials. 1276 C) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis. 1280 planned analytical procedures for sample analysis. 1281 Occumentation of compliance with Section 725.933 must include the following information: 1282 4) Documentation of compliance with Section 725.933 must include the following information: 1284 A) A list of all information references and sources used in preparing the documentation; 1285 A) A list of all information references and sources used in preparing the documentation; 1286 B) Records, including the dates of each compliance test required by Section 725.933(j); 1290 C) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," USEPA publication number EPA-450/2-81-005, incorporated by reference in 35 III. Adm. Code 720.111(a) or other engineering texts, approved by the Agency, that present basic control device design information. Documentation provided by the control device design information. Decumentation provided by the control device operation parameters as specified below. 1294 vescore operation parameters as specified below. 1301 may baset the vent stream composition, constituent conscent	1273			(V) Capacity; and
1275(v)Construction materials.1276(c)A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.128010Documentation of compliance with Section 725.933 must include the following information:12814)Documentation of compliance with Section 725.933 must include the following information:1284A)A list of all information references and sources used in preparing the documentation;1285B)Records, including the dates of each compliance test required by Section 725.933(j);1290C)If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," USEPA publication number EPA-450/2-81-005, incorporated by reference in 35 III. Adm. Code 720.111(a) or other engineering texts, a pproved by the Agency, that present basic control device design in formation. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with subsections (b)(4)(C)(i) through (b)(4)(C)(vii) may be used to comply with this requirement. The design analysis must address the vent stream characteristics and control device operation parameters as specified below.1306i)For a thermal vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average temperature in the combustion	1274			· · · · · · · · · · · · · · · · · · ·
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1277C)A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.1280128012814)Documentation of compliance with Section 725.933 must include the following information:1284A)A list of all information references and sources used in preparing the documentation;1285A)A list of all information references and sources used in preparing the documentation;1286B)Records, including the dates of each compliance test required by Section 725.933(j);1290C)If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," USEPA publication number EPA-450/2-81-005, incorporated by reference in 35 III. Adm. Code 720.11(a) or other engineering texts, approved by the Agency, that present basic control device design information. Documentation provided by the control device design in accordance with subsections (b)(4)(C)(i) (hrough (b)(4)(C)(vii) may be used to comply with this requirement. The design analysis must address the vent stream composition, constituent consider the v	1270		0	A detailed description of someline and monitoring and served
1276Including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.1280planned analytical procedures for sample analysis.1281112824)Documentation of compliance with Section 725.933 must include the following information:1284A)A list of all information references and sources used in preparing the documentation;1285A)A list of all information references and sources used in preparing the documentation;1287B)Records, including the dates of each compliance test required by Section 725.933(j);1290C)If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," USEPA publication number EPA-450/2-81-005, incorporated by reference in 35 Ill. Adm. Code 720.111(a) or other engineering texts, approved by the Agency, that present basic control device design information. Documentation provided by the control device design in accordance with subsections (b)(4)(C)(i) through (b)(4)(C)(vii) may be used to comply with this requirement. The design analysis must address the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average temperature in the combustion zone residence time.1300in the combustion zone and the combustion zone residence time.	1277		C)	A detailed description of sampling and monitoring procedures,
1279 requipment to be used, samping and monitoring requency, and planned analytical procedures for sample analysis. 1280 planned analytical procedures for sample analysis. 1281 1282 4) 1282 4) Documentation of compliance with Section 725.933 must include the following information: 1284 1285 A) A list of all information references and sources used in preparing the documentation; 1286 B) Records, including the dates of each compliance test required by Section 725.933(j); 1290 C) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," USEPA publication number EPA-450/2-81-005, incorporated by reference in 35 III. Adm. Code 720.111(a) or other engineering texts, approved by the Agency, that present basic control device design in formation. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with subsections (b)(4)(C)(i) through (b)(4)(C)(vii) may be used to comply with this requirement. The design analysis must consider the vent stream characteristics and control device operation parameters as specified below. 1304 i) For a thermal vapor incinerator, the design analysis must also establish the design minimum and average temperature in the combustion zone residence time. 1309 also establish the design minimum and average temperature in the combustion z	1270			activity and monitoring locations in the system, the
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1281 1282 12834)Documentation of compliance with Section 725.933 must include the following information:1284 1285 1286 1287A)A list of all information references and sources used in preparing the documentation;1286 1287 1288 1290B)Records, including the dates of each compliance test required by Section 725.933(j);1290 1290C)If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gascous Emissions," USEPA publication number EPA-450/2-81-005, incorporated by reference in 35 III. Adm. Code 720.111(a) or other engineering texts, approved by the Agency, that present basic control device design information. Documentation provided by the control device design in accordance with subsections (b)(4)(C)(i) through (b)(4)(C)(vii) may be used to comply with this requirement. The design analysis must address the vent stream characteristics and control device operation parameters as specified below.1304 1305 1306i)For a thermal vapor incinerator, the design analysis must also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.	1200			plained analytical procedures for sample analysis.
12824)Documentation of compriance with section 725.935 must include the following information:1284A)A list of all information references and sources used in preparing the documentation;1286B)Records, including the dates of each compliance test required by Section 725.933(j);1289B)Records, including the dates of each compliance test required by Section 725.933(j);1290C)If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," USEPA publication number EPA-450/2-81-005, incorporated by reference in 35 Ill. Adm. Code 720.111(a) or other engineering texts, approved by the Agency, that present basic control device design information. Documentation provided by the control device design information. Documentation provided by the control device design in accordance with subsections (b)(4)(C)(vi) may be used to comply with this requirement. The design analysis must address the vent stream characteristics and control device operation parameters as specified below.1306i)For a thermal vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.	1201	4)	Daar	montation of compliance with Section 725 022 must include the
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13041305i)1306130613071308130913101311	1303			operation parameters as specified below.
1305i)For a thermal vapor incinerator, the design analysis must1306consider the vent stream composition, constituent1307concentrations, and flow rate. The design analysis must1308also establish the design minimum and average temperature1309in the combustion zone and the combustion zone residence1310time.	1304			
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1307concentrations, and flow rate. The design analysis must1308also establish the design minimum and average temperature1309in the combustion zone and the combustion zone residence1310time.13111311	1306			consider the vent stream composition, constituent
1308also establish the design minimum and average temperature1309in the combustion zone and the combustion zone residence1310time.13111311	1307			concentrations, and flow rate. The design analysis must
1309in the combustion zone and the combustion zone residence1310time.13111311	1308			also establish the design minimum and average temperature
1310 time. 1311	1309			in the combustion zone and the combustion zone residence
1311	1310			time.
	1311			

1312	ii)	For a catalytic vapor incinerator, the design analysis must
1313		consider the vent stream composition, constituent
1314		concentrations, and flow rate. The design analysis must
1315		also establish the design minimum and average
1316		temperatures across the catalyst bed inlet and outlet.
1317		
1318	iii)	For a boiler or process heater, the design analysis must
1319		consider the vent stream composition, constituent
1320		concentrations, and flow rate. The design analysis must
1321		also establish the design minimum and average flame zone
1322		temperatures, combustion zone residence time and
1323		description of method and location where the vent stream is
1324		introduced into the combustion zone.
1325		
1326	iv)	For a flare, the design analysis must consider the vent
1327		stream composition, constituent concentrations, and flow
1328		rate. The design analysis must also consider the
1329		requirements specified in Section 725.933(d).
1330		
1331	v)	For a condenser, the design analysis must consider the vent
1332		stream composition, constituent concentrations, flow rate,
1333		relative humidity, and temperature. The design analysis
1334		must also establish the design outlet organic compound
1335		concentration level, design average temperature of the
1336		condenser exhaust vent stream and design average
1337		temperatures of the coolant fluid at the condenser inlet and
1338		outlet.
1339		
1340	vi)	For a carbon adsorption system, such as a fixed-bed
1341		adsorber that regenerates the carbon bed directly onsite in
1342		the control device, the design analysis must consider the
1343		vent stream composition, constituent concentrations, flow
1344		rate, relative humidity and temperature. The design analysis
1345		must also establish the design exhaust vent stream organic
1346		compound concentration level, number and capacity of
1347		carbon beds, type and working capacity of activated carbon
1348		used for carbon beds, design total steam flow over the
1349		period of each complete carbon bed regeneration cycle.
1350		duration of the carbon bed steaming and cooling/drving
1351		cycles, design carbon bed temperature after regeneration.
1352		design carbon bed regeneration time and design service life
1353		of carbon.
1354		

1355				vii)	For a carbon adsorption system, such as a carbon canister
1356					that does not regenerate the carbon bed directly onsite in
1357					the control device, the design analysis must consider the
1358					vent stream composition, constituent concentrations, flow
1359					rate, relative humidity and temperature. The design analysis
1360					must also establish the design outlet organic concentration
1361					level, capacity of carbon bed, type and working capacity of
1362					activated carbon used for carbon bed and design carbon
1363					replacement interval based on the total carbon working
1364					capacity of the control device and source operating
1365					schedule;
1366					
1367			D)	A stat	tement signed and dated by the owner or operator certifying
1368				that th	ne operating parameters used in the design analysis
1369				reason	nably represent the conditions that exist when the hazardous
1370				waste	management unit is or would be operating at the highest load
1371				or car	pacity level reasonably expected to occur:
1372					
1373			E)	A stat	tement signed and dated by the owner or operator certifying
1374			_,	that th	he control device is designed to operate at an efficiency of 95
1375				perce	nt or greater unless the total organic concentration limit of
1376				Sectio	on 725.932(a) is achieved at an efficiency less than 95 weight
1377				perce	nt or the total organic emission limits of Section 725.932(a)
1378				for af	fected process vents at the facility are attained by a control
1379				devic	e involving vapor recovery at an efficiency less than 95
1380				weigh	t percent. A statement provided by the control device
1381				manu	facturer or vendor certifying that the control equipment meets
1382				the de	esign specifications may be used to comply with this
1383				requir	rement: and
1384				1.	
1385			F)	If per	formance tests are used to demonstrate compliance, all test
1386				result	S.
1387					
1388	c)	Desig	n docur	mentatio	on and monitoring operating and inspection information for
1389	-/	each c	losed-v	vent svs	tem and control device required to comply with the
1390		provis	sions of	this Pa	rt must be recorded and kept up-to-date in the facility
1391		operat	ting rec	ord. Th	e information must include the following:
1392		-1		1000	
1393		1)	Descr	iption a	and date of each modification that is made to the closed-vent
1394		-)	syster	n or co	ntrol device design:
1395			-,		
1396		2)	Identi	ification	n of operating parameter, description of monitoring device.
1397			and d	iagram	of monitoring sensor location or locations used to comply

			JCAR550725-100	4392r01
1398		with S	(f)(2):	
1399				
1400	3)	Moni	ing, operating and inspection information required	by Section
1401		725.9	(f) through (k):	1. Cal 1000
1402			(-) 8 (-))	
1403	4)	Date.	ne, and duration of each period that occurs while the	ne control
1404		devic	s operating when any monitored parameter exceeds	the value
1405		establ	hed in the control device design analysis, as specifi	ed below:
1406				
1407		A)	For a thermal vapor incinerator designed to operate	with a
1408			minimum residence time of 0.50 second at a minim	um temperature
1409			of 760° C, any period when the combustion temper	ature is below
1410			760° C.	
1411				
1412		B)	For a thermal vapor incinerator designed to operate	with an organic
1413			emission reduction efficiency of 95 percent or grea	ter, any period
1414			when the combustion zone temperature is more tha	n 28° C below
1415			the design average combustion zone temperature es	stablished as a
1416			requirement of subsection (b)(4)(C)(i) of this Section	ən.
1417				
1418		C)	For a catalytic vapor incinerator, any period when	either of the
1419			following occurs:	
1420			0	
1421			i) Temperature of the vent stream at the cataly	st bed inlet is
1422			more than 28° C below the average tempera	ture of the inlet
1423			vent stream established as a requirement of	subsection
1424			(b)(4)(C)(ii) of this Section; or	
1425				
1426			ii) Temperature difference across the catalyst h	bed is less than
1427			80 percent of the design average temperatur	e difference
1428			established as a requirement of subsection (b)(4)(C)(ii)-of
1429			this Section.	
1430				
1431		D)	For a boiler or process heater, any period when eith	ner of the
1432			following occurs:	
1433				
1434			i) Flame zone temperature is more than 28°C	below the
1435			design average flame zone temperature esta	blished as a
1436			requirement of subsection (b)(4)(C)(iii) of t	his Section; or
1437				
1438			ii) Position changes where the vent stream is in	ntroduced to the
1420			combustion zone from the location establish	ned as a
1439				

1441			
1442		E)	For a flare, period when the pilot flame is not ignited.
1443		_,	- of a simely process made and processing is not some
1444		F)	For a condenser that complies with Section $725.933(f)(2)(F)(i)$.
1445		-/	any period when the organic compound concentration level or
1446			readings of organic compounds in the exhaust vent stream from the
1447			condenser are more than 20 percent greater than the design outlet
1448			organic compound concentration level established as a requirement
1449			of subsection $(b)(4)(C)(v)$ of this Section
1450			
1451		G)	For a condenser that complies with Section 725.933(f)(2)(F)(ii).
1452		5)	any period when either of the following occurs:
1453			any period when either of the fond wing occurs.
1454			i) Temperature of the exhaust vent stream from the condenser
1455			is more than 6° C above the design average exhaust vent
1456			stream temperature established as a requirement of
1457			subsection (b)(4)(C)(v) of this Section: or
1458			
1459			ii) Temperature of the coolant fluid exiting the condenser is
1460			more than 6° C above the design average coolant fluid
1461			temperature at the condenser outlet established as a
1462			requirement of subsection (b)(4)(C)(v) of this Section.
1463			
1464		HD	For a carbon adsorption system such as a fixed-bed carbon
1465)	adsorber that regenerates the carbon bed directly onsite in the
1466			control device and that complies with Section $725.933(f)(2)(G)(i)$.
1467			any period when the organic compound concentration level or
1468			readings of organic compounds in the exhaust vent stream from the
1469			carbon bed are more than 20 percent greater than the design
1470			exhaust vent stream organic compound concentration level
1471			established as a requirement of subsection (b)(4)(C)(vi) of this
1472			Section.
1473			
1474		D	For a carbon adsorption system such as a fixed-bed carbon
1475		-	adsorber that regenerates the carbon bed directly onsite in the
1476			control device and that complies with Section $725.933(f)(2)(G)(ii)$,
1477			any period when the vent stream continues to flow through the
1478			control device beyond the predetermined carbon bed regeneration
1479			time established as a requirement of subsection $(b)(4)(C)(vi)$ -of
1480			this Section;
1481			
1482	5)	Expla	anation for each period recorded under subsection (c)(4) of this
1483		Sectio	on of the cause for control device operating parameter exceeding the

1484 1485		desig	n value and the measures implemented to correct the control device
1486		opera	
1487	6)	For	arbon adsorption systems operated subject to requirements specified
1488	0)	in Sec	(1000 adsorption systems operated subject to requirements specified of the state of the system
1489		contr	ol device is replaced with fresh carbon:
1490		contro	or device is replaced with resh earbon,
1490	7)	For	arbon adsorption systems operated subject to requirements specified
1491	1)	in See	ction 725 933(b)(1) a log that records:
1403		III See	cuon 725.555(n)(1), a log mat records.
1495		4)	Date and time when control device is monitored for carbon
1405		A)	breakthrough and the monitoring device reading
1495			breakthrough and the monitoring device reading.
1490		D)	Data when aviating carken in the control device is replaced with
1497		Б)	fresh earborn
1498			Iresh cardon;
1499	0)	Data	after the second all devices and all with some
1500	8)	Date	of each control device startup and shutdown;
1501	0)		· · · ·
1502	9)	An o	wher or operator designating any components of a closed-vent system
1503		as un	safe to monitor pursuant to Section 725.933(n) must record in a log
1504		that 1	s kept in the facility operating record the identification of closed-vent
1505		system	m components that are designated as unsafe to monitor in accordance
1506		with	the requirements of Section 725.933(n), an explanation for each
1507		close	d-vent system component stating why the closed-vent system
1508		comp	onent is unsafe to monitor, and the plan for monitoring each closed-
1509		vent :	system component; and
1510	2.02		
1511	10)	When	n each leak is detected as specified in Section 725.933(k), the
1512		follow	wing information must be recorded:
1513			
1514		A)	The instrument identification number, the closed-vent system
1515			component identification number, and the operator name, initials,
1516			or identification number;
1517			
1518		B)	The date the leak was detected and the date of first attempt to
1519			repair the leak;
1520			
1521		C)	The date of successful repair of the leak;
1522			
1523		D)	Maximum instrument reading measured by Reference Method 21
1524			(Determination of Volatile Organic Compound Leaks) of appendix
1525			A to 40 CFR 60 Test Methods, incorporated by reference in 35 Ill.
1526			Adm. Code 720.111(b), after it is successfully repaired or

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1527			deter	mined to b	e nonrepairable; an	d	
1528							
1529		E)	"Rep	air delayed	l" and the reason fo	r the delay if a lea	ak is not
1530			repai	red within	15 calendar days at	ter discovery of t	he leak.
1531							
1532			i)	The own	ner or operator may	develop a written	1 procedure
1533				that iden	ntifies the condition	s that justify a de	lay of repair.
1534				In such	cases, reasons for d	elay of repair may	y be
1535				docume	nted by citing the re	elevant sections o	f the written
1536				procedu	re.		
1537				10.1.1	A		
1538			11)	If delay	of repair was cause	d by depletion of	stocked parts,
1539				there m	ust be documentation	on that the spare p	arts were
1540				for donl	ntly stocked on-site	before depiction	and the reason
1541				for depi	etton <u>.;</u> and		
1542	d)	Pacards of t	hamon	itoring on	arating and increati	on information ra	anirad by
1543	u)	subsections	(c)(3) the	rough (c)	10) of this Section	must be maintain	ed by the
1545		owner or on	erator f	nough (c)(hree years followin	g the date of each	
1546		measuremen	t corre	ctive action	n or record	g the date of each	l'occurrence,
1547		measuremen	n, conc	enve actio	ii, or record.		
1548	e)	For a contro	l device	other than	a thermal vapor in	cinerator, catalyti	c vapor
1549	-7	incinerator.	flare, bo	oiler, proce	ss heater, condense	r or carbon adsor	ption system.
1550		monitoring	and insp	ection info	ormation indicating	proper operation	and
1551		maintenance	e of the	control dev	vice must be recorded	ed in the facility of	operating
1552		record.					
1553							
1554	f)	Up-to-date i	nformat	tion and da	ta used to determin	e whether or not a	a process vent
1555		is subject to	the requ	uirements	in Section 725.932,	including suppor	ting
1556		documentati	ion as re	equired by	Section 725.934(d)	(2), when applica	tion of the
1557		knowledge of	of the na	ature of the	hazardous waste st	ream or the proce	ess by which it
1558		was produce	ed is use	ed, must be	recorded in a log tl	hat is kept in the f	acility
1559		operating re	cord.				
1560	10				2 2		
1561	(Sou	rce: Amended	at 40 11	I. Reg	, effective)	
1562	CT.	DDADTDD			TANDADDOCOD	FOURD (FNFT L	DAVO
1563	SU	BPART BB: 1	AIR EN	IISSION S	IANDARDS FOR	EQUIPMENTL	EAKS
1564	S	052 64-1-	1. D.				
1566	Section 725	.932 Standard	us: run	ups in Lig	nt Liquid Service		
1567	2)	Monitoring					
1568	a)	Monitoring.					
1560		1) Fach	numn	in light light	uid service must be	monitored month	ly to detect
1509		i) Laci	r pump	in ingin inq	and service must be	monitored month	iy to ucteet

 $\gamma = k$

 Each pump in light liquid service must be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. b) Leaks. b) Leaks. c) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. d) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. c) If there are indications of liquids dripping from the pump seal, a leak is detected. c) Repairs. c) Repairs. c) Repairs. c) Repairs. 1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected. f) When a leak is detected, it must be repaired as not as provided in Section 725.959. c) A first attempt at repair (e.g., tightening the packing gland) must be made no later than 5 calendar days after each leak is detected. f) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of subsection (a) of this Section, provided the following requirements are met: f) Each dual mechanical seal system must be as follows: f) Each dual mechanical seal system that is at all times greater than the pump stuffing box pressures; f) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 725.960; or f) Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere; f) The barrier fluid system must not be a hazardous waste with organic 	1570 1571			leaks in sub	by the methods specified in Section 725.963(b), except as provided psections (d), (e), and (f) of this Section.
 2) Each pump in light liquid service must be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. each calendar week for indications of liquids dripping from the pump seal. b) Leaks. 1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. 2) If there are indications of liquids dripping from the pump seal, a leak is detected. 1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected. 1586 2) A first attempt at repair (e.g., tightening the packing gland) must be made no later than 5 calendar days after each leak is detected. 1590 2) A first attempt at repair (e.g., tightening the packing gland) must be made no later than 5 calendar days after each leak is detected. 1591 3) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of subsection (a) of this Section, provided the following requirements are met: 1596 1) Each dual mechanical seal system must be as follows: 1597 1) Each dual mechanical seal system that is at all times greater than the pump stuffing box pressures; 1601 3) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 725.960; or 606 6) Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere; 1600 2) The barrier fluid system must not be a hazardous waste with organic 	1572				
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 A first attempt at repair (e.g., tightening the packing gland) must be made no later than 5 calendar days after each leak is detected. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of subsection (a) of this Section, provided the following requirements are met: Each dual mechanical seal system must be as follows: Each dual mechanical seal system must be as follows: Each dual mechanical seal system fluid at a pressure that is at all times greater than the pump stuffing box pressures; B) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 725.960; or C) Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere; The barrier fluid system must not be a hazardous waste with organic 	1589			Securi	
159117 mist attempt at topint (e.g., upitoning into proving giand) may be made1591no later than 5 calendar days after each leak is detected.15921593d)Each pump equipped with a dual mechanical seal system that includes a barrier1594fluid system is exempt from the requirements of subsection (a) of this Section, provided the following requirements are met:15961)Each dual mechanical seal system must be as follows:15981)Each dual mechanical seal system must be as follows:1598A)Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressures;1601B)Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 725.960; or1605C)Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere;16092)The barrier fluid system must not be a hazardous waste with organic	1590		2)	A firs	st attempt at repair (e.g., tightening the packing gland) must be made
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15961000 mig requirements are met.15961)Each dual mechanical seal system must be as follows:15981)Each dual mechanical seal system must be as follows:1598A)Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressures;1601B)Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 725.960; or1605C)Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere;16092)The barrier fluid system must not be a hazardous waste with organic	1595		provi	ded the	following requirements are met:
15971)Each dual mechanical seal system must be as follows:1598A)Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressures;1600B)Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 725.960; or1605C)Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere;16092)The barrier fluid system must not be a hazardous waste with organic	1596		provi	aca me	Tono wing requirements are met.
1598A)Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressures;1600B)Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 725.960; or1605C)Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere;16092)The barrier fluid system must not be a hazardous waste with organic	1597		1)	Each	dual mechanical seal system must be as follows:
A)Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressures;1601B)Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 725.960; or1605C)Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere;16092)The barrier fluid system must not be a hazardous waste with organic	1598		.)	Duen	duai moonanoai soai system mast oo as tonows.
 1600 1600 1601 1602 1603 1603 1604 1604 1605 1605 1606 1606 1607 1607 1608 1608 1609 1610 2) 2) 	1599			A)	Operated with the barrier fluid at a pressure that is at all times
1600 1601B)Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 725.960; or1605C)Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere;16092)The barrier fluid system must not be a hazardous waste with organic	1600			11)	greater than the pump stuffing hox pressures.
1601B)Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 725.960; or1605C)Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere;1609C)The barrier fluid system must not be a hazardous waste with organic	1601				Breater than the pullip starting ook pressures,
1602Dynampeer while counter the counter the degation greater of the tart is connected1603by a closed-vent system to a control device that complies with the requirements of Section 725.960; or1605C)Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere;16092)The barrier fluid system must not be a hazardous waste with organic	1602			B)	Equipped with a barrier fluid degassing reservoir that is connected
16051604160516051606160716081608160916102)The barrier fluid system must not be a hazardous waste with organic	1603			2)	by a closed-vent system to a control device that complies with the
16051605160616071608160916102)2)The barrier fluid system must not be a hazardous waste with organic	1604				requirements of Section 725 960° or
1606C)Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere;16092)The barrier fluid system must not be a hazardous waste with organic	1605				requirements of beenon 720.000, or
1600Deputyped with a system that purges the suffer had into a hazardous wastestream with no detectable emissions to the atmosphere;16092)The barrier fluid system must not be a hazardous waste with organic	1606			C)	Equipped with a system that purges the barrier fluid into a
1607atmosphere;16092)The barrier fluid system must not be a hazardous waste with organic	1607			0)	hazardous wastestream with no detectable emissions to the
160916102)The barrier fluid system must not be a hazardous waste with organic	1608				atmosphere.
1610 2) The barrier fluid system must not be a hazardous waste with organic	1609				autophicie,
2) The current function in the of the of a nuclei doub while with organic	1610		2)	The h	parrier fluid system must not be a hazardous waste with organic
1611 concentrations 10 percent or greater by weight	1611		2)	conce	entrations 10 percent or greater by weight.
1612	1612			conet	and the percent of Brouter of HerBurg

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1613 1614		3)	Each failur	barrier fluid system must be equipped with a sensor that will detect e of the seal system, the barrier fluid system, or both;
1615				
1616		4)	Each	pump must be checked by visual inspection, each calendar week, for
1617			indica	ations of liquids dripping from the pump seals;
1618			A3.77	
1619		5)	Alarn	ns.
1620				
1621			A)	Each sensor, as described in subsection (d)(3) of this Section, must
1622				be checked daily or be equipped with an audible alarm that must be
1623				checked monthly to ensure that it is functioning properly.
1624				
1625			B)	The owner or operator must determine, based on design
1626				considerations and operating experience, a criterion that indicates
1627				failure of the seal system, the barrier fluid system, or both; and
1628				
1629		6)	Leak	S.
1630				
1631			A)	If there are indications of liquids dripping from the pump seal or
1632				the sensor indicates failure of the seal system, the barrier fluid
1633				system, or both, based on the criterion determined in subsection
1634				(d)(5)(B) of this Section, a leak is detected.
1635				
1636			B)	When a leak is detected, it must be repaired as soon as practicable.
1637			-/	but not later than 15 calendar days after it is detected, except as
1638				provided in Section 725 959
1639				
1640			C)	A first attempt at repair (e.g. relapping the seal) must be made no
1641			0)	later than five calendar days after each leak is detected
1642				nuci unui irvo culondul duys urter cuch four is dototicu.
1643	e)	Any	numn th	nat is designated as described in Section 725.964(g)(2) for no
1644	•)	detec	table er	nissions as indicated by an instrument reading of less than 500 ppm
1645		abov	e backo	round is exempt from the requirements of subsections (a) (c) and
1646		(d).0	f this Se	extion if the nump meets the following requirements:
1647		(u) 0	r uns be	etton, if the pullp meets the following requirements.
1649		1)	Must	have no externally actuated shaft penetrating the nump housing:
1640		1)	Iviusi	have no externally actuated shart penetrating the pump housing,
1650		2)	Must	anarata with no datastable amissions as indicated by an instrument
1650		2)	Must	operate with no detectable emissions as indicated by an instrument
1652			readi	also measured by the
1652			meth	bas specified in Section 725.963(c); and
1053		25	14	
1654		3)	Must	be tested for compliance with subsection $(e)(2)$ of this Section,
1655			initia	ity upon designation, annually and at other times as specified by the

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1656			Agen	cy-pursuant to Section 725.950(e).
1658	Ð	Ifany	numn	is equipped with a closed-vent system canable of canturing and
1659	1)	transr	orting	any leakage from the seal or seals to a control device that complies
1660		with t	the real	irements of Section 725,960, it is exempt from the requirements of
1661		subse	ctions ((a) through (e) of this Section
1662		54000	o nomo (u) unougn (c) of uno section
1663	(Sour	ce: Am	nended	at 40 Ill, Reg. effective)
1664	(
1665	Section 725.	964 Re	cordke	eeping Requirements
1666				1-5-1
1667	a)	Lum	oing Un	its.
1668	3		0	
1669		1)	Each	owner or operator subject to the provisions of this Subpart BB must
1670			comp	bly with the recordkeeping requirements of this Section.
1671				
1672		2)	An o	wner or operator of more than one hazardous waste management unit
1673			subje	ect to the provisions of this Subpart BB may comply with the
1674			recor	dkeeping requirements for these hazardous waste management units
1675			in on	e recordkeeping system if the system identifies each record by each
1676			hazar	dous waste management unit.
1677				
1678	b)	Owne	ers and	operators must record the following information in the facility
1679		opera	ting red	cord:
1680				
1681		1)	For e	ach piece of equipment to which this Subpart BB applies, the
1682			follo	wing:
1683				
1684			A)	Equipment identification number and hazardous waste
1685				management unit identification;
1686				
1687			B)	Approximate locations within the facility (e.g., identify the
1688				hazardous waste management unit on a facility plot plan);
1689				
1690			C)	Type of equipment (e.g., a pump or pipeline valve);
1691				
1692			D)	Percent-by-weight total organics in the hazardous wastestream at
1693				the equipment;
1694				
1695			E)	Hazardous waste state at the equipment (e.g., gas/vapor or liquid);
1696				and
1697			-	
1698			F)	Method of compliance with the standard (e.g., "monthly leak

1699			detection and repair" or "equipped with dual mechanical seals");
1700		2)	$F_{-1} = f_{-1} = 1$
1701		2)	For facilities that comply with the provisions of Section $725.933(a)(2)$, an
1702			implementation schedule, as specified in that Section;
1703		25	XX71
1704		3)	where an owner or operator chooses to use test data to demonstrate the
1705			organic removal efficiency or total organic compound concentration
1706			achieved by the control device, a performance test plan, as specified in
1707			Section $725.935(b)(3)$; and
1708			
1709		4)	Documentation of compliance with Section 725.960, including the
1710			detailed design documentation or performance test results specified in
1711			Section 725.935(b)(4).
1712			
1713	c)	Whe	n each leak is detected, as specified in Section 725.952, 725.953, 725.957, or
1714		725.9	958, the following requirements apply:
1715			
1716		1)	A weatherproof and readily visible identification, marked with the
1717			equipment identification number, the date evidence of a potential leak was
1718			found in accordance with Section 725.958(a), and the date the leak was
1719			detected, must be attached to the leaking equipment;
1720			
1721		2)	The identification on equipment except on a valve, may be removed after
1722			it has been repaired; and
1723			
1724		3)	The identification on a valve may be removed after it has been monitored
1725			for two successive months as specified in Section 725.957(c) and no leak
1726			has been detected during those two months.
1727			
1728	d)	Whe	n each leak is detected, as specified in Sections 725.952, 725.953, 725.957,
1729		or 72	25.958, the following information must be recorded in an inspection log and
1730		must	t be kept in the facility operating record:
1731			
1732		1)	The instrument and operator identification numbers and the equipment
1733			identification number;
1734			
1735		2)	The date evidence of a potential leak was found in accordance with
1736			Section 725.958(a);
1737			
1738		3)	The date the leak was detected and the dates of each attempt to repair the
1739			leak;
1740			
1741		4)	Repair methods applied in each attempt to repair the leak;

1742			
1743		5)	"Above 10,000," if the maximum instrument reading measured by the
1744			methods specified in Section 725.963(b) after each repair attempt is equal
1745			to or greater than 10,000 ppm;
1746			
1747		6)	"Repair delayed" and the reason for the delay if a leak is not repaired
1748			within 15 calendar days after discovery of the leak;
1749			
1750		7)	Documentation supporting the delay of repair of a valve in compliance
1751			with Section 725.959(c);
1752			
1753		8)	The signature of the owner or operator (or designate) whose decision it
1754			was that repair could not be effected without a hazardous waste
1755			management unit shutdown;
1756			
1757		9)	The expected date of successful repair of the leak if a leak is not repaired
1758			within 15 calendar days; and
1759			
1760		10)	The date of successful repair of the leak.
1761			
1762	e)	Desi	gn documentation and monitoring, operating, and inspection information for
1763		each	closed-vent system and control device required to comply with the
1764		prov	isions of Section 725.960 must be recorded and kept up-to-date in the facility
1765		opera	ating record as specified in Section 725.935(c)(1) and (c)(2), and monitoring,
1766		opera	ating and inspection information in Section 725.935(c)(3) through (c)(8).
1767			
1768	f)	Fora	a control device other than a thermal vapor incinerator, catalytic vapor
1769		incin	herator, flare, boiler, process heater, condenser, or carbon adsorption system,
1770		mon	itoring and inspection information indicating proper operation and
1771		main	itenance of the control device must be recorded in the facility operating
1772		recon	rd.
1773			
1774	g)	The	following information pertaining to all equipment subject to the requirements
1775		in Se	ections 725.952 through 725.960 must be recorded in a log that is kept in the
1776		facil	ity operating record:
1777			
1778		1)	A list of identification numbers for equipment (except welded fittings)
1779			subject to the requirements of this Subpart BB.
1780			
1781		2)	List of Equipment.
1782			
1783			A) A list of identification numbers for equipment that the owner or
1784			operator elects to designate for no detectable emissions, as

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1785 1786 1787				indicated by an instrument reading of less than 500 ppm above background, under the provisions of Sections 725.952(e), 725.953(i), and 725.957(f).
1788 1789 1790			B)	The designation of this equipment as subject to the requirements of Section 725.952(e), 725.953(i), or 725.957(f) must be signed by
1791 1792				the owner or operator.
1793 1794 1795		3)	A list requi	t of equipment identification numbers for pressure relief devices red to comply with Section 725.954(a).
1796 1797		4)	Com	pliance tests.
1798 1799 1800			A)	The dates of each compliance test required in Sections 725.952(e), 725.953(i), 725.954, and 725.957(f).
1801 1802			B)	The background level measured during each compliance test.
1803 1804 1805			C)	The maximum instrument reading measured at the equipment during each compliance test.
1806 1807		5)	A lis	t of identification numbers for equipment in vacuum service.
1808 1809 1810 1811		6)	Ident conta least	ification, either by list or location (area or group) of equipment that ains or contacts hazardous waste with an organic concentration of at 10 percent by weight for less than 300 hours per year.
1812 1813 1814 1815	h)	The Section operation operation of the section of t	followir on 725. ating rec	ng information pertaining to all valves subject to the requirements of 957(g) and (h) must be recorded in a log that is kept in the facility cord:
1815 1816 1817 1818 1819		1)	A lis moni moni	t of identification numbers for valves that are designated as unsafe to itor, an explanation for each valve stating why the valve is unsafe to itor, and the plan for monitoring each valve; and
1819 1820 1821 1822 1823		2)	A list to me to me	t of identification numbers for valves that are designated as difficult onitor, an explanation for each valve stating why the valve is difficult onitor, and the planned schedule for monitoring each valve.
1824 1825 1826	i)	The valve	followir es comp	ng information must be recorded in the facility operating record for lying with Section 725.962:
1827		1)	A scl	hedule of monitoring; and

1828			
1829		2)	The percent of valves found leaking during each monitoring period.
1830			
1831	j)	The f	following information must be recorded in a log that is kept in the facility
1832		opera	ating record:
1833			
1834		1)	Criteria required in Sections 725.952(d)(5)(B) and 725.953(e)(2) and an
1835			explanation of the criteria; and
1836			
1837		2)	Any changes to these criteria and the reasons for the changes.
1838			
1839	k)	The f	following information must be recorded in a log that is kept in the facility
1840		opera	ating record for use in determining exemptions, as provided in Section
1841		725.9	950 and other specific Subparts:
1842			
1843		1)	An analysis determining the design capacity of the hazardous waste
1844		~	management unit;
1845			,
1846		2)	A statement listing the hazardous waste influent to and effluent from each
1847			hazardous waste management unit subject to the requirements in Sections
1848			725.952 through Section-725.960 and an analysis determining whether
1849			these hazardous wastes are heavy liquids; and
1850			
1851		3)	An up-to-date analysis and the supporting information and data used to
1852		-7	determine whether or not equipment is subject to the requirements in
1853			Sections 725.952 through 725.960. The record must include supporting
1854			documentation, as required by Section 725,963(d)(3), when application of
1855			the knowledge of the nature of the hazardous wastestream or the process
1856			by which it was produced is used. If the owner or operator takes any
1857			action (e.g., changing the process that produced the waste) that could
1858			result in an increase in the total organic content of the waste contained in
1859			or contacted by equipment determined not to be subject to the
1860			requirements in Sections 725.952 through 725.960, then a new
1861			determination is required.
1862			
1863	D	Reco	ords of the equipment leak information required by subsection (d) of this
1864	-)	Secti	ion and the operating information required by subsection (e) of this Section
1865		need	be kept only three years
1866		need	be kept only three years.
1867	m)	The	owner or operator of any facility with equipment that is subject to this
1868	iii)	Subr	part and to federal regulations at 40 CFR 60 61 or 63 may elect to determine
1869		com	nliance with this Subpart BB by documentation of compliance either pursuant
1870		to Se	action 725.964 or by documentation of compliance with the regulations at 40
10/0		10 30	veron 725.764 or by documentation of comphance with the regulations at 40

1871		CFR 6	0 (Stan	dards of Performance for New Stationary Sources), 61 (National						
1872	Emission Standards for Hazardous Air Pollutants), or 63 (National Emission									
1873	Standards for Hazardous Air Pollutants for Source Categories), pursuant to the									
1874	relevant provisions of 40 CFR 60, 61, or 63, each incorporated by reference in 35									
1875	Ill. Adm. Code 720.111(b). The documentation of compliance under the									
1876		regulation at 40 CFR 60, 61, or 63 must be kent with or made readily available								
1877		with th	ne facili	ity operating record.						
1878				5 · F · · · · · · · · · · · · ·						
1879	(Sour	rce: Ame	ended a	t 40 Ill Reg effective)						
1880	(2011)									
1881	SI	IBPART	CC.	AIR EMISSION STANDARDS FOR TANKS SURFACE						
1882	5.	obrinti	UU. 1	MPOINDMENTS AND CONTAINERS						
1883				in conditients, and contrainers						
1884	Section 725	083 Sta	ndarda	Ceneral						
1885	Section 725	105 Sta	nuarus	. Otherai						
1886	2)	This S	ection	applies to the management of hazardous waste in tanks, surface						
1887	aj	impou	ndmen	ts and containers subject to this Subpart CC						
1888		impou	numen	is, and containers subject to this Subpart CC.						
1880	b)	The ou	uner or	operator must control air pollutant emissions from each hazardous						
1800	0)	waste	manaqu	ement unit in accordance with the standards specified in Sections						
1801		725 QS	111anago	ach 725.088 as applicable to the hazardous waste management unit						
1891		12J.90		vided for in subsection (c) of this Section						
1892		except	as pro	vided for in subsection (c) of this section.						
1893		A tonl	curfa	a impoundment or container is exempted from standards specified						
1805	0)	in See	tions 7	25 985 through 725 988, provided that all bazardous waste placed in						
1095		the we	uons 7.	23.985 through 725.988, provided that an inazardous waste placed in						
1890		the wa	iste ma	nagement unit is one of the following.						
1097		1)	A ton	k aurfage impoundment or container for which all haverdous waste						
1090		1)	Atan	ng the unit has an everage VO concentration at the point of waste						
1000			enteri	ng the unit has an average vO concentration at the point of waste						
1001			origin	action of less than 500 parts per infinion by weight (ppinw). The						
1901			avera	$\frac{1}{2}$ ge v O concentration must be determined by the procedures spectred						
1902			III Sec	sory this determination at least once every 12 months following the						
1903			data	saly, this determination at least once every 12 months following the						
1904			date c							
1905			the un	nt;						
1900		2)	A 4	le soufe as income la sout an annutair an fear achiste dha annuair annutant						
1907		2)	A tan	k, surface impoundment, or container for which the organic content						
1908			or all	the nazardous waste entering the waste management unit has been						
1909			reduc	ed by an organic destruction or removal process that achieves any						
1910			one o	t the following conditions:						
1911				me and the second s						
1912			A)	The process removes or destroys the organics contained in the						
1913				hazardous waste to such a level that the average VO concentration						

1914		of the hazardous waste at the point of waste treatment is less than
1915		the exit concentration limit (C_t) established for the process. The
1916		average VO concentration of the hazardous waste at the point of
1917		waste treatment and the exit concentration limit for the process
1918		must be determined using the procedures specified in Section
1919		725.984(b);
1920		
1921	B)	The process removes or destroys the organics contained in the
1922		hazardous waste to such a level that the organic reduction
1923		efficiency (R) for the process is equal to or greater than 95 percent,
1924		and the average VO concentration of the hazardous waste at the
1925		point of waste treatment is less than 100 ppmw. The organic
1926		reduction efficiency for the process and the average VO
1927		concentration of the hazardous waste at the point of waste
1928		treatment must be determined using the procedures specified in
1929		Section 725.984(b);
1930		
1931	C)	The process removes or destroys the organics contained in the
1932		hazardous waste to such a level that the actual organic mass
1933		removal rate (MR) for the process is equal to or greater than the
1934		required organic mass removal rate (RMR) established for the
1935		process. The required organic mass removal rate and the actual
1936		organic mass removal rate for the process must be determined
1937		using the procedures specified in Section 725.984(b);
1938		
1939	D)	The process is a biological process that destroys or degrades the
1940		organics contained in the hazardous waste so that either of the
1941		following conditions is met:
1942		
1943		i) The organic reduction efficiency (R) for the process is
1944		equal to or greater than 95 percent, and the organic
1945		biodegradation efficiency (Rbio) for the process is equal to
1946		or greater than 95 percent. The organic reduction
1947		efficiency and the organic biodegradation efficiency for the
1948		process must be determined using the procedures specified
1949		in Section 725.984(b); and
1950		
1951		ii) The total actual organic mass biodegradation rate (MR _{bio})
1952		for all hazardous waste treated by the process is equal to or
1953		greater than the required organic mass removal rate (RMR).
1954		The required organic mass removal rate and the actual
1955		organic mass biodegradation rate for the process must be
1956		determined using the procedures specified in Section

1957		725.984(b);	
1958			
1959	E)	The process is one that removes or destroy	s the organics contained
1960		in the hazardous waste and meets all of the	following conditions:
1961			
1962		i) From the point of waste origination	through the point
1963		where the hazardous waste enters t	he treatment process, the
1964		hazardous waste is continuously m	anaged in waste
1965		management units that use air emis	sion controls in
1966		accordance with the standards spec	ified in Section 725.985
1967		through Section 725.988, as applic	able to the waste
1968		management unit;	
1969			
1970		ii) From the point of waste origination	through the point
1971		where the hazardous waste enters t	he treatment process,
1972		any transfer of the hazardous waste	e is accomplished
1973		through continuous hard-piping or	other closed system
1974		transfer that does not allow exposu	re of the waste to the
1975		atmosphere;	
1976			
1977		BOARD NOTE: The USEPA con	siders a drain system that
1978		meets the requirements of federal s	ubpart RR of 40 CFR
1979		63(National Emission Standards fo	r Individual Drain
1980		Systems) to be a closed system.	
1981			
1982		iii) The average VO concentration of t	he hazardous waste at
1983		the point of waste treatment is less	than the lowest average
1984		VO concentration at the point of w	aste origination
1985		determined for each of the individu	al hazardous waste
1986		streams entering the process or 500) ppmw, whichever value
1987		is lower. The average VO concent	ration of each individual
1988		hazardous waste stream at the poin	t of waste origination
1989		must be determined using the proce	edures specified in
1990		Section 725.984(a). The average V	O concentration of the
1991		hazardous waste at the point of wa	ste treatment must be
1992		determined using the procedures sp	pecified in Section
1993		725.984(b);	
1994			
1995	F)	A process that removes or destroys the org	ganics contained in the
1996		hazardous waste to a level such that the or	ganic reduction
1997		efficiency (R) for the process is equal to o	r greater than 95 percent
1998		and the owner or operator certifies that the	average VO
1999		concentration at the point of waste origina	tion for each of the
2222		Powe of Sugar	

2000 2001 2002 2003 2004 2005		individual waste streams entering the process is less than 10,000 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste origination must be determined using the procedures specified in Sections $725.984(b)$ Section $724.983(b)$ and $725.984(a)$ Section $724.983(a)$, respectively;
2006 2007 2008	G)	A hazardous waste incinerator for which either of the following conditions is true:
2009 2010 2011 2012 2013		i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart O of 35 Ill. Adm. Code 724; or
2013 2014 2015 2016 2017		ii) The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of Subpart O of this Part;
2017 2018 2019 2020	H)	A boiler or industrial furnace for which either of the following conditions is true:
2020 2021 2022 2023 2024		i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or
2024 2025 2026 2027 2028		ii) The owner or operator has designed and operates the industrial furnace or incinerator in accordance with the interim status requirements of Subpart H of 35 Ill. Adm. Code 726; and
2029 2030 2031 2032 2033 2034 2035 2036	I)	For the purpose of determining the performance of an organic destruction or removal process in accordance with the conditions in each of subsections $(c)(2)(A)$ through $(c)(2)(F)$ of this Section, the owner or operator must account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:
2037 2038 2039 2040 2041 2042		 i) If <u>Reference</u> Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), is used for the analysis, one- half the blank value determined in the method at Section 4.4 of <u>Reference</u> Method 25D or a value of 25 ppmw,

2043			whichever is less; and
2044			
2045		ii	i) If any other analytical method is used, one-half the sum of
2046			the limits of detection established for each organic
2047			constituent in the waste that has a Henry's law constant
2048			value at least 0.1 mole-fraction-in-the-gas-phase/mole-
2049			fraction-in-the -liquid-phase (0.1 Y/X) (which can also be
2050			expressed as 1.8 x 10 ⁻⁶ atmospheres/gram-mole/m ³) at 25°
2051			C;
2052			
2053	3)	A tank o	r surface impoundment used for biological treatment of hazardous
2054	- /	waste in	accordance with the requirements of subsection $(c)(2)(D)$ -of this
2055		Section:	ителицине или инстифицини от спортинии (с)(с)(с) (с)
2056		seemony	
2057	4)	A tank	surface impoundment, or container for which all hazardous waste
2058	17	nlaced in	the unit fulfills either of the following two conditions:
2059		pracean	The unit funnis enter of the following two conditions.
2059		A) I	t meets the numerical concentration limits for organic hazardous
2061		· · · · · · · · · · · · · · · · · · ·	onstituents applicable to the hazardous waste as specified in
2062		1	Table T to 35 III. Adm. Code 728: or
2063			able 1 to 55 m. Adm. Code 728, 61
2003		B) 7	The organic hazardous constituents in the waste have been treated
2065		D) 1	w the treatment technology established by USEPA for the waste
2005		0	as set forth in 25 III. Adm. Code 728 142(2) or treated by an
2000		a	is set form in 55 m. Adm. Code 728.142(a), of freated by an
2007		+	a 25 III. Adm. Codo 728 142(b); or
2008		u u	0.55 III. Adili. Code $728.142(0)$, of
2009	5)	A tople u	and for hull food of horardous waste to a waste incinerator and
2070	3)	A tank u	sed for bulk feed of nazardous waste to a waste incinerator, and
2071		an of the	e following conditions are met.
2072			
2073		A) 1	I he tank is located inside an enclosure vented to a control device
2074		t	hat is designed and operated in accordance with all applicable
2075		r	equirements specified under federal subpart FF of 40 CFR
2076		6	(National Emission Standards for Benzene Waste Operations),
2077		1	ncorporated by reference in 35 III. Adm. Code 720.111(b), for a
2078		t	acility at which the total annual benzene quantity from the facility
2079		V	waste is equal to or greater than 10 megagrams (11 tons) per year;
2080			
2081		B) 7	The enclosure and control device serving the tank were installed
2082		8	and began operation prior to November 25, 1996; and
2083			
2084		C) 7	The enclosure is designed and operated in accordance with the
2085		C	criteria for a permanent total enclosure as specified in "Procedure

2086				T – Criteria for and Verification of a Permanent or Temporary
2087				Total Enclosure" under appendix B to 40 CFR 52.741 (VOM
2088				Measurement Techniques for Capture Efficiency), incorporated by
2089				reference in 35 Ill. Adm. Code 720.111(b). The enclosure may
2090				have permanent or temporary openings to allow worker access;
2091				passage of material into or out of the enclosure by conveyor.
2092				vehicles, or other mechanical or electrical equipment; or to direct
2093				air flow into the enclosure. The owner or operator must perform
2094				the verification procedure for the enclosure as specified in Section
2095				5.0 to "Procedure T – Criteria for and Verification of a Permanent
2096				or Temporary Total Enclosure" annually
2090				or remporary rotar Enclosure annuary.
2008	d)	The /	Genev	may at any time perform or request that the owner or operator
2098	u)	norfo:	rgency	inay at any time perform of request that the owner of operator
2099		immo	undmon	iste determination for a nazardous waste managed in a tank, surface
2100		mpo	unumen.	a, of container that is exempted from using an emission controls
2101		under	the pro	ivisions of this section as follows:
2102		15	The	VO
2103		1)	The v	vaste determination for average vO concentration of a nazardous
2104			waste	at the point of waste origination must be performed using direct
2105			meas	urement in accordance with the applicable requirements of Section
2106			725.9	184(a). The waste determination for a hazardous waste at the point of
2107			waste	treatment must be performed in accordance with the applicable
2108			requi	rements of Section 725.984(b);
2109				
2110		2)	In pe	rforming a waste determination pursuant to subsection (d)(1) of this
2111			Section	on, the sample preparation and analysis must be conducted as
2112			follo	WS:
2113				
2114			A)	In accordance with the method used by the owner or operator to
2115				perform the waste analysis, except in the case specified in
2116				subsection (d)(2)(B) of this Section; and
2117				
2118			B)	If the Agency determines that the method used by the owner or
2119				operator was not appropriate for the hazardous waste managed in
2120				the tank, surface impoundment, or container, then the Agency may
2121				choose an appropriate method:
2122				the set of
2123		3)	When	re the owner or operator is requested to perform the waste
2124		5)	deter	mination the Agency may elect to have an authorized representative
2125			obset	rive the collection of the hazardous waste samples used for the
2126			anal	reie.
2120			analy	515,
2127		4)	When	re the results of the waste determination performed or requested by
2120		(ד	w ne	the results of the waste determination performed of requested by

2129 2130 2131 2132 2133 2134		the A perfor the re requir comp	gency do not agree with the results of a waste determination rmed by the owner or operator using knowledge of the waste, then sults of the waste determination performed in accordance with the rements of subsection $(d)(1)$ of this Section must be used to establish bliance with the requirements of this Subpart CC; and
2134 2135 2136	5)) When	the owner or operator has used an averaging period greater than your for determining the average VO concentration of a hazardous
2137		waste	e at the point of waste origination, the Agency may elect to establish
2138		comp	liance with this Subpart CC by performing or requesting that the
2139		owne	r or operator perform a waste determination using direct
2140		meas	urement, based on waste samples collected within a 1-hour period, as
2141		follow	WS:
2142			
2143		A)	The average VO concentration of the hazardous waste at the point
2144			of waste origination must be determined by direct measurement in
2145			accordance with the requirements of Section 725.984(a);
2146			
2147		B)	Results of the waste determination performed or requested by the
2148			Agency showing that the average VO concentration of the
2149			hazardous waste at the point of waste origination is equal to or
2150			greater than 500 ppmw must constitute noncompliance with this
2151			Subpart CC, except in a case as provided for in subsection
2152			(d)(5)(C)(d)(4)(C) of this Section; and
2153			
2154		C)	Where the average VO concentration of the hazardous waste at the
2155			point of waste origination previously has been determined by the
2156			owner or operator using an averaging period greater than one hour
2157			to be less than 500 ppmw but because of normal operating process
2158			variations the VO concentration of the hazardous waste determined
2159			by direct measurement for any given 1-hour period may be equal
2160			to or greater than 500 ppmw, information that was used by the
2161			owner or operator to determine the average VO concentration of
2162			the hazardous waste (e.g., test results, measurements, calculations,
2163			and other documentation) and recorded in the facility records in
2164			accordance with the requirements of Sections 725.984(a) and
2165			725.990 must be considered by the Agency together with the
2166			A server in setablishing serve line with this G have CC
2167			Agency in establishing compliance with this Subpart CC.
2168	10	A	at 40 III Bas offentium
2109	(Source:	Amended	at 40 m. Keg)
2170	Section 725 004	Waste D.	stampination Proceedures
21/1	Section /25.984	waste De	stermination procedures

2172						
2173	a)	Waste determination procedure for volatile organic (VO) concentration of a				
2174	~	hazardous waste at the point of waste origination.				
2175						
2176		1)	An owner or operator must determine the average VO concentration at the			
2177			point of waste origination for each hazardous waste placed in a waste			
2178			management unit exempted under the provisions of Section 725.983(c)(1)			
2179			from using air emission controls in accordance with standards specified in			
2180			Section 725.985 through Section 725.988, as applicable to the waste			
2181			management unit.			
2182						
2183			A) An owner or operator must make an initial determination of the			
2184			average VO concentration of the waste stream before the first time			
2185			any portion of the material in the hazardous waste stream is placed			
2186			in a waste management unit exempted under the provisions of			
2187			Section $725.983(c)(1)$ from using air emission controls.			
2188			Thereafter, an owner or operator must make an initial			
2189			determination of the average VO concentration of the waste stream			
2190			for each averaging period that a hazardous waste is managed in the			
2191			unit.			
2192						
2193			B) An owner or operator must perform a new waste determination			
2194			whenever changes to the source generating the waste stream are			
2195			reasonably likely to cause the average VO concentration of the			
2196			hazardous waste to increase to a level that is equal to or greater			
2197			than the VO concentration limits specified in Section			
2198			725.983(c)(1).			
2199						
2200		2)	For a waste determination that is required by subsection $(a)(1)$ of this			
2201			Section, the average VO concentration of a hazardous waste at the point of			
2202			waste origination must be determined using either direct measurement, as			
2203			specified in subsection (a)(3) of this Section, or by knowledge of the			
2204			waste, as specified in subsection (a)(4) of this Section.			
2205						
2206		3)	Direct measurement to determine average VO concentration of a			
2207			hazardous waste at the point of waste origination.			
2208						
2209			A) Identification. The owner or operator must identify and record the			
2210			point of waste origination for the hazardous waste.			
2211						
2212			B) Sampling. Samples of the hazardous waste stream must be			
2213			collected at the point of waste origination in such a manner that			
2214			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.

 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.

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 in ambient temperature.

ii

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 Reference Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

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2258 iv) Sufficient information, as specified in the "site sampling 2259 plan" required under subsection (a)(3)(B)(iii) of this 2260 Section, must be prepared and recorded to document the waste quantity represented by the samples and, as 2261 2262 applicable, the operating conditions for the source or 2263 process generating the hazardous waste represented by the 2264 samples. 2265 2266 C) Analysis. Each collected sample must be prepared and analyzed in 2267 accordance with Reference Method 25D in appendix A to 40 CFR 60 for the total concentration of volatile organic constituents or 2268 2269 using one or more methods when the individual organic compound 2270 concentrations are identified and summed and the summed waste 2271 concentration accounts for and reflects all organic compounds in 2272 the waste with Henry's law constant values at least 0.1 mole-2273 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} 2274 atmospheres/gram-mole/m³) at 25° C (77° F). At the owner's or 2275 2276 operator's discretion, the owner or operator may adjust test data 2277 measured by any appropriate method to discount any contribution 2278 to the total volatile organic concentration that is a result of 2279 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 2280 concentration of each individual chemical constituent contained in 2281 the waste is multiplied by the constituent-specific adjustment 2282 2283 factor (fm25D). If the owner or operator elects to adjust test data, the 2284 adjustment must be made to all individual chemical constituents 2285 with a Henry's law constant value greater than or equal to 0.1 Y/X 2286 at 25° C contained in the waste. Constituent-specific adjustment 2287 factors (fm25D) can be obtained in writing from the Agency-by contacting the USEPA, Waste and Chemical Processes Group, 2288 2289 Office of Air Quality Planning and Standards, Research Triangle 2290 Park, NC 27711. Other test methods may be used if they meet the 2291 requirements in subsection (a)(3)(C)(i) or (a)(3)(C)(ii) of this 2292 Section and provided the requirement is met to reflect all organic 2293 compounds in the waste with Henry's law constant values greater than or equal to 0.1 Y/X (which can also be expressed as 1.8 x 10⁻⁶ 2294 2295 atmospheres/gram-mole/m³) at 25° C. 2296 2297 i) Any USEPA standard method that has been validated in 2298 accordance with appendix D to 40 CFR 63 (Alternative 2299 Validation Procedure for EPA Waste and Wastewater

2300 2301			Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b); or
2302			,20111(0),01
2303		ii)	Any other analysis method that has been validated in
2304		11)	accordance with the procedures specified in Section 51 or
2305			5.3 and the corresponding calculations in Section 6.1 or
2305			6.3 of Method 301 (Field Validation of Pollutant
2300			Macurament Methods from Various Weste Media) in
2307			appendix A to 40 CEP 62 (Test Methods) incorporated by
2308			reference in 25 III. Adm. Code 720 111(b). The date are
2309			reference in 55 m. Adm. Code 720.111(b). The data are
2211			6.1.5 or 6.2.2 of Mathed 201. If correction is required
2212			under Section 6.2.2 of Mathed 201, the data are acceptable
2312			if the correction factor is within the range 0.7 to 1.20
2313			Other sections of Method 201 are not required
2314			Other sections of Method 301 are not required.
2313	D	Cala	172
2310	D)	Calc	ulations
2317			
2318		i)	The average VO concentration (C) on a mass-weighted
2319			basis must be calculated by using the results for all waste
2320			determinations conducted in accordance with subsections
2321			(a)(3)(B) and (a)(3)(C) of this Section and the following
2322			equation:
2323			
2324			$\overline{C} = \frac{1}{Q_T} \times \sum_{i=1}^n (Q_i \times C_i)$
2325			
2326			Where:
2327			
			\overline{C} = Average VO concentration of the hazardous waste at the point of waste origination on a mass weighted basis in ppmw
			 i = Individual waste determination "i" of the hazardous waste
			n = Total number of waste determinations of the hazardous waste conducted for the averaging

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.
2328		
2329		ii) For the purpose of determining C _i , for individual waste
2330		samples analyzed in accordance with subsection $(a)(3)(C)$
2331		of this Section, the owner or operator must account for VO
2332		concentrations determined to be below the limit of
2333		detection of the analytical method by using the VO
2334		concentration determined according to subsection $(a)(3)(G)$
2335		of this Section.
2336		
2337	E)	Provided that the test method is appropriate for the waste as
2338		required under subsection (a)(3)(C) of this Section, the Agency
2339		must determine compliance based on the test method used by the
2340		owner or operator as recorded pursuant to Section 725.990(f)(1).
2341		
2342	F)	The quality assurance program elements required under
2343		subsections (a)(3)(C)(vi) and (a)(3)(C)(vii) of this Section are as
2344		follows:
2345		
2346		i) Documentation of site-specific procedures to minimize the
2347		loss of compounds due to volatilization, biodegradation,
2348		reaction, or sorption during the sample collection, storage,
2349		preparation, introduction, and analysis steps.
2350		
2351		ii) Measurement of the overall accuracy and precision of the
2352		specific procedures.
2353		
2354		BOARD NOTE: Subsections (a)(3)(F)(i) and (a)(3)(F)(ii) are
2355		derived from 40 CFR 265.984(a)(3)(iii)(F)(1), (a)(3)(iii)(F)(2),
2356		(a)(3)(iii)(G)(1), and (a)(3)(iii)(G)(2), which the Board has
2357		codified here to comport with Illinois Administrative Code format
2358		requirements.
2359		
2360	G)	VO concentrations below the limit of detection must be considered
2361		to be as follows:
2362		
2363		i) If <u>Reference</u> Method 25D is used for the analysis, the VO
2364		concentration must be considered to be one-half the blank
2365		value determined in the method at Section 4.4 of Reference
2366		Method 25D.

2367				
2368			ii)	If any other analytical method is used, the VO
2369			2	concentration must be considered to be one-half the sum of
2370				the limits of detection established for each organic
2371				constituent in the waste that has a Henry's law constant
2372				value at least 0.1 mole-fraction-in-the-gas-phase/mole-
2373				fraction-in-the-liquid-phase (0.1 Y/X) (which can also be
2374				expressed as 1.8 x 10 ⁻⁶ atmospheres/gram-mole/m3) at 25°
2375				с.
2376				
2377			BOAH	ONOTE: Subsections (a)(3)(G)(i) and (a)(3)(G)(ii) are
2378			derive	d from 40 CFR 265.984(a)(3)(iv)(A)(1) and (a)(3)(iv)(A)(2).
2379			which	the Board has codified here to comport with Illinois
2380			Admin	nistrative Code format requirements.
2381				
2382	4)	Use o	fowner	or operator knowledge to determine average VO
2383	-2	conce	entration	of a hazardous waste at the point of waste origination.
2384				in a subset of the second s
2385		A)	Docur	nentation must be prepared that presents the information
2386			used a	s the basis for the owner's or operator's knowledge of the
2387			hazaro	lous waste stream's average VO concentration. Examples of
2388			inform	nation that may be used as the basis for knowledge include
2389			the fo	lowing: material balances for the source or process
2390			genera	ating the hazardous waste stream: constituent-specific
2391			chemi	cal test data for the hazardous waste stream from previous
2392			testing	g that are still applicable to the current waste stream; previous
2393			test da	ta for other locations managing the same type of waste
2394			stream	n: or other knowledge based on information included in
2395			manif	ests, shipping papers, or waste certification notices.
2396				
2397		B)	If test	data are used as the basis for knowledge, then the owner or
2398			operat	or must document the test method, sampling protocol, and
2399			the me	eans by which sampling variability and analytical variability
2400			are ac	counted for in the determination of the average VO
2401			conce	ntration. For example, an owner or operator may use organic
2402			conce	ntration test data for the hazardous waste stream that are
2403			valida	ted in accordance with Method 301 as the basis for
2404			know	edge of the waste.
2405				
2406		C)	An ov	vner or operator using chemical constituent-specific
2407			conce	ntration test data as the basis for knowledge of the hazardous
2408			waste	may adjust the test data to the corresponding average VO
2409			conce	ntration value that would have been obtained had the waste
				Canadian and a substant statement of the sta

		samples been analyzed using <u>Reference</u> Method 25D. To adjust these data, the measured concentration for each individual chemical constituent contained in the waste is multiplied by the appropriate constituent-specific adjustment factor (f_{m25D}).
	D)	In the event that the Agency and the owner or operator disagree on a determination of the average VO concentration for a hazardous waste stream using knowledge, then the results from a
		determination of average VO concentration using direct measurement, as specified in subsection (a)(3) of this Section, must be used to establish compliance with the applicable requirements of this Subpart CC. The Agency may perform or request that the owner or operator perform this determination using direct measurement. The owner or operator may choose one or more appropriate methods to analyze each collected sample in accordance with the requirements of subsection (a)(3)(C) of this
b)	Waste det	ermination procedures for treated hazardous waste.
	1) An ead exe (c) spo ma	a owner or operator must perform the applicable waste determination for ch treated hazardous waste placed in a waste management unit empted under the provisions of Section 725.983(c)(2)(A) through (2)(F) from using air emission controls in accordance with the standards ecified in Sections 725.985 through 725.988, as applicable to the waste magement 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.
	b)	D) b) Waste deta 1) An ead exa (c) spo ma A) B)

2453 2454	2)	The o Sectio	wner on on 725.9	operator must designate and record the specific provision in 083(c)(2) under which the waste determination is being				
2455		perfor	performed. The waste determination for the treated hazardous waste must					
2456		be per	be performed using the applicable procedures specified in subsections					
2457		(b)(3)	throug	h (b)(9) of this Section.				
2458								
2459	3)	Proce	dure to	determine the average VO concentration of a hazardous				
2460		waste	at the r	point of waste treatment.				
2461								
2462		A)	Identi	fication. The owner or operator must identify and record the				
2463			point	of waste treatment for the hazardous waste.				
2464								
2465		B)	Samp	ling. Samples of the hazardous waste stream must be				
2466		-/	collec	ted at the point of waste treatment in such a manner that				
2467			volati	lization of organics contained in the waste and in the				
2468			subse	quent sample is minimized and an adequately representative				
2469			samp	le is collected and maintained for analysis by the selected				
2470			metho	od.				
2471								
2472			i)	The averaging period to be used for determining the				
2473			-)	average VO concentration for the hazardous waste stream				
2474				on a mass-weighted average basis must be designated and				
2475				recorded The averaging period can represent any time				
2476				interval that the owner or operator determines is				
2477				appropriate for the hazardous waste stream but must not				
2478				exceed one year				
2479								
2480			ii)	A sufficient number of samples, but no fewer than four				
2481)	samples must be collected and analyzed for a hazardous				
2482				waste determination All of the samples for a given waste				
2483				determination must be collected within a one-hour period				
2484				The average of the four or more sample results constitutes a				
2485				waste determination for the hazardous waste stream. One				
2486				or more waste determinations may be required to represent				
2487				the complete range of waste compositions and quantities				
2488				that occur during the entire averaging period due to normal				
2489				variations in the operating conditions for the process				
2490				generating or treating the hazardous waste stream				
2491				Examples of such normal variations are seasonal variations				
2492				in waste quantity or fluctuations in ambient temperature				
2493				in music quality of indetautons in anotone temperature.				
2494			iii)	All samples must be collected and handled in accordance				
2495			iii)	with written procedures prepared by the owner or operator				
27)5				with written procedures prepared by the owner of operator				

2406		
2490		and documented in a site sampling plan. This plan must
2497		describe the procedure by which representative samples of
2498		the hazardous waste stream are collected so that a
2499		minimum loss of organics occurs throughout the sample
2500		collection and handling process, and by which sample
2501		integrity is maintained. A copy of the written sampling plan
2502		must be maintained on-site in the facility operating records.
2503		An example of an acceptable sample collection and
2504		handling procedures for a total organic constituent
2505		concentration may be found in Reference Method 25D.
2506		
2507		iv) Sufficient information, as specified in the "site sampling
2508		plan" required under subsection (a)(3)(B)(iii) of this
2509		Section, must be prepared and recorded to document the
2510		waste quantity represented by the samples and, as
2511		applicable, the operating conditions for the process treating
2512		the hazardous waste represented by the samples.
2513		
2514	C)	Analysis. Each collected sample must be prepared and analyzed in
2515	-1	accordance with Reference Method 25D for the total concentration
2516		of volatile organic constituents or using one or more methods when
2517		the individual organic compound concentrations are identified and
2518		summed, and the summed waste concentration accounts for and
2519		reflects all organic compounds in the waste with Henry's law
2520		constant values at least 0.1 mole-fraction-in-the-gas-phase/mole-
2521		fraction-in-the-liquid-phase (0.1 Y/X) (which can also be
2522		expressed as 1.8 x 10 ⁻⁶ atmospheres/gram-mole/m ³) at 25° C (75°
2523		F). When the owner or operator is making a waste determination
2524		for a treated hazardous waste that is to be compared to an average
2525		VO concentration at the point of waste origination or the point of
2526		waste entry to the treatment system, to determine if the conditions
2527		of 35 Ill. Adm. Code 724.982(c)(2)(A) through (c)(2)(F) or Section
2528		725.983(c)(2)(A) through $(c)(2)(F)$ are met, then the waste samples
2529		must be prepared and analyzed using the same method or methods
2530		as were used in making the initial waste determinations at the point
2531		of waste origination or at the point of entry to the treatment
2532		system. At the owner's or operator's discretion, the owner or
2533		operator may adjust test data obtained by any appropriate method
2534		to discount any contribution to the total volatile organic
2535		concentration that is a result of including a compound with a
2536		Henry's law constant value less than 0.1 Y/X at 25° C. To adjust
2537		these data, the measured concentration of each individual chemical
2538		constituent contained in the waste is multiplied by the constituent-

2539	specific adjustment factor (f_{m25D}). If the owner or operator elects t	0
2540	adjust test data, the adjustment must be made to all individual	
2541	chemical constituents with a Henry's law constant value greater	
2542	than or equal to 0.1 Y/X at 25° C contained in the waste.	
2543	Constituent-specific adjustment factors (fm25D) can be obtained in	
2544	writing from the Agencyby contacting the USEPA, Waste and	
2545	Chemical Processes Group, Office of Air Quality Planning and	
2546	Standards, Research Triangle Park, NC 27711. Other test methods	;
2547	may be used if they meet the requirements in subsection	
2548	(a)(3)(C)(i) or (a)(3)(C)(ii) of this Section and provided the	
2549	requirement is met to reflect all organic compounds in the waste	
2550	with Henry's law constant values greater than or equal to 0.1 Y/X	
2551	(which can also be expressed as 1.8 x 10 ⁻⁶ atmospheres/gram-	
2552	mole/m ³) at 25° C.	
2553		
2554	i) Any USEPA standard method that has been validated in	
2555	accordance with appendix D to 40 CFR 63, incorporated b	v
2556	reference in 35 III. Adm. Code 720.111(b); or	-
2557		
2558	ii) Any other analysis method that has been validated in	
2559	accordance with the procedures specified in Section 5.1 or	
2560	5.3, and the corresponding calculations in Section 6.1 or	
2561	6.3, of Method 301 in appendix A to 40 CFR 63.	
2562	incorporated by reference in 35 III. Adm. Code 720.111(b)	
2563	The data are acceptable if they meet the criteria specified i	n
2564	Section 6.1.5 or 6.3.3 of Method 301. If correction is	1
2565	required under Section 6.3.3 of Method 301, the data are	
2566	acceptable if the correction factor is within the range 0.7 to	2
2567	1 30 Other sections of Method 301 are not required	
2568	1.50. Outer Sections of Fredridd 501 are not required.	
2569	D) Calculations The average VO concentration (\overline{C}) on a mass-	
2570	weighted basis must be calculated by using the results for all	
2571	samples analyzed in accordance with subsection $(b)(3)(C)$ of this	
2572	Section and the following equation:	
2572	Section and the following equation.	
2515	1 1	
2574	$\overline{C} = \frac{1}{Q_T} \times \sum_{i=1}^{\infty} (Q_i \times C_i)$	
2575		
2576	Where:	
2577		
	\overline{C} = Average VO concentration of the hazardous waste at the point of waste treatment on a mass- weighted basis, in ppmw	

			i	= Individual determination "i" of the hazardous		
				Total number of waste determinations of the		
			п	- Total number of waste determinations of the		
				period (not to exceed one year)		
			0:	= Mass quantity of the hazardous waste stream		
			Qi	represented by C_i in kg/hr		
			QT	= Total mass quantity of hazardous waste during		
			0	the averaging period, in kg/hr		
			Ci	= Measured VO concentration of waste		
				determinations "1," as determined in accordance		
				with the requirements of subsection $(b)(3)(C) \rightarrow 0$		
				this section (i.e., the average of the four or more		
				this Section) in provide		
2578				tins section), in ppinw.		
2570		E	Drovida	d that the test method is appropriate for the wester of		
2579		E)	required	a that the test method is appropriate for the waste as $(h)(3)(C)$ of this Section compliance		
2580			must ba	determined based on the test method used by the owner or		
2581			must be	r as recorded pursuant to Section 725 $000(f)(1)$		
2582			operator	as recorded pursuant to section $725.990(1)(1)$.		
2585	4)	Droco	dura to da	starming the avit concentration limit (C_{i}) for a tracted		
2585	4)	hazar	Procedure to determine the exit concentration $\min_{t \in T} (C_t)$ for a treated			
2585		Ilazar	uous wasi	с.		
2580		41	The poi	nt of waste origination for each hazardous waste treated by		
2588		A)	the proc	the of waste origination for each nazardous waste freated by		
2580			the proc	ess at the same time must be identified.		
2590		B)	If a sino	de hazardous waste stream is identified in subsection		
2590		D)	(h)(4)(A)) of this Section then the exit concentration limit (C) must		
2591			be 500 t	opmw		
2592			00 500 1	jpinw.		
2594		C)	If more	than one hazardous waste stream is identified in subsection		
2595		0)	(b)(4)(A)) of this Section then the average VO concentration of		
2596			each ha	zardous waste stream at the point of waste origination must		
2597			be deter	mined in accordance with the requirements of subsection		
2598			(a) of th	is Section. The exit concentration limit (C _t) must be		
2599			calculat	ed by using the results determined for each individual		
2600			hazardo	us waste stream and the following equation:		
2601			inclui de	as habe bu can and the following equation		
2001				$\frac{m}{m}$ ($-$) $\frac{n}{m}$ ()		
				$\sum (Q_x \times C_x) + \sum (Q_y \times 500 ppmw)$		
2602				$C_{t} = \frac{x=1}{y=1}$		
				$\sum_{n=1}^{m} O + \sum_{n=1}^{n} O$		
				x=1 $y=1$		

0.000			
2603		11.11	
2604		Where:	
2605		Ct	 Exit concentration limit for treated hazardous waste, in ppmw
		х	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
		У	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
		Qx	= Annual mass quantity of hazardous waste stream "x," in kg/yr
		Qy	= Annual mass quantity of hazardous waste stream "y," in kg/yr
		\overline{C}_x	Average VO concentration of hazardous waste stream "x" at the point of waste origination, as determined in accordance with the requirements of subsection (a) of this Section, in ppmw.
2606			
2607	5)	Procedure to de	etermine the organic reduction efficiency (R) for a treated
2608		hazardous wast	te
2609			
2610		A) The org	anic reduction efficiency (R) for a treatment process must
2611		be deter	rmined based on results for a minimum of three consecutive
2612		runs.	
2613			
2614		B) All haz	ardous waste streams entering the process and all hazardous
2615		waste s	treams exiting the treatment process must be identified.
2616		The ow	ner or operator must prepare a sampling plan for measuring
2617		these st	reams that accurately reflects the retention time of the
2618		hazardo	ous waste in the process.
2619			
2620		C) For eac	h run, information must be determined for each hazardous
2621		waste s	tream identified in subsection (b)(5)(B) of this Section,

2622		using the following procedures:
2623		
2624		1) The mass quantity of each hazardous waste stream entering
2625		the process (Q_b) and the mass quantity of each hazardous
2626		waste stream exiting the process (Q_a) must be determined;
2627		and
2628		
2629		ii) The average VO concentration at the point of waste
2630		origination of each hazardous waste stream entering the
2631		process (C_b) during the run must be determined in
2632		accordance with the requirements of subsection (a)(3) of
2633		this Section. The average VO concentration at the point of
2634		waste treatment of each hazardous waste stream exiting the
2635		process (Ca) during the run must be determined in
2636		accordance with the requirements of subsection (b)(3) of
2637		this Section.
2638		
2639	D)	The waste volatile organic mass flow entering the process (E_b) and
2640		the waste volatile organic mass flow exiting the process (E _a) must
2641		be calculated by using the results determined in accordance with
2642		subsection (b)(5)(C) of this Section and the following equations:
2643		energian (e)(e)(e) er me er mer me rene mil Arminer
		$1 \frac{m}{m}$
2644		$E_b = \frac{1}{10^6} \sum \left(Q_{bi} \times C_{bi} \right)$
		$10^{\circ} \frac{1}{j=1}$
2645		
2646		$r = \frac{1}{2} \sum_{n=1}^{\infty} (\alpha_{n}, \overline{\alpha_{n}})$
2040		$E_a = \frac{10^6}{10^6} \sum_{i=1}^{6} (Q_{aj} \times C_{aj})$
2647		10 J=1
2047		Wherea
2046		where.
2049		E - Weste veletile energie mens flow with a the
		$E_a = $ waste volatile organic mass flow exiting the
		process, in kg/nr
		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
		$\Omega = \Delta v = \sigma =$
		Qaj - Average mass quantity of waste exiting the
		$\Gamma_{\rm res} = \Lambda_{\rm response VO}$ concentration of herendown wants
		c_{aj} = Average vO concentration of nazardous waste

exiting the process during run "j," as determined

in accordance with the requirements of subsection (b)(3) of this Section, in ppmw

 $\overline{C_{bi}}$ = 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. 2650 2651 E) The organic reduction efficiency of the process must be calculated by using the results determined in accordance with subsection 2652 2653 (b)(5)(D) of this Section and the following equation: 2654 $R = \frac{E_b - E_a}{E_b} \times 100\%$ 2655 2656 2657 Where: 2658 R = Organic reduction efficiency, in percent E_b = Waste volatile organic mass flow entering the process as determined in accordance with the requirements of subsection (b)(5)(D) of this Section, in kg/hr E_a = Waste volatile organic mass flow exiting the process as determined in accordance with the requirements of subsection (b)(5)(D) of this Section, in kg/hr. 2659 2660 6) Procedure to determine the organic biodegradation efficiency (Rbio) for a 2661 treated hazardous waste 2662 2663 A) The fraction of organics biodegraded (Fbio) must be determined 2664 using the procedure specified in appendix C to 40 CFR 63 2665 (Determination of the Fraction Biodegraded (Fbio) in a Biological 2666 Treatment Unit), incorporated by reference in 35 Ill. Adm. Code 2667 720.111(b). 2668 2669 B) The organic biodegradation efficiency (R_{bio}) must be calculated by using the following equation: 2670 2671 $R_{hio} = F_{hio} \times 100\%$ 2672 2673 2674 Where: 2675

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.
- Procedure to determine the required organic mass removal rate (RMR) for a treated hazardous waste
 - 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:

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

Where:

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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 m³/hr
- k_y = Density of hazardous waste stream "y," in kg/m³

		 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.
2702		
2703	8)	Procedure to determine the actual organic mass removal rate (MR) for a
2704		treated hazardous waste
2705		
2706		A) The actual organic mass removal rate (MR) must be determined
2707		based on results for a minimum of three consecutive runs. The
2708		sampling time for each run must be one hour.
2709		
2710		B) The waste volatile organic mass flow entering the process (E_b) and
2711		the waste volatile organic mass flow exiting the process (E_a) must
2712		be determined in accordance with the requirements of subsection
2713		(b)(5)(D) of this Section.
2714		
2715		C) The actual organic mass removal rate (MR) must be calculated by
2716		using the mass flow rate determined in accordance with the
2717		requirements of subsection (b)(8)(B) of this Section and the
2718		following equation:
2719		Tono wing equation.
2720		$MR = E_b - E_a$
2721		
2722		Where:
2723		
-9451 () () ()		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.
2724		overlein, in rig in .
2725	9)	Procedure to determine the actual organic mass biodegradation rate
2726	~)	(MR _{bin}) for a treated bazardous waste
2727		
2728		A) The actual organic mass biodegradation rate (MR), must be
2729		determined based on results for a minimum of three consecutive
2730		runs. The sampling time for each run must be one hour
2731		runs. The sampning time for each run must be one nour.

2732 2733 2734		В) The waste of determined (b)(5)(D)-e	organic mass flow entering the process (E _b) must be in accordance with the requirements of subsection
2735				
2736		С) The fraction	n of organic biodegraded (Fbio) must be determined
2737			using the pr	ocedure specified in appendix C to 40 CFR 63
2738			(Determina	tion of the Fraction Biodegraded (Frie) in a Biological
2739			Treatment I	Unit) incorporated by reference in 35 Ill Adm Code
2740			720.111(b)	
2741			/20.111(0).	
2742		D) The actual	organic mass biodegradation rate (MRbio) must be
2743			calculated h	by using the mass flow rates and fraction of organic
2744			biodegrade	d as determined in accordance with the requirements of
2745			subsections	(b)(9)(B) and (b)(9)(C) of this Section, respectively.
2746			and the foll	owing equation:
2747				
2748				$MR_{hig} = E_h \times F_{hig}$
2749				
2750			Where:	
2751				
			MR _{bio}	 Actual organic mass biodegradation rate, in kg/hr
			Еь	 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
2752			F _{bio}	Fraction of organic biodegraded, as determined in accordance with the requirements of subsection (b)(9)(C) of this Section.
2752	(0	Drocodur	a to datarmina th	movimum organic vanor processo of a hozardous
2753	C)	waste in	e to determine ind	e maximum organic vapor pressure or a nazardous
2755		waste ma	a talik.	
2756		1) A	n owner or opera	tor must determine the maximum organic vapor
2757		1) A	ressure for each h	azardous waste placed in a tank using Tank I evel 1
2758		pi	ontrols in accords	nce with standards specified in Section 725 085(c)
2750		C.	muois in accorda	nee with standards specified in Section 725.965(c).
2759		2) A	n oumer or opera	tor must use either direct measurement as specified in
2761		2) A	hearting (a)(3) a	f this Section or knowledge of the waste as specified in
2762		b	(c)(3)) of this Section to determine the maximum organic
2763		0	apor pressure that	is representative of the hazardous waste composition
2764		va	apor pressure that	the tank
2765		St	ored or treated in	uie tank.
2705				

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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 acceptable sample collection and handling procedures may be found in <u>Reference</u> 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:

- <u>Reference</u> 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);
- 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.

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

2809 2810			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
2811			example of information that may be used is documentation that the
2812			hazardous waste is generated by a process for which at other locations it
2813			previously has been determined by direct measurement that the waste
2814			maximum organic vapor pressure is less than the maximum vapor pressure
2815			limit for the appropriate tank design capacity category
2816			mint for the appropriate tank design capacity category.
2817	(h	The n	rocedure for determining no detectable organic emissions for the nurpose of
2818	u)	comp	lying with this Subpart CC is as follows:
2819		comp	lying with this Subpart CC is as follows.
2820		1)	The test must be conducted in accordance with the procedures specified in
2821		1)	Reference Method 21 (Determination of Volatile Organic Compound
2822			Leaks) of appendix A to 40 CFR 60 (Test Methods), incorporated by
2822			reference in 35 Ill Adm Code 720 111(b) Each potential leak interface
2823			(i.e. a location where organic vanor leakage could occur) on the cover and
2825			associated closure devices must be checked. Potential leak interfaces that
2826			are associated with covers and closure devices include but are not limited
2827			to any of the following: the interface of the cover and its foundation
2828			mounting the periphery of any opening on the cover and its associated
2820			closure device and the sealing seat interface on a spring-loaded pressure
2820			relief valve
2830			Tener varve.
2031		2)	The test must be performed when the unit contains a bazardous waste
2032		2)	having an organic concentration representative of the range of
2833			naving an organic concentration representative of the range of
2034			During the test, the cover and closure devices must be secured in the
2033			alosed position
2030			closed position.
2037		3)	The detection instrument must meet the performance criteria of Reference
2830		5)	Method 21 except the instrument response factor criteria in Section
2835			3.1.2(a) of Reference Method 21 must be for the average composition of
2841			the organic constituents in the hazardous waste placed in the waste
2842			management unit, not for each individual organic constituent
2842			management unit, not for each marviduar organic constituent.
2843		4)	The detection instrument must be calibrated before use on each day of its
2845		4)	use by the procedures specified in Reference Method 21
2846			use by the procedures specified in <u>Reference</u> include 21.
2847		5)	Calibration gases must be as follows:
2847		5)	Cambration gases must be as follows.
2840			A) Zero air (less than 10 nnmy hydrocarbon in air) and
2850			Ty Zero an (1055 than 10 ppmv nythotarbon in an), and
2851			B) A mixture of methane or n-beyane in air at a concentration of
2001			b) A mixture of mentane of m-nexane in an at a concentration of

2852 approximately, but less than, 10,000 ppmv methane or n-hexane. 2853 2854 The background level must be determined according to the procedures in 6) 2855 Reference Method 21. 2856 2857 7) Each potential leak interface must be checked by traversing the instrument 2858 probe around the potential leak interface as close to the interface as possible, as described in Reference Method 21. In the case when the 2859 configuration of the cover or closure device prevents a complete traverse 2860 2861 of the interface, all accessible portions of the interface must be sampled. 2862 In the case when the configuration of the closure device prevents any 2863 sampling at the interface and the device is equipped with an enclosed 2864 extension or horn (e.g., some pressure relief devices), the instrument probe 2865 inlet must be placed at approximately the center of the exhaust area to the 2866 atmosphere. 2867 2868 8) The arithmetic difference between the maximum organic concentration indicated by the instrument and the background level must be compared 2869 2870 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 2871 2872 comparison must be as specified in subsection (d)(9) of this Section. If the 2873 difference is less than 500 ppmv, then the potential leak interface is 2874 determined to operate with no detectable organic emissions. 2875 2876 9) For the seals around a rotating shaft that passes through a cover opening, 2877 the arithmetic difference between the maximum organic concentration 2878 indicated by the instrument and the background level must be compared 2879 with the value of 10,000 ppmw. If the difference is less than 10,000 2880 ppmw, then the potential leak interface is determined to operate with no 2881 detectable organic emissions. 2882 2883 (Source: Amended at 40 Ill. Reg. , effective) 2884 2885 Section 725.985 Standards: Tanks 2886 2887 The provisions of this Section apply to the control of air pollutant emissions from a) tanks for which Section 725.983(b) references the use of this Section for such air 2888 2889 emission control. 2890 2891 The owner or operator must control air pollutant emissions from each tank subject b) 2892 to this Section in accordance with the following requirements, as applicable: 2893 2894 1) For a tank that manages hazardous waste that meets all of the conditions

2895		specifi	ed in s	ubsections (b)(1)(A) through (b)(1)(C) of this Section, the		
2896		owner or operator must control air pollutant emissions from the tank in				
2897		accordance with the Tank Level 1 controls specified in subsection (c)-of				
2898		this Se	etion o	or the Tank Level 2 controls specified in subsection (d) of this		
2899		Section	a.			
2900						
2901		A)	The h	azardous waste in the tank has a maximum organic vapor		
2902			pressu	are that is less than the maximum organic vapor pressure limit		
2903			for the	e tank's design capacity category, as follows:		
2904						
2905			i)	For a tank design capacity equal to or greater than 151 m^3		
2906			-/	(5333 ft ³ or 39,887 gal), the maximum organic vapor		
2907				pressure limit for the tank is 5.2 kPa (0.75 psia or 39		
2908				mmHo).		
2909				mining),		
2910			ii)	For a tank design canacity equal to or greater than 75 m^3		
2911			11)	$(2649 \text{ ft}^3 \text{ or } 19810 \text{ gal})$ but less than 151 m^3 (5333 ft ³ or		
2912				39.887 gal) the maximum organic vanor pressure limit for		
2013				the tank is 27.6 kPa (4.0 nsia or 207 mmHg); or		
2014						
2015			iii)	For a tank design canacity less than 75 m ³ (2649 ft ³ or		
2016			m)	10 810 gal) the maximum organic vapor pressure limit for		
2017				the tank is 76.6 kPa (11.1 psia or 574 mmHg)		
2018				the tank is 70.0 ki a (11.1 psia of 574 mining).		
2910		D)	Thah	azardous waste in the tank is not heated by the owner or		
2919		Б)	opera	tor to a temperature that is greater than the temperature at		
2920			opera	to a temperature that is greater than the temperature at		
2921			in dat	armined for the purpose of complying with subsection		
2922			(b)(1)	(A) of this Section		
2923			(0)(1)	(A) or this section.		
2924		C	Thah	avardays wasts in the tank is not treated by the owner or		
2925		0)	The n	azardous waste in the tank is not freated by the owner of		
2920			opera 725.0	or using a waste stabilization process, as defined in Section		
2927			125.9	81.		
2928	2)	P	and ale	the second second states and second state		
2929	2)	Forat	ank tha	at manages nazardous waste that does not meet all of the $(1)(1)(A)$ does not meet all of the		
2930		condit	ions sp	ecified in subsections (b)(1)(A) through (b)(1)(C) of this		
2931		Sectio	n, the c	owner or operator must control air pollutant emissions from		
2932		the tan	ik by u	sing Tank Level 2 controls in accordance with the		
2933		require	ements	of subsection (d) of this Section. Examples of tanks required		
2934		to use	Tank I	Level 2 controls include the following: a tank used for a waste		
2935		stabili	zation	process and a tank for which the hazardous waste in the tank		
2936		has a r	naxim	um organic vapor pressure that is equal to or greater than the		
2937		maxin	num or	ganic vapor pressure limit for the tank's design capacity		

2759 2940c)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:2943 29441)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 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.2955 29562)The tank must be equipped with a fixed roof designed to meet the following specifications:2960 295720The tank must be equipped with a 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).2965 2966B)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 usible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the coof edge and the tank usible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the coof edge and the tank usible cracks, holes, gaps, or other open spaces betw	2938			catego	ory, as specified in subsection (b)(1)(A)-of this Section.
2941C)All owner of operator controling all pollutant emissions from a tank using rank Level 1 controls must meet the requirements specified in subsections (c)(1) through (c)(4) of this-Section:29431)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.29552)The tank must be equipped with a fixed roof designed to meet the following specifications:29582)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 or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).2965B)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 2967296820C)Either of the following must be true of each opening in the fixed roof and of any manifold system associated with the fixed roof and of any manifold system associated with the fixe	2939		1	Tran or	onorotor controlling or pollutent oniggions from a toul using Toul
2941Devent 1 controls must meet the requirements specified in subsections (c)(1)2942through (c)(4) of this Section:29431)The owner or operator must determine the maximum organic vapor29441)The owner or operator must determine the hazardous waste is placed in the2945pressure for a hazardous waste to be managed in the tank using Tank2946Level 1 controls before the first time the hazardous waste is placed in the2947tank. The maximum organic vapor pressure must be determined using the2948procedures specified in Section 725.984(c). Thereafter, the owner or2950operator must perform a new determination whenever changes to the2951maximum organic vapor pressure to increase to a level that is equal to or2952greater than the maximum organic vapor pressure limit for the tank desigr2953capacity category specified in subsection (b)(1)(A) of this Section, as2954applicable to the tank.29552)29562)2958A)2960continuous barrier over the entire surface area of the hazardous2961waste in the tank. The fixed roof may be a separate cover installed2962or the tank (e.g., a removable cover mounted on an open-top tank)2963or may be an integral part of the tank structural design (e.g., a2964horizontal cylindrical tank equipped with a hatch).29652)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 roo	2940	C)	An o	l 1 contr	operator controlling air pollutant emissions from a tank using rank
2942Infolgin (C)(4) of this Section:29431)The owner or operator must determine the maximum organic vapor29441)The owner or operator must determine the maximum organic vapor2945pressure for a hazardous waste to be managed in the tank using Tank2946Level 1 controls before the first time the hazardous waste is placed in the2947tank. The maximum organic vapor pressure must be determined using the2948procedures specified in Section 725.984(c). Thereafter, the owner or2949operator must perform a new determination whenever changes to the2950hazardous waste managed in the tank could potentially cause the2951maximum organic vapor pressure to increase to a level that is equal to or2952greater than the maximum organic vapor pressure limit for the tank design2953capacity category specified in subsection (b)(1)(A) of this Section, as2954applicable to the tank.29552)The tank must be equipped with a fixed roof designed to meet the2960continuous barrier over the entire surface area of the hazardous2961waste in the tank. The fixed roof may be a separate cover installed2962or may be an integral part of the tank structural design (e.g., a2963horizontal cylindrical tank equipped with a hatch).2964or may be an integral part of the tank structural design (e.g., a2965B)The fixed roof must be installed in such a manner that there are no2966B)The fixed roof must be true of each opening in the fixed2967coff the	2941		throw	r = contraction	of this Section:
2743 29441)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.29552)The tank must be equipped with a fixed roof designed to meet the following specifications:2959A)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 or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).2966B)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 uwall.2970C)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:	2942		throu	gn (c)(4) of this section:
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 2955 2) The tank must be equipped with a fixed roof designed to meet the following specifications: 2958 2959 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). 2965 2966 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. 2970 2971 C) Either of the following must be true of each opening in the fixed roof must be either: 	2954			applic	cable to the tank.
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2961waste 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).2963B)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.2970C)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:	2960				continuous barrier over the entire surface area of the hazardous
 2962 on the tank (e.g., a removable cover mounted on an open-top tank) 2963 or may be an integral part of the tank structural design (e.g., a 2964 horizontal cylindrical tank equipped with a hatch). 2965 2966 B) The fixed roof must be installed in such a manner that there are no 2967 visible cracks, holes, gaps, or other open spaces between roof 2968 section joints or between the interface of the roof edge and the tanl 2969 wall. 2970 2971 C) Either of the following must be true of each opening in the fixed 2973 must be either: 	2961				waste in the tank. The fixed roof may be a separate cover installed
2963or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).2965B)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.2967Either 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:	2962				on the tank (e.g., a removable cover mounted on an open-top tank)
2964horizontal cylindrical tank equipped with a hatch).29652966B)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.296929702971C)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:	2963				or may be an integral part of the tank structural design (e.g., a
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2971C)Either of the following must be true of each opening in the fixed2972roof and of any manifold system associated with the fixed roof2973must be either:	2970				
2972 roof and of any manifold system associated with the fixed roof 2973 must be either:	2971			C)	Either of the following must be true of each opening in the fixed
2973 must be either:	2972				roof and of any manifold system associated with the fixed roof
2021	2973				must be either:
2974	2974				
i) The opening or manifold system is equipped with a closure	2975				i) The opening or manifold system is equipped with a closure
2976 device designed to operate so that when the closure device	2976				device designed to operate so that when the closure device
2977 is secured in the closed position there are no visible cracks	2977				is secured in the closed position there are no visible cracks
2978 holes, gaps, or other open spaces in the closure device or	2978				holes, gaps, or other open spaces in the closure device or
2979 between the perimeter of the opening and the closure	2979				between the perimeter of the opening and the closure
2980 device: or	2980				device: or

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2982 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). 2988 D) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and which will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed. 3000 E) The control device operated pursuant to subsection (c)(2)(C)-ef this-Section needs not remove or destroy organics in the vent stream under the following conditions: 3001 E) 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 covice in not ready operator must promptly secure the closure device in the covice in the activity, the owner or operator must promptly secure the closure device in the clo	2981			
2983 vent system that is vented to a control device. The control 2984 device must remove or destroy organics in the vent stream, 2985 and it must be operating whenever hazardous waste is 2986 managed in the tank, except as provided for in subsection 2987 (c)(2)(E). 2988 D) The fixed roof and its closure devices must be made of suitable 2990 materials that will minimize exposure of the hazardous waste to the 2991 atmosphere, to the extent practical, and which will maintain the 2992 intended service life. Factors to be considered when selecting the 2993 materials for and designing the fixed roof and closure devices must 2994 materials for outdoor exposure to wind, moisture, and 2995 include the following: organic vapor permeability; the effects of 2996 any contact with the hazardous waste or its vapors managed in the 2997 tank; the effects of outdoor exposure to wind, moisture, and 2000 sunlight; and the operating practices used for the tank on which the 2999 fixed roof is installed. 3000 The control device operated pursuant to subsection (c)(2)(C)-of this-Section, venting of the vapor headspace undemeath 3003	2982		ii) The opening or manifold system is connected by a closed-	
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2988D)The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and which will maintain the integrity of the fixed roof and closure devices throughout their integrity of 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.2000E)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:3004i)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; and3013ii)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.3018iii)During periods of colice (c)(2)(E)(ii) and (c)(2)(E)(ii)(B)(2), which the Board has codified here to comport with Illinois Administrative Code format rewirements.	2987		(c)(2)(E).	
2989D)The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and which will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.3000E)3001E)3002The 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:3004i)3005i)3006During periods when it is necessary to provide access to the tank for performing the activities of subsection (c)(2)(E)(fii) of this-Section, venting of the vapor headspace underneath the fixed roof to the control device is not required, pening 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; and3014ii)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.3018iii)During periods of routine inspection, maintenance, or other activi	2988			
2990materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and which will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices must include the following: organic vapor permeability; the effects of any contact with the hazardous waste or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.2000E)The control device operated pursuant to subsection (c)(2)(C)-of this-Seetion needs not remove or destroy organics in the vent stream under the following conditions:3004i)During periods when it is necessary to provide access to the tank for performing the activities of subsection (c)(2)(E)(ii) of this-Seetion, venting of the vapor headspace underneath the fixed roof to the control device is not required, opening oo 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 solid3014ii)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.302BOARD NOTE:Subsections (c)(2)(E)(ii) and (c)(2)(E)(ii) are derived from 40 CFR 265-985(c)(2)(iii)(B)(1) and (c)(2)(ii)(B)(2), which the Board has codified here to comport with llinois Administrative Code format requirements.	2989	D)	The fixed roof and its closure devices must be made of suitable	
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2994materials 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.2999fixed roof is installed.3000E)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:3004i)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 solute access applicable, and resume operation of the control device; and3014ii)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.3015ii)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.3019BOARD 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.	2993		intended service life. Factors to be considered when selecting the	
2995include 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.29002001E)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:30003001E)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:30043005i)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; and301430143015ii)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.30193020BOARD NOTE: Subsections (c)(2)(E)(ii) 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.	2994		materials for and designing the fixed roof and closure devices must	
2996any 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.2998sunlight; and the operating practices used for the tank on which the fixed roof is installed.3000E)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:3004i)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; and3015ii)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.3019BOARD NOTE:Subsections (c)(2)(E)(i) and (c)(2)(E)(ii) are derived from 40 CFR 265.985c(c)(2)(ii)(B)(1) and (c)(2)(iii)(B)(2), which the Board has codified here to comport with Illinois Administrative Code format requirements.	2995		include the following: organic vapor permeability: the effects of	
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3001E)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:3003stream under the following conditions:3004i)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; and3014ii)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.3019BOARD NOTE: which the Board has codified here to comport with Illinois Administrative Code format requirements.	3000			
3002this Section needs not remove or destroy organics in the vent3003stream under the following conditions:3004i)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; and3014ii)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.3019BOARD 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.	3001	E)	The control device operated pursuant to subsection $(c)(2)(C) \rightarrow f$	
3003stream under the following conditions:30043005300630063007300730830983099309930103010301130123013301330143014301530163017301830183019302030203021302130233023302330330430430530530630730830930930930930143015301630173020302030213021302230233023	3002		this Section needs not remove or destroy organics in the vent	
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3008the fixed roof to the control device is not required, opening3009of closure devices is allowed, and removal of the fixed roof3010is allowed. Following completion of the activity, the owner3011or operator must promptly secure the closure device in the3012closed position or reinstall the cover, as applicable, and3013resume operation of the control device; and3014ii)3015ii)3016of accumulated sludge or other residues from the bottom of3018the tank.301930203020BOARD NOTE: Subsections (c)(2)(E)(i) and (c)(2)(E)(ii) are3021derived from 40 CFR 265.985(c)(2)(iii)(B)(1) and (c)(2)(iii)(B)(2),3022which the Board has codified here to comport with Illinois3023Administrative Code format requirements.	3007		of this Section, venting of the vapor headspace underneath	
3009of closure devices is allowed, and removal of the fixed roof3010is allowed. Following completion of the activity, the owner3011or operator must promptly secure the closure device in the3012closed position or reinstall the cover, as applicable, and3013resume operation of the control device; and3014ii)During periods of routine inspection, maintenance, or other3016activities needed for normal operations, and for the removal3017of accumulated sludge or other residues from the bottom of3018the tank.301930203020BOARD NOTE: Subsections (c)(2)(E)(i) and (c)(2)(E)(ii) are3021derived from 40 CFR 265.985(c)(2)(iii)(B)(1) and (c)(2)(iii)(B)(2),3023Administrative Code format requirements.	3008		the fixed roof to the control device is not required, opening	
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3011or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable, and resume operation of the control device; and3013ii)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.3019BOARD 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.	3010		is allowed. Following completion of the activity, the owner	
3012closed position or reinstall the cover, as applicable, and3013closed position or reinstall the cover, as applicable, and3014ii)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.3019BOARD 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.	3011		or operator must promptly secure the closure device in the	
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30143015ii) 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.3019BOARD 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.	3013		resume operation of the control device: and	
 3015 3015 3016 3017 3018 3019 3020 3020 3021 3021 3022 3023 3023 3023 3021 3023 3021 3023 3021 3023 3021 3021 3021 3022 3023 3023 3023 3021 3021<td>3014</td><td></td><td></td>	3014			
3016activities needed for normal operations, and for the removal of accumulated sludge or other residues from the bottom of the tank.30193020BOARD 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.	3015		ii) During periods of routine inspection, maintenance, or other	
3017of accumulated sludge or other residues from the bottom of the tank.301930203020BOARD 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.	3016		activities needed for normal operations, and for the removal	
3018 <th a="" column="" of="" of<="" output="" straight="" td="" to=""><td>3017</td><td></td><td>of accumulated sludge or other residues from the bottom of</td></th>	<td>3017</td> <td></td> <td>of accumulated sludge or other residues from the bottom of</td>	3017		of accumulated sludge or other residues from the bottom of
30193020BOARD NOTE: Subsections (c)(2)(E)(i) and (c)(2)(E)(ii) are3021derived from 40 CFR 265.985(c)(2)(iii)(B)(1) and (c)(2)(iii)(B)(2),3022which the Board has codified here to comport with Illinois3023Administrative Code format requirements.	3018		the tank.	
3020BOARD NOTE: Subsections (c)(2)(E)(i) and (c)(2)(E)(ii) are3021derived from 40 CFR 265.985(c)(2)(iii)(B)(1) and (c)(2)(iii)(B)(2),3022which the Board has codified here to comport with Illinois3023Administrative Code format requirements.	3019			
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3022 which the Board has codified here to comport with Illinois 3023 Administrative Code format requirements.	3021		derived from 40 CFR 265.985(c)(2)(iii)(B)(1) and (c)(2)(iii)(B)(2).	
3023 Administrative Code format requirements.	3022		which the Board has codified here to comport with Illinois	
	3023		Administrative Code format requirements.	

3024			
3025	3)	When	never a hazardous waste is in the tank, the fixed roof must be installed
3026		with	each closure device secured in the closed position, except as follows:
3027			
3028		A)	Opening of closure devices or removal of the fixed roof is allowed
3029			at the following times:
3030			
3031			i) To provide access to the tank for performing routine
3032			inspection, maintenance, or other activities needed for
3033			normal operations. Examples of such activities include
3034			those times when a worker needs to open a port to sample
3035			the liquid in the tank, or when a worker needs to open a
3036			hatch to maintain or repair equipment. Following
3037			completion of the activity, the owner or operator must
3038			promptly secure the closure device in the closed position or
3039			reinstall the cover as applicable to the tank
3040			Tembali die cover, as appreadle, to die tank.
3041			ii) To remove accumulated sludge or other residues from the
3042			h) for temo ve accumulated studge of other restates from the
3043			bottom of tank.
3044		B)	Opening of a spring-loaded pressure-vacuum relief valve
3045		Ъ)	conservation vent or similar type of pressure relief device that
3046			vents to the atmosphere is allowed during normal operations for
3047			the purpose of maintaining the tank internal pressure in accordance
3048			with the tank design specifications. The device must be designed
3049			to operate with no detectable organic emissions when the device is
3050			secured in the closed position. The settings at which the device
3051			opens must be established so that the device remains in the closed
3052			position whenever the tank internal pressure is within the internal
3053			position whenever the tank internal pressure is whinn the internal
3054			based on the tank manufacturer recommendations: applicable
3055			regulations: fire protection and prevention codes: standard
3056			engineering codes and practices; or other requirements for the safe
3057			handling of flammable ignitable explosive reactive or hazardous
3058			materials. Examples of normal operating conditions that may
3058			require these devices to open are during these times when the tenk
3039			internal processor avagada the internal processor aparating range for
3000			the tank on a result of log ding energetions on diversal embient
3061			the tank as a result of loading operations or diurnal amolent
2062			temperature nucluations.
3003		0	Opening of a coffete device on defined in Section 725 001
2065		()	Opening of a safety device, as defined in Section 725.981, is
2002			allowed at any time conditions require doing so to avoid an unsafe
3000			condition.

3067			
3068		4)	The owner or operator must inspect the air emission control equipment in
3069			accordance with the following requirements:
3070			
3071			A) The fixed roof and its closure devices must be visually inspected
3072			by the owner or operator to check for defects that could result in
3073			air pollutant emissions. Defects include, but are not limited to,
3074			visible cracks, holes, or gaps in the roof sections or between the
3075			roof and the tank wall; broken, cracked, or otherwise damaged
3076			seals or gaskets on closure devices; and broken or missing hatches,
3077			access covers, caps, or other closure devices.
3078			
3079			B) The owner or operator must perform an initial inspection of the
3080			fixed roof and its closure devices on or before the date that the tank
3081			becomes subject to this Section. Thereafter, the owner or operator
3082			must perform the inspections at least once every year, except under
3083			the special conditions provided for in subsection (1)-of this Section.
3084			1
3085			C) In the event that a defect is detected, the owner or operator must
3086			repair the defect in accordance with the requirements of subsection
3087			(k) of this Section.
3088			
3089			D) The owner or operator must maintain a record of the inspection in
3090			accordance with the requirements specified in Section 725,990(b).
3091			
3092	d)	Ano	owner or operator controlling air pollutant emissions from a tank using Tank
3093		Leve	el 2 controls must use one of the following tanks:
3094			
3095		1)	A fixed-roof tank equipped with an internal floating roof in accordance
3096		~	with the requirements specified in subsection (e) of this Section:
3097			
3098		2)	A tank equipped with an external floating roof in accordance with the
3099		-	requirements specified in subsection (f) of this Section;
3100			
3101		3)	A tank vented through a closed-vent system to a control device in
3102		- /	accordance with the requirements specified in subsection (g) of this
3103			Section:
3104			
3105		4)	A pressure tank designed and operated in accordance with the
3106			requirements specified in subsection (h) of this Section; or
3107			
3108		5)	A tank located inside an enclosure that is vented through a closed-vent
3109			system to an enclosed combustion control device in accordance with the

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2111			requi	rements	s specified in subsection (i) of this Section.
3112	(9)	Theo	umer o	r operat	or that controls air pollutant emissions from a tank using a
3113	0)	fived	roof w	ith an ir	sternal floating roof must meet the requirements specified in
3114		cubce	ctions ((a)(1) th	arough (a)(3) of this Section
2115		subset	cuons ((e)(1) th	liougn (e)(5) of this section .
2116		1)	The		at he continued with a fixed weaf and an internal flucting worf
3110		1)	The t	ank mu	st be equipped with a fixed roof and an internal floating roof
3117			in acc	cordanc	e with the following requirements:
3118					
3119			A)	The	nternal floating roof must be designed to float on the liquid
3120				surfa	ce except when the floating roof must be supported by the leg
3121				supp	orts.
3122			625.		
3123			B)	The i	internal floating roof must be equipped with a continuous seal
3124				betw	een the wall of the tank and the floating roof edge that meets
3125				eithe	r of the following requirements:
3126					
3127				i)	A single continuous seal that is either a liquid-mounted seal
3128					or a metallic shoe seal, as defined in Section 725.981; or
3129					
3130				ii)	Two continuous seals mounted one above the other. The
3131				0.50	lower seal may be a vapor-mounted seal.
3132					
3133			C)	The	internal floating roof must meet the following specifications:
3134			-,		
3135				i)	Each opening in a noncontact internal floating roof except
3136				-)	for automatic bleeder vents (vacuum breaker vents) and the
3137					rim space vents is to provide a projection below the liquid
3138					surface.
3130					surface,
3140				;;)	Each opening in the internal floating roof must be equipped
2141				11)	with a gasketed gover or a gasketed lid event for leg
2142					alexyes, eutematic bleeder vents, rim energy vents, solumn
2142					sieves, automatic bleeder vents, fill space vents, column
3143					wens, ladder wens, sample wens, and stud drains;
3144					
3145				111)	Each penetration of the internal floating roof for the
3146					purpose of sampling must have a slit fabric cover that
3147					covers at least 90 percent of the opening;
3148					
3149				iv)	Each automatic bleeder vent and rim space vent must be
3150					gasketed;
3151					
				1.	Each paratration of the internal floating roof that allows for

3153 passage of a ladder must have a gasketed sliding cover; and 3154 vi) Each penetration of the internal floating roof that allows for 3155 passage of a column supporting the fixed roof must have a 3157 fixed roof must have a gasketed sliding cover. 3158 2) The owner or operator must operate the tank in accordance with the 3160 1160 following requirements: 3161 A) When the floating roof is resting on the leg supports, the process of 3163 filling, emptying, or refilling must be continuous and must be 3164 completed as soon as practical; 3165 B) Automatic bleeder vents are to be set closed at all times when the 3166 B) Automatic bleeder vents are to be set closed at all times when the 3167 copie only when the internal floating roof in so float well 3170 C) Prior to filling the tank, each cover, access hatch, gauge float well 3171 or fastened closed (i.e., no visible gaps). Rim space vents are to be 3173 set to open only when the internal floating roof in accordance with the procedures specified as follows: 3176 3) The owner or operator must inspect the internal floating ond in air pollutant emissions. Defects include, but are n			JCAR350725-1604392r01
3154 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. 3157 The owner or operator must operate the tank in accordance with the following requirements: 3161 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; 3166 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 desting anded on the leg supports; and 3170 C) Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof ins not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting. 3177 3) The owner or operator must inspect the internal floating roof in accordance with the procedures specified as follows: 3178 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 in of the surface of the liquid inside the tank; when liquid has accumulated on top of the internal floating roof is not floating or the surface of the liquid inside the tank; when liquid has accumulated on top of the internal floating roof is not floating roof is sals have detached from the roof fin; when holes, tears, or other openings are visible in the	3153		passage of a ladder must have a gasketed sliding cover; and
3155 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. 3157 flexible fabric sleeve seal or a gasketed sliding cover. 3158 2) The owner or operator must operate the tank in accordance with the following requirements: 3161 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; 3166 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 3170 C) Prior to filling the tank, each cover, access hatch, gauge float well or flat on any opening in the internal floating roof is not floating or when the pressure beneath the rim exceeds the manufacturer's recommended setting. 3176 3) The owner or operator must inspect the internal floating roof in accordance with the procedures specified as follows: 3179 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 fased or ot por of the internal floating roof is not floating on fased or ot por operator out check for defects that could result in air pollutant emissions. Defects include, but are not limited to, the following: when	3154		
3156 passage of a column supporting the fixed roof must have a flexible fabric sleeve seal or a gasketed sliding cover. 3159 2) The owner or operator must operate the tank in accordance with the following requirements: 3161 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; 3165 B) Automatic bleeder vents are to be set closed at all times when the roof is being floated off or is being landed on the leg supports; and 3166 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 3169 C) Prior to filling the tank, each cover, access hatch, gauge float well 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. 3177 3) The owner or operator must inspect the internal floating roof in accordance with the procedures specified as follows: 3180 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 is not floating on feals als	3155		vi) Each penetration of the internal floating roof that allows for
3157 flexible fabric sleeve scal or a gasketed sliding cover. 3158 2) The owner or operator must operate the tank in accordance with the following requirements: 3161 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; 3165 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 3166 B) Automatic bleeder vents are to pe set closes batch, gauge float well or lid on any opening in the internal floating roof must be bolled or at stened 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. 3177 3) The owner or operator must inspect the internal floating roof in accordance with the procedures specified as follows: 3181 B) A) 3182 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 blegat accord the liquid inside the tand; when blegat accord the roof seals have detached from the roof rim; when holes, tears, or other openings are visible in the seal floatic; (when any portion of the roof seal	3156		passage of a column supporting the fixed roof must have a
3158 2) The owner or operator must operate the tank in accordance with the following requirements: 3161 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; 3165 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 3166 B) Automatic bleeder vents are to be set closed at all times when the roof is floating, except when the roof is not floating off is not floating or fust 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. 3177 3) The owner or operator must inspect the internal floating roof in accordance with the procedures specified as follows: 3180 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 too of the internal floating roof is weak set, or other openings are visible in the seal fabric; when the gaskets no longer close of the hazardous waste surface from the atmosphere; or when the slotted membrane has more than 10 percent open area; 3180 B) The owner or operator must insp	3157		flexible fabric sleeve seal or a gasketed sliding cover.
31592)The owner or operator must operate the tank in accordance with the following requirements:31613162A)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;31633166B)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; and3169C)Prior to filling the tank, each cover, access hatch, gauge float well or lid on any opening in the internal floating roof is not floating 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.31763)The owner or operator must inspect the internal floating roof in accordance with the procedures specified as follows:3179A)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 to of the internal floating roof; when the gaskets no longer close of the hazdrous waste surface from the atmosphere; or when the slotted membrane has more than 10 percent open area;3190B)The owner or operator must inspect the internal floating roof components as follows, except as provided in subsection (e)(3)(C) of this Section:3191B)The owner or operator must inspect the i	3158		
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3185on top of the internal floating roof; when any portion of the roof3186seals have detached from the roof rim; when holes, tears, or other3187openings are visible in the seal fabric; when the gaskets no longer3188close off the hazardous waste surface from the atmosphere; or3189when the slotted membrane has more than 10 percent open area;3190B)3191B)3192The owner or operator must inspect the internal floating roof3193of this Section:3194i)3195Visually inspect the internal floating roof components	3184		surface of the liquid inside the tank; when liquid has accumulated
3186seals have detached from the roof rim; when holes, tears, or other3187openings are visible in the seal fabric; when the gaskets no longer3188close off the hazardous waste surface from the atmosphere; or3189when the slotted membrane has more than 10 percent open area;3190B)The owner or operator must inspect the internal floating roof3192components as follows, except as provided in subsection (e)(3)(C)3193of this Section:3194i)Visually inspect the internal floating roof components	3185		on top of the internal floating roof; when any portion of the roof
3187openings are visible in the seal fabric; when the gaskets no longer3188close off the hazardous waste surface from the atmosphere; or3189when the slotted membrane has more than 10 percent open area;3190B)The owner or operator must inspect the internal floating roof3192components as follows, except as provided in subsection (e)(3)(C)3194i)Visually inspect the internal floating roof components	3186		seals have detached from the roof rim; when holes, tears, or other
3188close off the hazardous waste surface from the atmosphere; or3189when the slotted membrane has more than 10 percent open area;3190B)The owner or operator must inspect the internal floating roof3192components as follows, except as provided in subsection (e)(3)(C)3193of this Section:3194i)Visually inspect the internal floating roof components	3187		openings are visible in the seal fabric; when the gaskets no longer
3189when the slotted membrane has more than 10 percent open area;319031913191B)3192The owner or operator must inspect the internal floating roof components as follows, except as provided in subsection (e)(3)(C)3193of this Section:3194i)3195i)	3188		close off the hazardous waste surface from the atmosphere; or
31903191319131923192319331943195i)Visually inspect the internal floating roof components	3189		when the slotted membrane has more than 10 percent open area:
3191B)The owner or operator must inspect the internal floating roof3192components as follows, except as provided in subsection (e)(3)(C)3193of this Section:3194i)3195i)	3190		
3192components as follows, except as provided in subsection (e)(3)(C)3193of this Section:3194i)3195i)Visually inspect the internal floating roof components	3191	B)	The owner or operator must inspect the internal floating roof
3193of this Section:3194i)3195i)Visually inspect the internal floating roof components	3192		components as follows, except as provided in subsection (e)(3)(C)
31943195i) Visually inspect the internal floating roof components	3193		of this Section:
i) Visually inspect the internal floating roof components	3194		
	3195		i) Visually inspect the internal floating roof components

3196 3197		through openings on the fixed roof (e.g., manholes and roof hatches) at least once every 12 months after initial fill, and
3198 3199 2200		ii) Visually inspect the internal floating roof, primary seal,
2200		membranes, and alcous goals (if only) each time the tank is
2201		memoranes, and sieve sears (if any) each time the tank is
3202		emptied and degassed and at least once every 10 years,
3203	0	As an alternative to performing the inspections specified in
2204	C)	As an alternative to performing the inspections spectred in $(a)(2)(P)$ of this Section for an internal floating roof
3205		subsection (c)(b) of this section for all internal hoating foor
3200		the owner or operator may visually inspect the internal floating
3207		roof primary and secondary seals gaskets slotted membranes and
3208		sleave seals (if any) each time the tank is emptied and degassed
3209		and at least every five vegra:
2210		and at least every nive years,
3211	D)	Prior to each inspection required by subsection $(e)(3)(B)$ or
3212	D)	(e)(3)(C) of this Section, the owner or operator must notify the
3213		A gency in advance of each inspection to provide the A gency with
3214		the opportunity to have an observer present during the inspection
3215		The owner or operator must notify the Agency of the date and
3210		location of the inspection as follows:
3217		location of the inspection as follows.
3210		i) Prior to each visual inspection of an internal floating roof in
3220		a tank that has been emptied and decassed written
3221		notification must be prepared and sent by the owner or
32221		operator so that it is received by the Agency at least 30
3223		calendar days before refilling the tank except when an
3224		inspection is not planned as provided for in subsection
3225		(e)(3)(D)(ii) of this Section and
3226		
3227		ii) When a visual inspection is not planned and the owner or
3228		operator could not have known about the inspection 30
3229		calendar days before refilling the tank, the owner or
3230		operator must notify the Agency as soon as possible, but no
3231		later than seven calendar days before refilling of the tank.
3232		This notification may be made by telephone and
3233		immediately followed by a written explanation for why the
3234		inspection is unplanned. Alternatively, written notification.
3235		including the explanation for the unplanned inspection.
3236		may be sent so that it is received by the Regional
3237		Administrator at least seven calendar days before refilling
3238		the tank;

3239				
3240			E)	In the event that a defect is detected, the owner or operator must
3241			1	repair the defect in accordance with the requirements of subsection
3242				(k) of this Section; and
3243				
3244			F)	The owner or operator must maintain a record of the inspection in
3245				accordance with the requirements specified in Section 725.990(b).
3246				
3247		4)	Safet	y devices, as defined in Section 725.981, may be installed and
3248			opera	ated as necessary on any tank complying with the requirements of this
3249			subse	ection (e).
3250				
3251	f)	The o	owner o	r operator that controls air pollutant emissions from a tank using an
3252		exter	nal floa	ting roof must meet the requirements specified in subsections $(f)(1)$
3253		throu	gh (f)(3	b) of this Section.
3254				
3255		1)	The c	owner or operator must design the external floating roof in
3256			accor	dance with the following requirements:
3257				
3258			A)	The external floating roof must be designed to float on the liquid
3259				surface except when the floating roof must be supported by the leg
3260				supports;
3261				
3262			B)	The floating roof must be equipped with two continuous seals, one
3263				above the other, between the wall of the tank and the roof edge.
3264				The lower seal is referred to as the primary seal, and the upper seal
3265				is referred to as the secondary seal.
3266				
3267				i) The primary seal must be a liquid-mounted seal or a
3268				metallic shoe seal, as defined in Section 725.981. The total
3269				area of the gaps between the tank wall and the primary seal
3270				must not exceed 212 square centimeters (cm ²) per meter
3271				(10.0 in ² per foot) of tank diameter, and the width of any
3272				portion of these gaps must not exceed 3.8 centimeters (cm)
3273				(1.5 inches). If a metallic shoe seal is used for the primary
3274				seal, the metallic shoe seal must be designed so that one
3275				end extends into the liquid in the tank and the other end
3276				extends a vertical distance of at least 61 centimeters (24
3277				inches) above the liquid surface.
3278				
3279				ii) The secondary seal must be mounted above the primary
3280				seal and cover the annular space between the floating roof
3281				and the wall of the tank. The total area of the gaps between
				그는 것은 것은 것이 같아요. 이는 것은 것은 것은 것은 것은 것은 것이 가지 않는 것이 가지 않는 것이 같아요. 것이 같아요.

3282			the tank wall and the secondary seal must not exceed 21.2 $(1.0)^{2}$
3283			cm ⁻ per meter (1.0 in ⁻ per 1001) of tank diameter, and the
3284			width of any portion of these gaps must not exceed 1.3 cm
3285			(0.5 inch); and
3286		() TI	
3287		() The ex	sternal floating roof must meet the following specifications:
3288		• 5	
3289		1)	Except for automatic bleeder vents (vacuum breaker vents)
3290			and rim space vents, each opening in a noncontact external
3291			floating roof must provide a projection below the liquid
3292			surface;
3293		25	Second Contractor and the second
3294		ii)	Except for automatic bleeder vents, rim space vents, roof
3295			drains, and leg sleeves, each opening in the roof must be
3296			equipped with a gasketed cover, seal, or lid;
3297			
3298		iii)	Each access hatch and each gauge float well must be
3299			equipped with a cover designed to be bolted or fastened
3300			when the cover is secured in the closed position;
3301			
3302		iv)	Each automatic bleeder vent and each rim space vent must
3303			be equipped with a gasket;
3304			
3305		v)	Each roof drain that empties into the liquid managed in the
3306			tank must be equipped with a slotted membrane fabric
3307			cover that covers at least 90 percent of the area of the
3308			opening;
3309			
3310		vi)	Each unslotted and slotted guide pole well must be
3311			equipped with a gasketed sliding cover or a flexible fabric
3312			sleeve seal;
3313			
3314		vii)	Each unslotted guide pole must be equipped with a
3315			gasketed cap on the end of the pole;
3316			
3317		viii)	Each slotted guide pole must be equipped with a gasketed
3318			float or other device that closes off the liquid surface from
3319			the atmosphere; and
3320			
3321		ix)	Each gauge hatch and each sample well must be equipped
3322			with a gasketed cover.
3323			
3324	2)	The owner or	operator must operate the tank in accordance with the

following requirements:

- A) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling must be continuous and must be completed as soon as practical;
- B) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof must be secured and maintained in a closed position at all times except when the closure device must be open for access;
- C) Covers on each access hatch and each gauge float well must be bolted or fastened when secured in the closed position;
- D) Automatic bleeder vents must be set closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the leg supports;
- E) Rim space vents must be set to open only at those times that the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting;
- F) The cap on the end of each unslotted guide pole must be secured in the closed position at all times except when measuring the level or collecting samples of the liquid in the tank;
- G) The cover on each gauge hatch or sample well must be secured in the closed position at all times except when the hatch or well must be opened for access; and
- H) Both the primary seal and the secondary seal must completely cover the annular space between the external floating roof and the wall of the tank in a continuous fashion except during inspections.
- 3) The owner or operator must inspect the external floating roof in accordance with the procedures specified as follows:
 - A) The owner or operator must measure the external floating roof seal gaps in accordance with the following requirements:
 - i) The owner or operator must perform measurements of gaps between the tank wall and the primary seal within 60

3368			calendar days after initial operation of the tank following
2270			installation of the floating foot and, thereafter, at least once
3371			every five years;
3372		;;)	The owner or operator must perform measurements of gaps
3373		II)	between the tank wall and the secondary seal within 60
3374			calendar days after initial operation of the tank following
3375			installation of the floating roof and thereafter at least once
3376			every year
3370			every year,
3378		;;;;)	If a tank causes to hold hazardous waste for a period of one
3370		m)	ver or more subsequent introduction of herordous waste
3380			into the tank must be considered an initial operation for the
3381			nito the tank must be considered an initial operation for the numposes of subsections $(f)(3)(A)(i)$ and $(f)(3)(A)(i)$ of this
3382			Section.
3383			Section,
3384		iv)	The owner or operator must determine the total surface area
3385		10)	of gaps in the primary seal and in the secondary seal
3386			individually using the procedure set forth in subsection
3387			(f)(3)(D) of this Section.
3388			
3389		v)	In the event that the seal gap measurements do not conform
3390		.,	to the specifications in subsection $(f)(1)(B)$ of this Section
3391			the owner or operator must repair the defect in accordance
3392			with the requirements of subsection (k) of this Section: and
3393			that are requirements or subsection (it) or this section, and
3394		vi)	The owner or operator must maintain a record of the
3395			inspection in accordance with the requirements specified in
3396			Section 725.990(b):
3397			
3398	B)	The o	owner or operator must visually inspect the external floating
3399		roof	in accordance with the following requirements:
3400			5 1
3401		i)	The floating roof and its closure devices must be visually
3402			inspected by the owner or operator to check for defects that
3403			could result in air pollutant emissions. Defects include, but
3404			are not limited to any of the following: holes, tears, or other
3405			openings in the rim seal or seal fabric of the floating roof; a
3406			rim seal detached from the floating roof; all or a portion of
3407			the floating roof deck being submerged below the surface
3408			of the liquid in the tank; broken, cracked, or otherwise
3409			damaged seals or gaskets on closure devices; and broken or
3410			missing hatches, access covers, caps, or other closure

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3411			devices;
3412			
3413		ii)	The owner or operator must perform an initial inspection of
3414			the external floating roof and its closure devices on or
3415			before the date that the tank becomes subject to this
3416			Section. Thereafter, the owner or operator must perform
3417			the inspections at least once every year except for the
3418			special conditions provided for in subsection (1) of this
3419			Section:
3420			
3421		iii)	In the event that a defect is detected, the owner or operator
3422)	must repair the defect in accordance with the requirements
3423			of subsection (k) of this Section and
3424			or subsolion (ii) or this boolion, and
3425		iv)	The owner or operator must maintain a record of the
3426		1.1)	inspection in accordance with the requirements specified in
3427			Section 725 990(b):
3428			Section (20),
3429	C)	Prior	to each inspection required by subsection $(f)(3)(A)$ or
3430	0)	(f)(3)	(B) of this Section the owner or operator must notify the
3431		Ager	icy in advance of each inspection to provide the Agency with
3432		the o	portunity to have an observer present during the inspection.
3433		The	wher or operator must notify the Agency of the date and
3434		locat	ion of the inspection as follows:
3435		iocui	ion of the hispection as follows.
3436		i)	Prior to each inspection to measure external floating roof
3437		.,	seal gaps as required under subsection (f)(3)(A) of this
3438			Section written notification must be prepared and sent by
3439			the owner or operator so that it is received by the Agency at
3440			least 30 calendar days before the date the measurements are
3441			scheduled to be performed:
3442			sonousiou to oo pononnou,
3443		ii)	Prior to each visual inspection of an external floating roof
3444)	in a tank that has been emptied and degassed written
3445			notification must be prepared and sent by the owner or
3446			operator so that it is received by the Agency at least 30
3447			calendar days before refilling the tank except when an
3448			inspection is not planned, as provided for in subsection
3449			(f)(3)(C)(iii) of this Section and
3450			
3451		iii)	When a visual inspection is not planned and the owner or
3452			operator could not have known about the inspection 30
3453			calendar days before refilling the tank, the owner or
			the wind of the second realizing the wind, the owner of

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3454	operator must notify the Agency as soon as possible, but no
3455	later than seven calendar days before refilling of the tank.
3456	This notification may be made by telephone and
3457	immediately followed by a written explanation for why the
3458	inspection is unplanned. Alternatively, written notification,
3459	including the explanation for the unplanned inspection,
3460	may be sent so that it is received by the Regional
3461	Administrator at least seven calendar days before refilling
3462	the tank;
3463	
3464 D)	Procedure for determining gaps in the primary seal and in the
3465	secondary seal for the purposes of subsection (f)(3)(A)(iv) of this
3466	Section:
3467	
3468	i) The seal gap measurements must be performed at one or
3469	more floating roof levels when the roof is floating off the
3470	roof supports;
3471	
3472	ii) Seal gaps, if any, must be measured around the entire
3473	perimeter of the floating roof in each place where a 0.32-
3474	cm (1/4-inch) diameter uniform probe passes freely (without
3475	forcing or binding against the seal) between the seal and the
3476	wall of the tank and measure the circumferential distance of
3477	each such location;
3478	
3479	iii) For a seal gap measured under this subsection $(f)(3)$, the
3480	gap surface area must be determined by using probes of
3481	various widths to measure accurately the actual distance
3482	from the tank wall to the seal and multiplying each such
3483	width by its respective circumferential distance; and
3484	
3485	iv) The total gap area must be calculated by adding the gap
3486	surface areas determined for each identified gap location
3487	for the primary seal and the secondary seal individually,
3488	and then dividing the sum for each seal type by the nominal
3489	diameter of the tank. These total gap areas for the primary
3490	seal and secondary seal are then compared to the respective
3491	standards for the seal type, as specified in subsection
3492	(f)(1)(B) of this Section; and
3493	
3494	BOARD NOTE: Subsections (f)(3)(D)(i) through (f)(3)(D)(iv) are
3495	derived from 40 CFR 265.1085(f)(3)(i)(D)(1) through
3496	(f)(3)(i)(D)(4), which the Board has codified here to comport with

3497				Illinois Administrative Code format requirements.
3498			C.C.L	
3499		4)	Salet	y devices, as defined in Section 725.981, may be installed and
3500			opera	ited as necessary on any tank complying with the requirements of this
3501			subse	ection (1).
3502	~	TTL .		
3503	g)	The c	wher o	r operator that controls air pollutant emissions from a tank by venting
3504		the ta	nk to a	control device must meet the requirements specified in subsections
3505		(g)(1)) throug	th (g)(3) of this Section.
3506				
3507		1)	The t	ank must be covered by a fixed roof and vented directly through a
3508			close	d-vent system to a control device in accordance with the following
3509			requi	rements:
3510				
3511			A)	The fixed root and its closure devices must be designed to form a
3512				continuous barrier over the entire surface area of the liquid in the
3513				tank;
3514			-	
3515			B)	Each opening in the fixed root not vented to the control device
3516				must be equipped with a closure device. If the pressure in the
3517				vapor headspace underneath the fixed roof is less than atmospheric
3518				pressure when the control device is operating, the closure devices
3519				must be designed to operate so that when the closure device is
3520				secured in the closed position there are no visible cracks, holes,
3521				gaps, or other open spaces in the closure device or between the
3522				perimeter of the cover opening and the closure device. If the
3523				pressure in the vapor headspace underneath the fixed roof is equal
3524				to or greater than atmospheric pressure when the control device is
3525				operating, the closure device must be designed to operate with no
3526				detectable organic emissions;
3527			-	
3528			C)	The fixed roof and its closure devices must be made of suitable
3529				materials that will minimize exposure of the hazardous waste to the
3530				atmosphere, to the extent practical, and will maintain the integrity
3531				of the fixed roof and closure devices throughout their intended
3532				service life. Factors to be considered when selecting the materials
3533				for and designing the fixed roof and closure devices must include
3534				the following: organic vapor permeability; the effects of any
3535				contact with the liquid and its vapor managed in the tank; the
3536				effects of outdoor exposure to wind, moisture, and sunlight; and
3537				the operating practices used for the tank on which the fixed roof is
3538				installed; and
3539				

			JCAR350725-1604392r01
3540		D)	The closed-vent system and control device must be designed and
3541			operated in accordance with the requirements of Section 725.988.
3542			
3543	2)	When	never a hazardous waste is in the tank, the fixed roof must be installed
3544		with	each closure device secured in the closed position and the vapor
3545		heads	space underneath the fixed roof vented to the control device except as
3546		follow	WS:
3547			
3548		A)	Venting to the control device is not required, and opening of
3549			closure devices or removal of the fixed roof is allowed at the
3550			following times:
3551			
3552			i) To provide access to the tank for performing routine
3553			inspection, maintenance, or other activities needed for
3554			normal operations. Examples of such activities include
3555			those times when a worker needs to open a port to sample
3556			liquid in the tank, or when a worker needs to open a hatch
3557			to maintain or repair equipment. Following completion of
3558			the activity, the owner or operator must promptly secure the
3559			closure device in the closed position or reinstall the cover,
3560			as applicable, to the tank; and
3561			
3562			ii) To remove accumulated sludge or other residues from the
3563			bottom of a tank; and
3564			
3565		B)	Opening of a safety device, as defined in Section 725.981, is
3566			allowed at any time conditions require doing so to avoid an unsafe
3567			condition.
3568			
3569	3)	The o	owner or operator must inspect and monitor the air emission control
3570		equip	oment in accordance with the following procedures:
3571			
3572		A)	The fixed roof and its closure devices must be visually inspected
3573			by the owner or operator to check for defects that could result in
3574			air pollutant emissions. Defects include, but are not limited to any
3575			of the following: visible cracks, holes, or gaps in the roof sections
3576			or between the roof and the tank wall; broken, cracked, or
3577			otherwise damaged seals or gaskets on closure devices; and broken
3578			or missing hatches, access covers, caps, or other closure devices;
3579			
3580		B)	The closed-vent system and control device must be inspected and
3581			monitored by the owner or operator in accordance with the
3582			procedures specified in Section 725.988;

3583	3		
3584	4	C)	The owner or operator must perform an initial inspection of the air
3585	5		emission control equipment on or before the date that the tank
3586	5		becomes subject to this Section. Thereafter, the owner or operator
3587	7		must perform the inspections at least once every year except for
3588	3		the special conditions provided for in subsection (1)-of this Section:
3589)		
3590)	D)	In the event that a defect is detected, the owner or operator must
3591		2)	repair the defect in accordance with the requirements of subsection
3592	2		(k) of this Section: and
3593	3		(ii) or and sourceil, and
3594	1	E)	The owner or operator must maintain a record of the inspection in
3594	5	2)	accordance with the requirements specified in Section 725 990(b).
3596	5		accordance with the requirements specified in Section (25.550(6)).
359	7 h)	The owner of	or operator that controls air pollutant emissions by using a pressure
3598	2	tank must m	peet the following requirements:
3590)	tunit must h	ier ale feno ang requiencies
3600)	1) The	tank must be designed not to vent to the atmosphere as a result of
360	1	com	pression of the vapor headspace in the tank during filling of the tank
3602	2	to it	s design capacity:
360	3	10 11	s design capacity,
3604	4	2) All 1	tank openings must be equipped with closure devices designed to
360	5	oper	rate with no detectable organic emissions as determined using the
3600	5	proc	edure specified in Section 725.984(d): and
360	7	Pros	
360	8	3) Whe	enever a hazardous waste is in the tank, the tank must be operated as a
3609	9	clos	ed-vent system that does not vent to the atmosphere, except under
3610	0	eithe	er of the following two conditions:
361	1		
361	2	A)	The tank does not need to be operated as a closed-vent system at
361	3)	those times when the opening of a safety device, as defined in
3614	4		Section 725.981, is required to avoid an unsafe condition; and
361	5		,,,,,,
3610	6	B)	The tank does not need to be operated as a closed-vent system at
361	7		those times when the purging of inerts from the tank is required
361	8		and the purge stream is routed to a closed-vent system and control
3619	9		device designed and operated in accordance with the requirements
3620	0		of Section 725.988 724.987 .
362	1		
362	2 i)	The owner	or operator that controls air pollutant emissions by using an enclosure
362	3	vented thro	ugh a closed-vent system to an enclosed combustion control device
362	4	must meet t	the requirements specified in subsections (i)(1) through (i)(4) of this
362	5	Section.	
202			

3626			
3627		1)	The tank must be located inside an enclosure. The enclosure must be
3628		5	designed and operated in accordance with the criteria for a permanent total
3629			enclosure, as specified in "Procedure T – Criteria for and Verification of a
3630			Permanent or Temporary Total Enclosure" under appendix B to 40 CFR
3631			52.741 (VOM Measurement Techniques for Capture Efficiency).
3632			incorporated by reference in 35 Ill. Adm. Code 720.111(b). The enclosure
3633			may have permanent or temporary openings to allow worker access:
3634			passage of material into or out of the enclosure by conveyor, vehicles, or
3635			other mechanical means: entry of permanent mechanical or electrical
3636			equipment: or direct airflow into the enclosure. The owner or operator
3637			must perform the verification procedure for the enclosure as specified in
3638			Section 5.0 to "Procedure T – Criteria for and Verification of a Permanent
3639			or Temporary Total Enclosure" initially when the enclosure is first
3640			installed and, thereafter, annually:
3641			
3642		2)	The enclosure must be vented through a closed-vent system to an enclosed
3643		-,	combustion control device that is designed and operated in accordance
3644			with the standards for either a vapor incinerator, boiler, or process heater
3645			specified in Section 725.988:
3646			
3647		3)	Safety devices, as defined in Section 725,981, may be installed and
3648		-)	operated as necessary on any enclosure, closed-vent system, or control
3649			device used to comply with the requirements of subsections (i)(1) and
3650			(i)(2) of this Section: and
3651			(I)(2) of this section, and
3652		4)	The owner or operator must inspect and monitor the closed-vent system
3653		.,	and control device, as specified in Section 725,988.
3654			
3655	i)	The	owner or operator must transfer hazardous waste to a tank subject to this
3656	37	Secti	ion in accordance with the following requirements:
3657			
3658		1)	Transfer of hazardous waste, except as provided in subsection (j)(2)-of this
3659			Section, to the tank from another tank subject to this Section or from a
3660			surface impoundment subject to Section 725.986 must be conducted using
3661			continuous hard-piping or another closed system that does not allow
3662			exposure of the hazardous waste to the atmosphere. For the purpose of
3663			complying with this provision, an individual drain system is considered to
3664			be a closed system when it meets the requirements of subpart RR of 40
3665			CFR 63 (National Emission Standards for Individual Drain Systems),
3666			incorporated by reference in 35 Ill. Adm. Code 720.111(b); and
3667			
3668		2)	The requirements of subsection (j)(1) of this Section do not apply when

3669 3670		transferring a hazardous waste to the tank under any of the following conditions:
3671		
3672		A) The hazardous waste meets the average VO concentration
3673		conditions specified in Section 725.983(c)(1) at the point of waste
3674		origination:
3675		
3676		B) The hazardous waste has been treated by an organic destruction or
3677		removal process to meet the requirements in Section
3678		725.983(c)(2); and
3679		(2010) (0) (0) (1), und
3680		C) The hazardous waste meets the requirements of Section
3681		725.983(c)(4).
2692	1.)	The evenes of energies must remain each defeat detected during on inspection
2601	к)	The owner or operator must repair each detect detected during an inspection $p_{2}(2)$ (f)(2)
2605		performed in accordance with the requirements of subsection $(c)(4)$, $(e)(5)$, $(f)(5)$,
2606		of $(g)(3)$ of this section as follows:
2000		
308/		1) The owner or operator must make first efforts at repair of the defect no
3088		later than five calendar days after detection, and repair must be completed
3689		as soon as possible but no later than 45 calendar days after detection
3690		except as provided in subsection $(k)(2)$ of this Section; and
3691		
3692		2) Repair of a defect may be delayed beyond 45 calendar days if the owner or
3693		operator determines that repair of the defect requires emptying or
3694		temporary removal from service of the tank and no alternative tank
3695		capacity is available at the site to accept the hazardous waste normally
3696		managed in the tank. In this case, the owner or operator must repair the
3697		defect the next time the process or unit that is generating the hazardous
3698		waste managed in the tank stops operation. Repair of the defect must be
3699		completed before the process or unit resumes operation.
3700		
3701	1)	Following the initial inspection and monitoring of the cover as required by the
3702		applicable provisions of this Subpart CC, subsequent inspection and monitoring
3703		may be performed at intervals longer than one year under the following special
3704		conditions:
3705		
3706		1) Where inspecting or monitoring the cover would expose a worker to
3707		dangerous, hazardous, or other unsafe conditions, then the owner or
3708		operator may designate a cover as an "unsafe to inspect and monitor
3709		cover" and comply with all of the following requirements:
3710		
3711		A) Prepare a written explanation for the cover stating the reasons why

3712				the cover is unsafe to visually inspect or to monitor, if required;
3713				and
714				
3715			B)	Develop and implement a written plan and schedule to inspect and
3716				monitor the cover, using the procedures specified in the applicable
3717				Section of this Subpart CC, as frequently as practicable during
3718				those times when a worker can safely access the cover; and
3719				
3720		2)	In the	e case when a tank is buried partially or entirely underground, an
3721		· · ·	owne	r or operator is required to inspect and monitor, as required by the
3722			appli	cable provisions of this Section, only those portions of the tank cove
3723			and t	hose connections to the tank (e.g., fill ports, access hatches, gauge
3724			wells	etc.) that are located on or above the ground surface
3725				, etc.) that are recarded on of above the Broand Surface.
3726	(Sourc	e: Am	ended	at 40 III. Reg. effective
3727	loome		lended	
3728 Section	725 9	87 Sts	andard	s. Containers
3729	1 140.7	07 54	mumu	s. containers
3730	a)	The n	rovisio	ns of this Section apply to the control of air pollutant emissions from
3731	<i>a)</i>	conta	iners fo	ar which Section 725.983(b) references the use of this Section for
3732		those	such a	r emission control
3732		mose	<u>such</u> a	il emission control.
721	b)	Gana	rol room	romonto
3734	b)	Gener	ral requ	irements
3734 3735	b)	Gener	ral requ	irements
3734 3735 3736	b)	Gener 1)	ral requ The o	irements owner or operator must control air pollutant emissions from each
3734 3735 3736 3737	b)	Gener 1)	The conta	irements owner or operator must control air pollutant emissions from each iner subject to this Section in accordance with the following
3734 3735 3736 3737 3738	b)	Gener 1)	The o conta requi	when or operator must control air pollutant emissions from each tiner subject to this Section in accordance with the following rements, as applicable to the container, except when the following
3734 3735 3736 3737 3738 3739	b)	Gener 1)	The c conta requi speci	irements owner or operator must control air pollutant emissions from each iner subject to this Section in accordance with the following rements, as applicable to the container, except when the following al provisions for waste stabilization processes specified in subsection
3734 3735 3736 3737 3738 3739 3740	b)	Gener 1)	The c conta requi speci (b)(2	irements owner or operator must control air pollutant emissions from each iner subject to this Section in accordance with the following rements, as applicable to the container, except when the following al provisions for waste stabilization processes specified in subsectior) of this Section apply to the container:
3734 3735 3736 3737 3738 3739 3740 3741	b)	Gener 1)	The c conta requi speci (b)(2	irements owner or operator must control air pollutant emissions from each tiner subject to this Section in accordance with the following rements, as applicable to the container, except when the following al provisions for waste stabilization processes specified in subsection) of this Section apply to the container:
3734 3735 3736 3737 3738 3739 3740 3741 3742	b)	Gener	The c conta requi speci (b)(2 A)	tirements owner or operator must control air pollutant emissions from each tiner subject to this Section in accordance with the following rements, as applicable to the container, except when the following al provisions for waste stabilization processes specified in subsection) of this Section apply to the container: For a container having a design capacity greater than 0.1 m ³ (26
3734 3735 3736 3737 3738 3739 3740 3741 3742 3743	b)	Gener	The c conta requi speci (b)(2 A)	where or operator must control air pollutant emissions from each biner subject to this Section in accordance with the following rements, as applicable to the container, except when the following al provisions for waste stabilization processes specified in subsection) of this Section apply to the container: For a container having a design capacity greater than 0.1 m ³ (26 gal) and less than or equal to 0.46 m ³ (120 gal), the owner or
3734 3735 3736 3737 3738 3739 3740 3741 3742 3743 3744	b)	Gener	The c conta requi speci (b)(2 A)	tirements owner or operator must control air pollutant emissions from each tiner subject to this Section in accordance with the following rements, as applicable to the container, except when the following al provisions for waste stabilization processes specified in subsection) of this Section apply to the container: For a container having a design capacity greater than 0.1 m ³ (26 gal) and less than or equal to 0.46 m ³ (120 gal), the owner or operator must control air pollutant emissions from the container in
3734 3735 3736 3737 3738 3739 3740 3741 3742 3743 3743 3744 3745	b)	Gener	The contarequispeci (b)(2) A)	tirements owner or operator must control air pollutant emissions from each tiner subject to this Section in accordance with the following rements, as applicable to the container, except when the following al provisions for waste stabilization processes specified in subsection) of this Section apply to the container: For a container having a design capacity greater than 0.1 m ³ (26 gal) and less than or equal to 0.46 m ³ (120 gal), the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in
3735 3736 3737 3738 3739 3740 3741 3742 3743 3744 3745 3746	b)	Gener	The c conta requi speci (b)(2 A)	tirements owner or operator must control air pollutant emissions from each tiner subject to this Section in accordance with the following rements, as applicable to the container, except when the following al provisions for waste stabilization processes specified in subsection) of this Section apply to the container: For a container having a design capacity greater than 0.1 m ³ (26 gal) and less than or equal to 0.46 m ³ (120 gal), the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section;
3735 3736 3737 3738 3739 3740 3741 3742 3743 3744 3745 3746 3747	b)	Gener	The contarequispeci (b)(2 A)	where or operator must control air pollutant emissions from each tiner subject to this Section in accordance with the following rements, as applicable to the container, except when the following al provisions for waste stabilization processes specified in subsection) of this Section apply to the container: For a container having a design capacity greater than 0.1 m ³ (26 gal) and less than or equal to 0.46 m ³ (120 gal), the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section;
3735 3736 3737 3738 3739 3740 3741 3742 3743 3744 3745 3746 3747 3748	b)	Gener	The contarequispeci (b)(2) A)	tirements owner or operator must control air pollutant emissions from each tiner subject to this Section in accordance with the following rements, as applicable to the container, except when the following al provisions for waste stabilization processes specified in subsection) of this Section apply to the container: For a container having a design capacity greater than 0.1 m ³ (26 gal) and less than or equal to 0.46 m ³ (120 gal), the owner or operator must control air pollutant emissions from the container ir accordance with the Container Level 1 standards specified in subsection (c) of this Section; For a container having a design capacity greater than 0.46 m ³ (120
3734 3735 3736 3737 3738 3739 3740 3741 3742 3743 3744 3745 3744 3745 3746 3747 3748 3749	b)	Gener	The contarequispeci (b)(2 A)	tirements owner or operator must control air pollutant emissions from each tiner subject to this Section in accordance with the following rements, as applicable to the container, except when the following al provisions for waste stabilization processes specified in subsection) of this Section apply to the container: For a container having a design capacity greater than 0.1 m ³ (26 gal) and less than or equal to 0.46 m ³ (120 gal), the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section; For a container having a design capacity greater than 0.46 m ³ (120 gal) that is not in light material service, the owner or operator must
3734 3735 3736 3737 3738 3739 3740 3741 3742 3743 3744 3745 3744 3745 3746 3747 3748 3749 3750	b)	Gener	The contarequispeci (b)(2 A)	tirements owner or operator must control air pollutant emissions from each tiner subject to this Section in accordance with the following rements, as applicable to the container, except when the following al provisions for waste stabilization processes specified in subsection) of this Section apply to the container: For a container having a design capacity greater than 0.1 m ³ (26 gal) and less than or equal to 0.46 m ³ (120 gal), the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section; For a container having a design capacity greater than 0.46 m ³ (120 gal) that is not in light material service, the owner or operator must control air pollutant emissions from the container in accordance with the container Level 1 standards specified in subsection (c) of this Section;
3735 3736 3737 3738 3739 3740 3741 3742 3743 3745 3746 3747 3748 3750 3751	b)	Gener	The contarequi speci (b)(2 A) B)	 by the 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 are capacity greater than 0.46 m³ (120 gal) that is not in light material service, the owner or operator must control are capacity greater than 0.46 m³ (120 gal) that is not in light material service, the owner or operator must control are design capacity greater than 0.46 m³ (120 gal) that is not in light material service, the owner or operator must control are design capacity greater than 0.46 m³ (120 gal) that is not in light material service, the owner or operator must control are design capacity greater than 0.46 m³ (120 gal) that is not in light material service, the owner or operator must control are design capacity greater than 0.46 m³ (120 gal) that is not in light material service, the owner or operator must control are missions from the container in accordance with the Container level 1 standards specified in subsection (c)-operator must control are pollutant emissions from the container in accordance with the Container level 1 standards specified in subsection (c)-operator must control are pollutant emissions from the container in accordance with the Container level 1 standards specified in subsection (c)-operator must control are pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c)-operator must control are pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c)-operator must control and the container in accordance with the Container Level 1 standards specified in subsection (c)-operator must control and the container in accordance with the Container Level 1 standards specified in subsection (c)-operator must control and the container in accordance with the Container Level 1 standards specified in subsection (c)-operator must control and the container in accordance with the Container Level 1 standards speci
3735 3736 3737 3738 3739 3740 3741 3742 3743 3744 3745 3746 3747 3748 3749 3750 3751 3752	b)	Gener	The c conta requi speci (b)(2 A) B)	tirements owner or operator must control air pollutant emissions from each tiner subject to this Section in accordance with the following rements, as applicable to the container, except when the following al provisions for waste stabilization processes specified in subsection) of this Section apply to the container: For a container having a design capacity greater than 0.1 m ³ (26 gal) and less than or equal to 0.46 m ³ (120 gal), the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section; For a container having a design capacity greater than 0.46 m ³ (120 gal) that is not in light material service, the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section; and
3734 3735 3736 3737 3738 3739 3740 3741 3742 3743 3744 3745 3744 3745 3746 3747 3748 3747 3748 3749 3750 3751 3752 3753	b)	Gener	The contarequispeci (b)(2 A) B)	irements owner or operator must control air pollutant emissions from each tiner subject to this Section in accordance with the following rements, as applicable to the container, except when the following al provisions for waste stabilization processes specified in subsection) of this Section apply to the container: For a container having a design capacity greater than 0.1 m ³ (26 gal) and less than or equal to 0.46 m ³ (120 gal), the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section; For a container having a design capacity greater than 0.46 m ³ (120 gal) that is not in light material service, the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in subsection (c) of this Section; and

3755				gal) that is in light material service, the owner or operator must
3756				control air pollutant emissions from the container in accordance
3757				with the Container Level 2 standards specified in subsection (d)-of
3758				this Section.
3759				
3760		2)	When	a container having a design capacity greater than 0.1 m^3 (26 gal) is
3761			used t	for treatment of a hazardous waste by a waste stabilization process.
3762			the ov	wher or operator must control air pollutant emissions from the
3763			conta	iner in accordance with the Container Level 3 standards specified in
3764			subse	ction (e) of this Section at those times during the waste stabilization
3765			proce	ss when the hazardous waste in the container is exposed to the
3766			atmos	sphere.
3767				
3768	c)	Cont	ainer Le	vel 1 standards
3769			(1000 Se	
3770		1)	A cor	tainer using Container Level 1 controls is one of the following:
3771		-/	122.023	
3772			A)	A container that meets the applicable USDOT regulations on
3773				packaging hazardous materials for transportation, as specified in
3774				subsection (f) of this Section:
3775				busicerion (i) or and section,
3776			B)	A container equipped with a cover and closure devices that form a
3777			2)	continuous barrier over the container openings so that when the
3778				cover and closure devices are secured in the closed position there
3779				are no visible holes, gaps, or other open spaces into the interior of
3780				the container. The cover may be a separate cover installed on the
3781				container (e.g. a lid on a drum or a suitably secured tarp on a roll-
3782				off hox) or may be an integral part of the container structural
3783				design (e.g. a "portable tank" or bulk cargo container equipped
3784				with a screw-type can): and
3785				what a serew type cap); and
3786			C	An open-top container in which an organic-vapor suppressing
3787			0)	barrier is placed on or over the hazardous waste in the container so
3788				that no hazardous waste is exposed to the atmosphere. One
3789				example of such a barrier is application of a suitable organic-vanor
3790				sumpressing foam
3791				suppressing rount.
3792		2)	A con	ptainer used to meet the requirements of subsection $(c)(1)(B)$ or
3703		2)	(c)(1)	V(C) of this Section must be equipped with covers and closure
3794			devic	as applicable to the container, that are composed of suitable
3795			mater	rials to minimize exposure of the hazardous waste to the atmosphere
3796			and t	a maintain the equipment integrity for as long as it is in service
3707			Easto	to be considered in selecting the meterials of construction and
3171			racio	is to be considered in selecting the materials of construction and

ĩ.

3798 3799 3800 3801 3802 3803		desig organ waste expos sunlig be us	ning the ic vapo or its v sure of ght; and ed.	e cover and closure devices must include the following: the or permeability; the effects of contact with the hazardous vapor managed in the container; the effects of outdoor the closure device or cover material to wind, moisture, and I the operating practices for which the container is intended to
3804 3805 3806 3807 3808 2800	3)	When contro for th each	never a ols, the e conta closure	hazardous waste is in a container using Container Level 1 owner or operator must install all covers and closure devices iner, as applicable to the container, and secure and maintain device in the closed position except as follows:
3809 3810 3811 3812		A)	Oper addin follo	ning of a closure device or cover is allowed for the purpose of ng hazardous waste or other material to the container, as ws:
3813 3814 3815 3816 3817 3818 2810			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
3819 3820 3821			ii)	In the case when discrete quantities or batches of material intermittently are added to the container over a period of
3822 3823 3824 3825				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
3826 3827 3828 3829 3830 2821				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
3832 3833 3834		B)	Oper remo	ning of a closure device or cover is allowed for the purpose of oving hazardous waste from the container as follows:
3835 3836 3837 3838 3839 3840			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

3842 3843		ii) In the case when discrete quantities or batches of material are removed from the container but the container does not	
3844		meet the conditions to be an empty container as defined in	
3845		35 Ill Adm Code 721 107(b) the owner or operator must	
3846		promptly secure the closure devices in the closed position	
3847		and install covers as applicable to the container upon the	
3848		completion of a batch removal after which no additional	
3849		material will be removed from the container within 15	
3850		minutes or the person performing the unloading operation	
3851		leaves the immediate vicinity of the container whichever	
3852		condition occurs first	
3853		condition occurs mot,	
3854 C)	Opening of a closure device or cover is allowed when access inside	
3855	9	the container is needed to perform routine activities other than	
3856		transfer of hazardous waste Examples of such activities include	
3857		those times when a worker needs to open a port to measure the	
3858		depth of or sample the material in the container, or when a worker	
3859		needs to open a manhole batch to access equipment inside the	
3860		container Following completion of the activity the owner or	
3861		operator must promptly secure the closure device in the closed	
3862		position or reinstall the cover, as applicable to the container:	
3863		position of remistant the cover, as appreade to the container,	
3864 D	1)	Opening of a spring-loaded pressure-vacuum relief valve	
3865	9	conservation vent, or similar type of pressure relief device that	
3866		vents to the atmosphere is allowed during normal operations for	
3867		the purpose of maintaining the container internal pressure in	
3868		accordance with the design specifications of the container. The	
3869		device must be designed to operate with no detectable organic	
3870		emissions when the device is secured in the closed position. The	
3870		settings at which the device opens must be established so that the	
3872		device remains in the closed position whenever the internal	
3873		pressure of the container is within the internal pressure operating	
3874		range determined by the owner or operator based on container	
3875		manufacturer recommendations applicable regulations fire	
3876		protection and prevention codes, standard engineering codes and	
3877		protection and prevention codes, standard engineering codes and	
3878		flammable ignitable explosive reactive or hazardous materials	
3878		Examples of normal operating conditions that may require these	
2880		devices to open are during these times when the internal pressure	
2001		of the container avoade the internal pressure operating range for	
2001		the container exceeds the internal pressure operating range for	
2002		temperature fluctuations and	
3003		temperature nucluations; and	

3841

3884			
3885		E)	Opening of a safety device, as defined in Section 725.981, is
3886			allowed at any time conditions require doing so to avoid an unsafe
3887			condition.
3888			
3889	4)	The c	owner or operator of containers using Container Level 1 controls must
3890		inspe	ect the containers and their covers and closure devices as follows:
3891			
3892		A)	In the case when a hazardous waste already is in the container at
3893			the time the owner or operator first accepts possession of the
3894			container at the facility and the container is not emptied within 24
3895			hours after the container is accepted at the facility (i.e., it does not
3896			meet the conditions for an empty container as specified in 35 Ill.
3897			Adm. Code 721.107(b)), the owner or operator must visually
3898			inspect the container and its cover and closure devices to check for
3899			visible cracks, holes, gaps, or other open spaces into the interior of
3900			the container when the cover and closure devices are secured in the
3901			closed position. The container visual inspection must be
3902			conducted on or before the date on which the container is accepted
3903			at the facility (i.e., the date when the container becomes subject to
3904			the Subpart CC container standards). For the purposes of this
3905			requirement, the date of acceptance is the date of signature that the
3906			facility owner or operator enters on Item 20 of the Uniform
3907			Hazardous Waste Manifest, as set forth in the appendix to 40 CFR
3908			262 (Uniform Hazardous Waste Manifest and Instructions (EPA
3909			Forms 8700-22 and 8700-22A and Their Instructions)),
3910			incorporated by reference in 35 Ill. Adm. Code 720.111(b), as
3911			required under Section 725.171. If a defect is detected, the owner
3912			or operator must repair the defect in accordance with the
3913			requirements of subsection (c)(4)(C) of this Section;
3914			
3915		B)	In the case when a container used for managing hazardous waste
3916			remains at the facility for a period of one year or more, the owner
3917			or operator must visually inspect the container and its cover and
3918			closure devices initially and thereafter, at least once every 12
3919			months, to check for visible cracks, holes, gaps, or other open
3920			spaces into the interior of the container when the cover and closure
3921			devices are secured in the closed position. If a defect is detected,
3922			the owner or operator must repair the defect in accordance with the
3923			requirements of subsection (c)(4)(C) of this Section; and
3924			
3925		C)	When a defect is detected in the container, cover, or closure
3926			devices, the owner or operator must make first efforts at repair of

3927				the defect no later than 24 hours after detection, and repair must be
3928				completed as soon as possible but no later than five calendar days
3929				after detection. If repair of a defect cannot be completed within
3930				five calendar days, then the hazardous waste must be removed
3931				from the container and the container must not be used to manage
3932				hazardous waste until the defect is repaired.
3933				
3934		5)	The c	owner or operator must maintain at the facility a copy of the
3935			proce	edure used to determine that containers with capacity of 0.46 m ³ (120
3936			gal) o	or greater which do not meet applicable USDOT regulations, as
3937			speci	fied in subsection (f) of this Section, are not managing hazardous
3938			waste	e in light material service.
3939				
3940	d)	Conta	ainer Le	evel 2 standards
3941				
3942		1)	A con	ntainer using Container Level 2 controls is one of the following:
3943				
3944			A)	A container that meets the applicable USDOT regulations on
3945				packaging hazardous materials for transportation as specified in
3946				subsection (f)-of this Section;
3947				
3948			B)	A container that operates with no detectable organic emissions, as
3949				defined in Section 725,981, and determined in accordance with the
3950				procedure specified in subsection (g) of this Section; and
3951				F
3952			C)	A container that has been demonstrated within the preceding 12
3953			0)	months to be vanor-tight by using Reference Method 27
3954				(Determination of Vanor Tightness of Gasoline Delivery Tank
3955				Using Pressure-Vacuum Test) in appendix A to 40 CFR 60 (Test
3956				Methods) incorporated by reference in 35 Ill Adm Code
3957				720 111(b) in accordance with the procedure specified in
3058				(20.111(0), in accordance with the procedure specified in subsection (b) of this Section
3050				subsection (ii) of this beetion.
3959		2)	Tron	afer of hazardous waste into or out of a container using Container
3900		2)	Lava	1.2 controls must be conducted in such a monner as to minimize
3901			Leve	1 2 controls must be conducted in such a manner as to minimize
3902			expo	sure of the nazardous waste to the atmosphere, to the extent practical,
3963			cons	Idering the physical properties of the hazardous waste and good
3964			engii	heering and safety practices for handling flammable, ignitable,
3965			explo	osive, reactive or other hazardous materials. Examples of container
3966			loadi	ng procedures that the USEPA considers to meet the requirements of
3967			this s	subsection (d)(2) include using any one of the following: a
3968			subn	rerged-fill pipe or other submerged-fill method to load liquids into the
3969			conta	ainer; a vapor-balancing system or a vapor-recovery system to collect

3970 3971 3972 3973		and co operat hazaro remov	ontrol th tions; or lous wa ving it fi	he vapors displaced from the container during filling r a fitted opening in the top of a container through which the laste is filled and subsequently purging the transfer line before rom the container opening.
3974 3975 3976 3977 3978 3979	3)	When contro for the closed	ever a h ols, the o e contai l positic	nazardous waste is in a container using Container Level 2 owner or operator must install all covers and closure devices ner, and secure and maintain each closure device in the on, except as follows:
3980 3981 3982 3983		A)	Openi adding follov	ing of a closure device or cover is allowed for the purpose of g hazardous waste or other material to the container, as vs:
3983 3984 3985 3986 3987 3988 2080			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
3989 3990 3991 3992 3993 3994 3995 3996 3997 3998 3999 4000 4001 4002			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;
4002 4003 4004 4005		B)	Openi remov	ing of a closure device or cover is allowed for the purpose of ving hazardous waste from the container as follows:
4005 4006 4007 4008 4009 4010 4011			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
4012			ii)	In the case when discrete quantities or batches of material

4013		are removed from the container but the container does not
4014		meet the conditions to be an empty container as defined in
4015		35 Ill. Adm. Code 721.107(b), the owner or operator must
4016		promptly secure the closure devices in the closed position
4017		and install covers, as applicable to the container, upon the
4018		completion of a batch removal after which no additional
4019		material will be removed from the container within 15
4020		minutes or the person performing the unloading operation
4021		leaves the immediate vicinity of the container, whichever
4022		condition occurs first;
4023		
4024	C)	Opening of a closure device or cover is allowed when access inside
4025		the container is needed to perform routine activities other than
4026		transfer of hazardous waste. Examples of such activities include
4027		those times when a worker needs to open a port to measure the
4028		depth of or sample the material in the container, or when a worker
4029		needs to open a manhole hatch to access equipment inside the
4030		container. Following completion of the activity, the owner or
4031		operator must promptly secure the closure device in the closed
4032		position or reinstall the cover, as applicable to the container;
4033		
4034	D)	Opening of a spring-loaded, pressure-vacuum relief valve,
4035		conservation vent, or similar type of pressure relief device that
4036		vents to the atmosphere is allowed during normal operations for
4037		the purpose of maintaining the internal pressure of the container in
4038		accordance with the container design specifications. The device
4039		must be designed to operate with no detectable organic emission
4040		when the device is secured in the closed position. The settings at
4041		which the device opens must be established so that the device
4042		remains in the closed position whenever the internal pressure of the
4043		container is within the internal pressure operating range
4044		determined by the owner or operator based on container
4045		manufacturer recommendations, applicable regulations, fire
4046		protection and prevention codes, standard engineering codes and
4047		practices, or other requirements for the safe handling of
4048		flammable, ignitable, explosive, reactive, or hazardous materials.
4049		Examples of normal operating conditions that may require these
4050		devices to open are during those times when the internal pressure
4051		of the container exceeds the internal pressure operating range for
4052		the container as a result of loading operations or diurnal ambient
4053		temperature fluctuations; and
4054		
4055	E)	Opening of a safety device, as defined in Section 725.981, is

4 - - -

4056			allowed at any time conditions require doing so to avoid an unsafe
4057			condition.
4058			
4059	4)	The o	wher or operator of containers using Container Level 2 controls must
4060		inspe	ct the containers and their covers and closure devices as follows:
4061			
4062		A)	In the case when a hazardous waste already is in the container at
4063			the time the owner or operator first accepts possession of the
4064			container at the facility and the container is not emptied within 24
4065			hours after the container is accepted at the facility (i.e., it does not
4066			meet the conditions for an empty container as specified in 35 Ill.
4067			Adm. Code 721.107(b)), the owner or operator must visually
4068			inspect the container and its cover and closure devices to check for
4069			visible cracks, holes, gaps, or other open spaces into the interior of
4070			the container when the cover and closure devices are secured in the
4071			closed position. The container visual inspection must be
4072			conducted on or before the date on which the container is accepted
4073			at the facility (i.e., the date when the container becomes subject to
4074			the Subpart CC container standards). For the purposes of this
4075			requirement, the date of acceptance is the date of signature that the
4076			facility owner or operator enters on Item 20 of the Uniform
4077			Hazardous Waste Manifest, in the appendix to 40 CFR 262
4078			(Uniform Hazardous Waste Manifest and Instructions (USEPA
4079			Forms 8700-22 and 8700-22A and Their Instructions)), as required
4080			under Section 725.171. If a defect is detected, the owner or
4081			operator must repair the defect in accordance with the
4082			requirements of subsection (d)(4)(C)-of this Section;
4083			
4084		B)	In the case when a container used for managing hazardous waste
4085			remains at the facility for a period of one year or more, the owner
4086			or operator must visually inspect the container and its cover and
4087			closure devices initially and thereafter, at least once every 12
4088			months, to check for visible cracks, holes, gaps, or other open
4089			spaces into the interior of the container when the cover and closure
4090			devices are secured in the closed position. If a defect is detected.
4091			the owner or operator must repair the defect in accordance with the
4092			requirements of subsection $(d)(4)(C)$ of this Section: and
4093			
4094		C)	When a defect is detected in the container, cover, or closure
4095		-)	devices, the owner or operator must make first efforts at repair of
4096			the defect no later than 24 hours after detection and renair must be
4097			completed as soon as possible but no later than five calendar days
4098			after detection. If repair of a defect cannot be completed within

4099 4100				five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage
4101				hazardous waste until the defect is repaired.
4102				
4103	e)	Cont	ainer Le	evel 3 standards
4104				
4105		1)	A co	ntainer using Container Level 3 controls is one of the following:
4106				
4107			A)	A container that is vented directly through a closed-vent system to
4108				a control device in accordance with the requirements of subsection
4109				(e)(2)(B) of this Section; or
4110				
4111			B)	A container that is vented inside an enclosure that is exhausted
4112				through a closed-vent system to a control device in accordance
4113				with the requirements of subsections (e)(2)(A) and (e)(2)(B) of this
4114				Section.
4115				
4116		2)	The	owner or operator must meet the following requirements, as
4117		,	appli	cable to the type of air emission control equipment selected by the
4118			owne	er or operator:
4119				
4120			A)	The container enclosure must be designed and operated in
4121			26	accordance with the criteria for a permanent total enclosure, as
4122				specified in "Procedure T – Criteria for and Verification of a
4123				Permanent or Temporary Total Enclosure" under appendix B to 40
4124				CFR 52.741 (VOM Measurement Techniques for Capture
4125				Efficiency), incorporated by reference in 35 Ill. Adm. Code
4126				720.111(b). The enclosure may have permanent or temporary
4127				openings to allow worker access; passage of containers through the
4128				enclosure by conveyor or other mechanical means; entry of
4129				permanent mechanical or electrical equipment; or direct airflow
4130				into the enclosure. The owner or operator must perform the
4131				verification procedure for the enclosure, as specified in Section 5.0
4132				to "Procedure T – Criteria for and Verification of a Permanent or
4133				Temporary Total Enclosure" initially when the enclosure is first
4134				installed and, thereafter, annually; and
4135				
4136			B)	The closed-vent system and control device must be designed and
4137				operated in accordance with the requirements of Section 725.988.
4138				
4139		3)	Safe	ty devices, as defined in Section 725.981, may be installed and
4140			oper	ated as necessary on any container, enclosure, closed-vent system, or
4141			cont	rol device used to comply with the requirements of subsection $(e)(1)$

4142		of this Section.	
4143			
4144	4)	Owners and operators using Container Level 3 controls in accordance with	
4145		the provisions of this Subpart CC must inspect and monitor the closed-	
4146		vent systems and control devices, as specified in Section 725.988.	
4147			
4148	5)	Owners and operators that use Container Level 3 controls in accordance	
4149		with the provisions of this Subpart CC must prepare and maintain the	
4150		records specified in Section 725.990(d).	
4151			
4152	6)	The transfer of hazardous waste into or out of a container using Container	
4153		Level 3 controls must be conducted in such a manner as to minimize	
4154		exposure of the hazardous waste to the atmosphere, to the extent practical	
4155		considering the physical properties of the hazardous waste and good	
4156		engineering and safety practices for handling flammable, ignitable,	
4157		explosive, reactive, or other hazardous materials. Examples of container	
4158		loading procedures that USEPA considers to meet the requirements of this	
4159		subsection (e)(6) include using any one of the following: the use of a	
4160		submerged-fill pipe or other submerged-fill method to load liquids into the	
4161		container; the use of a vapor-balancing system or a vapor-recovery system	
4162		to collect and control the vapors displaced from the container during	
4163		filling operations; or the use of a fitted opening in the top of a container	
4164		through which the hazardous waste is filled and subsequently purging the	
4165		transfer line before removing it from the container opening.	
4166			
4167	f) For t	he purpose of compliance with subsection (c)(1)(A) or (d)(1)(A) of this	
4168	Secti	ion, containers must be used that meet the applicable USDOT regulations on	
4169	pack	aging hazardous materials for transportation as follows:	
4170			
4171	1)	The container meets the applicable requirements specified by USDOT in	
4172		49 CFR 178 (Specifications for Packaging), or 49 CFR 179	
4173		(Specifications for Tank Cars), each incorporated by reference in 35 Ill.	
4174		Adm. Code 720.111(b);	
4175			
4176	2)	Hazardous waste is managed in the container in accordance with the	
4177		applicable requirements specified by USDOT in subpart B of 49 CFR 107	
4178		(Exemptions), 49 CFR 172 (Hazardous Materials Table, Special	
4179		Provisions, Hazardous Materials Communications, Emergency Response	
4180		Information, and Training Requirements), 49 CFR 173(Shippers - General	
4181		Requirements for Shipments and Packages), and 49 CFR 180(Continuing	
4182		Qualification and Maintenance of Packagings), each incorporated by	
4183		reference in 35 Ill. Adm. Code 720.111(b):	
4184			
4185 4186		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
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4187			in subsection (f)(4) of this Section; and
4188		45	Easthland dations allowed with de USDOT
4189		4)	For a lab pack that is managed in accordance with the USDOT
4190			requirements of 49 CFK 178 (Specifications for Packagings) for the
4191			purpose of complying with this Subpart CC, an owner or operator may
4192			LISDOT in AO CEP 172 12(b) (Exceptions for Shinesette of Wester
4195			Motoriale) incomparated by reference in 25 Ill. Adm. Code 720 111(h)
4194			Materials), incorporated by reference in 35 III. Adm. Code 720.111(b).
4195		Tad	atorning compliance with the ne detectable organic amignions requirements
4190	g)	100	elemine compliance with the no detectable organic emissions requirements $(d)(1)(D)$ of this Section, the proposition emissions requirements
4197		01 SU	losection (d)(1)(B) of this section, the procedure specified in Section
4198		125.	984(a) must be used.
4199		13	Tesh astarial lash interfere (i.e. a lastice where second success lashes
4200		1)	Each potential leak interface (i.e., a location where organic vapor leakage
4201			could occur) on the container, its cover, and associated closure devices, as
4202			applicable to the container, must be checked. Potential leak interfaces that
4203			af the server rim and the container well, the periphery of any opening on
4204			of the cover rim and the container wall; the periphery of any opening on the container or container sector and its associated closure devices and the
4203			the container or container cover and its associated closure device; and the
4200			searing sear interface on a spring-loaded pressure-rener valve.
4207		2)	The test must be merformed when the container is filled with a metaiol
4208		2)	here is in the performed when the container is filled with a material
4209			naving a volatile organic concentration representative of the range of
4210			world the organic concentrations for the hazardous wastes expected to be
4211			alogure devices must be secured in the closed position
4212			closure devices must be secured in the closed position.
4213	b)	The	procedure for determining a container to be vapor tight using Deference
4214	11)	Mot	procedure for determining a container to be vapor-tight using <u>Kererence</u> had 27 for the number of complying with subsection $(d)(1)(C)$ of this Section
4215		in on	follows:
4210		is as	Ionows.
4217		1)	The test must be performed in accordance with Reference Method 27.
4210		1)	The test must be performed in accordance with <u>Reference</u> Method 27,
4219		2)	A procesure many many device must be used that has a precision of ± 2.5
4220		2)	A pressure measurement device must be used that has a precision of ± 2.5 mm (0.10 inch) water and that is complete of measuring above the pressure
4221			at which the container is to be tested for woner tightness; and
4222			at which the container is to be tested for vapor tightness, and
4223		2)	If the test regults determined by Deference Method 27 indicate that the
4224		5)	container sustains a pressure change less then or equal to 750 Pascala
4225			(0.11 psig) within five minutes after it is pressurized to a minimum of
4220			4 500 Pascals (0.65 nsig) then the container is determined to be vanor-
7441			1,500 r usedis (0.05 psig), then the container is determined to be vapor-

4228			tight.							
4229										
4230	(Source: Amended at 40 Ill. Reg, effective)									
4231										
4232			SUE	3PART DD: CONTAINMENT BUILDINGS						
4233	Section 725	.1101 D	esign a	and Operating Standards						
4235 4236 4237 4228	a)	All co stand	ontainm ards:	ent buildings must comply with the following design and operating						
4238 4239 4240 4241		1)	The c and a run o	containment building must be completely enclosed with a floor, walls, roof to prevent exposure to the elements (e.g. precipitation, wind, n) and to assure containment of managed wastes;						
4242										
4243		2)	The f	loor and containment walls of the unit, including the secondary						
4244			conta	inment system if required under subsection (b) of this Section, must						
4245			thick	ress to support themselves, the waste contents, and any personnel and						
4240			heavy	we automent that operate within the unit, and to prevent failure due to						
4248			nress	ure gradients settlement compression or unlift physical contact						
4249			with	the hazardous wastes to which they are exposed: climatic conditions:						
4250			and t	he stresses of daily operation, including the movement of heavy						
4251			equir	ment within the unit and contact of such equipment with containment						
4252			walls	The unit must be designed so that it has sufficient structural						
4253			stren	gth to prevent collapse or other failure. All surfaces to be in contact						
4254			with	hazardous wastes must be chemically compatible with those wastes.						
4255			The c	containment building must meet the structural integrity requirements						
4256			estab	lished by professional organizations generally recognized by the						
4257			indus	stry such as the American Concrete Institute (ACI) and the American						
4258			Socie	ety of Testing Materials (ASTM). If appropriate to the nature of the						
4259			waste	e management operation to take place in the unit, an exception to the						
4260			struct	tural strength requirement may be made for light-weight doors and						
4261			wind	ows that meet these criteria:						
4262										
4263			A)	They provide an effective barrier against fugitive dust emissions						
4264				under subsection (c)(1)(D) of this Section; and						
4265										
4266			B)	The unit is designed and operated in a fashion that assures that						
4267				wastes will not actually come in contact with these openings;						
4268										
4269		3)	Incor	npatible hazardous wastes or treatment reagents must not be placed in						
4270			the u	nit or its secondary containment system if they could cause the unit or						

4271			secon	dary co	ontainment system to leak, corrode, or otherwise fail; and
4272					
4273		4)	A cor	ntainme	ent building must have a primary barrier designed to withstand
4274			the m	oveme	nt of personnel, waste, and handling equipment in the unit
4275			durin	g the o	perating life of the unit and appropriate for the physical and
4276			chem	ical cha	aracteristics of the waste to be managed.
4277					
4278	b)	For a	contain	ment b	uilding used to manage hazardous wastes containing free
4279		liquid	ds or tre	ated wi	th free liquids (the presence of which is determined by the
4280		paint	filter te	st, a vi	sual examination, or other appropriate means), the owner or
4281		opera	ator mus	t inclu	de the following design features:
4282		1			9 9
4283		1)	A pri	marv b	arrier designed and constructed of materials to prevent the
4284		-/	migra	ation of	hazardous constituents into the barrier (e.g., a geomembrane
4285			cover	ed by a	concrete wear surface).
4286					
4287		2)	A lig	uid col	lection and removal system to minimize the accumulation of
4288		-,	liquid	1 on the	primary barrier of the containment building:
4289			inquit		, primitely out the communities containing,
4290			A)	The	primary barrier must be sloped to drain liquids to the
4291			,	asso	ciated collection system: and
4292				4000	saled concerton system, and
4293			B)	Liou	ids and waste must be collected and removed to minimize
4294			2)	hydr	aulic head on the containment system at the earliest
4295				prac	icable time
4296				prac	
4297		3)	A sec	ondary	containment system including a secondary harrier designed
4298		5)	and c	onstrue	ted to prevent migration of hazardous constituents into the
4299			harrie	er and	a leak detection system that is canable of detecting failure of
4300			the n	rimary	harrier and collecting accumulated hazardous wastes and
4301			liquid	de at th	e earliest practicable time
4302			iiquit	as at th	e carriest practicable time.
4302			4)	The	requirements of the leak detection component of the secondary
4303			A)	aont	ainment system are satisfied by installation of a system that is
4304				cont	minimum on follows:
4305				ala	inininum, as ionows.
4300					It is constructed with a bottom along of 1 percent or many
4307				1)	it is constructed with a bottom slope of 1 percent of more,
4308					and
4309				16	Te :
4310				11)	It is constructed of a granular drainage material with a
4311					hydraulic conductivity of 1 x 10^{-2} cm/sec or more and a
4312					thickness of 12 inches (30.5 cm) or more, or constructed of
4313					synthetic or geonet drainage materials with a transmissivity

4314				of 3 x 10^{-5} m ² /sec or more.
4315				
4316			B)	If treatment is to be conducted in the building, an area in which
4317				such treatment will be conducted must be designed to prevent the
4318				release of liquids, wet materials, or liquid aerosols to other portions
4319				of the building.
4320				
4321			C)	The secondary containment system must be constructed of
4322				materials that are chemically resistant to the waste and liquids
4323				managed in the containment building and of sufficient strength and
4324				thickness to prevent collapse under the pressure exerted by
4325				overlaying materials and by any equipment used in the
4326				containment building. (Containment buildings can serve as
4327				secondary containment systems for tanks placed within the
4328				building under certain conditions. A containment building can
4329				serve as an external liner system for a tank, provided it meets the
4330				requirements of Section 725.293(e)(1). In addition, the
4331				containment building must meet the requirements of subsections
4332				725.293(b) and (c) to be an acceptable secondary containment
4333				system for a tank.)
4334				
4335		4)	For e	existing units other than 90-day generator units, USEPA may delay
4336			the se	econdary containment requirement for up to two years, based on a
4337			demo	onstration by the owner or operator that the unit substantially meets
4338			the st	tandards of this Subpart DD. In making this demonstration, the
4339			owne	er or operator must do each of the following:
4340				
4341			A)	Provide written notice to USEPA of their request by November 16,
4342				1992. This notification must describe the unit and its operating
4343				practices with specific reference to the performance of existing
4344				systems, and specific plans for retrofitting the unit with secondary
4345				containment;
4346				
4347			B)	Respond to any comments from USEPA on these plans within 30
4348				days; and
4349				
4350			C)	Fulfill the terms of the revised plans, if such plans are approved by
4351			-/	USEPA.
4352				
4353	c)	Own	ers or o	perators of all containment buildings must do each of the following
4354	-)	2		
4355		1)	It mi	ist use controls and practice to ensure containment of the hazardous
4356		.,	waste	e within the unit, and at a minimum do each of the following:

- C

4357			
4358		A)	It must maintain the primary barrier to be free of significant cracks,
4359			gaps, corrosion, or other deterioration that could cause hazardous
4360			waste to be released from the primary barrier;
4361			
4362		B)	It must maintain the level of the stored or treated hazardous waste
4363			within the containment walls of the unit so that the height of any
4364			containment wall is not exceeded;
4365			
4366		C)	It must take measures to prevent the tracking of hazardous waste
4367			out of the unit by personnel or by equipment used in handling the
4368			waste. An area must be designated to decontaminate equipment
4369			and any rinsate must be collected and properly managed; and
4370			
4371		D)	It must take measures to control fugitive dust emissions such that
4372			any openings (doors, windows, vents, cracks, etc.) exhibit no
4373			visible emissions (see Reference Method 22 (Visual Determination
4374			of Fugitive Emissions from Material Sources and Smoke
4375			Emissions from Flares) in appendix A to 40 CFR 60 (Test
4376			Methods), incorporated by reference in 35 Ill. Adm. Code
4377			720.111(b)). In addition, all associated particulate collection
4378			devices (e.g., fabric filter, electrostatic precipitator) must be
4379			operated and maintained with sound air pollution control practices
4380			(see 40 CFR 60 for guidance). This state of no visible emissions
4381			must be maintained effectively at all times during routine operating
4382			and maintenance conditions, including when vehicles and
4383			personnel are entering and exiting the unit;
4384			1
4385			BOARD NOTE: At 40 CFR 264.1101(c)(1)(iv), USEPA cites "40
4386			CFR part 60, subpart 292." At 57 Fed. Reg. 37217 (August 18,
4387			1992), USEPA repeats this citation in the preamble discussion of
4388			adoption of the rules. No such provision exists in the Code of
4389			Federal Regulations. While 40 CFR 60.292 of the federal
4390			regulations pertains to control of fugitive dust emissions, that
4391			provision is limited in its application to glass melting furnaces
4392			The Board has chosen to use the general citation: "40 CFR 60."
4393			
4394	2)	It mi	st obtain and keep on-site a certification by a qualified Professional
4395	-)	Engi	neer that the containment building design meets the requirements of
4396		subse	ections (a) through (c) of this Section.
4397		Subbi	contrast (a) anough (o) of this section,
4398	3)	Thro	ushout the active life of the containment building if the owner or
4399	5)	opera	ator detects a condition that could lead to or has caused a release of
		open	

4400	hazar	dous wa	aste, it must repair the condition promptly, in accordance with
4401	the fo	llowing	g procedures:
4402			
4403	A)	Upon	detection of a condition that has caused to a release of
4404		hazar	dous wastes (e.g., upon detection of leakage from the primary
4405		barrie	er) the owner or operator must do the following:
4406			
4407		i)	Enter a record of the discovery in the facility operating
4408			record;
4409			
4410		ii)	Immediately remove the portion of the containment
4411		100	building affected by the condition from service;
4412			
4413		iii)	Determine what steps must be taken to repair the
4414			containment building, remove any leakage from the
4415			secondary collection system, and establish a schedule for
4416			accomplishing the cleanup and repairs; and
4417			
4418		iv)	Within seven days after the discovery of the condition,
4419			notify the Agency in writing of the condition, and within 14
4420			working days, provide a written notice to the Agency with
4421			a description of the steps taken to repair the containment
4422			building, and the schedule for accomplishing the work;
4423			
4424	B)	The A	Agency must review the information submitted, make a
4425		deter	mination regarding whether the containment building must be
4426		remo	ved from service completely or partially until repairs and
4427		clean	up are complete, and notify the owner or operator of the
4428		deter	mination and the underlying rationale in writing; and
4429			
4430	C)	Upor	a completing all repairs and cleanup the owner and operator
4431		must	notify the Agency in writing and provide a verification,
4432		signe	d by a qualified, registered professional engineer, that the
4433		repai	rs and cleanup have been completed according to the written
4434		plan	submitted in accordance with subsection (c)(3)(A)(iv) of this
4435		Secti	on ; and
4436			
4437	4) It mu	st inspe	ect and record in the facility's operating record at least once
4438	every	seven	days data gathered from monitoring and leak detection
4439	equip	ment a	s well as the containment building and the area immediately
4440	surro	unding	the containment building to detect signs of releases of
4441	hazar	dous w	aste.
4442			

4443	d)	For a containment building that contains areas both with and without secondary						
4444		containment, the owner or operator must do the following:						
4445								
4446		1) Design and operate each area in accordance with the requirements						
4447		enumerated in subsections (a) through (c) of this Section;						
4448								
4449		2) Take measures to prevent the release of liquids or wet materials into areas						
4450		without secondary containment; and						
4451								
4452		3) Maintain in the facility's operating log a written description of the						
4453		operating procedures used to maintain the integrity of areas without						
4454		secondary containment.						
4455								
4456	e)	Notwithstanding any other provision of this Subpart DD, the Agency must, in						
4457		writing, allow the use of alternatives to the requirements for secondary						
4458		containment for a permitted containment building where the Agency has						
4459		determined that the facility owner or operator has adequately demonstrated that						
4460		the only free liquids in the unit are limited amounts of dust suppression liquids						
4461		required to meet occupational health and safety requirements, and where						
4462		containment of managed wastes and liquids can be assured without a secondary						
4463		containment system.						
4464								
4465	(Sou	ce: Amended at 40 Ill. Reg, effective)						