

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

- 1) Heading of the Part: Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
- 2) Code Citation: 35 Ill. Adm. Code 724
- 3)

<u>Section Numbers:</u>	<u>Proposed Actions:</u>
724.171	Amendment
724.194	Amendment
724.244	Amendment
724.245	Amendment
724.414	Amendment
724.670	Amendment
724.671	Amendment
724.933	Amendment
724.934	Amendment
724.935	Amendment
724.936	Amendment
724.981	Amendment
724.982	Amendment
724.986	Amendment
724.1101	Amendment
724.1102	Amendment
- 4) Statutory Authority: 415 ILCS 5/7.2, 22.4, and 27
- 5) A Complete Description of Subjects and Issues Involved: The amendments to Part 724 are a single segment of the docket R16-7 rulemaking that also affects 35 Ill. Adm. Code 703, 720, 721, 722, 725, 726, 727, 728, and 733, each of which is covered by a separate notice in this issue of the *Illinois Register*. To save space, a more detailed description of the subjects and issues involved in the docket R16-7 rulemaking in this issue of the *Illinois Register* only in the answer to question 5 is stated in the Notice of Adopted Amendments for 35 Ill. Adm. Code 703. A comprehensive description is contained in the Board's opinion and order of March 3, 2016, proposing amendments in docket R16-7, which opinion and order is available from the address below.

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

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

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

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

- 6) Published studies or reports, and sources of underlying data, used to compose this rulemaking: None
- 7) Will this rulemaking replace any emergency rule currently in effect? No
- 8) Does this rulemaking contain an automatic repeal date? No
- 9) Does this rulemaking contain incorporations by reference? No
- 10) Are there any other rulemakings pending on this Part? No
- 11) Statement of Statewide Policy Objective: These proposed amendments do not create or enlarge a State mandate, as defined in Section 3(b) of the State Mandates Act [30 ILCS 805].
- 12) Time, Place and Manner in which interested persons may comment on this proposed rulemaking: The Board will accept written public comment on this proposal for a period of 45 days after the date of this publication. Comments should reference docket R16-7 and be addressed to:

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

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

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

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

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

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

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

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

6 PART 724
7 STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE
8 TREATMENT, STORAGE, AND DISPOSAL FACILITIES
9

10 SUBPART A: GENERAL PROVISIONS
11

12	Section	
13	724.101	Purpose, Scope, and Applicability
14	724.103	Relationship to Interim Status Standards
15	724.104	Electronic Reporting

16
17 SUBPART B: GENERAL FACILITY STANDARDS
18

19	Section	
20	724.110	Applicability
21	724.111	USEPA Identification Number
22	724.112	Required Notices
23	724.113	General Waste Analysis
24	724.114	Security
25	724.115	General Inspection Requirements
26	724.116	Personnel Training
27	724.117	General Requirements for Ignitable, Reactive, or Incompatible Wastes
28	724.118	Location Standards
29	724.119	Construction Quality Assurance Program

30
31 SUBPART C: PREPAREDNESS AND PREVENTION
32

33	Section	
34	724.130	Applicability
35	724.131	Design and Operation of Facility
36	724.132	Required Equipment
37	724.133	Testing and Maintenance of Equipment
38	724.134	Access to Communications or Alarm System
39	724.135	Required Aisle Space
40	724.137	Arrangements with Local Authorities

41
42 SUBPART D: CONTINGENCY PLAN AND EMERGENCY PROCEDURES
43

44	Section	
45	724.150	Applicability
46	724.151	Purpose and Implementation of Contingency Plan
47	724.152	Content of Contingency Plan
48	724.153	Copies of Contingency Plan
49	724.154	Amendment of Contingency Plan
50	724.155	Emergency Coordinator
51	724.156	Emergency Procedures

52
53 SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

54		
55	Section	
56	724.170	Applicability
57	724.171	Use of Manifest System
58	724.172	Manifest Discrepancies
59	724.173	Operating Record
60	724.174	Availability, Retention, and Disposition of Records
61	724.175	Annual Facility Activities Report
62	724.176	Unmanifested Waste Report
63	724.177	Additional Reports

64
65 SUBPART F: RELEASES FROM SOLID WASTE MANAGEMENT UNITS

66		
67	Section	
68	724.190	Applicability
69	724.191	Required Programs
70	724.192	Groundwater Protection Standard
71	724.193	Hazardous Constituents
72	724.194	Concentration Limits
73	724.195	Point of Compliance
74	724.196	Compliance Period
75	724.197	General Groundwater Monitoring Requirements
76	724.198	Detection Monitoring Program
77	724.199	Compliance Monitoring Program
78	724.200	Corrective Action Program
79	724.201	Corrective Action for Solid Waste Management Units

80
81 SUBPART G: CLOSURE AND POST-CLOSURE CARE

82		
83	Section	
84	724.210	Applicability
85	724.211	Closure Performance Standard
86	724.212	Closure Plan; Amendment of Plan

130	724.292	Design and Installation of New Tank Systems or Components
131	724.293	Containment and Detection of Releases
132	724.294	General Operating Requirements
133	724.295	Inspections
134	724.296	Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank
135		Systems
136	724.297	Closure and Post-Closure Care
137	724.298	Special Requirements for Ignitable or Reactive Waste
138	724.299	Special Requirements for Incompatible Wastes
139	724.300	Air Emission Standards

140

141 SUBPART K: SURFACE IMPOUNDMENTS

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143 Section

144	724.320	Applicability
145	724.321	Design and Operating Requirements
146	724.322	Action Leakage Rate
147	724.323	Response Actions
148	724.326	Monitoring and Inspection
149	724.327	Emergency Repairs; Contingency Plans
150	724.328	Closure and Post-Closure Care
151	724.329	Special Requirements for Ignitable or Reactive Waste
152	724.330	Special Requirements for Incompatible Wastes
153	724.331	Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and
154		F027
155	724.332	Air Emission Standards

156

157 SUBPART L: WASTE PILES

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159 Section

160	724.350	Applicability
161	724.351	Design and Operating Requirements
162	724.352	Action Leakage Rate
163	724.353	Response Action Plan
164	724.354	Monitoring and Inspection
165	724.356	Special Requirements for Ignitable or Reactive Waste
166	724.357	Special Requirements for Incompatible Wastes
167	724.358	Closure and Post-Closure Care
168	724.359	Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and
169		F027

170

171 SUBPART M: LAND TREATMENT

172

173	Section	
174	724.370	Applicability
175	724.371	Treatment Program
176	724.372	Treatment Demonstration
177	724.373	Design and Operating Requirements
178	724.376	Food-Chain Crops
179	724.378	Unsaturated Zone Monitoring
180	724.379	Recordkeeping
181	724.380	Closure and Post-Closure Care
182	724.381	Special Requirements for Ignitable or Reactive Waste
183	724.382	Special Requirements for Incompatible Wastes
184	724.383	Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and
185		F027

SUBPART N: LANDFILLS

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189	Section	
190	724.400	Applicability
191	724.401	Design and Operating Requirements
192	724.402	Action Leakage Rate
193	724.403	Monitoring and Inspection
194	724.404	Response Actions
195	724.409	Surveying and Recordkeeping
196	724.410	Closure and Post-Closure Care
197	724.412	Special Requirements for Ignitable or Reactive Waste
198	724.413	Special Requirements for Incompatible Wastes
199	724.414	Special Requirements for Bulk and Containerized Liquids
200	724.415	Special Requirements for Containers
201	724.416	Disposal of Small Containers of Hazardous Waste in Overpacked Drums (Lab
202		Packs)
203	724.417	Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and
204		F027

SUBPART O: INCINERATORS

205		
206		
207		
208	Section	
209	724.440	Applicability
210	724.441	Waste Analysis
211	724.442	Principal Organic Hazardous Constituents (POHCs)
212	724.443	Performance Standards
213	724.444	Hazardous Waste Incinerator Permits
214	724.445	Operating Requirements
215	724.447	Monitoring and Inspections

216	724.451	Closure
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218		SUBPART S: SPECIAL PROVISIONS FOR CLEANUP
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220	Section	
221	724.650	Applicability of Corrective Action Management Unit Regulations
222	724.651	Grandfathered Corrective Action Management Units
223	724.652	Corrective Action Management Units
224	724.653	Temporary Units
225	724.654	Staging Piles
226	724.655	Disposal of CAMU-Eligible Wastes in Permitted Hazardous Waste Landfills
227		
228		SUBPART W: DRIP PADS
229		
230	Section	
231	724.670	Applicability
232	724.671	Assessment of Existing Drip Pad Integrity
233	724.672	Design and Installation of New Drip Pads
234	724.673	Design and Operating Requirements
235	724.674	Inspections
236	724.675	Closure
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238		SUBPART X: MISCELLANEOUS UNITS
239		
240	Section	
241	724.700	Applicability
242	724.701	Environmental Performance Standards
243	724.702	Monitoring, Analysis, Inspection, Response, Reporting, and Corrective Action
244	724.703	Post-Closure Care
245		
246		SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS
247		
248	Section	
249	724.930	Applicability
250	724.931	Definitions
251	724.932	Standards: Process Vents
252	724.933	Standards: Closed-Vent Systems and Control Devices
253	724.934	Test Methods and Procedures
254	724.935	Recordkeeping Requirements
255	724.936	Reporting Requirements
256		
257		SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS
258		

259	Section	
260	724.950	Applicability
261	724.951	Definitions
262	724.952	Standards: Pumps in Light Liquid Service
263	724.953	Standards: Compressors
264	724.954	Standards: Pressure Relief Devices in Gas/Vapor Service
265	724.955	Standards: Sampling Connecting Systems
266	724.956	Standards: Open-ended Valves or Lines
267	724.957	Standards: Valves in Gas/Vapor or Light Liquid Service
268	724.958	Standards: Pumps, Valves, Pressure Relief Devices, and Other Connectors
269	724.959	Standards: Delay of Repair
270	724.960	Standards: Closed-Vent Systems and Control Devices
271	724.961	Alternative Percentage Standard for Valves
272	724.962	Skip Period Alternative for Valves
273	724.963	Test Methods and Procedures
274	724.964	Recordkeeping Requirements
275	724.965	Reporting Requirements

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

279	Section	
280	724.980	Applicability
281	724.981	Definitions
282	724.982	Standards: General
283	724.983	Waste Determination Procedures
284	724.984	Standards: Tanks
285	724.985	Standards: Surface Impoundments
286	724.986	Standards: Containers
287	724.987	Standards: Closed-Vent Systems and Control Devices
288	724.988	Inspection and Monitoring Requirements
289	724.989	Recordkeeping Requirements
290	724.990	Reporting Requirements
291	724.991	Alternative Control Requirements for Tanks (Repealed)

SUBPART DD: CONTAINMENT BUILDINGS

295	Section	
296	724.1100	Applicability
297	724.1101	Design and Operating Standards
298	724.1102	Closure and Post-Closure Care

SUBPART EE: HAZARDOUS WASTE MUNITIONS AND EXPLOSIVES STORAGE

301

302 Section
 303 724.1200 Applicability
 304 724.1201 Design and Operating Standards
 305 724.1202 Closure and Post-Closure Care
 306
 307 724.APPENDIX A Recordkeeping Instructions
 308 724.APPENDIX B EPA Report Form and Instructions (Repealed)
 309 724.APPENDIX D Cochran's Approximation to the Behrens-Fisher Student's T-Test
 310 724.APPENDIX E Examples of Potentially Incompatible Waste
 311 724.APPENDIX I Groundwater Monitoring List
 312

313 AUTHORITY: Implementing Sections 7.2 and 22.4 and authorized by Section 27 of the
 314 Environmental Protection Act [415 ILCS 5/7.2, 22.4, and 27].
 315

316 SOURCE: Adopted in R82-19 at 7 Ill. Reg. 14059, effective October 12, 1983; amended in
 317 R84-9 at 9 Ill. Reg. 11964, effective July 24, 1985; amended in R85-22 at 10 Ill. Reg. 1136,
 318 effective January 2, 1986; amended in R86-1 at 10 Ill. Reg. 14119, effective August 12, 1986;
 319 amended in R86-28 at 11 Ill. Reg. 6138, effective March 24, 1987; amended in R86-28 at 11 Ill.
 320 Reg. 8684, effective April 21, 1987; amended in R86-46 at 11 Ill. Reg. 13577, effective August
 321 4, 1987; amended in R87-5 at 11 Ill. Reg. 19397, effective November 12, 1987; amended in
 322 R87-39 at 12 Ill. Reg. 13135, effective July 29, 1988; amended in R88-16 at 13 Ill. Reg. 458,
 323 effective December 28, 1988; amended in R89-1 at 13 Ill. Reg. 18527, effective November 13,
 324 1989; amended in R90-2 at 14 Ill. Reg. 14511, effective August 22, 1990; amended in R90-10 at
 325 14 Ill. Reg. 16658, effective September 25, 1990; amended in R90-11 at 15 Ill. Reg. 9654,
 326 effective June 17, 1991; amended in R91-1 at 15 Ill. Reg. 14572, effective October 1, 1991;
 327 amended in R91-13 at 16 Ill. Reg. 9833, effective June 9, 1992; amended in R92-1 at 16 Ill. Reg.
 328 17702, effective November 6, 1992; amended in R92-10 at 17 Ill. Reg. 5806, effective March 26,
 329 1993; amended in R93-4 at 17 Ill. Reg. 20830, effective November 22, 1993; amended in R93-
 330 16 at 18 Ill. Reg. 6973, effective April 26, 1994; amended in R94-7 at 18 Ill. Reg. 12487,
 331 effective July 29, 1994; amended in R94-17 at 18 Ill. Reg. 17601, effective November 23, 1994;
 332 amended in R95-6 at 19 Ill. Reg. 9951, effective June 27, 1995; amended in R95-20 at 20 Ill.
 333 Reg. 11244, effective August 1, 1996; amended in R96-10/R97-3/R97-5 at 22 Ill. Reg. 636,
 334 effective December 16, 1997; amended in R98-12 at 22 Ill. Reg. 7638, effective April 15, 1998;
 335 amended in R97-21/R98-3/R98-5 at 22 Ill. Reg. 17972, effective September 28, 1998; amended
 336 in R98-21/R99-2/R99-7 at 23 Ill. Reg. 2186, effective January 19, 1999; amended in R99-15 at
 337 23 Ill. Reg. 9437, effective July 26, 1999; amended in R00-5 at 24 Ill. Reg. 1146, effective
 338 January 6, 2000; amended in R00-13 at 24 Ill. Reg. 9833, effective June 20, 2000; expedited
 339 correction at 25 Ill. Reg. 5115, effective June 20, 2000; amended in R02-1/R02-12/R02-17 at 26
 340 Ill. Reg. 6635, effective April 22, 2002; amended in R03-7 at 27 Ill. Reg. 3725, effective
 341 February 14, 2003; amended in R05-8 at 29 Ill. Reg. 6009, effective April 13, 2005; amended in
 342 R05-2 at 29 Ill. Reg. 6365, effective April 22, 2005; amended in R06-5/R06-6/R06-7 at 30 Ill.
 343 Reg. 3196, effective February 23, 2006; amended in R06-16/R06-17/R06-18 at 31 Ill. Reg. 893,
 344 effective December 20, 2006; amended in R07-5/R07-14 at 32 Ill. Reg. 12365, effective July 14,

345 2008; amended in R09-3 at 33 Ill. Reg. 1106, effective December 30, 2008; amended in R09-
 346 16/R10-4 at 34 Ill. Reg. 18873, effective November 12, 2010; amended in R11-2/R11-16 at 35
 347 Ill. Reg. 17965, effective October 14, 2011; amended in R13-15 at 37 Ill. Reg. 17773, effective
 348 October 24, 2013; amended in R15-1 at 39 Ill. Reg. 1724, effective January 12, 2015; amended
 349 in R16-7 at 40 Ill. Reg. _____, effective _____.

350
 351 SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING
 352

353 **Section 724.171 Use of Manifest System**
 354

- 355 a) Receipt of manifested hazardous waste.
 356
- 357 1) If a facility receives hazardous waste accompanied by a manifest, the
 358 owner, operator, or its agent must sign and date the manifest, as indicated
 359 in subsection (a)(2) ~~of this Section~~, to certify that the hazardous waste
 360 covered by the manifest was received, that the hazardous waste was
 361 received except as noted in the discrepancy space of the manifest, or that
 362 the hazardous waste was rejected as noted in the manifest discrepancy
 363 space.
 364
 - 365 2) If a facility receives a hazardous waste shipment accompanied by a
 366 manifest, the owner, operator, or its agent must do the following:
 367
 - 368 A) The owner, operator, or agent must sign and date, by hand, each
 369 copy of the manifest;
 370
 - 371 B) The owner, operator, or agent must note any discrepancies (as
 372 defined in Section ~~724.172725.172~~) on each copy of the manifest;
 373
 - 374 C) The owner, operator, or agent must immediately give the
 375 transporter at least one copy of the manifest;
 376
 - 377 D) The owner, operator, or agent must send a copy (Page 3) of the
 378 manifest to the generator within 30 days after delivery;
 379
 - 380 E) Within 30 days after delivery, the owner, operator, or agent must
 381 send the top copy (Page 1) of the manifest to the e-Manifest
 382 System for purposes of data entry and processing. In lieu of
 383 mailing this paper copy to the e-Manifest System operator, the
 384 owner or operator may transmit to the e-Manifest System operator
 385 an image file of Page 1 of the manifest, or both a data string file
 386 and the image file corresponding to Page 1 of the manifest. Any
 387 data or image files transmitted to USEPA under this subsection (a)

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

392
393 F) The owner, operator, or agent must retain at the facility a copy of
394 each manifest for at least three years after the date of delivery.
395

396 3) If a facility receives hazardous waste imported from a foreign source, the
397 receiving facility must mail a copy of the manifest and documentation
398 confirming USEPA's consent to the import of hazardous waste to the
399 following address within 30 days after delivery: Office of Enforcement
400 and Compliance Assurance, Office of Federal Activities, International
401 Compliance Assurance Division (2254A), U.S. Environmental Protection
402 Agency, 1200 Pennsylvania Ave., NW, Washington, DC 20460.
403

404 b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous
405 waste that is accompanied by a shipping paper containing all the information
406 required on the manifest (excluding the USEPA identification numbers,
407 generator's certification, and signatures), the owner or operator, or the owner or
408 operator's agent, must do the following:
409

410 1) It must sign and date each copy of the manifest or shipping paper (if the
411 manifest has not been received) to certify that the hazardous waste
412 covered by the manifest or shipping paper was received;
413

414 2) It must note any significant discrepancies (as defined in Section
415 724.172(a)) in the manifest or shipping paper (if the manifest has not been
416 received) on each copy of the manifest or shipping paper;
417

418 BOARD NOTE: The Board does not intend that the owner or operator of
419 a facility whose procedures under Section 724.113(c) include waste
420 analysis must perform that analysis before signing the shipping paper and
421 giving it to the transporter. Section 724.172(b), however, requires
422 reporting an unreconciled discrepancy discovered during later analysis.
423

424 3) It must immediately give the rail or water (bulk shipment) transporter at
425 least one copy of the manifest or shipping paper (if the manifest has not
426 been received);
427

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

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

432
433 BOARD NOTE: Section 722.123(c) requires the generator to send three
434 copies of the manifest to the facility when hazardous waste is sent by rail
435 or water (bulk shipment).

436
437 5) Retain at the facility a copy of the manifest and shipping paper (if signed
438 in lieu of the manifest at the time of delivery) for at least three years from
439 the date of delivery.

440
441 c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or
442 operator of that facility must comply with the requirements of 35 Ill. Adm. Code
443 722.

444
445 BOARD NOTE: The provisions of 35 Ill. Adm. Code 722.134 are applicable to
446 the on-site accumulation of hazardous wastes by generators. Therefore, the
447 provisions of Section 722.134 only apply to owners or operators that are shipping
448 hazardous waste that they generated at that facility.

449
450 d) Within three working days after the receipt of a shipment subject to Subpart H of
451 35 Ill. Adm. Code 722, the owner or operator of a facility must provide a copy of
452 the movement document bearing all required signatures to the exporter; to the
453 Office of Enforcement and Compliance Assurance, Office of Federal Activities,
454 International Compliance Assurance Division (2254A), Environmental Protection
455 Agency, 1200 Pennsylvania Ave., NW, Washington, DC 20460; to the Bureau of
456 Land, Division of Land Pollution Control, Illinois Environmental Protection
457 Agency, P.O. Box 19276, Springfield, IL 62794-9276; and to competent
458 authorities of all other concerned countries. The original copy of the movement
459 document must be maintained at the facility for at least three years from the date
460 of signature.

461
462 e) A facility must determine whether the consignment state for a shipment regulates
463 any additional wastes (beyond those regulated federally) as hazardous wastes
464 under its state hazardous waste program. A facility must also determine whether
465 the consignment state or generator state requires the facility to submit any copies
466 of the manifest to that state.

467
468 f) Legal equivalence to paper manifests. E-Manifests that are obtained, completed,
469 transmitted in accordance with 35 Ill. Adm. Code 722.120(a)(3), and used in
470 accordance with this Section in lieu of the paper manifest form are the legal
471 equivalent of paper manifest forms bearing handwritten signatures, and satisfy for

- 472 all purposes any requirement in 35 Ill. Adm. Code 720 through 728 to obtain,
 473 complete, sign, provide, use, or retain a manifest.
 474
- 475 1) Any requirement in 35 Ill. Adm. Code 720 through 728 for the owner or
 476 operator of a facility to sign a manifest or manifest certification by hand,
 477 or to obtain a handwritten signature, is satisfied by signing with or
 478 obtaining a valid and enforceable electronic signature within the meaning
 479 of 35 Ill. Adm. Code 722.125.
 480
 - 481 2) Any requirement in 35 Ill. Adm. Code 720 through 728 to give, provide,
 482 send, forward, or to return to another person a copy of the manifest is
 483 satisfied when a copy of an e-Manifest is transmitted to the other person.
 484
 - 485 3) Any requirement in 35 Ill. Adm. Code 720 through 728 for a manifest to
 486 accompany a hazardous waste shipment is satisfied when a copy of an e-
 487 Manifest is accessible during transportation and forwarded to the person or
 488 persons who are scheduled to receive delivery of the hazardous waste
 489 shipment.
 490
 - 491 4) Any requirement in 35 Ill. Adm. Code 720 through 728 for an owner or
 492 operator to keep or retain a copy of each manifest is satisfied by the
 493 retention of the facility's e-Manifest copies in its account on the e-
 494 Manifest System, provided that such copies are readily available for
 495 viewing and production if requested by any USEPA or Agency inspector.
 496
 - 497 5) No owner or operator may be held liable for the inability to produce an e-
 498 Manifest for inspection under this Section if the owner or operator can
 499 demonstrate that the inability to produce the e-Manifest is due exclusively
 500 to a technical difficulty with the e-Manifest System for which the owner or
 501 operator bears no responsibility.
- 502 g) An owner or operator may participate in the e-Manifest System either by
 503 accessing the e-Manifest System from the owner's or operator's electronic
 504 equipment, or by accessing the e-Manifest System from portable equipment
 505 brought to the owner's or operator's site by the transporter that delivers the waste
 506 shipment to the facility.
 507
- 508 h) Special procedures applicable to replacement manifests. If a facility receives
 509 hazardous waste that is accompanied by a paper replacement manifest for a
 510 manifest that was originated electronically, the following procedures apply to the
 511 delivery of the hazardous waste by the final transporter:
 512
- 513 1) Upon delivery of the hazardous waste to the designated facility, the owner
 514 or operator must sign and date each copy of the paper replacement

515 manifest by hand in Item 20 (Designated Facility Certification of Receipt)
 516 and note any discrepancies in Item 18 (Discrepancy Indication Space) of
 517 the paper replacement manifest;
 518

- 519 2) The owner or operator of the facility must give back to the final
 520 transporter one copy of the paper replacement manifest;
 521
- 522 3) Within 30 days after delivery of the hazardous waste to the designated
 523 facility, the owner or operator of the facility must send one signed and
 524 dated copy of the paper replacement manifest to the generator and send an
 525 additional signed and dated copy of the paper replacement manifest to the
 526 e-Manifest System; and
 527
- 528 4) The owner or operator of the facility must retain at the facility one copy of
 529 the paper replacement manifest for at least three years after the date of
 530 delivery.
 531

532 i) Special procedures applicable to electronic signature methods undergoing tests. If
 533 an owner or operator using an e-Manifest signs this manifest electronically using
 534 an electronic signature method that is undergoing pilot or demonstration tests
 535 aimed at demonstrating the practicality or legal dependability of the signature
 536 method, the owner or operator must also sign with an ink signature the facility's
 537 certification of receipt or discrepancies on the printed copy of the manifest
 538 provided by the transporter. Upon executing its ink signature on this printed
 539 copy, the owner or operator must retain this original copy among its records for at
 540 least three years after the date of delivery of the waste.
 541

542 j) Imposition of user fee for e-Manifest use. An owner or operator that is a user of
 543 the e-Manifest System may be assessed a user fee by USEPA for the origination
 544 or processing of each e-Manifest. An owner or operator may also be assessed a
 545 user fee by USEPA for the collection and processing of paper manifest copies that
 546 owners or operators must submit to the e-Manifest System operator under
 547 subsection 724.174(a)(2)(E). USEPA has stated that it would maintain and
 548 update from time-to-time the current schedule of e-Manifest System user fees,
 549 which will be determined based on current and projected e-Manifest System costs
 550 and level of use of the e-Manifest System. USEPA has said that it would publish
 551 the current schedule of e-Manifest user fees as an appendix to 40 CFR 262.
 552

553 k) E-Manifest signatures. E-Manifest signatures must meet the criteria described in
 554 35 Ill. Adm. Code 722.125.
 555

556 (Source: Amended at 40 Ill. Reg. _____, effective _____)
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SUBPART F: RELEASES FROM SOLID WASTE MANAGEMENT UNITS

Section 724.194 Concentration Limits

- a) The Agency must specify in the facility permit concentration limits in the groundwater for hazardous constituents established under Section 724.193. The following must be true of the concentration of a hazardous constituent:
- 1) It must not exceed the background level of that constituent in the groundwater at the time that limit is specified in the permit; or
 - 2) For any of the constituents listed in Table 1, it must not exceed the respective value given in that Table if the background level of the constituent is below the value given in Table 1; or
 - 3) It must not exceed an alternative limit established by the Agency under subsection (b) of this Section.

TABLE 1 – MAXIMUM CONCENTRATION OF CONSTITUENTS FOR GROUNDWATER PROTECTION

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

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

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- b) The Agency must establish an alternative concentration limit for a hazardous constituent if it finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternative concentration limit is not exceeded. In establishing alternate concentration limits, the Agency must consider the following factors:
- 1) Potential adverse effects on groundwater quality, considering the following:
 - A) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;
 - B) The hydrogeological characteristics of the facility and surrounding land;
 - C) The quantity of groundwater and the direction of groundwater flow;
 - D) The proximity and withdrawal rates of groundwater users;
 - E) The current and future uses of groundwater in the area;
 - F) The existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;
 - G) The potential for health risks caused by human exposure to waste constituents;
 - H) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;
 - I) The persistence and permanence of the potential adverse effects; and
 - 2) Potential adverse effects on hydraulically-connected surface-water quality, considering the following:

- 614
- 615 A) The volume and physical and chemical characteristics of the waste
- 616 in the regulated unit;
- 617
- 618 B) The hydrogeological characteristics of the facility and surrounding
- 619 land;
- 620
- 621 C) The quantity and quality of groundwater and the direction of
- 622 groundwater flow;
- 623
- 624 D) The patterns of rainfall in the region;
- 625
- 626 E) The proximity of the regulated unit to surface waters;
- 627
- 628 F) The current and future uses of surface waters in the area and any
- 629 water quality standards established for those surface waters;
- 630
- 631 G) The existing quality of surface water, including other sources of
- 632 contamination and the cumulative impact on surface-water quality;
- 633
- 634 H) The potential for health risks caused by human exposure to waste
- 635 constituents;
- 636
- 637 I) The potential damage to wildlife, crops, vegetation, and physical
- 638 structures caused by exposure to waste constituents; and
- 639
- 640 J) The persistence and permanence of the potential adverse effects.
- 641

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

646

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

649

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

651

652 **SUBPART H: FINANCIAL REQUIREMENTS**

653

654 **Section 724.244 Cost Estimate for Post-Closure Care**

- 655
- 656 a) The owner or operator of a disposal surface impoundment, disposal miscellaneous

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

- 1) The post-closure cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in Section 724.241(d)).
- 2) The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under Section 724.217.

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

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

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

- 700
 701 d) The owner or operator must keep the following at the facility during the operating
 702 life of the facility: The latest post-closure cost estimate prepared in accordance
 703 with Section 724.244(a) and (c) and, when this estimate has been adjusted in
 704 accordance with Section 724.244(b), the latest adjusted post-closure cost estimate.
 705

706 (Source: Amended at 40 Ill. Reg. _____, effective _____)
 707

708 **Section 724.245 Financial Assurance for Post-Closure Care**
 709

710 An owner or operator of a hazardous waste management unit subject to the requirements of
 711 Section 724.244 must establish financial assurance for post-closure care in accordance with the
 712 approved post-closure plan for the facility 60 days prior to the initial receipt of hazardous waste
 713 or the effective date of the regulation, whichever is later. The owner or operator must choose
 714 from among the following options:
 715

- 716 a) Post-closure trust fund.
 717

- 718 1) An owner or operator may satisfy the requirements of this Section by
 719 establishing a post-closure trust fund that conforms to the requirements of
 720 this subsection (a) and submitting an original, signed duplicate of the trust
 721 agreement to the Agency. An owner or operator of a new facility must
 722 submit the original, signed duplicate of the trust agreement to the Agency
 723 at least 60 days before the date on which hazardous waste is first received
 724 for disposal. The trustee must be an entity that has the authority to act as a
 725 trustee and whose trust operations are regulated and examined by a federal
 726 or State agency.
 727
- 728 2) The wording of the trust agreement must be that specified in Section
 729 724.251 and the trust agreement accompanied by a formal certification of
 730 acknowledgment (as specified in Section 724.251). Schedule A of the trust
 731 agreement must be updated within 60 days after a change in the amount of
 732 the current post-closure cost estimate covered by the agreement.
 733
- 734 3) Payments into the trust fund must be made annually by the owner or
 735 operator over the term of the initial RCRA permit or over the remaining
 736 operating life of the facility as estimated in the closure plan, whichever
 737 period is shorter; this period is hereafter referred to as the "pay-in period."
 738 The payments into the post-closure trust fund must be made as follows:
 739
- 740 A) For a new facility, the first payment must be made before the
 741 initial receipt of hazardous waste for disposal. A receipt from the
 742 trustee for this payment must be submitted by the owner or

743 operator to the Agency before this initial receipt of hazardous
 744 waste. The first payment must be at least equal to the current post-
 745 closure cost estimate, except as provided in subsection (g) of this
 746 Section, divided by the number of years in the pay-in period.
 747 Subsequent payments must be made no later than 30 days after
 748 each anniversary date of the first payment. The amount of each
 749 subsequent payment must be determined by the following formula:
 750

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

752 Where:

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

755
 756 B) If an owner or operator establishes a trust fund, as specified in 35
 757 Ill. Adm. Code 725.245(a), and the value of that trust fund is less
 758 than the current post-closure cost estimate when a permit is
 759 awarded for the facility, the amount of the current post-closure cost
 760 estimate still to be paid into the trust fund must be paid in over the
 761 pay-in period as defined in subsection (a)(3) of this Section.
 762 Payments must continue to be made no later than 30 days after
 763 each anniversary date of the first payment made pursuant to 35 Ill.
 764 Adm. Code 725. The amount of each payment must be determined
 765 by the following formula:
 766

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

768 Where:

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

771
 772 4) The owner or operator may accelerate payments into the trust fund or may
 773 deposit the full amount of the current post-closure cost estimate at the time
 774 the fund is established. However, the owner or operator must maintain the
 775 value of the fund at no less than the value that the fund would have if
 776 annual payments were made as specified in subsection (a)(3) of this
 777 Section.

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- 5) If the owner or operator establishes a post-closure trust fund after having used one or more alternative mechanisms specified in this Section or in 35 Ill. Adm. Code 725.245, its first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of this subsection (a) and 35 Ill. Adm. Code 725.245, as applicable.
- 6) After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance, as specified in this Section, to cover the difference.
- 7) During the operating life of the facility, if the value of the trust fund is greater than the total amount of the current post-closure cost estimate, the owner or operator may submit a written request to the Agency for release of the amount in excess of the current post-closure cost estimate.
- 8) If an owner or operator substitutes other financial assurance as specified in this Section for all or part of the trust fund, it may submit a written request to the Agency for release of the amount in excess of the current post-closure cost estimate covered by the trust fund.
- 9) Within 60 days after receiving a request from the owner or operator for release of funds, as specified in subsection (a)(7) or (a)(8) ~~of this Section~~, the Agency must instruct the trustee to release to the owner or operator such funds as the Agency specifies in writing.
- 10) During the period of post-closure care, the Agency must approve a release of funds if the owner or operator demonstrates to the Agency that the value of the trust fund exceeds the remaining cost of post-closure care.
- 11) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure care expenditures by submitting itemized bills to the Agency. Within 60 days after receiving bills for post-closure activities, the Agency must instruct the trustee to make requirements in those amounts that the Agency specifies in writing if the Agency determines that the post-closure care expenditures are in

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

825
 826 12) The Agency must agree to termination of the trust when either of the
 827 following occurs:

828
 829 A) An owner or operator substitutes alternative financial assurance, as
 830 specified in this Section; or

831
 832 B) The Agency releases the owner or operator from the requirements
 833 of this Section in accordance with subsection (i) ~~of this Section~~.

834
 835 b) Surety bond guaranteeing payment into a post-closure trust fund.

836
 837 1) An owner or operator may satisfy the requirements of this Section by
 838 obtaining a surety bond that conforms to the requirements of this
 839 subsection (b) and submitting the bond to the Agency. An owner or
 840 operator of a new facility must submit the bond to the Agency at least 60
 841 days before the date on which hazardous waste is first received for
 842 disposal. The bond must be effective before this initial receipt of
 843 hazardous waste. The surety company issuing the bond must, at a
 844 minimum, be among those listed as acceptable sureties on federal bonds in
 845 Circular 570 of the U.S. Department of the Treasury.

846
 847 BOARD NOTE: The U.S. Department of the Treasury updates Circular
 848 570, "Companies Holding Certificates of Authority as Acceptable Sureties
 849 on Federal Bonds and as Acceptable Reinsuring Companies," on an annual
 850 basis pursuant to 31 CFR 223.16. Circular 570 is available on the Internet
 851 from the following website: <http://www.fms.treas.gov/c570/>.

852
 853 2) The wording of the surety bond must be that specified in Section 724.251.

854
 855 3) The owner or operator who uses a surety bond to satisfy the requirements
 856 of this Section must also establish a standby trust fund. Under the terms
 857 of the bond, all payments made thereunder will be deposited by the surety
 858 directly into the standby trust fund in accordance with instructions from
 859 the Agency. This standby trust fund must meet the requirements specified
 860 in subsection (a) ~~of this Section~~, except as follows:

861
 862 A) An original, signed duplicate of the trust agreement must be
 863 submitted to the Agency with the surety bond; and

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- B) Until the standby trust fund is funded pursuant to the requirements of this Section, the following are not required by these regulations:
 - i) Payments into the trust fund, as specified in subsection (a) of this Section;
 - ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current post-closure cost estimates;
 - iii) Annual valuations, as required by the trust agreement; and
 - iv) Notices of nonpayment, as required by the trust agreement.

- 4) The bond must guarantee that the owner or operator will do one of the following:
 - A) Fund the standby trust fund in an amount equal to the penal sum of the bond before the beginning of final closure of the facility;
 - B) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an order to begin closure is issued by the Board or a U.S. district court or other court of competent jurisdiction; or
 - C) Provide alternative financial assurance as specified in this Section, and obtain the Agency's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Agency of a notice of cancellation of the bond from the surety.

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

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

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

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

913
 914 8) Under the terms of the bond, the surety may cancel the bond by sending
 915 notice of cancellation by certified mail to the owner or operator and to the
 916 Agency. Cancellation may not occur, however, during the 120 days
 917 beginning on the date of receipt of the notice of cancellation by both the
 918 owner or operator and the Agency, as evidence by the return receipts.

919
 920 9) The owner or operator may cancel the bond if the Agency has given prior
 921 written consent based on its receipt of evidence of alternative financial
 922 assurance, as specified in this Section.

923
 924 c) Surety bond guaranteeing performance of post-closure care.

925
 926 1) An owner or operator may satisfy the requirements of this Section by
 927 obtaining a surety bond that conforms to the requirements of this
 928 subsection (c) and submitting the bond to the Agency. An owner or
 929 operator of a new facility must submit the bond to the Agency at least 60
 930 days before the date on which hazardous waste is first received for
 931 disposal. The bond must be effective before this initial receipt of
 932 hazardous waste. The surety company issuing the bond must, at a
 933 minimum, be among those listed as acceptable sureties on federal bonds in
 934 Circular 570 of the U.S. Department of the Treasury.

935
 936 BOARD NOTE: The U.S. Department of the Treasury updates Circular
 937 570, "Companies Holding Certificates of Authority as Acceptable Sureties
 938 on Federal Bonds and as Acceptable Reinsuring Companies," on an annual
 939 basis pursuant to 31 CFR 223.16. Circular 570 is available on the Internet
 940 from the following website: <http://www.fms.treas.gov/c570/>.

941
 942 2) The wording of the surety bond must be that specified in Section 724.251.

943
 944 3) The owner or operator who uses a surety bond to satisfy the requirements
 945 of this Section must also establish a standby trust fund. Under the terms
 946 of the bond, all payments made thereunder will be deposited by the surety
 947 directly into the standby trust fund in accordance with instructions from
 948 the Agency. This standby trust must meet the requirements specified in
 949 subsection (a) of this Section, except as follows:

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- A) An original, signed duplicate of the trust agreement must be submitted to the Agency with the surety bond; and
- B) Unless the standby trust fund is funded pursuant to the requirements of this Section, the following are not required:
 - i) Payments into the trust fund, as specified in subsection (a) of this Section;
 - ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current post-closure cost estimates;
 - iii) Annual valuations, as required by the trust agreement; and
 - iv) Notices of nonpayment, as required by the trust agreement.
- 4) The bond must guarantee that the owner or operator will do either of the following:
 - A) Perform final post-closure care in accordance with the post-closure plan and other requirements of the permit for the facility; or
 - B) Provide alternative financial assurance, as specified in this Section, and obtain the Agency's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Agency of a notice of cancellation of the bond from the surety.
- 5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final judicial determination or Board order finding that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, under the terms of the bond the surety will perform post-closure care in accordance with post-closure plan and other permit requirements or will deposit the amount of the penal sum into the standby trust fund.
- 6) The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate.

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- 7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Agency, or obtain other financial assurance, as specified in this Section. Whenever the current closure cost estimate decreases during the operating life of the facility, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.
 - 8) During the period of post-closure care, the Agency must approve a decrease in the penal sum if the owner or operator demonstrates to the Agency that the amount exceeds the remaining cost of post-closure care.
 - 9) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Agency. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Agency, as evidenced by the return receipts.
 - 10) The owner or operator may cancel the bond if the Agency has given prior written consent. The Agency must provide such written consent when either of the following occurs:
 - A) An owner or operator substitutes alternative financial assurance as specified in this Section; or
 - B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) of this Section.
 - 11) The surety will not be liable for deficiencies in the performance of post-closure care by the owner or operator after the Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) of this Section.
 - d) Post-closure letter of credit.
 - 1) An owner or operator may satisfy the requirements of this Section by obtaining an irrevocable standby letter of credit that conforms to the requirements of this subsection (d) and submitting the letter to the Agency. An owner or operator of a new facility must submit the letter of credit to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The letter of credit must be effective before

- 1036 this initial receipt of hazardous waste. The issuing institution must be an
 1037 entity that has the authority to issue letters of credit and whose letter-of-
 1038 credit operations are regulated and examined by a federal or State agency.
 1039
- 1040 2) The wording of the letter of credit must be that specified in Section
 1041 724.251.
 1042
- 1043 3) An owner or operator who uses a letter of credit to satisfy the
 1044 requirements of this Section must also establish a standby trust fund.
 1045 Under the terms of the letter of credit, all amounts paid pursuant to a draft
 1046 by the Agency must be deposited by the issuing institution directly into the
 1047 standby trust fund in accordance with instructions from the Agency. This
 1048 standby trust fund must meet the requirements of the trust fund specified
 1049 in subsection (a) ~~of this Section~~, except as follows:
 1050
- 1051 A) An original, signed duplicate of the trust agreement must be
 1052 submitted to the Agency with the letter of credit; and
 1053
- 1054 B) Unless the standby trust fund is funded pursuant to the
 1055 requirements of this Section, the following are not required by
 1056 these regulations:
 1057
- 1058 i) Payments into the trust fund, as specified in subsection (a)
 1059 ~~of this Section~~;
- 1060
- 1061 ii) Updating of Schedule A of the trust agreement (as specified
 1062 in Section 724.251) to show current post-closure cost
 1063 estimates;
- 1064
- 1065 iii) Annual valuations, as required by the trust agreement; and
 1066
- 1067 iv) Notices of nonpayment, as required by the trust agreement.
 1068
- 1069 4) The letter or credit must be accompanied by a letter from the owner or
 1070 operator referring to the letter of credit by number, issuing institution, and
 1071 date and providing the following information: the USEPA identification
 1072 number, name and address of the facility, and the amount of funds assured
 1073 for post-closure care of the facility by the letter of credit.
 1074
- 1075 5) The letter of credit must be irrevocable and issued for a period of at least
 1076 one year. The letter of credit must provide that the expiration date will be
 1077 automatically extended for a period of at least one year unless, at least 120
 1078 days before the current expiration date, the issuing institution notifies both

- 1079 the owner or operator and the Agency by certified mail of a decision not to
 1080 extend the expiration date. Under the terms of the letter of credit, the 120
 1081 days will begin on the date when both the owner or operator and the
 1082 Agency have received the notice, as evidenced by the return receipts.
 1083
- 1084 6) The letter of credit must be issued in an amount at least equal to the
 1085 current post-closure cost estimate, except as provided in subsection (g) of
 1086 this Section.
 1087
- 1088 7) Whenever the current post-closure cost estimate increases to an amount
 1089 greater than the amount of the credit during the operating life of the
 1090 facility, the owner or operator, within 60 days after the increase, must
 1091 either cause the amount of the credit to be increased so that it at least
 1092 equals the current post-closure cost estimate and submit evidence of such
 1093 increase to the Agency, or obtain other financial assurance as specified in
 1094 this Section to cover the increase. Whenever the current post-closure cost
 1095 estimate decreases during the operating life of the facility, the amount of
 1096 the credit may be reduced to the amount of the current post-closure cost
 1097 estimate following written approval by the Agency.
 1098
- 1099 8) During the period of post-closure care, the Agency must approve a
 1100 decrease in the amount of the letter of credit if the owner or operator
 1101 demonstrates to the Agency that the amount exceeds the remaining cost of
 1102 post-closure care.
 1103
- 1104 9) Following a final judicial determination or Board order finding that the
 1105 owner or operator has failed to perform post-closure care in accordance
 1106 with the approved post-closure plan and other permit requirements, the
 1107 Agency may draw on the letter of credit.
 1108
- 1109 10) If the owner or operator does not establish alternative financial assurance,
 1110 as specified in this Section, and obtain written approval of such alternative
 1111 assurance from the Agency within 90 days after receipt by both the owner
 1112 or operator and the Agency of a notice from the issuing institution that it
 1113 has decided not to extend the letter of credit beyond the current expiration
 1114 date, the Agency must draw on the letter of credit. The Agency may delay
 1115 the drawing if the issuing institution grants an extension of the term of the
 1116 credit. During the last 30 days of any such extension the Agency must
 1117 draw on the letter of credit if the owner or operator has failed to provide
 1118 alternative financial assurance, as specified in this Section, and obtain
 1119 written approval of such assurance from the Agency.
 1120
- 1121 11) The Agency must return the letter of credit to the issuing institution for

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termination when either of the following occurs:

- A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or
- B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) ~~of this Section~~.

e) Post-closure insurance.

- 1) An owner or operator may satisfy the requirements of this Section by obtaining post-closure insurance that conforms to the requirements of this subsection (e) and submitting a certificate of such insurance to the Agency. An owner or operator of a new facility must submit the certificate of insurance to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The insurance must be effective before this initial receipt of hazardous waste. At a minimum, the insurer must be licensed to transact the business of insurance or be eligible to provide insurance as an excess or surplus lines insurer in one or more states.
- 2) The wording of the certificate of insurance must be that specified in Section 724.251.
- 3) The post-closure insurance policy must be issued for a face amount at least equal to the current post-closure cost estimate, except as provided in subsection (g) ~~of this Section~~. The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.
- 4) The post-closure insurance policy must guarantee that funds will be available to provide post-closure care of facility whenever the post-closure period begins. The policy must also guarantee that, once post-closure care begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Agency to such party or parties as the Agency specifies.
- 5) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure care expenditures by submitting itemized bills to the Agency. Within 60 days after receiving bills for post-closure activities, the Agency must instruct the insurer to make reimbursement in such amounts as the Agency specifies in writing if

1165 the Agency determines that the post-closure care expenditures are in
 1166 accordance with the approved post-closure plan or otherwise justified. If
 1167 the Agency does not instruct the insurer to make such reimbursements, the
 1168 Agency must provide the owner or operator with a detailed written
 1169 statement of reasons.

1170
 1171 6) The owner or operator must maintain the policy in full force and effect
 1172 until the Agency consents to termination of the policy by the owner or
 1173 operator as specified in subsection (e)(11) ~~of this Section~~. Failure to pay
 1174 the premium, without substitution of alternative financial assurance as
 1175 specified in this Section, will constitute a significant violation of these
 1176 regulations, warranting such remedy as the Board may impose pursuant to
 1177 the Environmental Protection Act [415 ILCS 5]. Such violation will be
 1178 deemed to begin upon receipt by the Agency of a notice of future
 1179 cancellation, termination, or failure to renew due to nonpayment of the
 1180 premium, rather than upon the date of expiration.

1181
 1182 7) Each policy must contain a provision allowing assignment of the policy to
 1183 a successor owner or operator. Such assignment may be conditional upon
 1184 consent of the insurer, provided such consent is not unreasonably refused.

1185
 1186 8) The policy must provide that the insurer may not cancel, terminate, or fail
 1187 to renew the policy except for failure to pay the premium. The automatic
 1188 renewal of the policy must, at a minimum, provide the insured with the
 1189 option of renewal at the face amount of the expiring policy. If there is a
 1190 failure to pay the premium, the insurer may elect to cancel, terminate, or
 1191 fail to renew the policy by sending notice by certified mail to the owner or
 1192 operator and the Agency. Cancellation, termination, or failure to renew
 1193 may not occur, however, during the 120 days beginning with the date of
 1194 receipt of the notice by both the Agency and the owner or operator, as
 1195 evidenced by the return receipts. Cancellation, termination, or failure to
 1196 renew may not occur, and the policy will remain in full force and effect, in
 1197 the event that on or before the date of expiration one of the following
 1198 occurs:

- 1199 A) The Agency deems the facility abandoned;
- 1200 B) The permit is terminated or revoked or a new permit is denied;
- 1201 C) Closure is ordered by the Board or a U.S. district court or other
- 1202 court of competent jurisdiction;
- 1203 D) The owner or operator is named as debtor in a voluntary or
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- 1208 involuntary proceeding under 11 USC (Bankruptcy); or
 1209
 1210 E) The premium due is paid.
 1211
 1212 9) Whenever the current post-closure cost estimate increases to an amount
 1213 greater than the face amount of the policy during the life of the facility, the
 1214 owner or operator, within 60 days after the increase, must either cause the
 1215 face amount to be increased to an amount at least equal to the current post-
 1216 closure cost estimate and submit evidence of such increase to the Agency
 1217 or obtain other financial assurance, as specified in this Section, to cover
 1218 the increase. Whenever the current post-closure cost estimate decreases
 1219 during the operating life of the facility, the face amount may be reduced to
 1220 the amount of the current post-closure cost estimate following written
 1221 approval by the Agency.
 1222
 1223 10) Commencing on the date that liability to make payments pursuant to the
 1224 policy accrues, the insurer must thereafter annually increase the face
 1225 amount of the policy. Such increase must be equivalent to the face
 1226 amount of the policy, less any payments made, multiplied by an amount
 1227 equivalent to 85 percent of the most recent investment rate or of the
 1228 equivalent coupon-issue yield announced by the U.S. Treasury for 26-
 1229 week Treasury securities.
 1230
 1231 11) The Agency must give written consent to the owner or operator that the
 1232 owner or operator may terminate the insurance policy when either of the
 1233 following occurs:
 1234
 1235 A) An owner or operator substitutes alternative financial assurance, as
 1236 specified in this Section; or
 1237
 1238 B) The Agency releases the owner or operator from the requirements
 1239 of this Section in accordance with subsection (i) of this Section.
 1240
 1241 f) Financial test and corporate guarantee for post-closure care.
 1242
 1243 1) An owner or operator may satisfy the requirements of this Section by
 1244 demonstrating that it passes a financial test as specified in this subsection
 1245 (f). To pass this test the owner or operator must meet the criteria of either
 1246 subsection (f)(1)(A) or (f)(1)(B) of this Section:
 1247
 1248 A) The owner or operator must have the following:
 1249
 1250 i) Two of the following three ratios: a ratio of total liabilities

- 1251 to net worth less than 2.0; a ratio of the sum of net income
 1252 plus depreciation, depletion and amortization to total
 1253 liabilities greater than 0.1; and a ratio of current assets to
 1254 current liabilities greater than 1.5;
 1255
 1256 ii) Net working capital and tangible net worth each at least six
 1257 times the sum of the current closure and post-closure cost
 1258 estimates and the current plugging and abandonment cost
 1259 estimates;
 1260
 1261 iii) Tangible net worth of at least \$10 million; and
 1262
 1263 iv) Assets in the United States amounting to at least 90 percent
 1264 of its total assets or at least six times the sum of the current
 1265 closure and post-closure cost estimates and the current
 1266 plugging and abandonment cost estimates.
 1267
 1268 B) The owner or operator must have the following:
 1269
 1270 i) A current rating for its most recent bond issuance of AAA,
 1271 AA, A, or BBB as issued by Standard and Poor's or Aaa,
 1272 Aa, A, or Baa as issued by Moody's;
 1273
 1274 ii) Tangible net worth at least six times the sum of the current
 1275 closure and post-closure cost estimates and current
 1276 plugging and abandonment cost estimates;
 1277
 1278 iii) Tangible net worth of at least \$10 million; and
 1279
 1280 iv) Assets located in the United States amounting to at least 90
 1281 percent of its total assets or at least six times the sum of the
 1282 current closure and post-closure cost estimates and the
 1283 current plugging and abandonment cost estimates.
 1284
 1285 2) The phrase "current closure and post-closure cost estimates," as used in
 1286 subsection (f)(1) of this Section, refers to the cost estimates required to be
 1287 shown in subsections 1 through 4 of the letter from the owner's or
 1288 operator's chief financial officer (see Section 724.251). The phrase
 1289 "current plugging and abandonment cost estimates," as used in subsection
 1290 (f)(1) of this Section, refers to the cost estimates required to be shown in
 1291 subsections 1 through 4 of the letter from the owner's or operator's chief
 1292 financial officer (see 35 Ill. Adm. Code 704.240).
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- 3) To demonstrate that it meets this test, the owner or operator must submit the following items to the Agency:
 - A) A letter signed by the owner's or operator's chief financial officer and worded as specified in Section 724.251;
 - B) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and
 - C) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating the following:
 - i) The accountant has compared the data that the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and
 - ii) In connection with that procedure, no matters came to the accountant's attention that caused the accountant to believe that the specified data should be adjusted.
- 4) An owner or operator of a new facility must submit the items specified in subsection (f)(3) of this Section to the Agency at least 60 days before the date on which hazardous waste is first received for disposal.
- 5) After the initial submission of items specified in subsection (f)(3) of this Section, the owner or operator must send updated information to the Agency within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in subsection (f)(3) of this Section.
- 6) If the owner or operator no longer meets the requirements of subsection (f)(1) of this Section, the owner or operator must send notice to the Agency of intent to establish alternative financial assurance, as specified in this Section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements the owner or operator must provide the alternative financial assurance within 120 days after the end of such fiscal year.

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- 7) Based on a reasonable belief that the owner or operator may no longer meet the requirements of subsection (f)(1) ~~of this Section~~, the Agency may require reports of financial condition at any time from the owner or operator in addition to those specified in subsection (f)(3) ~~of this Section~~. If the Agency finds, on the basis of such reports or other information, that the owner or operator no longer meets the requirements of subsection (f)(1) ~~of this Section~~, the owner or operator must provide alternative financial assurance, as specified in this Section, within 30 days after notification of such a finding.
 - 8) The Agency may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in the accountant's report on examination of the owner's or operator's financial statements (see subsection (f)(3)(B) ~~of this Section~~). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Agency must evaluate other qualifications on an individual basis. The owner or operator must provide alternative financial assurance, as specified in this Section, within 30 days after notification of the disallowance.
 - 9) During the period of post-closure care, the Agency must approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Agency that the amount of the cost estimate exceeds the remaining cost of post-closure care.
 - 10) The owner or operator is no longer required to submit the items specified in subsection (f)(3) ~~of this Section~~ when either of the following occurs:
 - A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or
 - B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) ~~of this Section~~.
 - 11) An owner or operator may meet the requirements of this Section by obtaining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in subsections (f)(1) through (f)(9), and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be that

1380 specified in Section 724.251. A certified copy of the corporate guarantee
 1381 must accompany the items sent to the Agency, as specified in subsection
 1382 (f)(3) of this Section. One of these items must be the letter from the
 1383 guarantor's chief financial officer. If the guarantor's parent corporation is
 1384 also the parent corporation of the owner or operator, the letter must
 1385 describe the value received in consideration of the guarantee. If the
 1386 guarantor is a firm with a "substantial business relationship" with the
 1387 owner or operator, this letter must describe this "substantial business
 1388 relationship" and the value received in consideration of the guarantee. The
 1389 terms of the corporate guarantee must provide as follows:

1391 A) That if the owner or operator fails to perform post-closure care of a
 1392 facility covered by the corporate guarantee in accordance with the
 1393 post-closure plan and other permit requirements whenever required
 1394 to do so, the guarantor will do so or establish a trust fund as
 1395 specified in subsection (a) of this Section in the name of the owner
 1396 or operator.

1398 B) That the corporate guarantee will remain in force unless the
 1399 guarantor sends notice of cancellation by certified mail to the
 1400 owner or operator and to the Agency. Cancellation may not occur,
 1401 however, during the 120 days beginning on the date of receipt of
 1402 the notice of cancellation by both the owner or operator and the
 1403 Agency, as evidenced by the return receipts.

1405 C) That if the owner or operator fails to provide alternative financial
 1406 assurance as specified in this Section and obtain the written
 1407 approval of such alternative assurance from the Agency within 90
 1408 days after receipt by both the owner or operator and the Agency of
 1409 a notice of cancellation of the corporate guarantee from the
 1410 guarantor, the guarantor will provide such alternative financial
 1411 assurance in the name of the owner or operator.

1412
 1413 g) Use of multiple financial mechanisms. An owner or operator may satisfy the
 1414 requirements of this Section by establishing more than one financial mechanism
 1415 per facility. These mechanisms are limited to trust funds, surety bonds
 1416 guaranteeing payment into a trust fund, letters of credit and insurance. The
 1417 mechanisms must be as specified in subsections (a), (b), (d), and (e) of this
 1418 Section, respectively, except that it is the combination of mechanisms, rather than
 1419 the single mechanism, that must provide financial assurance for an amount at least
 1420 equal to the current post-closure cost estimate. If an owner or operator uses a
 1421 trust fund in combination with a surety bond or a letter of credit, it may use the
 1422 trust fund as the standby trust fund for the other mechanisms. A single standby

1423 trust fund may be established for two or more mechanisms. The Agency may use
 1424 any or all of the mechanisms to provide for post-closure care of the facility.

1425
 1426 h) Use of a financial mechanism for multiple facilities. An owner or operator may
 1427 use a financial assurance mechanism specified in this Section to meet the
 1428 requirements of this Section for more than one facility. Evidence of financial
 1429 assurance submitted to the Agency must include a list showing, for each facility,
 1430 the USEPA identification number, name, address, and the amount of funds for
 1431 post-closure care assured by the mechanism. The amount of funds available
 1432 through the mechanism must be no less than the sum of funds that would be
 1433 available if a separate mechanism had been established and maintained for each
 1434 facility. The amount of funds available to the Agency must be sufficient to close
 1435 all of the owner or operator's facilities. In directing funds available through the
 1436 mechanism for post-closure care of any of the facilities covered by the
 1437 mechanism, the Agency may direct only the amount of funds designated for that
 1438 facility, unless the owner or operator agrees to the use of additional funds
 1439 available under the mechanism.

1440
 1441 i) Release of the owner or operator from the requirements of this Section. Within
 1442 60 days after receiving certifications from the owner or operator and a qualified
 1443 Professional Engineer that the post-closure care period has been completed for a
 1444 hazardous waste disposal unit in accordance with the approved plan, the Agency
 1445 must notify the owner or operator that it is no longer required to maintain
 1446 financial assurance for post-closure care of that unit, unless the Agency
 1447 determines that post-closure care has not been in accordance with the approved
 1448 post-closure plan. The Agency must provide the owner or operator a detailed
 1449 written statement of any such determination that post-closure care has not been in
 1450 accordance with the approved post-closure plan.

1451
 1452 j) Appeal. The following Agency actions are deemed to be permit modifications or
 1453 refusals to modify for purposes of appeal to the Board (35 Ill. Adm. Code
 1454 702.184(e)(3)):

- 1455
- 1456 1) An increase in or a refusal to decrease the amount of a bond, letter of
 1457 credit, or insurance;
- 1458
- 1459 2) Requiring alternative assurance upon a finding that an owner or operator
 1460 or parent corporation no longer meets a financial test.

1461
 1462 (Source: Amended at 40 Ill. Reg. _____, effective _____)
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1464 SUBPART N: LANDFILLS
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1466 **Section 724.414 Special Requirements for Bulk and Containerized Liquids**

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- a) The placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids (whether or not sorbents have been added) in any landfill is prohibited.
- b) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095B (Paint Filter Liquids Test), as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods," USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a).
- c) Containers holding free liquids must not be placed in a landfill unless the following is true:
 - 1) All free-standing liquid fulfills one of the following:
 - A) It has been removed by decanting or other methods;
 - B) It has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or
 - C) It has been otherwise eliminated; or
 - 2) The container is very small, such as an ampule; or
 - 3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or
 - 4) The container is a lab pack, as defined in Section 724.416, and is disposed of in accordance with Section 724.416.
- d) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are the following: materials listed or described in subsection (d)(1) of this Section; materials that pass one of the tests in subsection (d)(2)(e)(2) of this Section; or materials that are determined by the Board to be nonbiodegradable through the adjusted standard procedure of 35 Ill. Adm. Code 104.
 - 1) Nonbiodegradable sorbents are the following:
 - A) Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates (clays, smectites, Fuller's earth,

- 1509 bentonite, calcium bentonite, montmorillonite, calcined
 1510 montmorillonite, kaolinite, micas (illite), vermiculites, zeolites,
 1511 etc.), calcium carbonate (organic free limestone),
 1512 oxides/hydroxides (alumina, lime, silica (sand), diatomaceous
 1513 earth, etc.), perlite (volcanic glass), expanded volcanic rock,
 1514 volcanic ash, cement kiln dust, fly ash, rice hull ash, activated
 1515 charcoal (activated carbon), etc.); or
 1516
 1517 B) High molecular weight synthetic polymers (e.g., polyethylene,
 1518 high density polyethylene (HDPE), polypropylene, polystyrene,
 1519 polyurethane, polyacrylate, polynorborene, polyisobutylene,
 1520 ground synthetic rubber, cross-linked allylstrene and tertiary butyl
 1521 copolymers, etc.). This does not include polymers derived from
 1522 biological material or polymers specifically designed to be
 1523 degradable; or
 1524
 1525 C) Mixtures of these nonbiodegradable materials.
 1526
 1527 2) Tests for nonbiodegradable sorbents are the following:
 1528
 1529 A) The sorbent material is determined to be nonbiodegradable under
 1530 ASTM Method G21-70 (1984a) (Standard Practice for
 1531 Determining Resistance of Synthetic Polymer Materials to Fungi),
 1532 incorporated by reference in 35 Ill. Adm. Code 720.111(a);
 1533
 1534 B) The sorbent material is determined to be nonbiodegradable under
 1535 ASTM Method G22-76 (1984b) (Standard Practice for
 1536 Determining Resistance of Plastics to Bacteria), incorporated by
 1537 reference in 35 Ill. Adm. Code 720.111(a); or
 1538
 1539 C) The sorbent material is determined to be non-biodegradable under
 1540 OECD Guideline for Testing of Chemicals, Method 301B (CO₂
 1541 Evolution (Modified Sturm Test)), incorporated by reference in 35
 1542 Ill. Adm. Code 720.111(a).
 1543
 1544 e) The placement of any liquid that is not a hazardous waste in a hazardous waste
 1545 landfill is prohibited (35 Ill. Adm. Code 729.311), unless the Board finds that the
 1546 owner or operator has demonstrated the following in a petition for an adjusted
 1547 standard pursuant to Section 28.1 of the Act [415 ILCS 5/28.1] and 35 Ill. Adm.
 1548 Code 101 and 104:
 1549
 1550 1) The only reasonably available alternative to the placement in a hazardous
 1551 waste landfill is placement in a landfill or unlined surface impoundment,

- 1552 whether or not permitted or operating under interim status, that contains or
1553 which may reasonably be anticipated to contain hazardous waste; and
1554
1555 2) Placement in the hazardous waste landfill will not present a risk of
1556 contamination of any "underground source of drinking water" (as that term
1557 is defined in 35 Ill. Adm. Code 702.110).
1558

1559 (Source: Amended at 40 Ill. Reg. _____, effective _____)
1560

1561 SUBPART W: DRIP PADS
1562

1563 **Section 724.670 Applicability**
1564

- 1565 a) The requirements of this Subpart W apply to owners and operators of facilities
1566 that use new or existing drip pads to convey treated wood drippage, precipitation
1567 or surface water run-on to an associated collection system.
1568
1569 1) "Existing drip pads" are the following:
1570
1571 A) Those constructed before December 6, 1990; and
1572
1573 B) Those for which the owner or operator had a design and had
1574 entered into binding financial or other agreements for construction
1575 prior to December 6, 1990.
1576
1577 2) All other drip pads are "new drip pads."
1578
1579 3) The requirements at Section 724.673(b)(3) to install a leak collection
1580 system applies only to those drip pads that were constructed after
1581 December 24, 1992 except for those constructed after December 24, 1992
1582 for which the owner or operator had a design and has entered into binding
1583 financial or other agreements for construction prior to December 24, 1992.
1584
1585 b) The owner or operator of any drip pad that is inside or under a structure that
1586 provides protection from precipitation so that neither run-off nor run-on is
1587 generated is not subject to regulation under Section ~~724.673(e)~~724.672(e) or (f).
1588
1589 c) The requirements of this subsection (c) are not applicable to the management of
1590 infrequent and incidental drippage in storage yards provided that the owner or
1591 operator maintains and complies with a written contingency plan that describes
1592 how the owner or operator will respond immediately to the discharge of
1593 infrequent and incidental drippage. At a minimum, the contingency plan must
1594 describe how the owner or operator will do the following:

- 1595
- 1596 1) Clean up the drippage;
- 1597
- 1598 2) Document the clean-up of the drippage;
- 1599
- 1600 3) Retain documentation regarding the clean-up for three years; and
- 1601
- 1602 4) Manage the contaminated media in a manner consistent with State and
- 1603 federal regulations.
- 1604

1605 (Source: Amended at 40 Ill. Reg. _____, effective _____)

1606

1607 **Section 724.671 Assessment of Existing Drip Pad Integrity**

1608

- 1609 a) For each existing drip pad, the owner or operator must evaluate the drip pad and
- 1610 determine whether it meets all of the requirements of this Subpart W, except the
- 1611 requirements for liners and leak detection systems of Section 724.673(b). No
- 1612 later than June 6, 1991, the owner or operator must obtain and keep on file at the
- 1613 facility a written assessment of the drip pad, reviewed and certified by a qualified
- 1614 Professional Engineer that attests to the results of the evaluation. The assessment
- 1615 must be reviewed, updated, and re-certified annually until all upgrades, repairs or
- 1616 modifications necessary to achieve compliance with all the standards of Section
- 1617 724.673 are complete. The evaluation must document the extent to which the drip
- 1618 pad meets each of the design and operating standards of Section 724.673, except
- 1619 the standards for liners and leak detection systems, specified in Section
- 1620 724.673(b).
- 1621
- 1622 b) The owner or operator must develop a written plan for upgrading, repairing, and
- 1623 modifying the drip pad to meet the requirements of Section 724.673(b) and
- 1624 submit the plan to the Agency no later than two years before the date that all
- 1625 repairs, upgrades and modifications will be complete. This written plan must
- 1626 describe all changes to be made to the drip pad in sufficient detail to document
- 1627 compliance with all the requirements of Section 724.673. The plan must be
- 1628 reviewed and certified by a qualified Professional Engineer.
- 1629
- 1630 c) Upon completion of all upgrades, repairs, and modifications, the owner or
- 1631 operator must submit to the Agency, the as-built drawings for the drip pad,
- 1632 together with a certification by a qualified Professional Engineer attesting that the
- 1633 drip pad conforms to the drawings.
- 1634
- 1635 d) If the drip pad is found to be leaking or unfit for use, the owner or operator must
- 1636 comply with the provisions of Section ~~724.673(m)~~724.672(m) or close the drip
- 1637 pad in accordance with Section 724.675.

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

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

Section 724.933 Standards: Closed-Vent Systems and Control Devices

a) Compliance Required.

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

2) Implementation Schedule.

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

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

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

1681 installation of the control equipment, completion of the control
 1682 equipment installation, and performance of any testing to
 1683 demonstrate that the installed equipment meets the applicable
 1684 standards of this Subpart AA. The owner or operator must enter
 1685 the implementation schedule in the operating record or in a
 1686 permanent, readily available file located at the facility.
 1687

1688 D) An owner or operator of a facility or unit that becomes newly
 1689 subject to the requirements of this Subpart AA after December 8,
 1690 1997, due to an action other than those described in subsection
 1691 (a)(2)(C) of this Section, must comply with all applicable
 1692 requirements immediately (i.e., the facility or unit must have
 1693 control devices installed and operating on the date the facility or
 1694 unit becomes subject to this Subpart AA; the 30-month
 1695 implementation schedule does not apply).
 1696

1697 b) A control device involving vapor recovery (e.g., a condenser or adsorber) must be
 1698 designed and operated to recover the organic vapors vented to it with an
 1699 efficiency of 95 weight percent or greater unless the total organic emission limits
 1700 of Section 724.932(a)(1) for all affected process vents is attained at an efficiency
 1701 less than 95 weight percent.
 1702

1703 c) An enclosed combustion device (e.g., a vapor incinerator, boiler, or process
 1704 heater) must be designed and operated to reduce the organic emissions vented to it
 1705 by 95 weight percent or greater; to achieve a total organic compound
 1706 concentration of 20 ppmv, expressed as the sum of the actual compounds and not
 1707 in carbon equivalents, on a dry basis, corrected to three percent oxygen; or to
 1708 provide a minimum residence time of 0.50 seconds at a minimum temperature of
 1709 760 °C. If a boiler or process heater is used as the control device, then the vent
 1710 stream must be introduced into the flame zone of the boiler or process heater.
 1711

1712 d) Flares.

- 1713 1) A flare must be designed for and operated with no visible emissions, as
 1714 determined by the methods specified in subsection (e)(1) ~~of this Section~~,
 1715 except for periods not to exceed a total of five minutes during any two
 1716 consecutive hours.
 1717
- 1718 2) A flare must be operated with a flame present at all times, as determined
 1719 by the methods specified in subsection (f)(2)(C) ~~of this Section~~.
 1720
- 1721 3) A flare must be used only if the net heating value of the gas being
 1722 combusted is 11.2 MJ/scm (300 Btu/scf) or greater and the flare is steam-
 1723

1724 assisted or air-assisted or if the net heating value of the gas being
 1725 combusted is 7.45 MJ/scm (200 Btu/scf) or greater and the flare is
 1726 nonassisted. The net heating value of the gas being combusted must be
 1727 determined by the methods specified in subsection (e)(2) of this Section.
 1728

1729 4) Exit Velocity.
 1730

1731 A) A steam-assisted or nonassisted flare must be designed for and
 1732 operated with an exit velocity, as determined by the methods
 1733 specified in subsection (e)(3) of this Section, less than 18.3 m/s (60
 1734 ft/s), except as provided in subsections (d)(4)(B) and (d)(4)(C) of
 1735 this Section.
 1736

1737 B) A steam-assisted or nonassisted flare designed for and operated
 1738 with an exit velocity, as determined by the methods specified in
 1739 subsection (e)(3) of this Section, equal to or greater than 18.3 m/s
 1740 (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net
 1741 heating value of the gas being combusted is greater than 37.3
 1742 MJ/scm (1,000 Btu/scf).
 1743

1744 C) A steam-assisted or nonassisted flare designed for and operated
 1745 with an exit velocity, as determined by the methods specified in
 1746 subsection (e)(3) of this Section, less than the velocity, V, as
 1747 determined by the method specified in subsection (e)(4) of this
 1748 Section, and less than 122 m/s (400 ft/s) is allowed.
 1749

1750 5) An air-assisted flare must be designed and operated with an exit velocity
 1751 less than the velocity, V, as determined by the method specified in
 1752 subsection (e)(5) of this Section.
 1753

1754 6) A flare used to comply with this Section must be steam-assisted, air-
 1755 assisted, or nonassisted.
 1756

1757 e) Compliance determination and equations.
 1758

1759 1) Reference Method 22 (Visual Determination of Fugitive Emissions from
 1760 Material Sources and Smoke Emissions from Flares) in appendix A to 40
 1761 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code
 1762 720.111(b), must be used to determine the compliance of a flare with the
 1763 visible emission provisions of this Subpart AA. The observation period is
 1764 two hours and must be used according to Reference Method 22.
 1765

1766 2) The net heating value of the gas being combusted in a flare must be

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calculated using the following equation:

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

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Where:

- H_T = the net heating value of the sample in MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one 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
- $\sum X_i$ = 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 (Test Methods), and for carbon monoxide, by ASTM D 1946-90 (Standard Practice for Analysis of Reformed Gas by Gas Chromatography), each incorporated by reference in 35 Ill. Adm. Code 720.111(a)
- H_i = the net heat of combustion of sample component i, kcal/gmol at 25° C and 760 mm Hg. The heats of combustion must be determined using ASTM D 2382-88 (Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High Precision Method)), incorporated by reference in 35 Ill. Adm. Code 720.111(a), if published values are not available or cannot be calculated.

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- 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.

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

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

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Where:

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

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

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

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Where:

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

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- f) The owner or operator must monitor and inspect each control device required to comply with this Section to ensure proper operation and maintenance of the control device by implementing the following requirements:
- 1) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor must be installed in the vent stream at the nearest feasible point to the control device inlet but before the point at which the vent streams are combined.
 - 2) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation, as follows:
 - A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must have accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or $\pm 0.5^{\circ}\text{C}$, whichever is greater. The temperature sensor must be installed at a location in the combustion chamber downstream of

- 1819 the combustion zone.
 1820
 1821 B) For a catalytic vapor incinerator, a temperature monitoring device
 1822 equipped with a continuous recorder. The device must be capable
 1823 of monitoring temperature at two locations and have an accuracy
 1824 of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or $\pm 0.5^{\circ}\text{C}$,
 1825 whichever is greater. One temperature sensor must be installed in
 1826 the vent stream at the nearest feasible point to the catalyst bed inlet
 1827 and a second temperature sensor must be installed in the vent
 1828 stream at the nearest feasible point to the catalyst bed outlet.
 1829
 1830 C) For a flare, a heat sensing monitoring device equipped with a
 1831 continuous recorder that indicates the continuous ignition of the
 1832 pilot flame.
 1833
 1834 D) For a boiler or process heater having a design heat input capacity
 1835 less than 44 MW, a temperature monitoring device equipped with a
 1836 continuous recorder. The device must have an accuracy of ± 1
 1837 percent of the temperature being monitored in $^{\circ}\text{C}$ or $\pm 0.5^{\circ}\text{C}$,
 1838 whichever is greater. The temperature sensor must be installed at a
 1839 location in the furnace downstream of the combustion zone.
 1840
 1841 E) For a boiler or process heater having a design heat input capacity
 1842 greater than or equal to 44 MW, a monitoring device equipped
 1843 with a continuous recorder to measure parameters that indicate
 1844 good combustion operating practices are being used.
 1845
 1846 F) For a condenser, either of the following:
 1847
 1848 i) A monitoring device equipped with a continuous recorder
 1849 to measure the concentration level of the organic
 1850 compounds in the exhaust vent stream from the condenser;
 1851 or
 1852
 1853 ii) A temperature monitoring device equipped with a
 1854 continuous recorder. The device must be capable of
 1855 monitoring temperature with an accuracy of ± 1 percent of
 1856 the temperature being monitored in $^{\circ}\text{C}$ or $\pm 0.5^{\circ}\text{C}$,
 1857 whichever is greater. The temperature sensor must be
 1858 installed at a location in the exhaust vent stream from the
 1859 condenser exit (i.e., product side).
 1860
 1861 G) For a carbon adsorption system that regenerates the carbon bed

- 1862 directly in the control device such as a fixed-bed carbon adsorber,
 1863 either of the following:
- 1864
 - 1865 i) A monitoring device equipped with a continuous recorder
 1866 to measure the concentration level of the organic
 1867 compounds in the exhaust vent stream from the carbon bed,
 1868 or
 - 1869
 - 1870 ii) A monitoring device equipped with a continuous recorder
 1871 to measure a parameter that indicates the carbon bed is
 1872 regenerated on a regular, predetermined time cycle.
 1873
 - 1874 3) Inspect the readings from each monitoring device required by subsections
 1875 (f)(1) and (f)(2) ~~of this Section~~ at least once each operating day to check
 1876 control device operation and, if necessary, immediately implement the
 1877 corrective measures necessary to ensure the control device operates in
 1878 compliance with the requirements of this Section.
 1879
 - 1880 g) An owner or operator using a carbon adsorption system such as a fixed-bed
 1881 carbon adsorber that regenerates the carbon bed directly onsite in the control
 1882 device must replace the existing carbon in the control device with fresh carbon at
 1883 a regular, predetermined time interval that is no longer than the carbon service life
 1884 established as a requirement of Section 724.935(b)(4)(C)(vi).
 1885
 - 1886 h) An owner or operator using a carbon adsorption system such as a carbon canister
 1887 that does not regenerate the carbon bed directly onsite in the control device must
 1888 replace the existing carbon in the control device with fresh carbon on a regular
 1889 basis by using one of the following procedures:
 1890
 - 1891 1) Monitor the concentration level of the organic compounds in the exhaust
 1892 vent stream from the carbon adsorption system on a regular schedule, and
 1893 replace the existing carbon with fresh carbon immediately when carbon
 1894 breakthrough is indicated. The monitoring frequency must be daily or at
 1895 an interval no greater than 20 percent of the time required to consume the
 1896 total carbon working capacity established as a requirement of Section
 1897 724.935(b)(4)(C)(vii), whichever is longer.
 1898
 - 1899 2) Replace the existing carbon with fresh carbon at a regular, predetermined
 1900 time interval that is less than the design carbon replacement interval
 1901 established as a requirement of Section 724.935(b)(4)(C)(vii).
 1902
 - 1903 i) An alternative operational or process parameter may be monitored if the operator
 1904 demonstrates that the parameter will ensure that the control device is operated in

- 1905 conformance with these standards and the control device's design specifications.
 1906
 1907 j) An owner or operator of an affected facility seeking to comply with the provisions
 1908 of this Part by using a control device other than a thermal vapor incinerator,
 1909 catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon
 1910 adsorption system is required to develop documentation including sufficient
 1911 information to describe the control device operation and identify the process
 1912 parameter or parameters that indicate proper operation and maintenance of the
 1913 control device.
 1914
 1915 k) A closed-vent system must meet either of the following design requirements:
 1916
 1917 1) A closed-vent system must be designed to operate with no detectable
 1918 emissions, as indicated by an instrument reading of less than 500 ppmv
 1919 above background, as determined by the methods specified at Section
 1920 724.934(b), and by visual inspections; or
 1921
 1922 2) A closed-vent system must be designed to operate at a pressure below
 1923 atmospheric pressure. The system must be equipped with at least one
 1924 pressure gauge or other pressure measurement device that can be read
 1925 from a readily accessible location to verify that negative pressure is being
 1926 maintained in the closed-vent system when the control device is operating.
 1927
 1928 l) The owner or operator must monitor and inspect each closed-vent system required
 1929 to comply with this Section to ensure proper operation and maintenance of the
 1930 closed-vent system by implementing the following requirements:
 1931
 1932 1) Each closed-vent system that is used to comply with subsection (k)(1) of
 1933 this Section must be inspected and monitored in accordance with the
 1934 following requirements:
 1935
 1936 A) An initial leak detection monitoring of the closed-vent system must
 1937 be conducted by the owner or operator on or before the date that
 1938 the system becomes subject to this Section. The owner or operator
 1939 must monitor the closed-vent system components and connections
 1940 using the procedures specified in Section 724.934(b) to
 1941 demonstrate that the closed-vent system operates with no
 1942 detectable emissions, as indicated by an instrument reading of less
 1943 than 500 ppmv above background.
 1944
 1945 B) After initial leak detection monitoring required in subsection
 1946 (l)(1)(A) of this Section, the owner or operator must inspect and
 1947 monitor the closed-vent system as follows:

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- i) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) must be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator must monitor a component or connection using the procedures specified in Section 724.934(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).
- ii) Closed-vent system components or connections other than those specified in subsection (l)(1)(B)(i) ~~of this Section~~ must be monitored annually and at other times as requested by the Regional Administrator, except as provided for in subsection (o) ~~of this Section~~, using the procedures specified in Section 724.934(b) to demonstrate that the components or connections operate with no detectable emissions.
- C) In the event that a defect or leak is detected, the owner or operator must repair the defect or leak in accordance with the requirements of subsection (l)(3) ~~of this Section~~.
- D) The owner or operator must maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 724.935.
- 2) Each closed-vent system that is used to comply with subsection (k)(2) ~~of this Section~~ must be inspected and monitored in accordance with the following requirements:
 - A) The closed-vent system must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.
 - B) The owner or operator must perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this Section. Thereafter, the owner or operator must

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

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

- A) Detectable emissions, as indicated by visual inspection or by an instrument reading greater than 500 ppmv above background, must be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in subsection (1)(3)(C) of this Section.
- B) A first attempt at repair must be made no later than five calendar days after the emission is detected.
- C) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment must be completed by the end of the next process unit shutdown.
- D) The owner or operator must maintain a record of the defect repair in accordance with the requirements specified in Section 724.935.

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

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

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

- 2034 A) The owner or operator of the unit has been issued a final permit
 2035 under 35 Ill. Adm. Code 702, 703, and 705 that implements the
 2036 requirements of Subpart X of this Part; or
 2037
 2038 B) The unit is equipped with and operating air emission controls in
 2039 accordance with the applicable requirements of Subparts AA and
 2040 CC of this Part or Subparts AA and CC of 35 Ill. Adm. Code 725;
 2041 or
 2042
 2043 C) The unit is equipped with and operating air emission controls in
 2044 accordance with a national emission standard for hazardous air
 2045 pollutants under 40 CFR 61 (National Emission Standards for
 2046 Hazardous Air Pollutants) or 63 (National Emission Standards for
 2047 Hazardous Air Pollutants for Source Categories), each
 2048 incorporated by reference in 35 Ill. Adm. Code 720.111(b).
 2049
 2050 2) It is incinerated in a hazardous waste incinerator for which the owner or
 2051 operator has done either of the following:
 2052
 2053 A) The owner or operator has been issued a final permit under 35 Ill.
 2054 Adm. Code 702, 703, and 705 that implements the requirements of
 2055 Subpart O of this Part; or
 2056
 2057 B) The owner or operator has certified compliance in accordance with
 2058 interim status requirements of Subpart O of 35 Ill. Adm. Code 725.
 2059
 2060 3) It is burned in a boiler or industrial furnace for which the owner or
 2061 operator has done either of the following:
 2062
 2063 A) The owner or operator has been issued a final permit under 35 Ill.
 2064 Adm. Code 702, 703, and 705 that implements the requirements of
 2065 Subpart H of 35 Ill. Adm. Code 726; or
 2066
 2067 B) The owner or operator has designed and operates the boiler or
 2068 industrial furnace in accordance with the interim status
 2069 requirements of Subpart H of 35 Ill. Adm. Code 726.
 2070
 2071 o) Any components of a closed-vent system that are designated, as described in
 2072 Section 724.935(c)(9), as unsafe to monitor are exempt from the requirements of
 2073 subsection (l)(1)(B)(ii) of this Section if both of the following conditions are
 2074 fulfilled:
 2075
 2076 1) The owner or operator of the closed-vent system has determined that the

2077 components of the closed-vent system are unsafe to monitor because
 2078 monitoring personnel would be exposed to an immediate danger as a
 2079 consequence of complying with subsection (l)(1)(B)(ii) of this Section;
 2080 and

- 2081
- 2082 2) The owner or operator of the closed-vent system adheres to a written plan
 2083 that requires monitoring the closed-vent system components using the
 2084 procedure specified in subsection (l)(1)(B)(ii) of this Section as frequently
 2085 as practicable during safe-to-monitor times.
 2086

2087 (Source: Amended at 40 Ill. Reg. _____, effective _____)
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2089 **Section 724.934 Test Methods and Procedures**

- 2090
- 2091 a) Each owner or operator subject to the provisions of this Subpart AA must comply
 2092 with the test methods and procedures requirements provided in this Section
 2093
- 2094 b) When a closed-vent system is tested for compliance with no detectable emissions,
 2095 as required in Section 724.933(l), the test must comply with the following
 2096 requirements:
 2097
- 2098 1) Monitoring must comply with Reference Method 21 (Determination of
 2099 Volatile Organic Compound Leaks) in appendix A to 40 CFR 60 (Test
 2100 Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b).
 2101
- 2102 2) The detection instrument must meet the performance criteria of Reference
 2103 Method 21.
 2104
- 2105 3) The instrument must be calibrated before use on each day of its use by the
 2106 procedures specified in Reference Method 21.
 2107
- 2108 4) Calibration gases must be as follows:
 2109
- 2110 A) Zero air (less than 10 ppm of hydrocarbon in air); and
 2111
- 2112 B) A mixture of methane or n-hexane and air at a concentration of
 2113 approximately, but less than, 10,000 ppm methane or n-hexane.
 2114
- 2115 5) The background level must be determined as set forth in Reference
 2116 Method 21.
 2117
- 2118 6) The instrument probe must be traversed around all potential leak interfaces
 2119 as close to the interface as possible as described in Reference Method 21.

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

- c) Performance tests to determine compliance with Section 724.932(a) and with the total organic compound concentration limit of Section 724.933(c) must comply with the following:
 - 1) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices must be conducted and data reduced in accordance with the following reference methods and calculation procedures:
 - A) Reference Method 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for velocity and volumetric flow rate.

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

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

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

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i) For a source using Reference Method 18:

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

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Where:

- E_h = The total organic mass flow rate, kg/h
- Q_{2sd} = The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Reference Method 2
- N = The number of organic compounds in the vent gas
- C_i = The organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Reference Method 18
- MW_i = The molecular weight of organic compound I in the vent gas, kg/kg-mol
- 0.0416 = The conversion factor for molar volume, kg-mol/m³, at 293 K and 760 mmHg
- 10⁻⁶ = The conversion factor from ppm.

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ii) For a source using Reference Method 25A:

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

Where:

- E_h = The total organic mass flow rate, kg/h
- Q = The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Reference Method 2
- C = The organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Reference Method 25A
- MW = The molecular weight of propane, 44 kg/kg-mol
- 0.0416 = The conversion factor for molar volume, kg-mol/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

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following equation:

$$A = F \times H$$

Where:

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

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- F) Total organic emissions from all affected process vents at the facility must be determined by summing the hourly total organic mass emissions rates (F as determined in subsection (c)(1)(D) of this Section) and by summing the annual total organic mass emission rates (A as determined in subsection (c)(1)(E) of this Section) for all affected process vents at the facility.
- 2) The owner or operator must record such process information as is necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction do not constitute representative conditions for the purpose of a performance test.
- 3) The owner or operator of an affected facility must provide, or cause to be provided, performance testing facilities as follows:
 - A) Sampling ports adequate for the test methods specified in subsection (c)(1) of this Section.
 - B) Safe sampling platforms.
 - C) Safe access to sampling platforms.
 - D) Utilities for sampling and testing equipment.
- 4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs must apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the Agency's approval, be determined using the

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average of the results of the two other runs.

- d) To show that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this Subpart AA, the owner or operator must make an initial determination that the time-weighted, annual average total organic concentration of the waste managed by the waste management unit is less than 10 ppmw using one of the following two methods:
 - 1) Direct measurement of the organic concentration of the waste using the following procedures:
 - A) The owner or operator must take a minimum of four grab samples of waste for each wastestream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.
 - B) For waste generated onsite, the grab samples must be collected at a point before the waste is exposed to the atmosphere, such as in an enclosed pipe or other closed system that is used to transfer the waste after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For waste generated offsite, the grab samples must be collected at the inlet to the first waste management unit that receives the waste provided the waste has been transferred to the facility in a closed system such as a tank truck and the waste is not diluted or mixed with other waste.
 - C) Each sample must be analyzed and the total organic concentration of the sample must be computed using Method 9060A (Total Organic Carbon) of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," USEPA publication number EPA 530/SW-846, incorporated by reference under 35 Ill. Adm. Code 720.111(a), or analyzed for its individual constituents.
 - D) The arithmetic mean of the results of the analyses of the four samples apply for each wastestream managed in the unit in determining the time-weighted, annual average total organic concentration of the waste. The time-weighted average is to be calculated using the annual quantity of each waste stream processed and the mean organic concentration of each wastestream managed in the unit.

- 2260 2) Using knowledge of the waste to determine that its total organic
 2261 concentration is less than 10 ppmw. Documentation of the waste
 2262 determination is required. Examples of documentation that must be used
 2263 to support a determination under this subsection (d)(2) include the
 2264 following:
 2265
 2266 A) Production process information documenting that no organic
 2267 compounds are used;
 2268
 2269 B) Information that the waste is generated by a process that is
 2270 identical to a process at the same or another facility that has
 2271 previously been demonstrated by direct measurement to generate a
 2272 wastestream having a total organic content less than 10 ppmw; or
 2273
 2274 C) Prior speciation analysis results on the same wastestream where it
 2275 is also documented that no process changes have occurred since
 2276 that analysis that could affect the waste total organic concentration.
 2277
 2278 e) The determination that a distillation, fractionation, thin-film evaporation, solvent
 2279 extraction, or air or steam stripping operation that manages hazardous wastes that
 2280 have time-weighted, annual average total organic concentrations less than 10
 2281 ppmw must be made as follows:
 2282
 2283 1) By the effective date that the facility becomes subject to the provisions of
 2284 this Subpart AA or by the date when the waste is first managed in a waste
 2285 management unit, whichever is later; and either of the following:
 2286
 2287 2) For continuously generated waste, annually; or
 2288
 2289 3) Whenever there is a change in the waste being managed or a change in the
 2290 process that generates or treats the waste.
 2291
 2292 f) When an owner or operator and the Agency do not agree on whether a distillation,
 2293 fractionation, thin-film evaporation, solvent extraction, or air or steam stripping
 2294 operation manages a hazardous waste with organic concentrations of at least 10
 2295 ppmw based on knowledge of the waste, direct measurement may be used to
 2296 resolve the dispute, as specified in subsection (d)(1) of this Section.
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2298 (Source: Amended at 40 Ill. Reg. _____, effective _____)
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2300 **Section 724.935 Recordkeeping Requirements**
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- 2302 a) Compliance Required.

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- 1) Each owner or operator subject to the provisions of this Subpart AA must comply with the recordkeeping requirements of this Section.
 - 2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart AA may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.
- b) Owners and operators must record the following information in the facility operating record:
- 1) For facilities that comply with the provisions of Section 724.933(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule must also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule must be in the facility operating record by the effective date that the facility becomes subject to the provisions of this Subpart AA.
 - 2) Up-to-date documentation of compliance with the process vent standards in Section 724.932, including the following:
 - A) Information and data identifying all affected process vents, annual throughput, and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit (e.g., identify the hazardous waste management units on a facility plot plan).
 - B) Information and data supporting determination of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or vent stream organic compounds and concentrations) that represent the conditions that result in maximum organic emissions, such as when the waste management unit is operating at the highest load or capacity level reasonably expected to occur. If the owner or operator takes any action (e.g., managing a waste of different composition or

2346 increasing operating hours of affected waste management units)
 2347 that would result in an increase in total organic emissions from
 2348 affected process vents at the facility, then a new determination is
 2349 required.
 2350

- 2351 3) Where an owner or operator chooses to use test data to determine the
 2352 organic removal efficiency or total organic compound concentration
 2353 achieved by the control device, a performance test plan. The test plan
 2354 must include the following:
 2355
- 2356 A) A description of how it is determined that the planned test is going
 2357 to be conducted when the hazardous waste management unit is
 2358 operating at the highest load or capacity level reasonably expected
 2359 to occur. This must include the estimated or design flow rate and
 2360 organic content of each vent stream and define the acceptable
 2361 operating ranges of key process and control device parameters
 2362 during the test program.
 2363
 - 2364 B) A detailed engineering description of the closed-vent system and
 2365 control device including the following:
 2366
 - 2367 i) Manufacturer's name and model number of control device;
 - 2368 ii) Type of control device;
 - 2369 iii) Dimensions of the control device;
 - 2370 iv) Capacity;and
 - 2371 v) Construction materials.
 - 2372 C) A detailed description of sampling and monitoring procedures,
 2373 including sampling and monitoring locations in the system, the
 2374 equipment to be used, sampling and monitoring frequency, and
 2375 planned analytical procedures for sample analysis.
 2376
- 2377
- 2378 4) Documentation of compliance with Section 724.933 must include the
 2379 following information:
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- 2381 A) A list of all information references and sources used in preparing
 2382 the documentation.
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 - 2384 B) Records, including the dates of each compliance test required by
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Section 724.933(k).

- C) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," USEPA publication number EPA 450/2-81-005, incorporated by reference in 35 Ill. Adm. Code 720.111(a) or other engineering texts, approved by the Agency, that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with subsections (b)(4)(C)(i) through (b)(4)(C)(vii) of this Section may be used to comply with this requirement. The design analysis must address the vent stream characteristics and control device operation parameters as specified below.
 - i) For a thermal vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.
 - ii) For a catalytic vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.
 - iii) For a boiler or process heater, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average flame zone temperatures, combustion zone residence time and description of method and location where the vent stream is introduced into the combustion zone.
 - iv) For a flare, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also consider the requirements specified in Section 724.933(d).
 - v) For a condenser, the design analysis must consider the vent

2432 stream composition, constituent concentrations, flow rate,
 2433 relative humidity and temperature. The design analysis
 2434 must also establish the design outlet organic compound
 2435 concentration level, design average temperature of the
 2436 condenser exhaust vent stream and design average
 2437 temperatures of the coolant fluid at the condenser inlet and
 2438 outlet.

2439
 2440 vi) For a carbon adsorption system, such as a fixed-bed
 2441 adsorber that regenerates the carbon bed directly onsite in
 2442 the control device, the design analysis must consider the
 2443 vent stream composition, constituent concentrations, flow
 2444 rate, relative humidity and temperature. The design
 2445 analysis must also establish the design exhaust vent stream
 2446 organic compound concentration level, number and
 2447 capacity of carbon beds, type and working capacity of
 2448 activated carbon used for carbon beds, design total steam
 2449 flow over the period of each complete carbon bed
 2450 regeneration cycle, duration of the carbon bed steaming and
 2451 cooling/drying cycles, design carbon bed temperature after
 2452 regeneration, design carbon bed regeneration time and
 2453 design service life of carbon.

2454
 2455 vii) For a carbon adsorption system, such as a carbon canister
 2456 that does not regenerate the carbon bed directly onsite in
 2457 the control device, the design analysis must consider the
 2458 vent stream composition, constituent concentrations, flow
 2459 rate, relative humidity and temperature. The design
 2460 analysis must also establish the design outlet organic
 2461 concentration level, capacity of carbon bed, type and
 2462 working capacity of activated carbon used for carbon bed
 2463 and design carbon replacement interval based on the total
 2464 carbon working capacity of the control device and source
 2465 operating schedule.

2466
 2467 D) A statement signed and dated by the owner or operator certifying
 2468 that the operating parameters used in the design analysis
 2469 reasonably represent the conditions that exist when the hazardous
 2470 waste management unit is or would be operating at the highest load
 2471 or capacity level reasonably expected to occur.

2472
 2473 E) A statement signed and dated by the owner or operator certifying
 2474 that the control device is designed to operate at an efficiency of 95

2475 percent or greater unless the total organic concentration limit of
2476 Section 724.932(a) is achieved at an efficiency less than 95 weight
2477 percent or the total organic emission limits of Section 724.932(a)
2478 for affected process vents at the facility are attained by a control
2479 device involving vapor recovery at an efficiency less than 95
2480 weight percent. A statement provided by the control device
2481 manufacturer or vendor certifying that the control equipment meets
2482 the design specifications may be used to comply with this
2483 requirement.

2484
2485 F) If performance tests are used to demonstrate compliance, all test
2486 results.

2487
2488 c) Design documentation and monitoring operating and inspection information for
2489 each closed-vent system and control device required to comply with the
2490 provisions of this Part must be recorded and kept up-to-date in the facility
2491 operating record. The information must include the following:

2492
2493 1) Description and date of each modification that is made to the closed-vent
2494 system or control device design.

2495
2496 2) Identification of operating parameter, description of monitoring device,
2497 and diagram of monitoring sensor location or locations used to comply
2498 with Section 724.933(f)(1) and (f)(2).

2499
2500 3) Monitoring, operating and inspection information required by Section
2501 724.933(f) through (k).

2502
2503 4) Date, time, and duration of each period that occurs while the control
2504 device is operating when any monitored parameter exceeds the value
2505 established in the control device design analysis as specified below:

2506
2507 A) For a thermal vapor incinerator designed to operate with a
2508 minimum residence time of 0.50 second at a minimum temperature
2509 of 760°C, any period when the combustion temperature is below
2510 760°C.

2511
2512 B) For a thermal vapor incinerator designed to operate with an organic
2513 emission reduction efficiency of 95 weight percent or greater, any
2514 period when the combustion zone temperature is more than 28°C
2515 below the design average combustion zone temperature established
2516 as a requirement of subsection (b)(4)(C)(i) of this Section.

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- C) For a catalytic vapor incinerator, any period when:
 - i) Temperature of the vent stream at the catalyst bed inlet is more than 28°C below the average temperature of the inlet vent stream established as a requirement of subsection (b)(4)(C)(ii) ~~of this Section~~; or
 - ii) Temperature difference across the catalyst bed is less than 80% of the design average temperature difference established as a requirement of subsection (b)(4)(C)(ii) ~~of this Section~~.

 - D) For a boiler or process heater, any period when either of the following occurs:
 - i) Flame zone temperature is more than 28°C below the design average flame zone temperature established as a requirement of subsection (b)(4)(C)(iii) ~~of this Section~~; or
 - ii) Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of subsection (b)(4)(C)(iii) ~~of this Section~~.

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

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

 - G) For a condenser that complies with Section 724.933(f)(2)(F)(ii), any period when the following occurs:
 - i) Temperature of the exhaust vent stream from the condenser is more than 6°C above the design average exhaust vent stream temperature established as a requirement of subsection (b)(4)(C)(v) ~~of this Section~~.
 - ii) Temperature of the coolant fluid exiting the condenser is more than 6°C above the design average coolant fluid temperature at the condenser outlet established as a

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

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- H) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Section 724.933(f)(2)(G)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of subsection (b)(4)(C)(vi) ~~of this Section.~~
- I) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Section 724.933(f)(2)(G)(ii), any period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of subsection (b)(4)(C)(vi) ~~of this Section.~~
- 5) Explanation for each period recorded under subsection (c)(4) ~~of this Section~~ of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation.
- 6) For a carbon adsorption system operated subject to requirements specified in Section 724.933(g) or (h)(2), any date when existing carbon in the control device is replaced with fresh carbon.
- 7) For a carbon adsorption system operated subject to requirements specified in Section 724.933(h)(1), a log that records the following:
 - A) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading; and
 - B) Date when existing carbon in the control device is replaced with fresh carbon.
- 8) Date of each control device startup and shutdown.
- 9) An owner or operator designating any components of a closed-vent system as unsafe to monitor pursuant to Section 724.933(o) must record in a log that is kept in the facility operating record the identification of closed-vent system components that are designated as unsafe to monitor in accordance

- 2604 with the requirements of Section 724.933(o), an explanation for each
 2605 closed-vent system component stating why the closed-vent system
 2606 component is unsafe to monitor, and the plan for monitoring each closed-
 2607 vent system component.
 2608
- 2609 10) When each leak is detected, as specified in Section 724.933(l), the
 2610 following information must be recorded:
 2611
- 2612 A) The instrument identification number; the closed-vent system
 2613 component identification number; and the operator name, initials,
 2614 or identification number.
 2615
 - 2616 B) The date the leak was detected and the date of first attempt to
 2617 repair the leak.
 2618
 - 2619 C) The date of successful repair of the leak.
 2620
 - 2621 D) Maximum instrument reading measured by Reference Method 21
 2622 (Determination of Volatile Organic Compound Leaks) of appendix
 2623 A to 40 CFR 60 (Test Methods), incorporated by reference in 35
 2624 Ill. Adm. Code 720.111(b), after it is successfully repaired or
 2625 determined to be nonrepairable.
 2626
 - 2627 E) "Repair delayed" and the reason for the delay if a leak is not
 2628 repaired within 15 calendar days after discovery of the leak.
 2629
 - 2630 i) The owner or operator may develop a written procedure
 2631 that identifies the conditions that justify a delay of repair.
 2632 In such cases, reasons for delay of repair may be
 2633 documented by citing the relevant sections of the written
 2634 procedure.
 2635
 - 2636 ii) If delay of repair was caused by depletion of stocked parts,
 2637 there must be documentation that the spare parts were
 2638 sufficiently stocked on-site before depletion and the reason
 2639 for depletion.
 2640
- 2641 d) Records of the monitoring, operating, and inspection information required by
 2642 subsections (c)(3) through (c)(10) of this Section must be kept at least three years
 2643 following the date of each occurrence, measurement, corrective action, or record.
 2644
- 2645 e) For a control device other than a thermal vapor incinerator, catalytic vapor
 2646 incinerator, flare, boiler, process heater, condenser, or carbon adsorption system,

2647 the Agency must specify the appropriate recordkeeping requirements.

2648

2649 f) Up-to-date information and data used to determine whether or not a process vent
 2650 is subject to the requirements in Section 724.932, including supporting
 2651 documentation as required by Section 724.934(d)(2), when application of the
 2652 knowledge of the nature of the hazardous wastestream or the process by which it
 2653 was produced is used, must be recorded in a log that is kept in the facility
 2654 operating record.

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2656 (Source: Amended at 40 Ill. Reg. _____, effective _____)

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2658 **Section 724.936 Reporting Requirements**

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2660 a) A semiannual report must be submitted by owners and operators subject to the
 2661 requirements of this Subpart AA to the Agency by dates specified in the RCRA
 2662 permit. The report must include the following information:

2663

2664 1) The USEPA identification number (35 Ill. Adm. Code 722.112), name,
 2665 and address of the facility.

2666

2667 2) For each month during the semiannual reporting period the following:

2668

2669 A) Dates when the control device did the following:

2670

2671 i) Exceeded or operated outside of the design specifications,
 2672 as defined in Section 724.935(c)(4); and

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2674 ii) Such exceedances were not corrected within 24 hours, or
 2675 that a flare operated with visible emissions, as defined by
 2676 Reference Method 22 monitoring;

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2678 B) The duration and cause of each exceedance or visible emissions;
 2679 and

2680

2681 C) Any corrective measures taken.

2682

2683 b) If during the semiannual reporting period, the control device does not exceed or
 2684 operate outside of the design specifications, as defined in Section 724.935(c)(4),
 2685 for more than 24 hours or a flare does not operate with visible emissions, as
 2686 defined in Section 724.933(d), a report to the Agency is not required.

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2688 (Source: Amended at 40 Ill. Reg. _____, effective _____)

2689

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

Section 724.981 Definitions

As used in this Subpart CC, all terms will have the meaning given to them in 35 Ill. Adm. Code 725.981; section 1004 of the federal Resource Conservation and Recovery Act (42 USC 6903), incorporated by reference in 35 Ill. Adm. Code 720.111; and 35 Ill. Adm. Code 720 through 726.728.

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

Section 724.982 Standards: General

- a) This Section applies to the management of hazardous waste in tanks, surface impoundments, and containers subject to this Subpart CC.
- b) The owner or operator must control air pollutant emissions from each waste management unit in accordance with the standards specified in Sections 724.984 through 724.987, as applicable to the waste management unit, except as provided for in subsection (c) ~~of this Section~~.
- c) A tank, surface impoundment, or container is exempt from standards specified in Sections 724.984 through 724.987, as applicable, provided that all hazardous waste placed in the waste management unit is one of the following:
 - 1) A tank, surface impoundment, or container for which all hazardous waste entering the unit has an average VO concentration at the point of waste origination of less than 500 parts per million by weight (ppmw). The average VO concentration must be determined by the procedures specified in Section 724.983(a). The owner or operator must review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit.
 - 2) A tank, surface impoundment, or container for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves any one of the following conditions:
 - A) The process removes or destroys the organics contained in the hazardous waste to a level such that the average VO concentration of the hazardous waste at the point of waste treatment is less than

- 2733 the exit concentration limit (C_t) established for the process. The
 2734 average VO concentration of the hazardous waste at the point of
 2735 waste treatment and the exit concentration limit for the process
 2736 must be determined using the procedures specified in Section
 2737 724.983(b).
 2738
- 2739 B) The process removes or destroys the organics contained in the
 2740 hazardous waste to a level such that the organic reduction
 2741 efficiency (R) for the process is equal to or greater than 95 percent,
 2742 and the average VO concentration of the hazardous waste at the
 2743 point of waste treatment is less than 100 ppmw. The organic
 2744 reduction efficiency for the process and the average VO
 2745 concentration of the hazardous waste at the point of waste
 2746 treatment must be determined using the procedures specified in
 2747 Section 724.983(b).
 2748
- 2749 C) The process removes or destroys the organics contained in the
 2750 hazardous waste to such a level that the actual organic mass
 2751 removal rate (MR) for the process is equal to or greater than the
 2752 required organic mass removal rate (RMR) established for the
 2753 process. The required organic mass removal rate and the actual
 2754 organic mass removal rate for the process must be determined
 2755 using the procedures specified in Section 724.983(b).
 2756
- 2757 D) The process is a biological process that destroys or degrades the
 2758 organics contained in the hazardous waste so that either of the
 2759 following conditions are met:
 2760
- 2761 i) The organic reduction efficiency (R) for the process is
 2762 equal to or greater than 95 percent, and the organic
 2763 biodegradation efficiency (R_{bio}) for the process is equal to
 2764 or greater than 95 percent. The organic reduction efficiency
 2765 and the organic biodegradation efficiency for the process
 2766 must be determined using the procedures specified in
 2767 Section 724.983(b).
 2768
- 2769 ii) The total actual organic mass biodegradation rate (MR_{bio})
 2770 for all hazardous waste treated by the process is equal to or
 2771 greater than the required organic mass removal rate (RMR).
 2772 The required organic mass removal rate and the actual
 2773 organic mass biodegradation rate for the process must be
 2774 determined using the procedures specified in Section
 2775 724.983(b).

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- E) The process removes or destroys the organics contained in the hazardous waste and meets all of the following conditions:
 - i) From the point of waste origination through the point where the hazardous waste enters the treatment process, the hazardous waste is continuously managed in waste management units that use air emission controls in accordance with the standards specified in Sections 724.984 through 724.987, as applicable to the waste management unit.
 - ii) From the point of waste origination through the point where the hazardous waste enters the treatment process, any transfer of the hazardous waste is accomplished through continuous hard-piping or other closed system transfer that does not allow exposure of the waste to the atmosphere.

BOARD NOTE: The USEPA considers a drain system that meets the requirements of federal subpart RR of 40 CFR 63 (National Emission Standards for Individual Drain Systems) to be a closed system.
 - iii) The average VO concentration of the hazardous waste at the point of waste treatment is less than the lowest average VO concentration at the point of waste origination, determined for each of the individual hazardous waste streams entering the process or 500 ppmw, whichever value is lower. The average VO concentration of each individual hazardous waste stream at the point of waste origination must be determined using the procedures specified in Section 724.983(a). The average VO concentration of the hazardous waste at the point of waste treatment must be determined using the procedures specified in Section 724.983(b).
- F) A process that removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent and the owner or operator certifies that the average VO concentration at the point of waste origination for each of the individual waste streams entering the process is less than 10,000

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

- G) A hazardous waste incinerator for which either of the following conditions is true:
 - i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or
 - ii) The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of Subpart O of 35 Ill. Adm. Code 725.

- H) A boiler or industrial furnace for which either of the following conditions is true:
 - i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or
 - ii) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Subpart O of 35 Ill. Adm. Code 725.

- I) For the purpose of determining the performance of an organic destruction or removal process in accordance with the conditions in each of subsections (c)(2)(A) through (c)(2)(F) ~~of this Section~~, the owner or operator must account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:
 - i) If Reference Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), is used for the analysis, one-half the blank value determined in Section 4.4 of the method or a value of 25 ppmw, whichever is less.
 - ii) If any other analytical method is used, one-half the sum of

the limits of detection established for each organic constituent in the waste that has a Henry's law constant value at least 0.1 mole-fraction-in-the-gas-phase/mole-fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m³) at 25° C.

- 3) A tank or surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of subsection (c)(2)(D) of this Section.
- 4) A tank, surface impoundment, or container for which all hazardous waste placed in the unit fulfills either of the following conditions:
 - A) It meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified in Table T to 35 Ill. Adm. Code 728; or
 - B) The organic hazardous constituents in the waste have been treated by the treatment technology established by USEPA for the waste, as set forth in 35 Ill. Adm. Code 728.142(a), or have been removed or destroyed by an equivalent method of treatment approved by the Agency pursuant to 35 Ill. Adm. Code 728.142(b).
- 5) A tank used for bulk feed of hazardous waste to a waste incinerator and all of the following conditions are met:
 - A) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under federal subpart FF of 40 CFR 61 (National Emission Standard for Benzene Waste Operations), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams (11 tons) per year;
 - B) The enclosure and control device serving the tank were installed and began operation prior to November 25, 1996; and
 - C) The enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T – Criteria for and Verification of a Permanent or Temporary Total Enclosure" under appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by

2905 reference in 35 Ill. Adm. Code 720.111(b). The enclosure may
 2906 have permanent or temporary openings to allow worker access;
 2907 passage of material into or out of the enclosure by conveyor,
 2908 vehicles, or other mechanical or electrical equipment; or to direct
 2909 air flow into the enclosure. The owner or operator must perform
 2910 the verification procedure for the enclosure as specified in Section
 2911 5.0 to "Procedure T – Criteria for and Verification of a Permanent
 2912 or Temporary Total Enclosure" annually.

- 2913
- 2914 d) The Agency may at any time perform or request that the owner or operator
 2915 perform a waste determination for a hazardous waste managed in a tank, surface
 2916 impoundment, or container that is exempted from using air emission controls
 2917 under the provisions of this Section, as follows:
- 2918
- 2919 1) The waste determination for average VO concentration of a hazardous
 2920 waste at the point of waste origination must be performed using direct
 2921 measurement in accordance with the applicable requirements of Section
 2922 724.983(a). The waste determination for a hazardous waste at the point of
 2923 waste treatment must be performed in accordance with the applicable
 2924 requirements of Section 724.983(b).
 - 2925
 - 2926 2) In performing a waste determination pursuant to subsection (d)(1) ~~of this~~
 2927 ~~Section~~, the sample preparation and analysis must be conducted as
 2928 follows:
 - 2929
 - 2930 A) In accordance with the method used by the owner or operator to
 2931 perform the waste analysis, except in the case specified in
 2932 subsection (d)(2)(B) ~~of this Section~~.
 - 2933
 - 2934 B) If the Agency determines that the method used by the owner or
 2935 operator was not appropriate for the hazardous waste managed in
 2936 the tank, surface impoundment, or container, then the Agency may
 2937 choose an appropriate method.
 - 2938
 - 2939 3) Where the owner or operator is requested to perform the waste
 2940 determination, the Agency may elect to have an authorized representative
 2941 observe the collection of the hazardous waste samples used for the
 2942 analysis.
 - 2943
 - 2944 4) Where the results of the waste determination performed or requested by
 2945 the Agency do not agree with the results of a waste determination
 2946 performed by the owner or operator using knowledge of the waste, then
 2947 the results of the waste determination performed in accordance with the

2948 requirements of subsection (d)(1) ~~of this Section~~ must be used to establish
2949 compliance with the requirements of this Subpart CC.
2950

- 2951 5) Where the owner or operator has used an averaging period greater than
2952 one hour for determining the average VO concentration of a hazardous
2953 waste at the point of waste origination, the Agency may elect to establish
2954 compliance with this Subpart CC by performing or requesting that the
2955 owner or operator perform a waste determination using direct
2956 measurement based on waste samples collected within a one-hour period,
2957 as follows:
2958
- 2959 A) The average VO concentration of the hazardous waste at the point
2960 of waste origination must be determined by direct measurement in
2961 accordance with the requirements of Section 724.983(a).
2962
 - 2963 B) Results of the waste determination performed or requested by the
2964 Agency showing that the average VO concentration of the
2965 hazardous waste at the point of waste origination is equal to or
2966 greater than 500 ppmw must constitute noncompliance with this
2967 Subpart CC, except in a case as provided for in subsection
2968 (d)(5)(C) ~~of this Section~~.
2969
 - 2970 C) Where the average VO concentration of the hazardous waste at the
2971 point of waste origination previously has been determined by the
2972 owner or operator using an averaging period greater than one hour
2973 to be less than 500 ppmw but because of normal operating process
2974 variations the VO concentration of the hazardous waste determined
2975 by direct measurement for any given one-hour period may be equal
2976 to or greater than 500 ppmw, information that was used by the
2977 owner or operator to determine the average VO concentration of
2978 the hazardous waste (e.g., test results, measurements, calculations,
2979 and other documentation) and recorded in the facility records in
2980 accordance with the requirements of Section 724.983(a) and
2981 Section 724.989 must be considered by the Agency together with
2982 the results of the waste determination performed or requested by
2983 the Agency in establishing compliance with this Subpart CC.
2984

2985 (Source: Amended at 40 Ill. Reg. _____, effective _____)
2986

2987 **Section 724.986 Standards: Containers**
2988

- 2989 a) The provisions of this Section apply to the control of air pollutant emissions from
2990 containers for which Section 724.982(b) references the use of this Section for

2991 such air emission control.

2992

2993 b) General requirements.

2994

2995 1) The owner or operator must control air pollutant emissions from each
 2996 container subject to this Section in accordance with the following
 2997 requirements, as applicable to the container, except when the special
 2998 provisions for waste stabilization processes specified in subsection (b)(2)
 2999 of this Section apply to the container.

3000

3001 A) For a container having a design capacity greater than 0.1 m³ (26
 3002 gal) and less than or equal to 0.46 m³ (120 gal), the owner or
 3003 operator must control air pollutant emissions from the container in
 3004 accordance with the Container Level 1 standards specified in
 3005 subsection (c) of this Section.

3006

3007 B) For a container having a design capacity greater than 0.46 m³ (120
 3008 gal) that is not in light material service, the owner or operator must
 3009 control air pollutant emissions from the container in accordance
 3010 with the Container Level 1 standards specified in subsection (c) of
 3011 this Section.

3012

3013 C) For a container having a design capacity greater than 0.46 m³ (120
 3014 gal) that is in light material service, the owner or operator must
 3015 control air pollutant emissions from the container in accordance
 3016 with the Container Level 2 standards specified in subsection (d) of
 3017 this Section.

3018

3019 2) When a container having a design capacity greater than 0.1 m³ (26 gal) is
 3020 used for treatment of a hazardous waste by a waste stabilization process,
 3021 the owner or operator must control air pollutant emissions from the
 3022 container in accordance with the Container Level 3 standards specified in
 3023 subsection (e) of this Section at those times during the waste stabilization
 3024 process when the hazardous waste in the container is exposed to the
 3025 atmosphere.

3026

3027 c) Container Level 1 standards.

3028

3029 1) A container using Container Level 1 controls is one of the following:

3030

3031 A) A container that meets the applicable USDOT regulations on
 3032 packaging hazardous materials for transportation, as specified in
 3033 subsection (f) of this Section.

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- B) A container equipped with a cover and closure devices that form a continuous barrier over the container openings so that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a "portable tank" or bulk cargo container equipped with a screw-type cap).
 - C) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container so that no hazardous waste is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.
- 2) A container used to meet the requirements of subsection (c)(1)(B) or (c)(1)(C) ~~of this Section~~ must be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity for as long as it is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices must include the following: the organic vapor permeability; the effects of contact with the hazardous waste or its vapor managed in the container; the effects of outdoor exposure of the closure device or cover material to wind, moisture, and sunlight; and the operating practices for which the container is intended to be used.
- 3) Whenever a hazardous waste is in a container using Container Level 1 controls, the owner or operator must install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position, except as follows:
- A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container, as follows:
 - i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator must promptly secure the closure devices in the closed position and install the covers, as applicable to the

3077 container, upon conclusion of the filling operation.
3078

- 3079 ii) In the case when discrete quantities or batches of material
3080 intermittently are added to the container over a period of
3081 time, the owner or operator must promptly secure the
3082 closure devices in the closed position and install covers, as
3083 applicable to the container, upon either the container being
3084 filled to the intended final level; the completion of a batch
3085 loading after which no additional material will be added to
3086 the container within 15 minutes; the person performing the
3087 loading operation leaving the immediate vicinity of the
3088 container; or the shutdown of the process generating the
3089 material being added to the container, whichever condition
3090 occurs first.
3091

3092 B) Opening of a closure device or cover is allowed for the purpose of
3093 removing hazardous waste from the container, as follows:
3094

- 3095 i) For the purpose of meeting the requirements of this
3096 Section, an empty container, as defined in 35 Ill. Adm.
3097 Code 721.107(b), may be open to the atmosphere at any
3098 time (i.e., covers and closure devices are not required to be
3099 secured in the closed position on an empty container).
3100

- 3101 ii) In the case when discrete quantities or batches of material
3102 are removed from the container but the container does not
3103 meet the conditions to be an empty container, as defined in
3104 35 Ill. Adm. Code 721.107(b), the owner or operator must
3105 promptly secure the closure devices in the closed position
3106 and install covers, as applicable to the container, upon the
3107 completion of a batch removal after which no additional
3108 material will be removed from the container within 15
3109 minutes or the person performing the unloading operation
3110 leaves the immediate vicinity of the container, whichever
3111 condition occurs first.
3112

3113 C) Opening of a closure device or cover is allowed when access inside
3114 the container is needed to perform routine activities other than
3115 transfer of hazardous waste. Examples of such activities include
3116 those times when a worker needs to open a port to measure the
3117 depth of or sample the material in the container, or when a worker
3118 needs to open a manhole hatch to access equipment inside the
3119 container. Following completion of the activity, the owner or

- 3120 operator must promptly secure the closure device in the closed
 3121 position or reinstall the cover, as applicable to the container.
 3122
- 3123 D) Opening of a spring-loaded pressure-vacuum relief valve,
 3124 conservation vent, or similar type of pressure relief device that
 3125 vents to the atmosphere is allowed during normal operations for
 3126 the purpose of maintaining the internal pressure of the container in
 3127 accordance with the container design specifications. The device
 3128 must be designed to operate with no detectable organic emissions
 3129 when the device is secured in the closed position. The settings at
 3130 which the device opens must be established so that the device
 3131 remains in the closed position whenever the internal pressure of the
 3132 container is within the internal pressure operating range
 3133 determined by the owner or operator based on container
 3134 manufacturer recommendations, applicable regulations, fire
 3135 protection and prevention codes, standard engineering codes and
 3136 practices, or other requirements for the safe handling of
 3137 flammable, ignitable, explosive, reactive, or hazardous materials.
 3138 Examples of normal operating conditions that may require these
 3139 devices to open are during those times when the internal pressure
 3140 of the container exceeds the internal pressure operating range for
 3141 the container as a result of loading operations or diurnal ambient
 3142 temperature fluctuations.
 3143
- 3144 E) Opening of a safety device, as defined in 35 Ill. Adm. Code
 3145 725.981, is allowed at any time conditions require doing so to
 3146 avoid an unsafe condition.
 3147
- 3148 4) The owner or operator of containers using Container Level 1 controls must
 3149 inspect the containers and their covers and closure devices, as follows:
 3150
- 3151 A) In the case when a hazardous waste already is in the container at
 3152 the time the owner or operator first accepts possession of the
 3153 container at the facility and the container is not emptied within 24
 3154 hours after the container is accepted at the facility (i.e., it does not
 3155 meet the conditions for an empty container, as specified in 35 Ill.
 3156 Adm. Code 721.107(b)), the owner or operator must visually
 3157 inspect the container and its cover and closure devices to check for
 3158 visible cracks, holes, gaps, or other open spaces into the interior of
 3159 the container when the cover and closure devices are secured in the
 3160 closed position. The container visual inspection must be
 3161 conducted on or before the date on which the container is accepted
 3162 at the facility (i.e., the date when the container becomes subject to

3163 the Subpart CC container standards). For the purposes of this
 3164 requirement, the date of acceptance is the date of signature that the
 3165 facility owner or operator enters on Item 20 of the Uniform
 3166 Hazardous Waste Manifest, as set forth in the appendix to 40 CFR
 3167 262 (Uniform Hazardous Waste Manifest and Instructions (EPA
 3168 Forms 8700-22 and 8700-22A and Their Instructions)),
 3169 incorporated by reference in 35 Ill. Adm. Code 720.111(b)
 3170 (USEPA Forms 8700-22 and 8700-22A), as required under Section
 3171 724.171. If a defect is detected, the owner or operator must repair
 3172 the defect in accordance with the requirements of subsection
 3173 (c)(4)(C) ~~of this Section~~.

3174
 3175 B) In the case when a container used for managing hazardous waste
 3176 remains at the facility for a period of one year or more, the owner
 3177 or operator must visually inspect the container and its cover and
 3178 closure devices initially and thereafter, at least once every 12
 3179 months, to check for visible cracks, holes, gaps, or other open
 3180 spaces into the interior of the container when the cover and closure
 3181 devices are secured in the closed position. If a defect is detected,
 3182 the owner or operator must repair the defect in accordance with the
 3183 requirements of subsection (c)(4)(C) ~~of this Section~~.

3184
 3185 C) When a defect is detected for the container, cover, or closure
 3186 devices, the owner or operator must make first efforts at repair of
 3187 the defect no later than 24 hours after detection and repair must be
 3188 completed as soon as possible but no later than five calendar days
 3189 after detection. If repair of a defect cannot be completed within
 3190 five calendar days, then the hazardous waste must be removed
 3191 from the container and the container must not be used to manage
 3192 hazardous waste until the defect is repaired.

3193
 3194 5) The owner or operator must maintain at the facility a copy of the
 3195 procedure used to determine that containers with capacity of 0.46 m³ (120
 3196 gal) or greater that do not meet applicable USDOT regulations, as
 3197 specified in subsection (f) ~~of this Section~~, are not managing hazardous
 3198 waste in light material service.

3199
 3200 d) Container Level 2 standards.

3201
 3202 1) A container using Container Level 2 controls is one of the following:

3203
 3204 A) A container that meets the applicable USDOT regulations on
 3205 packaging hazardous materials for transportation, as specified in

- 3206 subsection (f) of this Section.
 3207
 3208 B) A container that operates with no detectable organic emissions, as
 3209 defined in 35 Ill. Adm. Code 725.981, and determined in
 3210 accordance with the procedure specified in subsection (g) of this
 3211 Section.
 3212
 3213 C) A container that has been demonstrated within the preceding 12
 3214 months to be vapor-tight by using Reference Method 27
 3215 (Determination of Vapor Tightness of Gasoline Delivery Tank
 3216 Using Pressure-Vacuum Test) in appendix A to 40 CFR 60 (Test
 3217 Methods), incorporated by reference in 35 Ill. Adm. Code
 3218 720.111(b), in accordance with the procedure specified in
 3219 subsection (h) of this Section.
 3220
 3221 2) Transfer of hazardous waste in or out of a container using Container Level
 3222 2 controls must be conducted in such a manner as to minimize exposure of
 3223 the hazardous waste to the atmosphere, to the extent practical, considering
 3224 the physical properties of the hazardous waste and good engineering and
 3225 safety practices for handling flammable, ignitable, explosive, reactive, or
 3226 other hazardous materials. Examples of container loading procedures that
 3227 the USEPA considers to meet the requirements of this subsection (d)(2)
 3228 include using any one of the following: a submerged-fill pipe or other
 3229 submerged-fill method to load liquids into the container; a vapor-
 3230 balancing system or a vapor-recovery system to collect and control the
 3231 vapors displaced from the container during filling operations; or a fitted
 3232 opening in the top of a container through which the hazardous waste is
 3233 filled and subsequently purging the transfer line before removing it from
 3234 the container opening.
 3235
 3236 3) Whenever a hazardous waste is in a container using Container Level 2
 3237 controls, the owner or operator must install all covers and closure devices
 3238 for the container, and secure and maintain each closure device in the
 3239 closed position, except as follows:
 3240
 3241 A) Opening of a closure device or cover is allowed for the purpose of
 3242 adding hazardous waste or other material to the container, as
 3243 follows:
 3244
 3245 i) In the case when the container is filled to the intended final
 3246 level in one continuous operation, the owner or operator
 3247 must promptly secure the closure devices in the closed
 3248 position and install the covers, as applicable to the

3249 container, upon conclusion of the filling operation.

- 3250
3251 ii) In the case when discrete quantities or batches of material
3252 intermittently are added to the container over a period of
3253 time, the owner or operator must promptly secure the
3254 closure devices in the closed position and install covers, as
3255 applicable to the container, upon whichever of the
3256 following conditions occurs first: the container, being filled
3257 to the intended final level; the completion of a batch
3258 loading after which no additional material will be added to
3259 the container within 15 minutes; the person performing the
3260 loading operation leaving the immediate vicinity of the
3261 container; or the shutdown of the process generating the
3262 material being added to the container.
3263

3264 B) Opening of a closure device or cover is allowed for the purpose of
3265 removing hazardous waste from the container, as follows:
3266

- 3267 i) For the purpose of meeting the requirements of this
3268 Section, an empty container, as defined in 35 Ill. Adm.
3269 Code 721.107(b), may be open to the atmosphere at any
3270 time (i.e., covers and closure devices are not required to be
3271 secured in the closed position on an empty container).
3272
3273 ii) In the case when discrete quantities or batches of material
3274 are removed from the container but the container does not
3275 meet the conditions to be an empty container, as defined in
3276 35 Ill. Adm. Code 721.107(b), the owner or operator must
3277 promptly secure the closure devices in the closed position
3278 and install covers, as applicable to the container, upon the
3279 completion of a batch removal after which no additional
3280 material will be removed from the container within 15
3281 minutes or the person performing the unloading operation
3282 leaves the immediate vicinity of the container, whichever
3283 condition occurs first.
3284

3285 C) Opening of a closure device or cover is allowed when access inside
3286 the container is needed to perform routine activities other than
3287 transfer of hazardous waste. Examples of such activities include
3288 those times when a worker needs to open a port to measure the
3289 depth of or sample the material in the container, or when a worker
3290 needs to open a manhole hatch to access equipment inside the
3291 container. Following completion of the activity, the owner or

- 3292 operator must promptly secure the closure device in the closed
 3293 position or reinstall the cover, as applicable to the container.
 3294
- 3295 D) Opening of a spring-loaded, pressure-vacuum relief valve,
 3296 conservation vent, or similar type of pressure relief device that
 3297 vents to the atmosphere is allowed during normal operations for
 3298 the purpose of maintaining the internal pressure of the container in
 3299 accordance with the container design specifications. The device
 3300 must be designed to operate with no detectable organic emission
 3301 when the device is secured in the closed position. The settings at
 3302 which the device opens must be established so that the device
 3303 remains in the closed position whenever the internal pressure of the
 3304 container is within the internal pressure operating range
 3305 determined by the owner or operator based on container
 3306 manufacturer recommendations, applicable regulations, fire
 3307 protection and prevention codes, standard engineering codes and
 3308 practices, or other requirements for the safe handling of
 3309 flammable, ignitable, explosive, reactive, or hazardous materials.
 3310 Examples of normal operating conditions that may require these
 3311 devices to open are during those times when the internal pressure
 3312 of the container exceeds the internal pressure operating range for
 3313 the container as a result of loading operations or diurnal ambient
 3314 temperature fluctuations.
 3315
- 3316 E) Opening of a safety device, as defined in 35 Ill. Adm. Code
 3317 725.981, is allowed at any time conditions require doing so to
 3318 avoid an unsafe condition.
 3319
- 3320 4) The owner or operator of containers using Container Level 2 controls must
 3321 inspect the containers and their covers and closure devices, as follows:
 3322
- 3323 A) In the case when a hazardous waste already is in the container at
 3324 the time the owner or operator first accepts possession of the
 3325 container at the facility and the container is not emptied within 24
 3326 hours after the container is accepted at the facility (i.e., it does not
 3327 meet the conditions for an empty container as specified in 35 Ill.
 3328 Adm. Code 721.107(b)), the owner or operator must visually
 3329 inspect the container and its cover and closure devices to check for
 3330 visible cracks, holes, gaps, or other open spaces into the interior of
 3331 the container when the cover and closure devices are secured in the
 3332 closed position. The container visual inspection must be
 3333 conducted on or before the date on which the container is accepted
 3334 at the facility (i.e., the date when the container becomes subject to

3335 the Subpart CC container standards). For the purposes of this
 3336 requirement, the date of acceptance is the date of signature that the
 3337 facility owner or operator enters on Item 20 of the Uniform
 3338 Hazardous Waste Manifest, in the appendix to 40 CFR 262
 3339 (Uniform Hazardous Waste Manifest and Instructions (USEPA
 3340 Forms 8700-22 and 8700-22A and Their Instructions)), as required
 3341 under Section 724.171. If a defect is detected, the owner or
 3342 operator must repair the defect in accordance with the
 3343 requirements of subsection (d)(4)(C) of this Section.
 3344

3345 B) In the case when a container used for managing hazardous waste
 3346 remains at the facility for a period of one year or more, the owner
 3347 or operator must visually inspect the container and its cover and
 3348 closure devices initially and thereafter, at least once every 12
 3349 months, to check for visible cracks, holes, gaps, or other open
 3350 spaces into the interior of the container when the cover and closure
 3351 devices are secured in the closed position. If a defect is detected,
 3352 the owner or operator must repair the defect in accordance with the
 3353 requirements of subsection (d)(4)(C) of this Section.
 3354

3355 C) When a defect is detected for the container, cover, or closure
 3356 devices, the owner or operator must make first efforts at repair of
 3357 the defect no later than 24 hours after detection, and repair must be
 3358 completed as soon as possible but no later than five calendar days
 3359 after detection. If repair of a defect cannot be completed within
 3360 five calendar days, then the hazardous waste must be removed
 3361 from the container and the container must not be used to manage
 3362 hazardous waste until the defect is repaired.
 3363

3364 e) Container Level 3 standards.

3365 1) A container using Container Level 3 controls is one of the following:

3366 A) A container that is vented directly through a closed-vent system to
 3367 a control device in accordance with the requirements of subsection
 3368 (e)(2)(B) of this Section.
 3369

3370 B) A container that is vented inside an enclosure that is exhausted
 3371 through a closed-vent system to a control device in accordance
 3372 with the requirements of subsections (e)(2)(A) and (e)(2)(B) of this
 3373 Section.
 3374

3375 2) The owner or operator must meet the following requirements, as
 3376
 3377

3378 applicable to the type of air emission control equipment selected by the
 3379 owner or operator:

- 3380
- 3381 A) The container enclosure must be designed and operated in
 3382 accordance with the criteria for a permanent total enclosure, as
 3383 specified in "Procedure T – Criteria for and Verification of a
 3384 Permanent or Temporary Total Enclosure" under appendix B to 40
 3385 CFR 52.741 (VOM Measurement Techniques for Capture
 3386 Efficiency), incorporated by reference in 35 Ill. Adm. Code
 3387 720.111(b). The enclosure may have permanent or temporary
 3388 openings to allow worker access; passage of containers through the
 3389 enclosure by conveyor or other mechanical means; entry of
 3390 permanent mechanical or electrical equipment; or direct airflow
 3391 into the enclosure. The owner or operator must perform the
 3392 verification procedure for the enclosure, as specified in Section 5.0
 3393 to "Procedure T – Criteria for and Verification of a Permanent or
 3394 Temporary Total Enclosure" initially when the enclosure is first
 3395 installed and, thereafter, annually.
 3396
- 3397 B) The closed-vent system and control device must be designed and
 3398 operated in accordance with the requirements of Section 724.987.
 3399
- 3400 3) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed
 3401 and operated as necessary on any container, enclosure, closed-vent system,
 3402 or control device used to comply with the requirements of subsection
 3403 (e)(1) of this Section.
 3404
- 3405 4) Owners and operators using Container Level 3 controls in accordance with
 3406 the provisions of this Subpart CC must inspect and monitor the closed-
 3407 vent systems and control devices, as specified in Section 724.987.
 3408
- 3409 5) Owners and operators that use Container Level 3 controls in accordance
 3410 with the provisions of this Subpart CC must prepare and maintain the
 3411 records specified in Section 724.989(d).
 3412
- 3413 6) The transfer of hazardous waste into or out of a container using Container
 3414 Level 3 controls must be conducted in such a manner as to minimize
 3415 exposure of the hazardous waste to the atmosphere, to the extent practical
 3416 considering the physical properties of the hazardous waste and good
 3417 engineering and safety practices for handling flammable, ignitable,
 3418 explosive, reactive, or other hazardous materials. Examples of container
 3419 loading procedures that USEPA considers to meet the requirements of this
 3420 subsection (e)(6) include using any one of the following: the use of a

3421 submerged-fill pipe or other submerged-fill method to load liquids into the
 3422 container; the use of a vapor-balancing system or a vapor-recovery system
 3423 to collect and control the vapors displaced from the container during
 3424 filling operations; or the use of a fitted opening in the top of a container
 3425 through which the hazardous waste is filled and subsequently purging the
 3426 transfer line before removing it from the container opening.
 3427

- 3428 f) For the purpose of compliance with subsection (c)(1)(A) or (d)(1)(A) ~~of this~~
 3429 ~~Section~~, containers must be used that meet the applicable USDOT regulations on
 3430 packaging hazardous materials for transportation, as follows:
 3431
- 3432 1) The container meets the applicable requirements specified by USDOT in
 3433 49 CFR 178 (Specifications for Packaging), or 49 CFR 179
 3434 (Specifications for Tank Cars), each incorporated by reference in 35 Ill.
 3435 Adm. Code 720.111(b).
 3436
 - 3437 2) Hazardous waste is managed in the container in accordance with the
 3438 applicable requirements specified by USDOT in subpart B of 49 CFR 107
 3439 (Exemptions), 49 CFR 172 (Hazardous Materials Table, Special
 3440 Provisions, Hazardous Materials Communications, Emergency Response
 3441 Information, and Training Requirements), 49 CFR 173 (Shippers –
 3442 General Requirements for Shipments and Packages), and 49 CFR 180
 3443 (Continuing Qualification and Maintenance of Packagings), each
 3444 incorporated by reference in 35 Ill. Adm. Code 720.111(b).
 3445
 - 3446 3) For the purpose of complying with this Subpart CC, no exceptions to the
 3447 49 CFR 178 or 179 regulations are allowed, except as provided for in
 3448 subsection (f)(4) ~~of this Section~~.
 3449
 - 3450 4) For a lab pack that is managed in accordance with the USDOT
 3451 requirements of 49 CFR 178 (Specifications for Packagings), for the
 3452 purpose of complying with this Subpart CC, an owner or operator may
 3453 comply with the exceptions for combination packagings specified by
 3454 USDOT in 49 CFR 173.12(b) (Exceptions for Shipments of Waste
 3455 Materials), incorporated by reference in 35 Ill. Adm. Code 720.111(b).
 3456
- 3457 g) To determine compliance with the no detectable organic emissions requirement of
 3458 subsection (d)(1)(B) ~~of this Section~~, the procedure specified in Section 724.983(d)
 3459 must be used.
 3460
- 3461 1) Each potential leak interface (i.e., a location where organic vapor leakage
 3462 could occur) on the container, its cover, and associated closure devices, as
 3463 applicable to the container, must be checked. Potential leak interfaces that

3464 are associated with containers include, but are not limited to, the
3465 following: the interface of the cover rim and the container wall; the
3466 periphery of any opening on the container or container cover and its
3467 associated closure device; and the sealing seat interface on a spring-loaded
3468 pressure-relief valve.

3469
3470 2) The test must be performed when the container is filled with a material
3471 having a volatile organic concentration representative of the range of
3472 volatile organic concentrations for the hazardous wastes expected to be
3473 managed in this type of container. During the test, the container cover and
3474 closure devices must be secured in the closed position.

3475
3476 h) Procedure for determining a container to be vapor-tight using Reference Method
3477 27 for the purpose of complying with subsection (d)(1)(C) ~~of this Section~~.

3478
3479 1) The test must be performed in accordance with Reference Method 27.

3480
3481 2) A pressure measurement device must be used that has a precision of ± 2.5
3482 mm (0.098 in) water and that is capable of measuring above the pressure
3483 at which the container is to be tested for vapor tightness.

3484
3485 3) If the test results determined by Reference Method 27 indicate that the
3486 container sustains a pressure change less than or equal to 750 Pascals
3487 (0.11 psig) within five minutes after it is pressurized to a minimum of
3488 4,500 Pascals (0.65 psig), then the container is determined to be vapor-
3489 tight.

3490
3491 (Source: Amended at 40 Ill. Reg. _____, effective _____)

3492
3493 **SUBPART DD: CONTAINMENT BUILDINGS**

3494
3495 **Section 724.1101 Design and Operating Standards**

3496
3497 a) All containment buildings must comply with the following design and operating
3498 standards:

3499
3500 1) The containment building must be completely enclosed with a floor, walls,
3501 and a roof to prevent exposure to the elements (e.g., precipitation, wind,
3502 run on) and to assure containment of managed wastes.

3503
3504 2) The floor and containment walls of the unit, including the secondary
3505 containment system if required under subsection (b) ~~of this Section~~, must
3506 be designed and constructed of materials of sufficient strength and

3507 thickness to support themselves, the waste contents, and any personnel and
 3508 heavy equipment that operate within the unit, and to prevent failure due to
 3509 pressure gradients, settlement, compression, or uplift, physical contact
 3510 with the hazardous wastes to which they are exposed; climatic conditions;
 3511 and the stresses of daily operation, including the movement of heavy
 3512 equipment within the unit and contact of such equipment with containment
 3513 walls. The unit must be designed so that it has sufficient structural
 3514 strength to prevent collapse or other failure. All surfaces to be in contact
 3515 with hazardous wastes must be chemically compatible with those wastes.
 3516 The containment building must meet the structural integrity requirements
 3517 established by professional organizations generally recognized by the
 3518 industry such as the American Concrete Institute (ACI) and the American
 3519 Society of Testing Materials (ASTM). If appropriate to the nature of the
 3520 waste management operation to take place in the unit, an exception to the
 3521 structural strength requirement may be made for light-weight doors and
 3522 windows that meet the following criteria:

- 3523
- 3524 A) They provide an effective barrier against fugitive dust emissions
- 3525 under subsection (c)(1)(C) ~~of this Section~~; and
- 3526
- 3527 B) The unit is designed and operated in a fashion that assures that
- 3528 wastes will not actually come in contact with these openings.
- 3529
- 3530 3) Incompatible hazardous wastes or treatment reagents must not be placed in
- 3531 the unit or its secondary containment system if they could cause the unit or
- 3532 secondary containment system to leak, corrode, or otherwise fail.
- 3533
- 3534 4) A containment building must have a primary barrier designed to withstand
- 3535 the movement of personnel, waste, and handling equipment in the unit
- 3536 during the operating life of the unit and appropriate for the physical and
- 3537 chemical characteristics of the waste to be managed.
- 3538

3539 b) For a containment building used to manage hazardous wastes containing free
 3540 liquids or treated with free liquids (the presence of which is determined by the
 3541 paint filter test, a visual examination, or other appropriate means), the owner or
 3542 operator must include the following:

- 3543
- 3544 1) A primary barrier designed and constructed of materials to prevent the
- 3545 migration of hazardous constituents into the barrier (e.g., a geomembrane
- 3546 covered by a concrete wear surface).
- 3547
- 3548 2) A liquid collection and removal system to minimize the accumulation of
- 3549 liquid on the primary barrier of the containment building, as follows:

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- A) The primary barrier must be sloped to drain liquids to the associated collection system; and
 - B) Liquids and waste must be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time.
- 3) A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.
- A) The requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum, as follows:
 - i) It is constructed with a bottom slope of 1 percent or more; and
 - ii) It is constructed of a granular drainage material with a hydraulic conductivity of 1×10^{-2} cm/sec or more and a thickness of 12 inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10^{-5} 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 724.193(e)(1). In addition, the containment building must meet the requirements of Section

- 3593 724.193(b) and Sections 724.193(c)(1) and (c)(2) to be an
 3594 acceptable secondary containment system for a tank.)
 3595
 3596 4) For existing units other than 90-day generator units, USEPA may delay
 3597 the secondary containment requirement for up to two years, based on a
 3598 demonstration by the owner or operator that the unit substantially meets
 3599 the standards of this Subpart DD. In making this demonstration, the
 3600 owner or operator must have done the following:
 3601
 3602 A) Provided written notice to USEPA of their request by November
 3603 16, 1992. This notification must have described the unit and its
 3604 operating practices with specific reference to the performance of
 3605 existing systems, and specific plans for retrofitting the unit with
 3606 secondary containment;
 3607
 3608 B) Responded to any comments from USEPA on these plans within
 3609 30 days; and
 3610
 3611 C) Fulfilled the terms of the revised plans, if such plans are approved
 3612 by USEPA.
 3613
 3614 c) An owner or operator of a containment building must do the following:
 3615
 3616 1) It must use controls and practice to ensure containment of the hazardous
 3617 waste within the unit, and at a minimum:
 3618
 3619 A) Maintain the primary barrier to be free of significant cracks, gaps,
 3620 corrosion, or other deterioration that could cause hazardous waste
 3621 to be release from the primary barrier;
 3622
 3623 B) Maintain the level of the stored or treated hazardous waste within
 3624 the containment walls of the unit so that the height of any
 3625 containment wall is not exceeded;
 3626
 3627 C) Take measures to prevent the tracking of hazardous waste out of
 3628 the unit by personnel or by equipment used in handling the waste.
 3629 An area must be designated to decontaminate equipment and any
 3630 rinsate must be collected and properly managed; and
 3631
 3632 D) Take measures to control fugitive dust emissions such that any
 3633 openings (doors, windows, vents, cracks, etc.) exhibit no visible
 3634 emissions (see Reference Method 22 (Visual Determination of
 3635 Fugitive Emissions from Material Sources and Smoke Emissions

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- iv) Within seven days after the discovery of the condition, notify the Agency in writing of the condition, and within 14 working days, provide a written notice to the Agency with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work.
 - B) The Agency must review the information submitted, make a determination in accordance with Section 34 of the Act, regarding whether the containment building must be removed from service completely or partially until repairs and cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing.
 - C) Upon completing all repairs and cleanup the owner and operator must notify the Agency in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with subsection (c)(3)(A)(iv) of this Section.
 - 4) It must inspect and record in the facility's operating record, at least once every seven days, data gathered from monitoring and leak detection equipment, as well as the containment building and the area immediately surrounding the containment building, to detect signs of releases of hazardous waste.-
 - d) For a containment building that contains both areas with and without secondary containment, the owner or operator must do the following:
 - 1) Design and operate each area in accordance with the requirements enumerated in subsections (a) through (c) of this Section;
 - 2) Take measures to prevent the release of liquids or wet materials into areas without secondary containment; and
 - 3) Maintain in the facility's operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.
 - e) Notwithstanding any other provision of this Subpart DD, the Agency must, in writing, allow the use of alternatives to the requirements for secondary containment for a permitted containment building where the Agency has determined that the facility owner or operator has adequately demonstrated that

3722 the only free liquids in the unit are limited amounts of dust suppression liquids
3723 required to meet occupational health and safety requirements, and where
3724 containment of managed wastes and liquids can be assured without a secondary
3725 containment system.
3726

3727 (Source: Amended at 40 Ill. Reg. _____, effective _____)
3728

3729 **Section 724.1102 Closure and Post-Closure Care**
3730

- 3731 a) At closure of a containment building, the owner or operator must remove or
3732 decontaminate all waste residues, contaminated containment system components
3733 (liners, etc.), contaminated subsoils, and structures and equipment contaminated
3734 with waste and leachate, and manage them as hazardous waste unless 35 Ill. Adm.
3735 Code 721.103(e) applies. The closure plan, closure activities, cost estimates for
3736 closure, and financial responsibility for containment buildings must meet all of
3737 the requirements specified in Subparts G and H of of this Part 35 Ill. Adm. Code
3738 739.
3739
- 3740 b) If, after removing or decontaminating all residues and making all reasonable
3741 efforts to effect removal or decontamination of contaminated components,
3742 subsoils, structures, and equipment as required in subsection (a) ~~of this Section~~,
3743 the owner or operator finds that not all contaminated subsoils can be practicably
3744 removed or decontaminated, he must close the facility and perform post-closure
3745 care in accordance with the closure and post-closure requirements that apply to
3746 landfills (Section 35 Ill. Adm. Code 724.310). In addition, for the purposes of
3747 closure, post-closure, and financial responsibility, such a containment building is
3748 then considered to be a landfill, and the owner or operator must meet all the
3749 requirements for landfills specified in Subparts G and H of this Part 35 Ill. Adm.
3750 Code 739.
3751

3752 (Source: Amended at 40 Ill. Reg. _____, effective _____)

~~POLLUTION CONTROL BOARD~~

~~NOTICE OF PROPOSED AMENDMENTS~~

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

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

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POLLUTION CONTROL BOARD

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- Section
- 724.400 Applicability

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

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- 724.APPENDIX A Recordkeeping Instructions
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- 724.APPENDIX D Cochran's Approximation to the Behrens-Fisher Student's T-Test
- 724.APPENDIX E Examples of Potentially Incompatible Waste
- 724.APPENDIX I Groundwater Monitoring List

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

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

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

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

Section 724.171 Use of Manifest System

- a) Receipt of manifested hazardous waste.
 - 1) If a facility receives hazardous waste accompanied by a manifest, the owner, operator, or its agent must sign and date the manifest, as indicated in subsection (a)(2) of this Section, to certify that the hazardous waste covered by the manifest was received, that the hazardous waste was received except as noted in the discrepancy space of the manifest, or that the hazardous waste was rejected as noted in the manifest discrepancy space.
 - 2) If a facility receives a hazardous waste shipment accompanied by a manifest, the owner, operator, or its agent must do the following:
 - A) The owner, operator, or agent must sign and date, by hand, each copy of the manifest;
 - B) The owner, operator, or agent must note any discrepancies (as defined in Section ~~725.172-724.172~~[724.172](#)~~725.172~~) on each copy of the manifest;
 - C) The owner, operator, or agent must immediately give the transporter at least one copy of the manifest;
 - D) The owner, operator, or agent must send a copy (Page 3) of the manifest to the generator within 30 days after delivery;

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- E) Within 30 days after delivery, the owner, operator, or agent must send the top copy (Page 1) of the manifest to the e-Manifest System for purposes of data entry and processing. In lieu of mailing this paper copy to the e-Manifest System operator, the owner or operator may transmit to the e-Manifest System operator an image file of Page 1 of the manifest, or both a data string file and the image file corresponding to Page 1 of the manifest. Any data or image files transmitted to USEPA under this subsection (a) must be submitted in data file and image file formats that are acceptable to USEPA and that are supported by USEPA's electronic reporting requirements and by the e-Manifest System; and
 - F) The owner, operator, or agent must retain at the facility a copy of each manifest for at least three years after the date of delivery.
- 3) If a facility receives hazardous waste imported from a foreign source, the receiving facility must mail a copy of the manifest and documentation confirming USEPA's consent to the import of hazardous waste to the following address within 30 days after delivery: Office of Enforcement and Compliance Assurance, Office of Federal Activities, International Compliance Assurance Division (2254A), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW, Washington, DC 20460.
- b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste that is accompanied by a shipping paper containing all the information required on the manifest (excluding the USEPA identification numbers, generator's certification, and signatures), the owner or operator, or the owner or operator's agent, must do the following:
- 1) It must sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;
 - 2) It must note any significant discrepancies (as defined in Section 724.172(a)) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper;

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

- 3) It must immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);
- 4) The owner or operator must send a copy of the signed and dated manifest or a signed and dated copy of the shipping paper (if the manifest has not been received within 30 days after delivery) to the generator within 30 days after the delivery; and

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

- 5) Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.
- c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of 35 Ill. Adm. Code 722.

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

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

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

- e) A facility must determine whether the consignment state for a shipment regulates any additional wastes (beyond those regulated federally) as hazardous wastes under its state hazardous waste program. A facility must also determine whether the consignment state or generator state requires the facility to submit any copies of the manifest to that state.
- f) Legal equivalence to paper manifests. E-Manifests that are obtained, completed, transmitted in accordance with 35 Ill. Adm. Code 722.120(a)(3), and used in accordance with this Section in lieu of the paper manifest form are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy for all purposes any requirement in 35 Ill. Adm. Code 720 through 728 to obtain, complete, sign, provide, use, or retain a manifest.
 - 1) Any requirement in 35 Ill. Adm. Code 720 through 728 for the owner or operator of a facility to sign a manifest or manifest certification by hand, or to obtain a handwritten signature, is satisfied by signing with or obtaining a valid and enforceable electronic signature within the meaning of 35 Ill. Adm. Code 722.125.
 - 2) Any requirement in 35 Ill. Adm. Code 720 through 728 to give, provide, send, forward, or to return to another person a copy of the manifest is satisfied when a copy of an e-Manifest is transmitted to the other person.
 - 3) Any requirement in 35 Ill. Adm. Code 720 through 728 for a manifest to accompany a hazardous waste shipment is satisfied when a copy of an e-Manifest is accessible during transportation and forwarded to the person or persons who are scheduled to receive delivery of the hazardous waste shipment.
 - 4) Any requirement in 35 Ill. Adm. Code 720 through 728 for an owner or operator to keep or retain a copy of each manifest is satisfied by the retention of the facility's e-Manifest copies in its account on the

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

- 5) No owner or operator may be held liable for the inability to produce an e-Manifest for inspection under this Section if the owner or operator can demonstrate that the inability to produce the e-Manifest is due exclusively to a technical difficulty with the e-Manifest System for which the owner or operator bears no responsibility.
- g) An owner or operator may participate in the e-Manifest System either by accessing the e-Manifest System from the owner's or operator's electronic equipment, or by accessing the e-Manifest System from portable equipment brought to the owner's or operator's site by the transporter that delivers the waste shipment to the facility.
- h) Special procedures applicable to replacement manifests. If a facility receives hazardous waste that is accompanied by a paper replacement manifest for a manifest that was originated electronically, the following procedures apply to the delivery of the hazardous waste by the final transporter:
 - 1) Upon delivery of the hazardous waste to the designated facility, the owner or operator must sign and date each copy of the paper replacement manifest by hand in Item 20 (Designated Facility Certification of Receipt) and note any discrepancies in Item 18 (Discrepancy Indication Space) of the paper replacement manifest;
 - 2) The owner or operator of the facility must give back to the final transporter one copy of the paper replacement manifest;
 - 3) Within 30 days after delivery of the hazardous waste to the designated facility, the owner or operator of the facility must send one signed and dated copy of the paper replacement manifest to the generator and send an additional signed and dated copy of the paper replacement manifest to the e-Manifest System; and
 - 4) The owner or operator of the facility must retain at the facility one copy of the paper replacement manifest for at least three years after the date of delivery.

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- i) Special procedures applicable to electronic signature methods undergoing tests. If an owner or operator using an e-Manifest signs this manifest electronically using an electronic signature method that is undergoing pilot or demonstration tests aimed at demonstrating the practicality or legal dependability of the signature method, the owner or operator must also sign with an ink signature the facility's certification of receipt or discrepancies on the printed copy of the manifest provided by the transporter. Upon executing its ink signature on this printed copy, the owner or operator must retain this original copy among its records for at least three years after the date of delivery of the waste.
- j) Imposition of user fee for e-Manifest use. An owner or operator that is a user of the e-Manifest System may be assessed a user fee by USEPA for the origination or processing of each e-Manifest. An owner or operator may also be assessed a user fee by USEPA for the collection and processing of paper manifest copies that owners or operators must submit to the e-Manifest System operator under subsection 724.171(a)(2)(E) ~~(a)(2)(E)~~. USEPA has stated that it would maintain and update from time-to-time the current schedule of e-Manifest System user fees, which will be determined based on current and projected e-Manifest System costs and level of use of the e-Manifest System. USEPA has said that it would publish the current schedule of e-Manifest user fees as an appendix to 40 CFR 262.
- k) E-Manifest signatures. E-Manifest signatures must meet the criteria described in 35 Ill. Adm. Code 722.125.

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

SUBPART F: RELEASES FROM SOLID WASTE MANAGEMENT UNITS

Section 724.194 Concentration Limits

- a) The Agency must specify in the facility permit concentration limits in the groundwater for hazardous constituents established under Section 724.193. The following must be true of the concentration of a hazardous constituent:
 - 1) It must not exceed the background level of that constituent in the groundwater at the time that limit is specified in the permit; or

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- 2) For any of the constituents listed in Table 1, it must not exceed the respective value given in that Table if the background level of the constituent is below the value given in Table 1; or
- 3) It must not exceed an alternative limit established by the Agency under subsection (b) of this Section.

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

TABLE 1 – MAXIMUM CONCENTRATION OF CONSTITUENTS FOR GROUNDWATER PROTECTION

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

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Toxaphene (C ₁₀ H ₁₀ Cl ₆ , Technical chlorinated camphene, 67-69 percent chlorine) (CAS No. 8001-35-2)	0.005
2,4-D (2,4-Dichlorophenoxyacetic acid) (CAS No. 94-75-7)	0.1
2,4,5-TP (Silvex) (2,4,5-Trichlorophenoxypropionic Trichloro phenoxy- propionic acid) (CAS No. 93-72-1)	0.01

- b) The Agency must establish an alternative concentration limit for a hazardous constituent if it finds that the constituent will not pose a substantial present or potential hazard to human health or the environment as long as the alternative concentration limit is not exceeded. In establishing alternate concentration limits, the Agency must consider the following factors:
- 1) Potential adverse effects on groundwater quality, considering the following:
 - A) The physical and chemical characteristics of the waste in the regulated unit, including its potential for migration;
 - B) The hydrogeological characteristics of the facility and surrounding land;
 - C) The quantity of groundwater and the direction of groundwater flow;
 - D) The proximity and withdrawal rates of groundwater users;
 - E) The current and future uses of groundwater in the area;
 - F) The existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality;
 - G) The potential for health risks caused by human exposure to waste constituents;

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- H) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents;
 - I) The persistence and permanence of the potential adverse effects; and
- 2) Potential adverse effects on hydraulically-connected surface-water quality, considering the following:
- A) The volume and physical and chemical characteristics of the waste in the regulated unit;
 - B) The hydrogeological characteristics of the facility and surrounding land;
 - C) The quantity and quality of groundwater and the direction of groundwater flow;
 - D) The patterns of rainfall in the region;
 - E) The proximity of the regulated unit to surface waters;
 - F) The current and future uses of surface waters in the area and any water quality standards established for those surface waters;
 - G) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface-water quality;
 - H) The potential for health risks caused by human exposure to waste constituents;
 - I) The potential damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and
 - J) The persistence and permanence of the potential adverse effects.
- c) In making any determination under subsection (b) of this Section about the use of

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

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

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

SUBPART H: FINANCIAL REQUIREMENTS

Section 724.244 Cost Estimate for Post-Closure Care

- a) The owner or operator of a disposal surface impoundment, disposal miscellaneous unit, land treatment unit, or landfill unit or the owner or operator of a surface impoundment or waste pile required under Sections 724.328 or 724.358 to prepare a contingent closure and post-closure plan must have a ~~detailed~~defined written estimate, in current dollars, of the annual cost of post-closure monitoring and maintenance of the facility in accordance with the applicable post-closure regulations in Sections 724.217 through 724.220, 724.328, 724.358, 724.380, 724.410, and ~~724.603-724.703-724.703~~724.603.
 - 1) The post-closure cost estimate must be based on the costs to the owner or operator of hiring a third party to conduct post-closure care activities. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in Section 724.241(d)).
 - 2) The post-closure cost estimate is calculated by multiplying the annual post-closure cost estimate by the number of years of post-closure care required under Section 724.217.
- b) During the active life of the facility, the owner or operator must adjust the post-closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instruments used to comply with Section 724.245. For owners or operators using the financial test or corporate guarantee, the post-closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before the submission of updated information to the Agency, as specified in Section 724.245(f)(5). The adjustment

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

- 1) The first adjustment is made by multiplying the post-closure cost estimate by the inflation factor. The result is the adjusted post-closure cost estimate.
- 2) Subsequent adjustments are made by multiplying the latest adjusted post-closure cost estimate by the latest inflation factor.
- c) During the active life of the facility the owner or operator must revise the post-closure cost estimate within 30 days after the Agency has approved a request to modify the post-closure plan if the change in the post-closure plan increases the cost of post-closure care. The revised post-closure cost estimate must be adjusted for inflation, as specified in Section 724.244(b).
- d) The owner or operator must keep the following at the facility during the operating life of the facility: The latest post-closure cost estimate prepared in accordance with Section 724.244(a) and (c) and, when this estimate has been adjusted in accordance with Section 724.244(b), the latest adjusted post-closure cost estimate.

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

Section 724.245 Financial Assurance for Post-Closure Care

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

- a) Post-closure trust fund.
 - 1) An owner or operator may satisfy the requirements of this Section by

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

- 2) The wording of the trust agreement must be that specified in Section 724.251 and the trust agreement accompanied by a formal certification of acknowledgment (as specified in Section 724.251). Schedule A of the trust agreement must be updated within 60 days after a change in the amount of the current post-closure cost estimate covered by the agreement.
- 3) Payments into the trust fund must be made annually by the owner or operator over the term of the initial RCRA permit or over the remaining operating life of the facility as estimated in the closure plan, whichever period is shorter; this period is hereafter referred to as the "pay-in period." The payments into the post-closure trust fund must be made as follows:
 - A) For a new facility, the first payment must be made before the initial receipt of hazardous waste for disposal. A receipt from the trustee for this payment must be submitted by the owner or operator to the Agency before this initial receipt of hazardous waste. The first payment must be at least equal to the current post-closure cost estimate, except as provided in subsection (g) of this Section, divided by the number of years in the pay-in period. Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The amount of each subsequent payment must be determined by the following formula:

$$\frac{(CE - CV)}{Y}$$

Next Payment =

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Where:

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

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

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

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

Where:

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

CE = the current closure cost estimate

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

- 4) The owner or operator may accelerate payments into the trust fund or may deposit the full amount of the current post-closure cost estimate at the time the fund is established. However, the owner or operator must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in subsection (a)(3) of this Section.
- 5) If the owner or operator establishes a post-closure trust fund after having used one or more alternative mechanisms specified in this Section or in 35 Ill. Adm. Code 725.245, its first payment must be in at least the amount that the fund would contain if the trust fund were established initially and annual payments made according to specifications of this subsection (a) and 35 Ill. Adm. Code 725.245, as applicable.
- 6) After the pay-in period is completed, whenever the current post-closure cost estimate changes during the operating life of the facility, the owner or operator must compare the new estimate with the trustee's most recent annual valuation of the trust fund. If the value of the fund is less than the amount of the new estimate, the owner or operator, within 60 days after the change in the cost estimate, must either deposit an amount into the fund so that its value after this deposit at least equals the amount of the current post-closure cost estimate, or obtain other financial assurance, as specified in this Section, to cover the difference.
- 7) During the operating life of the facility, if the value of the trust fund is greater than the total amount of the current post-closure cost estimate, the owner or operator may submit a written request to the Agency for release of the amount in excess of the current post-closure cost estimate.
- 8) If an owner or operator substitutes other financial assurance as specified in this Section for all or part of the trust fund, it may submit a written request to the Agency for release of the amount in excess of the current post-closure cost estimate covered by the trust fund.
- 9) Within 60 days after receiving a request from the owner or operator for

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

- 10) During the period of post-closure care, the Agency must approve a release of funds if the owner or operator demonstrates to the Agency that the value of the trust fund exceeds the remaining cost of post-closure care.
 - 11) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure care expenditures by submitting itemized bills to the Agency. Within 60 days after receiving bills for post-closure activities, the Agency must instruct the trustee to make requirements in those amounts that the Agency specifies in writing if the Agency determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Agency does not instruct the trustee to make such reimbursements, the Agency must provide the owner or operator with a detailed written statement of reasons.
 - 12) The Agency must agree to termination of the trust when either of the following occurs:
 - A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or
 - B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) of this Section.
- b) Surety bond guaranteeing payment into a post-closure trust fund.
- 1) An owner or operator may satisfy the requirements of this Section by obtaining a surety bond that conforms to the requirements of this subsection (b) and submitting the bond to the Agency. An owner or operator of a new facility must submit the bond to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The bond must be effective before this initial receipt of hazardous waste. The surety company issuing the bond must, at a minimum, be among those listed as acceptable sureties on federal bonds in

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

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

- 2) The wording of the surety bond must be that specified in Section 724.251.
- 3) The owner or operator who uses a surety bond to satisfy the requirements of this Section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Agency. This standby trust fund must meet the requirements specified in subsection (a) of this Section, except as follows:
 - A) An original, signed duplicate of the trust agreement must be submitted to the Agency with the surety bond; and
 - B) Until the standby trust fund is funded pursuant to the requirements of this Section, the following are not required by these regulations:
 - i) Payments into the trust fund, as specified in subsection (a) of this Section;
 - ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current post-closure cost estimates;
 - iii) Annual valuations, as required by the trust agreement; and
 - iv) Notices of nonpayment, as required by the trust agreement.
- 4) The bond must guarantee that the owner or operator will do one of the following:
 - A) Fund the standby trust fund in an amount equal to the penal sum of

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the bond before the beginning of final closure of the facility;

- B) Fund the standby trust fund in an amount equal to the penal sum within 15 days after an order to begin closure is issued by the Board or a U.S. district court or other court of competent jurisdiction; or
 - C) Provide alternative financial assurance as specified in this Section, and obtain the Agency's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Agency of a notice of cancellation of the bond from the surety.
- 5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond.
 - 6) The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate, except as provided in subsection (g) of this Section.
 - 7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Agency or obtain other financial assurance, as specified in this Section, to cover the increase. Whenever the current post-closure cost estimate decreases, the penal sum may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.
 - 8) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Agency. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Agency, as evidenced by the return receipts.
 - 9) The owner or operator may cancel the bond if the Agency has given prior

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written consent based on its receipt of evidence of alternative financial assurance, as specified in this Section.

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

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

- 2) The wording of the surety bond must be that specified in Section 724.251.
- 3) The owner or operator who uses a surety bond to satisfy the requirements of this Section must also establish a standby trust fund. Under the terms of the bond, all payments made thereunder will be deposited by the surety directly into the standby trust fund in accordance with instructions from the Agency. This standby trust must meet the requirements specified in subsection (a) of this Section, except as follows:
 - A) An original, signed duplicate of the trust agreement must be submitted to the Agency with the surety bond; and
 - B) Unless the standby trust fund is funded pursuant to the requirements of this Section, the following are not required:
 - i) Payments into the trust fund, as specified in subsection (a) of this Section;

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- ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current post-closure cost estimates;
 - iii) Annual valuations, as required by the trust agreement; and
 - iv) Notices of nonpayment, as required by the trust agreement.
- 4) The bond must guarantee that the owner or operator will do either of the following:
 - A) Perform final post-closure care in accordance with the post-closure plan and other requirements of the permit for the facility; or
 - B) Provide alternative financial assurance, as specified in this Section, and obtain the Agency's written approval of the assurance provided, within 90 days after receipt by both the owner or operator and the Agency of a notice of cancellation of the bond from the surety.
- 5) Under the terms of the bond, the surety will become liable on the bond obligation when the owner or operator fails to perform as guaranteed by the bond. Following a final judicial determination or Board order finding that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, under the terms of the bond the surety will perform post-closure care in accordance with post-closure plan and other permit requirements or will deposit the amount of the penal sum into the standby trust fund.
- 6) The penal sum of the bond must be in an amount at least equal to the current post-closure cost estimate.
- 7) Whenever the current post-closure cost estimate increases to an amount greater than the penal sum during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the penal sum to be increased to an amount at least equal to the current

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

- 8) During the period of post-closure care, the Agency must approve a decrease in the penal sum if the owner or operator demonstrates to the Agency that the amount exceeds the remaining cost of post-closure care.
 - 9) Under the terms of the bond, the surety may cancel the bond by sending notice of cancellation by certified mail to the owner or operator and to the Agency. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Agency, as evidenced by the return receipts.
 - 10) The owner or operator may cancel the bond if the Agency has given prior written consent. The Agency must provide such written consent when either of the following occurs:
 - A) An owner or operator substitutes alternative financial assurance as specified in this Section; or
 - B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) of this Section.
 - 11) The surety will not be liable for deficiencies in the performance of post-closure care by the owner or operator after the Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) of this Section.
- d) Post-closure letter of credit.
- 1) An owner or operator may satisfy the requirements of this Section by obtaining an irrevocable standby letter of credit that conforms to the requirements of this subsection (d) and submitting the letter to the Agency. An owner or operator of a new facility must submit the letter of credit to

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the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The letter of credit must be effective before this initial receipt of hazardous waste. The issuing institution must be an entity that has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or State agency.

- 2) The wording of the letter of credit must be that specified in Section 724.251.
- 3) An owner or operator who uses a letter of credit to satisfy the requirements of this Section must also establish a standby trust fund. Under the terms of the letter of credit, all amounts paid pursuant to a draft by the Agency must be deposited by the issuing institution directly into the standby trust fund in accordance with instructions from the Agency. This standby trust fund must meet the requirements of the trust fund specified in subsection (a) of this Section, except as follows:
 - A) An original, signed duplicate of the trust agreement must be submitted to the Agency with the letter of credit; and
 - B) Unless the standby trust fund is funded pursuant to the requirements of this Section, the following are not required by these regulations:
 - i) Payments into the trust fund, as specified in subsection (a) of this Section;
 - ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current post-closure cost estimates;
 - iii) Annual valuations, as required by the trust agreement; and
 - iv) Notices of nonpayment, as required by the trust agreement.
- 4) The letter or credit must be accompanied by a letter from the owner or operator referring to the letter of credit by number, issuing institution, and date and providing the following information: the USEPA identification

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number, name and address of the facility, and the amount of funds assured for post-closure care of the facility by the letter of credit.

- 5) The letter of credit must be irrevocable and issued for a period of at least one year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least one year unless, at least 120 days before the current expiration date, the issuing institution notifies both the owner or operator and the Agency by certified mail of a decision not to extend the expiration date. Under the terms of the letter of credit, the 120 days will begin on the date when both the owner or operator and the Agency have received the notice, as evidenced by the return receipts.
- 6) The letter of credit must be issued in an amount at least equal to the current post-closure cost estimate, except as provided in subsection (g) of this Section.
- 7) Whenever the current post-closure cost estimate increases to an amount greater than the amount of the credit during the operating life of the facility, the owner or operator, within 60 days after the increase, must either cause the amount of the credit to be increased so that it at least equals the current post-closure cost estimate and submit evidence of such increase to the Agency, or obtain other financial assurance as specified in this Section to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the amount of the credit may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.
- 8) During the period of post-closure care, the Agency must approve a decrease in the amount of the letter of credit if the owner or operator demonstrates to the Agency that the amount exceeds the remaining cost of post-closure care.
- 9) Following a final judicial determination or Board order finding that the owner or operator has failed to perform post-closure care in accordance with the approved post-closure plan and other permit requirements, the Agency may draw on the letter of credit.
- 10) If the owner or operator does not establish alternative financial assurance,

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

- 11) The Agency must return the letter of credit to the issuing institution for termination when either of the following occurs:
 - A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or
 - B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) of this Section.
- e) Post-closure insurance.
 - 1) An owner or operator may satisfy the requirements of this Section by obtaining post-closure insurance that conforms to the requirements of this subsection (e) and submitting a certificate of such insurance to the Agency. An owner or operator of a new facility must submit the certificate of insurance to the Agency at least 60 days before the date on which hazardous waste is first received for disposal. The insurance must be effective before this initial receipt of hazardous waste. At a minimum, the insurer must be licensed to transact the business of insurance or be eligible to provide insurance as an excess or surplus lines insurer in one or more states.
 - 2) The wording of the certificate of insurance must be that specified in Section 724.251.
 - 3) The post-closure insurance policy must be issued for a face amount at least equal to the current post-closure cost estimate, except as provided in

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subsection (g) of this Section. The term "face amount" means the total amount the insurer is obligated to pay under the policy. Actual payments by the insurer will not change the face amount, although the insurer's future liability will be lowered by the amount of the payments.

- 4) The post-closure insurance policy must guarantee that funds will be available to provide post-closure care of facility whenever the post-closure period begins. The policy must also guarantee that, once post-closure care begins, the insurer will be responsible for paying out funds, up to an amount equal to the face amount of the policy, upon the direction of the Agency to such party or parties as the Agency specifies.
- 5) An owner or operator or any other person authorized to perform post-closure care may request reimbursement for post-closure care expenditures by submitting itemized bills to the Agency. Within 60 days after receiving bills for post-closure activities, the Agency must instruct the insurer to make reimbursement in such amounts as the Agency specifies in writing if the Agency determines that the post-closure care expenditures are in accordance with the approved post-closure plan or otherwise justified. If the Agency does not instruct the insurer to make such reimbursements, the Agency must provide the owner or operator with a detailed written statement of reasons.
- 6) The owner or operator must maintain the policy in full force and effect until the Agency consents to termination of the policy by the owner or operator as specified in subsection (e)(11) of this Section. Failure to pay the premium, without substitution of alternative financial assurance as specified in this Section, will constitute a significant violation of these regulations, warranting such remedy as the Board may impose pursuant to the Environmental Protection Act [415 ILCS 5]. Such violation will be deemed to begin upon receipt by the Agency of a notice of future cancellation, termination, or failure to renew due to nonpayment of the premium, rather than upon the date of expiration.
- 7) Each policy must contain a provision allowing assignment of the policy to a successor owner or operator. Such assignment may be conditional upon consent of the insurer, provided such consent is not unreasonably refused.

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- 8) The policy must provide that the insurer may not cancel, terminate, or fail to renew the policy except for failure to pay the premium. The automatic renewal of the policy must, at a minimum, provide the insured with the option of renewal at the face amount of the expiring policy. If there is a failure to pay the premium, the insurer may elect to cancel, terminate, or fail to renew the policy by sending notice by certified mail to the owner or operator and the Agency. Cancellation, termination, or failure to renew may not occur, however, during the 120 days beginning with the date of receipt of the notice by both the Agency and the owner or operator, as evidenced by the return receipts. Cancellation, termination, or failure to renew may not occur, and the policy will remain in full force and effect, in the event that on or before the date of expiration one of the following occurs:
 - A) The Agency deems the facility abandoned;
 - B) The permit is terminated or revoked or a new permit is denied;
 - C) Closure is ordered by the Board or a U.S. district court or other court of competent jurisdiction;
 - D) The owner or operator is named as debtor in a voluntary or involuntary proceeding under 11 USC (Bankruptcy); or
 - E) The premium due is paid.
- 9) Whenever the current post-closure cost estimate increases to an amount greater than the face amount of the policy during the life of the facility, the owner or operator, within 60 days after the increase, must either cause the face amount to be increased to an amount at least equal to the current post-closure cost estimate and submit evidence of such increase to the Agency or obtain other financial assurance, as specified in this Section, to cover the increase. Whenever the current post-closure cost estimate decreases during the operating life of the facility, the face amount may be reduced to the amount of the current post-closure cost estimate following written approval by the Agency.
- 10) Commencing on the date that liability to make payments pursuant to the

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

- 11) The Agency must give written consent to the owner or operator that the owner or operator may terminate the insurance policy when either of the following occurs:
 - A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or
 - B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) of this Section.
- f) Financial test and corporate guarantee for post-closure care.
 - 1) An owner or operator may satisfy the requirements of this Section by demonstrating that it passes a financial test as specified in this subsection (f). To pass this test the owner or operator must meet the criteria of either subsection (f)(1)(A) or (f)(1)(B) of this Section:
 - A) The owner or operator must have the following:
 - i) Two of the following three ratios: a ratio of total liabilities to net worth less than 2.0; a ratio of the sum of net income plus depreciation, depletion and amortization to total liabilities greater than 0.1; and a ratio of current assets to current liabilities greater than 1.5;
 - ii) Net working capital and tangible net worth each at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates;
 - iii) Tangible net worth of at least \$10 million; and

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- iv) Assets in the United States amounting to at least 90 percent of its total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.
- B) The owner or operator must have the following:
 - i) A current rating for its most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A, or Baa as issued by Moody's;
 - ii) Tangible net worth at least six times the sum of the current closure and post-closure cost estimates and current plugging and abandonment cost estimates;
 - iii) Tangible net worth of at least \$10 million; and
 - iv) Assets located in the United States amounting to at least 90 percent of its total assets or at least six times the sum of the current closure and post-closure cost estimates and the current plugging and abandonment cost estimates.
- 2) The phrase "current closure and post-closure cost estimates" as used in subsection (f)(1) of this Section, refers to the cost estimates required to be shown in subsections 1 through 4 of the letter from the owner's or operator's chief financial officer (see Section 724.251). The phrase "current plugging and abandonment cost estimates" as used in subsection (f)(1) of this Section, refers to the cost estimates required to be shown in subsections 1 through 4 of the letter from the owner's or operator's chief financial officer (see 35 Ill. Adm. Code 704.240).
- 3) To demonstrate that it meets this test, the owner or operator must submit the following items to the Agency:
 - A) A letter signed by the owner's or operator's chief financial officer and worded as specified in Section 724.251;

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- B) A copy of the independent certified public accountant's report on examination of the owner's or operator's financial statements for the latest completed fiscal year; and
- C) A special report from the owner's or operator's independent certified public accountant to the owner or operator stating the following:
 - i) The accountant has compared the data that the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and
 - ii) In connection with that procedure, no matters came to the accountant's attention that caused the accountant to believe that the specified data should be adjusted.
- 4) An owner or operator of a new facility must submit the items specified in subsection (f)(3) of this Section to the Agency at least 60 days before the date on which hazardous waste is first received for disposal.
- 5) After the initial submission of items specified in subsection (f)(3) of this Section, the owner or operator must send updated information to the Agency within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in subsection (f)(3) of this Section.
- 6) If the owner or operator no longer meets the requirements of subsection (f)(1) of this Section, the owner or operator must send notice to the Agency of intent to establish alternative financial assurance, as specified in this Section. The notice must be sent by certified mail within 90 days after the end of the fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements the owner or operator must provide the alternative financial assurance within 120 days after the end of such fiscal year.
- 7) Based on a reasonable belief that the owner or operator may no longer

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

- 8) The Agency may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in the accountant's report on examination of the owner's or operator's financial statements (see subsection (f)(3)(B) of this Section). An adverse opinion or a disclaimer of opinion will be cause for disallowance. The Agency must evaluate other qualifications on an individual basis. The owner or operator must provide alternative financial assurance, as specified in this Section, within 30 days after notification of the disallowance.
- 9) During the period of post-closure care, the Agency must approve a decrease in the current post-closure cost estimate for which this test demonstrates financial assurance if the owner or operator demonstrates to the Agency that the amount of the cost estimate exceeds the remaining cost of post-closure care.
- 10) The owner or operator is no longer required to submit the items specified in subsection (f)(3) of this Section when either of the following occurs:
 - A) An owner or operator substitutes alternative financial assurance, as specified in this Section; or
 - B) The Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i) of this Section.
- 11) An owner or operator may meet the requirements of this Section by obtaining a written guarantee, hereafter referred to as "corporate guarantee." The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a

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“substantial business relationship” with the owner or operator. The guarantor must meet the requirements for owners or operators in subsections (f)(1) through (f)(9), and must comply with the terms of the corporate guarantee. The wording of the corporate guarantee must be that specified in Section 724.251. A certified copy of the corporate guarantee must accompany the items sent to the Agency, as specified in subsection (f)(3) of this Section. One of these items must be the letter from the guarantor’s chief financial officer. If the guarantor’s parent corporation is also the parent corporation of the owner or operator, the letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a “substantial business relationship” with the owner or operator, this letter must describe this “substantial business relationship” and the value received in consideration of the guarantee. The terms of the corporate guarantee must provide as follows:

- A) That if the owner or operator fails to perform post-closure care of a facility covered by the corporate guarantee in accordance with the post-closure plan and other permit requirements whenever required to do so, the guarantor will do so or establish a trust fund as specified in subsection (a) of this Section in the name of the owner or operator.
 - B) That the corporate guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Agency. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Agency, as evidenced by the return receipts.
 - C) That if the owner or operator fails to provide alternative financial assurance as specified in this Section and obtain the written approval of such alternative assurance from the Agency within 90 days after receipt by both the owner or operator and the Agency of a notice of cancellation of the corporate guarantee from the guarantor, the guarantor will provide such alternative financial assurance in the name of the owner or operator.
- g) Use of multiple financial mechanisms. An owner or operator may satisfy the

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

- h) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial assurance mechanism specified in this Section to meet the requirements of this Section for more than one facility. Evidence of financial assurance submitted to the Agency must include a list showing, for each facility, the USEPA identification number, name, address, and the amount of funds for post-closure care assured by the mechanism. The amount of funds available through the mechanism must be no less than the sum of funds that would be available if a separate mechanism had been established and maintained for each facility. The amount of funds available to the Agency must be sufficient to close all of the owner or operator's facilities. In directing funds available through the mechanism for post-closure care of any of the facilities covered by the mechanism, the Agency may direct only the amount of funds designated for that facility, unless the owner or operator agrees to the use of additional funds available under the mechanism.
- i) Release of the owner or operator from the requirements of this Section. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that the post-closure care period has been completed for a hazardous waste disposal unit in accordance with the approved plan, the Agency must notify the owner or operator that it is no longer required to maintain financial assurance ~~for post-closure~~ for post-closure care of that unit, unless the Agency determines that post-closure care has not been in accordance with the approved post-closure plan. The Agency must provide the owner or operator a detailed written statement of any such determination that post-closure care has not been in accordance with the approved post-closure plan.

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- 2) The container is very small, such as an ampule; or
 - 3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or
 - 4) The container is a lab pack, as defined in Section 724.416, and is disposed of in accordance with Section 724.416.
- d) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are the following: materials listed or described in subsection (d)(1) of this Section; materials that pass one of the tests in subsection ~~(d)(2)~~(e)(2) of this Section ~~(d)(2)~~; or materials that are determined by the Board to be nonbiodegradable through the adjusted standard procedure of 35 Ill. Adm. Code 104.
- 1) Nonbiodegradable sorbents are the following:
 - A) Inorganic minerals, other inorganic materials, and elemental carbon (e.g., aluminosilicates (clays, smectites, Fuller²'s earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites, etc.), calcium carbonate (organic free limestone), oxides/hydroxides (alumina, lime, silica (sand), diatomaceous earth, etc.), perlite (volcanic glass), expanded volcanic rock, volcanic ash, cement kiln dust, fly ash, rice hull ash, activated charcoal (activated carbon), etc.); or
 - B) High molecular weight synthetic polymers (e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polyisobutylene, ground synthetic rubber, cross-linked allylstrene and tertiary butyl copolymers, etc.). This does not include polymers derived from biological material or polymers specifically designed to be degradable; or
 - C) Mixtures of these nonbiodegradable materials.
 - 2) Tests for nonbiodegradable sorbents are the following:

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- A) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a) (Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi), incorporated by reference in 35 Ill. Adm. Code 720.111(a);
 - B) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b) (Standard Practice for Determining Resistance of Plastics to Bacteria), incorporated by reference in 35 Ill. Adm. Code 720.111(a); or
 - C) The sorbent material is determined to be non-biodegradable under OECD Guideline for Testing of Chemicals, Method 301B (CO₂ Evolution (Modified Sturm Test)), incorporated by reference in 35 Ill. Adm. Code 720.111(a).
- e) The placement of any liquid that is not a hazardous waste in a hazardous waste landfill is prohibited (35 Ill. Adm. Code 729.311), unless the Board finds that the owner or operator has demonstrated the following in a petition for an adjusted standard pursuant to Section 28.1 of the Act [415 ILCS 5/28.1] and 35 Ill. Adm. Code 101 and 104:
- 1) The only reasonably available alternative to the placement in a hazardous waste landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, that contains or which may reasonably be anticipated to contain hazardous waste; and
 - 2) Placement in the hazardous waste landfill will not present a risk of contamination of any "underground source of drinking water" (as that term is defined in 35 Ill. Adm. Code 702.110).

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

SUBPART W: DRIP PADS

Section 724.670 Applicability

- a) The requirements of this Subpart W apply to owners and operators of facilities that use new or existing drip pads to convey treated wood drippage, precipitation,

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or surface water run-on to an associated collection system.

- 1) ~~“Existing drip pads”~~ are the following:
 - A) Those constructed before December 6, 1990; and
 - B) Those for which the owner or operator had a design and had entered into binding financial or other agreements for construction prior to December 6, 1990.
 - 2) All other drip pads are ~~“new drip pads.”~~
 - 3) The requirements at Section 724.673(b)(3) to install a leak collection system applies only to those drip pads that were constructed after December 24, 1992 except for those constructed after December 24, 1992 for which the owner or operator had a design and has entered into binding financial or other agreements for construction prior to December 24, 1992.
- b) The owner or operator of any drip pad that is inside or under a structure that provides protection from precipitation so that neither run-off nor run-on is generated is not subject to regulation under Section ~~724.673(e)~~ 724.672(e) ~~724.673(e)~~ or (f).
- c) The requirements of this subsection (c) are not applicable to the management of infrequent and incidental drippage in storage yards provided that the owner or operator maintains and complies with a written contingency plan that describes how the owner or operator will respond immediately to the discharge of infrequent and incidental drippage. At a minimum, the contingency plan must describe how the owner or operator will do the following:
- 1) Clean up the drippage;
 - 2) Document the clean-up of the drippage;
 - 3) Retain documentation regarding the clean-up for three years; and
 - 4) Manage the contaminated media in a manner consistent with State and federal regulations.

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

Section 724.671 Assessment of Existing Drip Pad Integrity

- a) For each existing drip pad, the owner or operator must evaluate the drip pad and determine whether it meets all of the requirements of this Subpart W, except the requirements for liners and leak detection systems of Section 724.673(b). No later than June 6, 1991, the owner or operator must obtain and keep on file at the facility a written assessment of the drip pad, reviewed and certified by a qualified Professional Engineer that attests to the results of the evaluation. The assessment must be reviewed, updated, and re-certified annually until all upgrades, repairs or modifications necessary to achieve compliance with all the standards of Section 724.673 are complete. The evaluation must document the extent to which the drip pad meets each of the design and operating standards of Section 724.673, except the standards for liners and leak detection systems, specified in Section 724.673(b).
- b) The owner or operator must develop a written plan for upgrading, repairing, and modifying the drip pad to meet the requirements of Section 724.673(b) and submit the plan to the Agency no later than two years before the date that all repairs, upgrades and modifications will be complete. This written plan must describe all changes to be made to the drip pad in sufficient detail to document compliance with all the requirements of Section 724.673. The plan must be reviewed and certified by a qualified Professional Engineer.
- c) Upon completion of all upgrades, repairs, and modifications, the owner or operator must submit to the Agency, the as-built drawings for the drip pad, together with a certification by a qualified Professional Engineer attesting that the drip pad conforms to the drawings.
- d) If the drip pad is found to be leaking or unfit for use, the owner or operator must comply with the provisions of Section ~~724.673(m)~~724.672(m) ~~724.673(m)~~ or close the drip pad in accordance with Section 724.675.

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

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

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Section 724.933 Standards: Closed-Vent Systems and Control Devices

- a) Compliance Required.
 - 1) Owners or operators of closed-vent systems and control devices used to comply with provisions of this Part must comply with the provisions of this Section.
 - 2) Implementation Schedule.
 - A) The owner or operator of an existing facility that cannot install a closed-vent system and control device to comply with the provisions of this Subpart AA on the effective date that the facility becomes subject to the provisions of this Subpart AA must prepare an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The controls must be installed as soon as possible, but the implementation schedule may allow up to 30 months after the effective date that the facility becomes subject to this Subpart AA for installation and startup.
 - B) Any unit that began operation after December 21, 1990 and which was subject to the provisions of this Subpart AA when operation began must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 30-month implementation schedule does not apply.
 - C) The owner or operator of any facility in existence on the effective date of a statutory or regulatory amendment that renders the facility subject to this Subpart AA must comply with all requirements of this Subpart AA as soon as practicable, but no later than 30 months after the effective date of the amendment. When control equipment required by this Subpart AA cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator must prepare an implementation schedule that includes the following information: specific calendar dates for award of contracts or issuance of purchase orders for the control

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

- D) An owner or operator of a facility or unit that becomes newly subject to the requirements of this Subpart AA after December 8, 1997, due to an action other than those described in subsection (a)(2)(C) of this Section, must comply with all applicable requirements immediately (i.e., the facility or unit must have control devices installed and operating on the date the facility or unit becomes subject to this Subpart AA; the 30-month implementation schedule does not apply).
- b) A control device involving vapor recovery (e.g., a condenser or adsorber) must be designed and operated to recover the organic vapors vented to it with an efficiency of 95 weight percent or greater unless the total organic emission limits of Section 724.932(a)(1) for all affected process vents is attained at an efficiency less than 95 weight percent.
- c) An enclosed combustion device (e.g., a vapor incinerator, boiler, or process heater) must be designed and operated to reduce the organic emissions vented to it by 95 weight percent or greater; to achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds and not in carbon equivalents, on a dry basis, corrected to three percent oxygen; or to provide a minimum residence time of 0.50 seconds at a minimum temperature of 760 ° C. If a boiler or process heater is used as the control device, then the vent stream must be introduced into the flame zone of the boiler or process heater.
- d) Flares.
 - 1) A flare must be designed for and operated with no visible emissions, as determined by the methods specified in subsection (e)(1) of this Section, except for periods not to exceed a total of five minutes during any two consecutive hours.

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- 2) A flare must be operated with a flame present at all times, as determined by the methods specified in subsection (f)(2)(C) of this Section.
- 3) A flare must be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater and the flare is steam-assisted or air-assisted or if the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater and the flare is nonassisted. The net heating value of the gas being combusted must be determined by the methods specified in subsection (e)(2) of this Section.
- 4) Exit Velocity.
 - A) A steam-assisted or nonassisted flare must be designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (d)(4)(C) of this Section.
 - B) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, equal to or greater than 18.3 m/s (60 ft/s) but less than 122 m/s (400 ft/s) is allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).
 - C) A steam-assisted or nonassisted flare designed for and operated with an exit velocity, as determined by the methods specified in subsection (e)(3) of this Section, less than the velocity, V, as determined by the method specified in subsection (e)(4) of this Section, and less than 122 m/s (400 ft/s) is allowed.
- 5) An air-assisted flare must be designed and operated with an exit velocity less than the velocity, V, as determined by the method specified in subsection (e)(5) of this Section.
- 6) A flare used to comply with this Section must be steam-assisted, air-assisted, or nonassisted.

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- e) Compliance determination and equations.
- 1) Reference Method 22 (Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), must be used to determine the compliance of a flare with the visible emission provisions of this Subpart AA. The observation period is two hours and must be used according to Reference Method 22.
 - 2) The net heating value of the gas being combusted in a flare must be calculated using the following equation:

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

Where:

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

K = $1.74 \times 10^{-7} (1/\text{ppm})(\text{g mol}/\text{scm})(\text{MJ}/\text{kcal})$ where the standard 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)

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~~by Gas Chromatography) in appendix A to 40 CFR 60 (Test Methods), and for carbon monoxide, by ASTM D 1946-90 (Standard Practice for Analysis of Reformed Gas by Gas Chromatography), each incorporated by reference in 35 Ill. Adm. Code 720.111~~

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

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

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

$\sum X_i$ \equiv the sum of the values of X for each component i , from $i=1$ to n

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

H_i \equiv 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

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are not available or cannot be calculated.

- 3) The actual exit velocity of a flare must be determined by dividing the volumetric flow rate (in units of standard temperature and pressure), as determined by Reference Methods 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)), 2A (Direct Measurement of Gas Volume through Pipes and Small Ducts), 2C (Determination of Gas Velocity and Volumetric Flow Rate in Small Stacks or Ducts (Standard Pitot Tube)), or 2D (Measurement of Gas Volume Flow Rates in Small Pipes and Ducts) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.
- 4) The maximum allowed velocity in m/s, V_{max} , for a flare complying with subsection (d)(4)(C) of this Section must be determined by the following equation:

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

Where:

~~\log_{10} = logarithm to the base 10~~

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

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

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

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

Where:

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

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

- f) The owner or operator must monitor and inspect each control device required to comply with this Section to ensure proper operation and maintenance of the control device by implementing the following requirements:
- 1) Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of stream flow from each affected process vent to the control device at least once every hour. The flow indicator sensor must be installed in the vent stream at the nearest feasible point to the control device inlet but before the point at which the vent streams are combined.
 - 2) Install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor control device operation, as follows:
 - A) For a thermal vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must have accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or $\pm 0.5^{\circ}\text{C}$, 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

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of monitoring temperature at two locations and have an accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or $\pm 0.5^{\circ}\text{C}$, 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 $^{\circ}\text{C}$ or $\pm 0.5^{\circ}\text{C}$, whichever is greater. The temperature sensor must be installed at a location in the furnace downstream of the combustion zone.
- E) For a boiler or process heater having a design heat input capacity greater than or equal to 44 MW, a monitoring device equipped with a continuous recorder to measure parameters that indicate good combustion operating practices are being used.
- F) For a condenser, either of the following:
 - i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the condenser;
or
 - ii) A temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature with an accuracy of ± 1 percent of the temperature being monitored in $^{\circ}\text{C}$ or $\pm 0.5^{\circ}\text{C}$, 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).

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- G) For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon adsorber, either of the following:
 - i) A monitoring device equipped with a continuous recorder to measure the concentration level of the organic compounds in the exhaust vent stream from the carbon bed, or
 - ii) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, predetermined time cycle.
- 3) Inspect the readings from each monitoring device required by subsections (f)(1) and (f)(2) of this Section at least once each operating day to check control device operation and, if necessary, immediately implement the corrective measures necessary to ensure the control device operates in compliance with the requirements of this Section.
- g) An owner or operator using a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device must replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is no longer than the carbon service life established as a requirement of Section 724.935(b)(4)(C)(vi).
- h) An owner or operator using a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device must replace the existing carbon in the control device with fresh carbon on a regular basis by using one of the following procedures:
 - 1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system on a regular schedule, and replace the existing carbon with fresh carbon immediately when carbon breakthrough is indicated. The monitoring frequency must be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of Section 724.935(b)(4)(C)(vii), whichever is longer.

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- 2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of Section 724.935(b)(4)(C)(vii).
- i) An alternative operational or process parameter may be monitored if the operator demonstrates that the parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications.
- j) An owner or operator of an affected facility seeking to comply with the provisions of this Part by using a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system is required to develop documentation including sufficient information to describe the control device operation and identify the process parameter or parameters that indicate proper operation and maintenance of the control device.
- k) A closed-vent system must meet either of the following design requirements:
 - 1) A closed-vent system must be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, as determined by the methods specified at Section 724.934(b), and by visual inspections; or
 - 2) A closed-vent system must be designed to operate at a pressure below atmospheric pressure. The system must be equipped with at least one pressure gauge or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating.
- l) The owner or operator must monitor and inspect each closed-vent system required to comply with this Section to ensure proper operation and maintenance of the closed-vent system by implementing the following requirements:
 - 1) Each closed-vent system that is used to comply with subsection (k)(1) of this Section must be inspected and monitored in accordance with the following requirements:
 - A) An initial leak detection monitoring of the closed-vent system must

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

- B) After initial leak detection monitoring required in subsection (1)(1)(A) of this Section, the owner or operator must inspect and monitor the closed-vent system as follows:
 - i) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) must be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The owner or operator must monitor a component or connection using the procedures specified in Section 724.934(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).
 - ii) Closed-vent system components or connections other than those specified in subsection (1)(1)(B)(i) of this Section must be monitored annually and at other times as requested by the Regional Administrator, except as provided for in subsection (o) of this Section, using the procedures specified in Section 724.934(b) to demonstrate that the components or connections operate with no detectable emissions.
- C) In the event that a defect or leak is detected, the owner or operator must repair the defect or leak in accordance with the requirements of subsection (1)(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 724.935.
- 2) Each closed-vent system that is used to comply with subsection (k)(2) of this Section must be inspected and monitored in accordance with the following requirements:
- A) The closed-vent system must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping or loose connections.
 - B) The owner or operator must perform an initial inspection of the closed-vent system on or before the date that the system becomes subject to this Section. Thereafter, the owner or operator must perform the inspections at least once every year.
 - C) In the event that a defect or leak is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (l)(3) of this Section.
 - D) The owner or operator must maintain a record of the inspection and monitoring in accordance with the requirements specified in Section 724.935.
- 3) The owner or operator must repair all detected defects as follows:
- A) Detectable emissions, as indicated by visual inspection or by an instrument reading greater than 500 ppmv above background, must be controlled as soon as practicable, but not later than 15 calendar days after the emission is detected, except as provided for in subsection (l)(3)(C) of this Section.
 - B) A first attempt at repair must be made no later than five calendar days after the emission is detected.
 - C) Delay of repair of a closed-vent system for which leaks have been

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detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment must be completed by the end of the next process unit shutdown.

- D) The owner or operator must maintain a record of the defect repair in accordance with the requirements specified in Section 724.935.
- m) A closed-vent system or control device used to comply with provisions of this Subpart AA must be operated at all times when emissions may be vented to it.
- n) The owner or operator using a carbon adsorption system to control air pollutant emissions must document that all carbon removed that is a hazardous waste and that is removed from the control device is managed in one of the following manners, regardless of the volatile organic concentration of the carbon:
 - 1) It is regenerated or reactivated in a thermal treatment unit that meets one of the following:
 - A) The owner or operator of the unit has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart X of this Part; or
 - B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of Subparts AA and CC of this Part or Subparts AA and CC of 35 Ill. Adm. Code 725; or
 - C) The unit is equipped with and operating air emission controls in accordance with a national emission standard for hazardous air pollutants under 40 CFR 61 (National Emission Standards for Hazardous Air Pollutants) or 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).
 - 2) It is incinerated in a hazardous waste incinerator for which the owner or

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operator has done either of the following:

- A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart O of this Part; or
 - B) The owner or operator has certified compliance in accordance with ~~the~~ interim status requirements of Subpart O of 35 Ill. Adm. Code 725.
- 3) It is burned in a boiler or industrial furnace for which the owner or operator has done either of the following:
- A) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or
 - B) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Subpart H of 35 Ill. Adm. Code 726.
- o) Any components of a closed-vent system that are designated, as described in Section 724.935(c)(9), as unsafe to monitor are exempt from the requirements of subsection (l)(1)(B)(ii) of this Section if both of the following conditions are fulfilled:
- 1) The owner or operator of the closed-vent system has determined that the components of the closed-vent system are unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (l)(1)(B)(ii) of this Section; and
 - 2) The owner or operator of the closed-vent system adheres to a written plan that requires monitoring the closed-vent system components using the procedure specified in subsection (l)(1)(B)(ii) of this Section as frequently as practicable during safe-to-monitor times.

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

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Section 724.934 Test Methods and Procedures

- a) Each owner or operator subject to the provisions of this Subpart AA must comply with the test methods and procedures requirements provided in this Section
- b) When a closed-vent system is tested for compliance with no detectable emissions, as required in Section 724.933(l), the test must comply with the following requirements:
 - 1) Monitoring must comply with Reference Method 21 (Determination of Volatile Organic Compound Leaks) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b).
 - 2) The detection instrument must meet the performance criteria of Reference Method 21.
 - 3) The instrument must be calibrated before use on each day of its use by the procedures specified in Reference Method 21.
 - 4) Calibration gases must be as follows:
 - A) Zero air (less than 10 ppm of hydrocarbon in air); and
 - B) A mixture of methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.
 - 5) The background level must be determined as set forth in Reference Method 21.
 - 6) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.
 - 7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.
- c) Performance tests to determine compliance with Section 724.932(a) and with the

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total organic compound concentration limit of Section 724.933(c) must comply with the following:

- 1) Performance tests to determine total organic compound concentrations and mass flow rates entering and exiting control devices must be conducted and data reduced in accordance with the following reference methods and calculation procedures:
 - A) Reference Method 2 (Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for velocity and volumetric flow rate.
 - B) Reference Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography) or Reference Method 25A (Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for organic content. If Reference Method 25A is used, the organic HAP used as the calibration gas must be the single organic HAP representing the largest percent by volume of the emissions. The use of Reference Method 25A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.
 - C) Each performance test must consist of three separate runs, each run conducted for at least one hour under the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. For the purpose of determining total organic compound concentrations and mass flow rates, the average of results of all runs applies. The average must be computed on a time-weighted basis.
 - D) Total organic mass flow rates must be determined by the following equation:

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- i) For a source using Reference Method 18:

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

Where:

E_h = The total organic mass flow rate, kg/h

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

n = The number of organic compounds in the vent gas

C_i = The organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Reference Method 18

MW_i = The molecular weight of organic compound i in the vent gas, kg/kg-mol

0.0416 = The conversion factor for molar volume, kg-mol/m³, at 293 K and 760 mm-Hg

10⁻⁶ = The conversion factor from ppm.

E_h = The total organic mass flow rate, kg/h
 Q_{2sd} = The volumetric flow rate of gases entering or

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	<u>exiting control device, dscm/h, as determined by Reference Method 2</u>
<u>N</u>	<u>≡ The number of organic compounds in the vent gas</u>
<u>C_i</u>	<u>≡ The organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Reference Method 18</u>
<u>MW_i</u>	<u>≡ The molecular weight of organic compound I in the vent gas, kg/kg-mol</u>
<u>0.041</u>	<u>≡ The conversion factor for molar volume, kg-mol/m³, at 293 K and 760 mmHg</u>
<u>10⁻⁶</u>	<u>≡ The conversion factor from ppm,</u>

ii) For a source using Reference Method 25A:

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

Where:

~~E_h = The total organic mass flow rate, kg/h~~

~~Q = The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Reference Method 2~~

~~C = The organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Reference Method 25A~~

~~MW = The molecular weight of propane, 44 kg/kg-mol~~

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~~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.~~

<u>E_h</u>	≡	<u>The total organic mass flow rate, kg/h</u>
<u>Q</u>	≡	<u>The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by Reference Method 2</u>
<u>C</u>	≡	<u>The organic concentration in ppm, dry basis, of compound i in the vent gas, as determined by Reference Method 25A</u>
<u>MW</u>	≡	<u>The molecular weight of propane, 44 kg/kg-mol</u>
<u>0.0416</u>	≡	<u>The conversion factor for molar volume, kg-mol/m³, at 293 K and 760 mmHg</u>
<u>10⁻⁶</u>	≡	<u>The conversion factor from ppm.</u>

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

$$A = F \times \underline{x} \times H$$

Where:

~~A = total organic emission rate, kg/y~~

~~F = the total organic mass flow rate, kg/h, as calculated in subsection (c)(1)(D) of this Section.~~

~~H = the total annual hours of operation for the affected unit.~~

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

- F) Total organic emissions from all affected process vents at the facility must be determined by summing the hourly total organic mass emissions rates (F as determined in subsection (c)(1)(D) of this Section) and by summing the annual total organic mass emission rates (A as determined in subsection (c)(1)(E) of this Section) for all affected process vents at the facility.
- 2) The owner or operator must record such process information as is necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction do not constitute representative conditions for the purpose of a performance test.
- 3) The owner or operator of an affected facility must provide, or cause to be provided, performance testing facilities as follows:
- A) Sampling ports adequate for the test methods specified in subsection (c)(1) of this Section.
 - B) Safe sampling platforms.
 - C) Safe access to sampling platforms.
 - D) Utilities for sampling and testing equipment.
- 4) For the purpose of making compliance determinations, the time-weighted average of the results of the three runs must apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the Agency's approval, be determined using the average of the results of the two other runs.

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- d) To show that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation is not subject to the requirements of this Subpart AA, the owner or operator must make an initial determination that the time-weighted, annual average total organic concentration of the waste managed by the waste management unit is less than 10 ppmw using one of the following two methods:
 - 1) Direct measurement of the organic concentration of the waste using the following procedures:
 - A) The owner or operator must take a minimum of four grab samples of waste for each wastestream managed in the affected unit under process conditions expected to cause the maximum waste organic concentration.
 - B) For waste generated onsite, the grab samples must be collected at a point before the waste is exposed to the atmosphere, such as in an enclosed pipe or other closed system that is used to transfer the waste after generation to the first affected distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation. For waste generated offsite, the grab samples must be collected at the inlet to the first waste management unit that receives the waste provided the waste has been transferred to the facility in a closed system such as a tank truck and the waste is not diluted or mixed with other waste.
 - C) Each sample must be analyzed and the total organic concentration of the sample must be computed using Method 9060A (Total Organic Carbon) of ⁴⁰Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, ²²USEPA 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

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calculated using the annual quantity of each waste stream processed and the mean organic concentration of each wastestream managed in the unit.

- 2) Using knowledge of the waste to determine that its total organic concentration is less than 10 ppmw. Documentation of the waste determination is required. Examples of documentation that must be used to support a determination under this subsection (d)(2) include the following:
 - A) Production process information documenting that no organic compounds are used;
 - B) Information that the waste is generated by a process that is identical to a process at the same or another facility that has previously been demonstrated by direct measurement to generate a wastestream having a total organic content less than 10 ppmw; or
 - C) Prior speciation analysis results on the same wastestream where it is also documented that no process changes have occurred since that analysis that could affect the waste total organic concentration.
- e) The determination that a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation that manages hazardous wastes that have time-weighted, annual average total organic concentrations less than 10 ppmw must be made as follows:
 - 1) By the effective date that the facility becomes subject to the provisions of this Subpart AA or by the date when the waste is first managed in a waste management unit, whichever is later; and either of the following:
 - 2) For continuously generated waste, annually; or
 - 3) Whenever there is a change in the waste being managed or a change in the process that generates or treats the waste.
- f) When an owner or operator and the Agency do not agree on whether a distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping

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operation manages a hazardous waste with organic concentrations of at least 10 ppmw based on knowledge of the waste, direct measurement may be used to resolve the dispute, as specified in subsection (d)(1) of this Section.

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

Section 724.935 Recordkeeping Requirements

- a) Compliance Required.
 - 1) Each owner or operator subject to the provisions of this Subpart AA must comply with the recordkeeping requirements of this Section.
 - 2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart AA may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.
- b) Owners and operators must record the following information in the facility operating record:
 - 1) For facilities that comply with the provisions of Section 724.933(a)(2), an implementation schedule that includes dates by which the closed-vent system and control device will be installed and in operation. The schedule must also include a rationale of why the installation cannot be completed at an earlier date. The implementation schedule must be in the facility operating record by the effective date that the facility becomes subject to the provisions of this Subpart AA.
 - 2) Up-to-date documentation of compliance with the process vent standards in Section 724.932, including the following:
 - A) Information and data identifying all affected process vents, annual throughput, and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit

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(e.g., identify the hazardous waste management units on a facility plot plan).

- B) Information and data supporting determination of vent emissions and emission reductions achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, determinations of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or vent stream organic compounds and concentrations) that represent the conditions that result in maximum organic emissions, such as when the waste management unit is operating at the highest load or capacity level reasonably expected to occur. If the owner or operator takes any action (e.g., managing a waste of different composition or increasing operating hours of affected waste management units) that would result in an increase in total organic emissions from affected process vents at the facility, then a new determination is required.
- 3) Where an owner or operator chooses to use test data to determine the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan. The test plan must include the following:
 - A) A description of how it is determined that the planned test is going to be conducted when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. This must include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.
 - B) A detailed engineering description of the closed-vent system and control device including the following:
 - i) Manufacturer's name and model number of control device;
 - ii) Type of control device;

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- iii) Dimensions of the control device;
 - iv) Capacity; and
 - v) Construction materials.
- C) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.
- 4) Documentation of compliance with Section 724.933 must include the following information:
- A) A list of all information references and sources used in preparing the documentation.
 - B) Records, including the dates of each compliance test required by Section 724.933(k).
 - C) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions," USEPA publication number EPA- 450/2-81-005, incorporated by reference in 35 Ill. Adm. Code 720.111(a), or other engineering texts, approved by the Agency, that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with subsections (b)(4)(C)(i) through (b)(4)(C)(vii) of this Section may be used to comply with this requirement. The design analysis must address the vent stream characteristics and control device operation parameters as specified below.
 - i) For a thermal vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must

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also establish the design minimum and average temperature in the combustion zone and the combustion zone residence time.

- ii) For a catalytic vapor incinerator, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average temperatures across the catalyst bed inlet and outlet.
- iii) For a boiler or process heater, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also establish the design minimum and average flame zone temperatures, combustion zone residence time and description of method and location where the vent stream is introduced into the combustion zone.
- iv) For a flare, the design analysis must consider the vent stream composition, constituent concentrations, and flow rate. The design analysis must also consider the requirements specified in Section 724.933(d).
- v) For a condenser, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design outlet organic compound concentration level, design average temperature of the condenser exhaust vent stream and design average temperatures of the coolant fluid at the condenser inlet and outlet.
- vi) For a carbon adsorption system, such as a fixed-bed adsorber that regenerates the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design exhaust vent stream

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organic compound concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time and design service life of carbon.

- vii) For a carbon adsorption system, such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis must consider the vent stream composition, constituent concentrations, flow rate, relative humidity and temperature. The design analysis must also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.
- D) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.
- E) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit of Section 724.932(a) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of Section 724.932(a) for affected process vents at the facility are attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.

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- F) If performance tests are used to demonstrate compliance, all test results.
- c) Design documentation and monitoring operating and inspection information for each closed-vent system and control device required to comply with the provisions of this Part must be recorded and kept up-to-date in the facility operating record. The information must include the following:
- 1) Description and date of each modification that is made to the closed-vent system or control device design.
 - 2) Identification of operating parameter, description of monitoring device, and diagram of monitoring sensor location or locations used to comply with Section 724.933(f)(1) and (f)(2).
 - 3) Monitoring, operating and inspection information required by Section 724.933(f) through (k).
 - 4) Date, time, and duration of each period that occurs while the control device is operating when any monitored parameter exceeds the value established in the control device design analysis as specified below:
 - A) For a thermal vapor incinerator designed to operate with a minimum residence time of 0.50 second at a minimum temperature of 760° C, any period when the combustion temperature is below 760° C.
 - B) For a thermal vapor incinerator designed to operate with an organic emission reduction efficiency of 95 weight percent or greater, any period when the combustion zone temperature is more than 28° C below the design average combustion zone temperature established as a requirement of subsection (b)(4)(C)(i) of this Section.
 - C) For a catalytic vapor incinerator, any period when:
 - i) Temperature of the vent stream at the catalyst bed inlet is more than 28° C below the average temperature of the inlet

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- vent stream established as a requirement of subsection (b)(4)(C)(ii) of this Section; or
- ii) Temperature difference across the catalyst bed is less than 80% of the design average temperature difference established as a requirement of subsection (b)(4)(C)(ii) of this Section.
- D) For a boiler or process heater, any period when either of the following occurs:
- i) Flame zone temperature is more than 28° C below the design average flame zone temperature established as a requirement of subsection (b)(4)(C)(iii) of this Section; or
 - ii) Position changes where the vent stream is introduced to the combustion zone from the location established as a requirement of subsection (b)(4)(C)(iii) of this Section.
- E) For a flare, period when the pilot flame is not ignited.
- F) For a condenser that complies with Section 724.933(f)(2)(F)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the condenser are more than 20 percent greater than the design outlet organic compound concentration level established as a requirement of subsection (b)(4)(C)(v) of this Section.
- G) For a condenser that complies with Section 724.933(f)(2)(F)(ii), any period when the following occurs:
- i) Temperature of the exhaust vent stream from the condenser is more than 6° C above the design average exhaust vent stream temperature established as a requirement of subsection (b)(4)(C)(v) of this Section.
 - ii) Temperature of the coolant fluid exiting the condenser is more than 6° C above the design average coolant fluid

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temperature at the condenser outlet established as a requirement of subsection (b)(4)(C)(v) of this Section.

- H) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Section 724.933(f)(2)(G)(i), any period when the organic compound concentration level or readings of organic compounds in the exhaust vent stream from the carbon bed are more than 20 percent greater than the design exhaust vent stream organic compound concentration level established as a requirement of subsection (b)(4)(C)(vi) of this Section.
 - I) For a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly onsite in the control device and complies with Section 724.933(f)(2)(G)(ii), any period when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time established as a requirement of subsection (b)(4)(C)(vi) of this Section.
- 5) Explanation for each period recorded under subsection (c)(4) of this Section of the cause for control device operating parameter exceeding the design value and the measures implemented to correct the control device operation.
 - 6) For a carbon adsorption system operated subject to requirements specified in Section 724.933(g) or (h)(2), any date when existing carbon in the control device is replaced with fresh carbon.
 - 7) For a carbon adsorption system operated subject to requirements specified in Section 724.933(h)(1), a log that records the following:
 - A) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading; and
 - B) Date when existing carbon in the control device is replaced with fresh carbon.

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- 8) Date of each control device startup and shutdown.
- 9) An owner or operator designating any components of a closed-vent system as unsafe to monitor pursuant to Section 724.933(o) must record in a log that is kept in the facility operating record the identification of closed-vent system components that are designated as unsafe to monitor in accordance with the requirements of Section 724.933(o), an explanation for each closed-vent system component stating why the closed-vent system component is unsafe to monitor, and the plan for monitoring each closed-vent system component.
- 10) When each leak is detected, as specified in Section 724.933(l), the following information must be recorded:
 - A) The instrument identification number; the closed-vent system component identification number; and the operator name, initials, or identification number.
 - B) The date the leak was detected and the date of first attempt to repair the leak.
 - C) The date of successful repair of the leak.
 - D) Maximum instrument reading measured by Reference Method 21 (Determination of Volatile Organic Compound Leaks) of appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), after it is successfully repaired or determined to be nonrepairable.
 - E) “Repair delayed” and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
 - i) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

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- ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.
- d) Records of the monitoring, operating, and inspection information required by subsections (c)(3) through (c)(10) of this Section must be kept at least three years following the date of each occurrence, measurement, corrective action, or record.
- e) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Agency must specify the appropriate recordkeeping requirements.
- f) Up-to-date information and data used to determine whether or not a process vent is subject to the requirements in Section 724.932, including supporting documentation as required by Section 724.934(d)(2), when application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced is used, must be recorded in a log that is kept in the facility operating record.

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

Section 724.936 Reporting Requirements

- a) A semiannual report must be submitted by owners and operators subject to the requirements of this Subpart AA to the Agency by dates specified in the RCRA permit. The report must include the following information:
 - 1) The USEPA identification number (35 Ill. Adm. Code 722.112), name, and address of the facility.
 - 2) For each month during the semiannual reporting period the following:
 - A) Dates when the control device did the following:
 - i) Exceeded or operated outside of the design specifications, as defined in Section 724.935(c)(4); and

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- ii) Such exceedances were not corrected within 24 hours, or that a flare operated with visible emissions, as defined by Reference Method 22 monitoring;
 - B) The duration and cause of each exceedance or visible emissions; and
 - C) Any corrective measures taken.
- b) If during the semiannual reporting period, the control device does not exceed or operate outside of the design specifications, as defined in Section 724.935(c)(4), for more than 24 hours or a flare does not operate with visible emissions, as defined in Section 724.933(d), a report to the Agency is not required.

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

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

Section 724.981 Definitions

As used in this Subpart CC, all terms will have the meaning given to them in 35 Ill. Adm. Code 725.981; section 1004 of the federal Resource Conservation and Recovery Act (42 USC 6903), incorporated by reference in 35 Ill. Adm. Code 720.111; and 35 Ill. Adm. Code 720 through ~~728-726-726728.~~

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

Section 724.982 Standards: General

- a) This Section applies to the management of hazardous waste in tanks, surface impoundments, and containers subject to this Subpart CC.
- b) The owner or operator must control air pollutant emissions from each waste management unit in accordance with the standards specified in Sections 724.984 through 724.987, as applicable to the waste management unit, except as provided for in subsection (c) of this Section.

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- c) A tank, surface impoundment, or container is exempt from standards specified in Sections 724.984 through 724.987, as applicable, provided that all hazardous waste placed in the waste management unit is one of the following:
 - 1) A tank, surface impoundment, or container for which all hazardous waste entering the unit has an average VO concentration at the point of waste origination of less than 500 parts per million by weight (ppmw). The average VO concentration must be determined by the procedures specified in Section 724.983(a). The owner or operator must review and update, as necessary, this determination at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the unit.
 - 2) A tank, surface impoundment, or container for which the organic content of all the hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves any one of the following conditions:
 - A) The process removes or destroys the organics contained in the hazardous waste to a level such that the average VO concentration of the hazardous waste at the point of waste treatment is less than the exit concentration limit (C_t) established for the process. The average VO concentration of the hazardous waste at the point of waste treatment and the exit concentration limit for the process must be determined using the procedures specified in Section 724.983(b).
 - B) The process removes or destroys the organics contained in the hazardous waste to a level such that the organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the average VO concentration of the hazardous waste at the point of waste treatment is less than 100 ppmw. The organic reduction efficiency for the process and the average VO concentration of the hazardous waste at the point of waste treatment must be determined using the procedures specified in Section 724.983(b).
 - C) The process removes or destroys the organics contained in the

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

- D) The process is a biological process that destroys or degrades the organics contained in the hazardous waste so that either of the following conditions are met:
 - i) The organic reduction efficiency (R) for the process is equal to or greater than 95 percent, and the organic biodegradation efficiency (R_{bio}) for the process is equal to or greater than 95 percent. The organic reduction efficiency and the organic biodegradation efficiency for the process must be determined using the procedures specified in Section 724.983(b).
 - ii) The total actual organic mass biodegradation rate (MR_{bio}) for all hazardous waste treated by the process is equal to or greater than the required organic mass removal rate (RMR). The required organic mass removal rate and the actual organic mass biodegradation rate for the process must be determined using the procedures specified in Section 724.983(b).

- E) The process removes or destroys the organics contained in the hazardous waste and meets all of the following conditions:
 - i) From the point of waste origination through the point where the hazardous waste enters the treatment process, the hazardous waste is continuously managed in waste management units that use air emission controls in accordance with the standards specified in Sections 724.984 through 724.987, as applicable to the waste management unit.

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

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

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

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- i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or
 - ii) The owner or operator has designed and operates the incinerator in accordance with the interim status requirements of Subpart O of 35 Ill. Adm. Code 725.
- H) A boiler or industrial furnace for which either of the following conditions is true:
 - i) The owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 that implements the requirements of Subpart H of 35 Ill. Adm. Code 726; or
 - ii) The owner or operator has designed and operates the boiler or industrial furnace in accordance with the interim status requirements of Subpart O of 35 Ill. Adm. Code 725.
- I) For the purpose of determining the performance of an organic destruction or removal process in accordance with the conditions in each of subsections (c)(2)(A) through (c)(2)(F) of this Section, the owner or operator must account for VO concentrations determined to be below the limit of detection of the analytical method by using the following VO concentration:
 - i) If Reference Method 25D (Determination of the Volatile Organic Concentration of Waste Samples) in appendix A to 40 CFR 60 (Test Methods), incorporated by reference in 35 Ill. Adm. Code 720.111(b), is used for the analysis, one-half the blank value determined in Section 4.4 of the method or a value of 25 ppmw, whichever is less.
 - ii) If any other analytical method is used, one-half the sum of the limits of detection established for each organic constituent in the waste that has a Henry's law constant value at least 0.1 mole-fraction-in-the-gas-phase/mole-

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fraction-in-the-liquid-phase (0.1 Y/X) (which can also be expressed as 1.8×10^{-6} atmospheres/gram-mole/m³) at 25° C.

- 3) A tank or surface impoundment used for biological treatment of hazardous waste in accordance with the requirements of subsection (c)(2)(D) of this Section.
- 4) A tank, surface impoundment, or container for which all hazardous waste placed in the unit fulfills either of the following conditions:
 - A) It meets the numerical concentration limits for organic hazardous constituents, applicable to the hazardous waste, as specified in Table T to 35 Ill. Adm. Code 728; or
 - B) The organic hazardous constituents in the waste have been treated by the treatment technology established by USEPA for the waste, as set forth in 35 Ill. Adm. Code 728.142(a), or have been removed or destroyed by an equivalent method of treatment approved by the Agency pursuant to 35 Ill. Adm. Code 728.142(b).
- 5) A tank used for bulk feed of hazardous waste to a waste incinerator and all of the following conditions are met:
 - A) The tank is located inside an enclosure vented to a control device that is designed and operated in accordance with all applicable requirements specified under federal subpart FF of 40 CFR 61 (National Emission Standard for Benzene Waste Operations), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams (11 tons) per year;
 - B) The enclosure and control device serving the tank were installed and began operation prior to November 25, 1996; and
 - C) The enclosure is designed and operated in accordance with the criteria for a permanent total enclosure as specified in "Procedure T— Criteria for and Verification of a Permanent or Temporary

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Total Enclosure²² under appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b). 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 ²²Procedure T— Criteria for and Verification of a Permanent or Temporary Total Enclosure²² annually.

- d) The Agency may at any time perform or request that the owner or operator perform a waste determination for a hazardous waste managed in a tank, surface impoundment, or container that is exempted from using air emission controls under the provisions of this Section, as follows:
 - 1) The waste determination for average VO concentration of a hazardous waste at the point of waste origination must be performed using direct measurement in accordance with the applicable requirements of Section 724.983(a). The waste determination for a hazardous waste at the point of waste treatment must be performed in accordance with the applicable requirements of Section 724.983(b).
 - 2) In performing a waste determination pursuant to subsection (d)(1) of this Section, the sample preparation and analysis must be conducted as follows:
 - A) In accordance with the method used by the owner or operator to perform the waste analysis, except in the case specified in subsection (d)(2)(B) of this Section.
 - B) If the Agency determines that the method used by the owner or operator was not appropriate for the hazardous waste managed in the tank, surface impoundment, or container, then the Agency may choose an appropriate method.
 - 3) Where the owner or operator is requested to perform the waste determination, the Agency may elect to have an authorized representative

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observe the collection of the hazardous waste samples used for the analysis.

- 4) Where the results of the waste determination performed or requested by the Agency do not agree with the results of a waste determination performed by the owner or operator using knowledge of the waste, then the results of the waste determination performed in accordance with the requirements of subsection (d)(1) of this Section must be used to establish compliance with the requirements of this Subpart CC.
- 5) Where the owner or operator has used an averaging period greater than one hour for determining the average VO concentration of a hazardous waste at the point of waste origination, the Agency may elect to establish compliance with this Subpart CC by performing or requesting that the owner or operator perform a waste determination using direct measurement based on waste samples collected within a one-hour period, as follows:
 - A) The average VO concentration of the hazardous waste at the point of waste origination must be determined by direct measurement in accordance with the requirements of Section 724.983(a).
 - B) Results of the waste determination performed or requested by the Agency showing that the average VO concentration of the hazardous waste at the point of waste origination is equal to or greater than 500 ppmw must constitute noncompliance with this Subpart CC, except in a case as provided for in subsection (d)(5)(C) of this Section.
 - C) Where the average VO concentration of the hazardous waste at the point of waste origination previously has been determined by the owner or operator using an averaging period greater than one hour to be less than 500 ppmw but because of normal operating process variations the VO concentration of the hazardous waste determined by direct measurement for any given one-hour period may be equal to or greater than 500 ppmw, information that was used by the owner or operator to determine the average VO concentration of the hazardous waste (e.g., test results, measurements, calculations,

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and other documentation) and recorded in the facility records in accordance with the requirements of Section 724.983(a) and Section 724.989 must be considered by the Agency together with the results of the waste determination performed or requested by the Agency in establishing compliance with this Subpart CC.

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

Section 724.986 Standards: Containers

- a) The provisions of this Section apply to the control of air pollutant emissions from containers for which Section 724.982(b) references the use of this Section for such air emission control.
- b) General requirements.
 - 1) The owner or operator must control air pollutant emissions from each container subject to this Section in accordance with the following requirements, as applicable to the container, except when the special provisions for waste stabilization processes specified in subsection (b)(2) of this Section apply to the container.
 - A) For a container having a design capacity greater than 0.1 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.
 - 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

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this Section.

- 2) When a container having a design capacity greater than 0.1 m³ (26 gal) is used for treatment of a hazardous waste by a waste stabilization process, the owner or operator must control air pollutant emissions from the container in accordance with the Container Level 3 standards specified in subsection (e) of this Section at those times during the waste stabilization process when the hazardous waste in the container is exposed to the atmosphere.
- c) Container Level 1 standards.
- 1) A container using Container Level 1 controls is one of the following:
 - A) A container that meets the applicable USDOT regulations on packaging hazardous materials for transportation, as specified in subsection (f) of this Section.
 - B) A container equipped with a cover and closure devices that form a continuous barrier over the container openings so that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a "portable tank" or bulk cargo container equipped with a screw-type cap).
 - C) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container so that no hazardous waste is exposed to the atmosphere. One example of such a barrier is application of a suitable organic-vapor suppressing foam.
 - 2) A container used to meet the requirements of subsection (c)(1)(B) or (c)(1)(C) of this Section must be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere

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

- 3) Whenever a hazardous waste is in a container using Container Level 1 controls, the owner or operator must install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position, except as follows:
 - A) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container, as follows:
 - i) In the case when the container is filled to the intended final level in one continuous operation, the owner or operator must promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.
 - ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the owner or operator must promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.
 - B) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container, as follows:

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

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

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

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(USEPA Forms 8700-22 and 8700-22A), as required under Section 724.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (c)(4)(C) of this Section.

- B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator must visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (c)(4)(C) of this Section.
 - C) When a defect is detected for the container, cover, or closure devices, the owner or operator must make first efforts at repair of the defect no later than 24 hours after detection and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.
- 5) The owner or operator must maintain at the facility a copy of the procedure used to determine that containers with capacity of 0.46 m³ (120 gal) or greater that do not meet applicable USDOT regulations, as specified in subsection (f) of this Section, are not managing hazardous waste in light material service.
- d) Container Level 2 standards.
- 1) A container using Container Level 2 controls is one of the following:
 - A) A container that meets the applicable USDOT regulations on packaging hazardous materials for transportation, as specified in subsection (f) of this Section.

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

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level in one continuous operation, the owner or operator must promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.

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

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- C) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Examples of such activities include those times when a worker needs to open a port to measure the depth of or sample the material in the container, or when a worker needs to open a manhole hatch to access equipment inside the container. Following completion of the activity, the owner or operator must promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.
 - D) Opening of a spring-loaded, pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device must be designed to operate with no detectable organic emission when the device is secured in the closed position. The settings at which the device opens must be established so that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the owner or operator based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the internal pressure of the container exceeds the internal pressure operating range for the container as a result of loading operations or diurnal ambient temperature fluctuations.
 - E) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.
- 4) The owner or operator of containers using Container Level 2 controls must inspect the containers and their covers and closure devices, as follows:

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- A) In the case when a hazardous waste already is in the container at the time the owner or operator first accepts possession of the container at the facility and the container is not emptied within 24 hours after the container is accepted at the facility (i.e., it does not meet the conditions for an empty container as specified in 35 Ill. Adm. Code 721.107(b)), the owner or operator must visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. The container visual inspection must be conducted on or before the date on which the container is accepted at the facility (i.e., the date when the container becomes subject to the Subpart CC container standards). For the purposes of this requirement, the date of acceptance is the date of signature that the facility owner or operator enters on Item 20 of the Uniform Hazardous Waste Manifest, in the appendix to 40 CFR 262 (Uniform Hazardous Waste Manifest and Instructions (USEPA Forms 8700-22 and 8700-22A and Their Instructions)), as required under Section 724.171. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (d)(4)(C) of this Section.
- B) In the case when a container used for managing hazardous waste remains at the facility for a period of one year or more, the owner or operator must visually inspect the container and its cover and closure devices initially and thereafter, at least once every 12 months, to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (d)(4)(C) of this Section.
- C) When a defect is detected for the container, cover, or closure devices, the owner or operator must make first efforts at repair of the defect no later than 24 hours after detection, and repair must be completed as soon as possible but no later than five calendar days after detection. If repair of a defect cannot be completed within

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five calendar days, then the hazardous waste must be removed from the container and the container must not be used to manage hazardous waste until the defect is repaired.

- e) Container Level 3 standards.
 - 1) A container using Container Level 3 controls is one of the following:
 - A) A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of subsection (e)(2)(B) of this Section.
 - B) A container that is vented inside an enclosure that is exhausted through a closed-vent system to a control device in accordance with the requirements of subsections (e)(2)(A) and (e)(2)(B) of this Section.
 - 2) The owner or operator must meet the following requirements, as applicable to the type of air emission control equipment selected by the owner or operator:
 - A) The container enclosure must be designed and operated in accordance with the criteria for a permanent total enclosure, as specified in "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" under appendix B to 40 CFR 52.741 (VOM Measurement Techniques for Capture Efficiency), incorporated by reference in 35 Ill. Adm. Code 720.111(b). The enclosure may have permanent or temporary openings to allow worker access; passage of containers through the enclosure by conveyor or other mechanical means; entry of permanent mechanical or electrical equipment; or direct airflow into the enclosure. The owner or operator must perform the verification procedure for the enclosure, as specified in Section 5.0 to "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" initially when the enclosure is first installed and, thereafter, annually.
 - B) The closed-vent system and control device must be designed and

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operated in accordance with the requirements of Section 724.987.

- 3) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of subsection (e)(1) of this Section.
 - 4) Owners and operators using Container Level 3 controls in accordance with the provisions of this Subpart CC must inspect and monitor the closed-vent systems and control devices, as specified in Section 724.987.
 - 5) Owners and operators that use Container Level 3 controls in accordance with the provisions of this Subpart CC must prepare and maintain the records specified in Section 724.989(d).
 - 6) The transfer of hazardous waste into or out of a container using Container Level 3 controls must be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that USEPA considers to meet the requirements of this subsection (e)(6) include using any one of the following: the use of a submerged-fill pipe or other submerged-fill method to load liquids into the container; the use of a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or the use of a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.
- f) For the purpose of compliance with subsection (c)(1)(A) or (d)(1)(A) of this Section, containers must be used that meet the applicable USDOT regulations on packaging hazardous materials for transportation, as follows:
- 1) The container meets the applicable requirements specified by USDOT in 49 CFR 178 (Specifications for Packaging), or 49 CFR 179 (Specifications for Tank Cars), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).

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- 2) Hazardous waste is managed in the container in accordance with the applicable requirements specified by USDOT in subpart B of 49 CFR 107 (Exemptions), 49 CFR 172 (Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements), 49 CFR 173 (Shippers ~~—~~ General Requirements for Shipments and Packages), and 49 CFR 180 (Continuing Qualification and Maintenance of Packagings), each incorporated by reference in 35 Ill. Adm. Code 720.111(b).
 - 3) For the purpose of complying with this Subpart CC, no exceptions to the 49 CFR 178 or 179 regulations are allowed, except as provided for in subsection (f)(4) of this Section.
 - 4) For a lab pack that is managed in accordance with the USDOT requirements of 49 CFR 178 (Specifications for Packagings), for the purpose of complying with this Subpart CC, an owner or operator may comply with the exceptions for combination packagings specified by USDOT in 49 CFR 173.12(b) (Exceptions for Shipments of Waste Materials), incorporated by reference in 35 Ill. Adm. Code 720.111(b).
- g) To determine compliance with the no detectable organic emissions requirement of subsection (d)(1)(B) of this Section, the procedure specified in Section 724.983(d) must be used.
- 1) Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, its cover, and associated closure devices, as applicable to the container, must be checked. Potential leak interfaces that are associated with containers include, but are not limited to, the following: the interface of the cover rim and the container wall; the periphery of any opening on the container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.
 - 2) The test must be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous wastes expected to be managed in this type of container. During the test, the container cover and

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closure devices must be secured in the closed position.

- h) Procedure for determining a container to be vapor-tight using Reference Method 27 for the purpose of complying with subsection (d)(1)(C) of this Section.
 - 1) The test must be performed in accordance with Reference Method 27.
 - 2) A pressure measurement device must be used that has a precision of ± 2.5 mm (0.098 in) water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.
 - 3) If the test results determined by Reference Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals (0.11 psig) within five minutes after it is pressurized to a minimum of 4,500 Pascals (0.65 psig), then the container is determined to be vapor-tight.

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

SUBPART DD: CONTAINMENT BUILDINGS

Section 724.1101 Design and Operating Standards

- a) All containment buildings must comply with the following design and operating standards:
 - 1) The containment building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements (e.g., precipitation, wind, run on) and to assure containment of managed wastes.
 - 2) The floor and containment walls of the unit, including the secondary containment system if required under subsection (b) of this Section, must be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment

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walls. The unit must be designed so that it has sufficient structural strength to prevent collapse or other failure. All surfaces to be in contact with hazardous wastes must be chemically compatible with those wastes. The containment building must meet the structural integrity requirements established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM). If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that meet the following criteria:

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

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- A) The primary barrier must be sloped to drain liquids to the associated collection system; and
 - B) Liquids and waste must be collected and removed to minimize hydraulic head on the containment system at the earliest practicable time.
- 3) A secondary containment system including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system that is capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practicable time.
- A) The requirements of the leak detection component of the secondary containment system are satisfied by installation of a system that is, at a minimum, as follows:
 - i) It is constructed with a bottom slope of 1 percent or more; and
 - ii) It is constructed of a granular drainage material with a hydraulic conductivity of 1×10^{-2} cm/sec or more and a thickness of 12 inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10^{-5} 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

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certain conditions. A containment building can serve as an external liner system for a tank, provided it meets the requirements of Section 724.193(e)(1). In addition, the containment building must meet the requirements of Section 724.193(b) and Sections 724.193(c)(1) and (c)(2) to be an acceptable secondary containment system for a tank.)

- 4) For existing units other than 90-day generator units, USEPA may delay the secondary containment requirement for up to two years, based on a demonstration by the owner or operator that the unit substantially meets the standards of this Subpart DD. In making this demonstration, the owner or operator must have done the following:
 - A) Provided written notice to USEPA of their request by November 16, 1992. This notification must have described the unit and its operating practices with specific reference to the performance of existing systems, and specific plans for retrofitting the unit with secondary containment;
 - B) Responded to any comments from USEPA on these plans within 30 days; and
 - C) Fulfilled the terms of the revised plans, if such plans are approved by USEPA.
- c) An owner or operator of a containment building must do the following:
 - 1) It must use controls and practice to ensure containment of the hazardous waste within the unit, and at a minimum:
 - A) Maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be release from the primary barrier;
 - B) Maintain the level of the stored or treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;

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- C) Take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area must be designated to decontaminate equipment and any rinsate must be collected and properly managed; and
- D) Take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (see Reference Method 22 (Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares) in appendix A to 40 CFR 60 (Test Methods)), incorporated by reference in 35 Ill. Adm. Code 720.111(b). In addition, all associated particulate collection devices (e.g., fabric filter, electrostatic precipitator, etc.) must be operated and maintained with sound air pollution control practices (see 40 CFR 60 for guidance). This state of no visible emissions must be maintained effectively at all times during routine operating and maintenance conditions, including when vehicles and personnel are entering and exiting the unit.

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

- 2) It must obtain and keep on site a certification by a qualified Professional Engineer that the containment building design meets the requirements of subsections (a) through (c) of this Section.
- 3) Throughout the active life of the containment building, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, it must repair the condition promptly, in accordance with the following procedures:
 - A) Upon detection of a condition that has led to a release of hazardous

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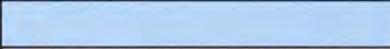
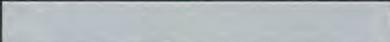
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wastes (e.g., upon detection of leakage from the primary barrier) the owner or operator must do the following:

- i) Enter a record of the discovery in the facility operating record;
 - ii) Immediately remove the portion of the containment building affected by the condition from service;
 - iii) Determine what steps must be taken to repair the containment building, remove any leakage from the secondary collection system, and establish a schedule for accomplishing the cleanup and repairs; and
 - iv) Within seven days after the discovery of the condition, notify the Agency in writing of the condition, and within 14 working days, provide a written notice to the Agency with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work.
- B) The Agency must review the information submitted, make a determination in accordance with Section 34 of the Act, regarding whether the containment building must be removed from service completely or partially until repairs and cleanup are complete, and notify the owner or operator of the determination and the underlying rationale in writing.
- C) Upon completing all repairs and cleanup the owner and operator must notify the Agency in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with subsection (c)(3)(A)(iv) of this Section.
- 4) It must inspect and record in the facility's operating record, at least once every seven days, data gathered from monitoring and leak detection equipment, as well as the containment building and the area immediately surrounding the containment building, to detect signs of releases of

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