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

SUBPART A: GENERAL PROVISIONS

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

SUBPART B: GENERAL FACILITY STANDARDS

Section
724.110 Applicability
724.111 USEPA Identification Number
724.112 Required Notices
724.113 General Waste Analysis
724.114 Security
724.115 General Inspection Requirements
724.116 Personnel Training
724.117 General Requirements for Ignitable, Reactive, or Incompatible Wastes
724.118 Location Standards
724.119 Construction Quality Assurance Program

SUBPART C: PREPAREDNESS AND PREVENTION

Section
724.130 Applicability
724.131 Design and Operation of Facility
724.132 Required Equipment
724.133 Testing and Maintenance of Equipment
724.134 Access to Communications or Alarm System
724.135 Required Aisle Space
724.137 Arrangements with Local Authorities

SUBPART D: CONTINGENCY PLAN AND EMERGENCY PROCEDURES

Section
724.150 Applicability
724.151 Purpose and Implementation of Contingency Plan
724.152 Content of Contingency Plan

724.153 Copies of Contingency Plan
724.154 Amendment of Contingency Plan
724.155 Emergency Coordinator
724.156 Emergency Procedures

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

Section
724.170 Applicability
724.171 Use of Manifest System
724.172 Manifest Discrepancies
724.173 Operating Record
724.174 Availability, Retention, and Disposition of Records
724.175 Annual Facility Activities Report
724.176 Unmanifested Waste Report
724.177 Additional Reports

SUBPART F: RELEASES FROM SOLID WASTE MANAGEMENT UNITS

Section
724.190 Applicability
724.191 Required Programs
724.192 Groundwater Protection Standard
724.193 Hazardous Constituents
724.194 Concentration Limits
724.195 Point of Compliance
724.196 Compliance Period
724.197 General Groundwater Monitoring Requirements
724.198 Detection Monitoring Program
724.199 Compliance Monitoring Program
724.200 Corrective Action Program
724.201 Corrective Action for Solid Waste Management Units

SUBPART G: CLOSURE AND POST-CLOSURE CARE

Section
724.210 Applicability
724.211 Closure Performance Standard
724.212 Closure Plan; Amendment of Plan
724.213 Closure; Time Allowed for Closure
724.214 Disposal or Decontamination of Equipment, Structures, and Soils
724.215 Certification of Closure
724.216 Survey Plat
724.217 Post-Closure Care and Use of Property
724.218 Post-Closure Care Plan; Amendment of Plan
724.219 Post-Closure Notices
724.220 Certification of Completion of Post-Closure Care

SUBPART H: FINANCIAL REQUIREMENTS

Section	
724.240	Applicability
724.241	Definitions of Terms as Used in This Subpart
724.242	Cost Estimate for Closure
724.243	Financial Assurance for Closure
724.244	Cost Estimate for Post-Closure Care
724.245	Financial Assurance for Post-Closure Care
724.246	Use of a Mechanism for Financial Assurance of Both Closure and Post-Closure Care
724.247	Liability Requirements
724.248	Incapacity of Owners or Operators, Guarantors, or Financial Institutions
724.251	Wording of the Instruments

SUBPART I: USE AND MANAGEMENT OF CONTAINERS

Section	
724.270	Applicability
724.271	Condition of Containers
724.272	Compatibility of Waste with Container
724.273	Management of Containers
724.274	Inspections
724.275	Containment
724.276	Special Requirements for Ignitable or Reactive Waste
724.277	Special Requirements for Incompatible Wastes
724.278	Closure
724.279	Air Emission Standards

SUBPART J: TANK SYSTEMS

Section	
724.290	Applicability
724.291	Assessment of Existing Tank System Integrity
724.292	Design and Installation of New Tank Systems or Components
724.293	Containment and Detection of Releases
724.294	General Operating Requirements
724.295	Inspections
724.296	Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank Systems
724.297	Closure and Post-Closure Care
724.298	Special Requirements for Ignitable or Reactive Waste
724.299	Special Requirements for Incompatible Wastes
724.300	Air Emission Standards

SUBPART K: SURFACE IMPOUNDMENTS

Section	
724.320	Applicability
724.321	Design and Operating Requirements
724.322	Action Leakage Rate
724.323	Response Actions
724.326	Monitoring and Inspection
724.327	Emergency Repairs; Contingency Plans
724.328	Closure and Post-Closure Care
724.329	Special Requirements for Ignitable or Reactive Waste
724.330	Special Requirements for Incompatible Wastes
724.331	Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and F027
724.332	Air Emission Standards

SUBPART L: WASTE PILES

Section	
724.350	Applicability
724.351	Design and Operating Requirements
724.352	Action Leakage Rate
724.353	Response Action Plan
724.354	Monitoring and Inspection
724.356	Special Requirements for Ignitable or Reactive Waste
724.357	Special Requirements for Incompatible Wastes
724.358	Closure and Post-Closure Care
724.359	Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and F027

SUBPART M: LAND TREATMENT

Section	
724.370	Applicability
724.371	Treatment Program
724.372	Treatment Demonstration
724.373	Design and Operating Requirements
724.376	Food-Chain Crops
724.378	Unsaturated Zone Monitoring
724.379	Recordkeeping
724.380	Closure and Post-Closure Care
724.381	Special Requirements for Ignitable or Reactive Waste
724.382	Special Requirements for Incompatible Wastes
724.383	Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and F027

SUBPART N: LANDFILLS

Section	
724.400	Applicability
724.401	Design and Operating Requirements
724.402	Action Leakage Rate
724.403	Monitoring and Inspection
724.404	Response Actions
724.409	Surveying and Recordkeeping
724.410	Closure and Post-Closure Care
724.412	Special Requirements for Ignitable or Reactive Waste
724.413	Special Requirements for Incompatible Wastes
724.414	Special Requirements for Bulk and Containerized Liquids
724.415	Special Requirements for Containers
724.416	Disposal of Small Containers of Hazardous Waste in Overpacked Drums (Lab Packs)
724.417	Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and F027

SUBPART O: INCINERATORS

Section	
724.440	Applicability
724.441	Waste Analysis
724.442	Principal Organic Hazardous Constituents (POHCs)
724.443	Performance Standards
724.444	Hazardous Waste Incinerator Permits
724.445	Operating Requirements
724.447	Monitoring and Inspections
724.451	Closure

SUBPART S: SPECIAL PROVISIONS FOR CLEANUP

Section	
724.650	Applicability of Corrective Action Management Unit Regulations
724.651	Grandfathered Corrective Action Management Units
724.652	Corrective Action Management Units
724.653	Temporary Units
724.654	Staging Piles
724.655	Disposal of CAMU-Eligible Wastes in Permitted Hazardous Waste Landfills

SUBPART W: DRIP PADS

Section	
724.670	Applicability
724.671	Assessment of Existing Drip Pad Integrity
724.672	Design and Installation of New Drip Pads

724.673 Design and Operating Requirements
724.674 Inspections
724.675 Closure

SUBPART X: MISCELLANEOUS UNITS

Section
724.700 Applicability
724.701 Environmental Performance Standards
724.702 Monitoring, Analysis, Inspection, Response, Reporting, and Corrective Action
724.703 Post-Closure Care

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

Section
724.930 Applicability
724.931 Definitions
724.932 Standards: Process Vents
724.933 Standards: Closed-Vent Systems and Control Devices
724.934 Test Methods and Procedures
724.935 Recordkeeping Requirements
724.936 Reporting Requirements

SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

Section
724.950 Applicability
724.951 Definitions
724.952 Standards: Pumps in Light Liquid Service
724.953 Standards: Compressors
724.954 Standards: Pressure Relief Devices in Gas/Vapor Service
724.955 Standards: Sampling Connecting Systems
724.956 Standards: Open-ended Valves or Lines
724.957 Standards: Valves in Gas/Vapor or Light Liquid Service
724.958 Standards: Pumps, Valves, Pressure Relief Devices, and Other Connectors
724.959 Standards: Delay of Repair
724.960 Standards: Closed-Vent Systems and Control Devices
724.961 Alternative Percentage Standard for Valves
724.962 Skip Period Alternative for Valves
724.963 Test Methods and Procedures
724.964 Recordkeeping Requirements
724.965 Reporting Requirements

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

Section
724.980 Applicability

724.981 Definitions
724.982 Standards: General
724.983 Waste Determination Procedures
724.984 Standards: Tanks
724.985 Standards: Surface Impoundments
724.986 Standards: Containers
724.987 Standards: Closed-Vent Systems and Control Devices
724.988 Inspection and Monitoring Requirements
724.989 Recordkeeping Requirements
724.990 Reporting Requirements
724.991 Alternative Control Requirements for Tanks (Repealed)

SUBPART DD: CONTAINMENT BUILDINGS

Section
724.1100 Applicability
724.1101 Design and Operating Standards
724.1102 Closure and Post-Closure Care

SUBPART EE: HAZARDOUS WASTE MUNITIONS AND EXPLOSIVES STORAGE

Section
724.1200 Applicability
724.1201 Design and Operating Standards
724.1202 Closure and Post-Closure Care

724.APPENDIX A Recordkeeping Instructions
724.APPENDIX B EPA Report Form and Instructions (Repealed)
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, 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. 11726, effective August 9, 2016; amended in R17-14/R17-15/R18-12/R18-31 at 42 Ill. Reg. 22614, effective November 19, 2018; amended in R19-3 at 43 Ill. Reg. 601, effective December 6, 2018.

SUBPART A: GENERAL PROVISIONS

Section 724.101 Purpose, Scope, and Applicability

a) The purpose of this Part is to establish minimum standards that define the acceptable management of hazardous waste.

b) The standards in this Part apply to owners and operators of all facilities that treat, store, or dispose of hazardous waste, except as specifically provided otherwise in this Part or 35 Ill. Adm. Code 721.

c) This Part applies to a person disposing of hazardous waste by means of ocean disposal subject to a permit issued pursuant to the federal Marine Protection, Research and Sanctuaries Act (33 USC 1401 et seq.) only to the extent they are included in a RCRA permit by rule granted to such a person pursuant to 35 Ill. Adm. Code 703.141. A "RCRA permit" is a permit required by Section 21(f) of the Environmental Protection Act and 35 Ill. Adm. Code 703.121.

BOARD NOTE: This Part does apply to the treatment or storage of hazardous waste before it is loaded onto an ocean vessel for incineration or disposal at sea.

d) This Part applies to a person disposing of hazardous waste by means of underground injection subject to a permit issued by the Agency pursuant to Section 12(g) of the Environmental Protection Act only to the extent they are required by Subpart F of 35 Ill. Adm. Code 704.

BOARD NOTE: This Part does apply to the above-ground treatment or storage of hazardous waste before it is injected underground.

e) This Part applies to the owner or operator of a POTW (publicly owned treatment works) that treats, stores, or disposes of hazardous waste only to the extent included in a RCRA permit by rule granted to such a person pursuant to 35 Ill. Adm. Code 703.141.

f) This subsection (f) corresponds with 40 CFR 264.1(f), which provides that the federal regulations do not apply to T/S/D activities in authorized states, except under limited, enumerated circumstances. This statement maintains structural consistency with USEPA rules.

g) This Part does not apply to the following:

1) The owner or operator of a facility permitted by the Agency pursuant to Section 21 of the Environmental Protection Act to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation pursuant to this Part by 35 Ill. Adm. Code 722.114.

BOARD NOTE: The owner or operator may be subject to 35 Ill. Adm. Code 807 and may have to have a supplemental permit pursuant to 35 Ill. Adm. Code 807.210.

2) The owner or operator of a facility managing recyclable materials described in 35 Ill. Adm. Code 721.106(a)(2) through (a)(4) (except to the extent that requirements of this Part are referred to in Subpart C, F, G, or H of 35 Ill. Adm. Code 726 or 35 Ill. Adm. Code 739).

3) A generator accumulating waste on-site in compliance with 35 Ill. Adm. Code 722.114, 722.115, 722.116, or 722.117.

4) A farmer disposing of waste pesticides from the farmer's own use in compliance with 35 Ill. Adm. Code 722.170.

5) The owner or operator of a totally enclosed treatment facility, as defined in 35 Ill. Adm. Code 720.110.

6) The owner or operator of an elementary neutralization unit or a wastewater treatment unit, as defined in 35 Ill. Adm. Code 720.110, provided that if the owner or operator is diluting hazardous ignitable (D001) wastes (other than the D001 High TOC Subcategory defined in Table T to 35 Ill. Adm. Code

728) or reactive (D003) waste to remove the characteristic before land disposal, the owner or operator must comply with the requirements set out in Section 724.117(b).

7) This subsection (g)(7) corresponds with 40 CFR 264.1(g)(7), reserved by USEPA. This statement maintains structural consistency with USEPA rules.

8) Immediate Response

A) Except as provided in subsection (g)(8)(B), a person engaged in treatment or containment activities during immediate response to any of the following situations:

i) A discharge of a hazardous waste;

ii) An imminent and substantial threat of a discharge of hazardous waste;

iii) A discharge of a material that becomes a hazardous waste when discharged; or

iv) An immediate threat to human health, public safety, property, or the environment from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosives or munitions emergency response specialist as defined in 35 Ill. Adm. Code 720.110.

B) An owner or operator of a facility otherwise regulated by this Part must comply with all applicable requirements of Subparts C and D.

C) Any person that is covered by subsection (g)(8)(A) and that continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this Part and 35 Ill. Adm. Code 702, 703, and 705 for those activities.

D) In the case of an explosives or munitions emergency response, if a federal, State, or local official acting within the scope of his or her official responsibilities or an explosives or munitions emergency response specialist determines that immediate removal of the material or waste is necessary to adequately protect human health or the environment, that official or specialist may authorize the removal of the material or waste by transporters that do not have USEPA identification numbers and without the preparation of a manifest. In the case of emergencies involving military munitions, the responding military emergency response specialist's

organizational unit must retain records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.

9) A transporter storing manifested shipments of hazardous waste in containers meeting 35 Ill. Adm. Code 722.130 at a transfer facility for a period of ten days or less.

10) The addition of absorbent materials to waste in a container (as defined in 35 Ill. Adm. Code 720) or the addition of waste to absorbent material in a container, provided these actions occur at the time waste is first placed in the container, and Sections 724.117(b), 724.271, and 724.272 are complied with.

11) A universal waste handler or universal waste transporter (as defined in 35 Ill. Adm. Code 720.110) that handles any of the wastes listed below is subject to regulation pursuant to 35 Ill. Adm. Code 733 when handling the following universal wastes:

A) Batteries, as described in 35 Ill. Adm. Code 733.102;

B) Pesticides, as described in 35 Ill. Adm. Code 733.103;

C) Mercury-containing equipment, as described in 35 Ill. Adm. Code 733.104; and

D) Lamps, as described in 35 Ill. Adm. Code 733.105.

h) This Part applies to owners and operators of facilities that treat, store, or dispose of hazardous wastes referred to in 35 Ill. Adm. Code 728.

i) 35 Ill. Adm. Code 726.505 identifies when this Part applies to the storage of military munitions classified as solid waste pursuant to 35 Ill. Adm. Code 726.302. The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in 35 Ill. Adm. Code 702, 703, 705, 720 through 728, and 738.

j) Subparts B, C, and D and Section 724.201 do not apply to remediation waste management sites. (However, some remediation waste management sites may be a part of a facility that is subject to a traditional RCRA permit because the facility is also treating, storing, or disposing of hazardous wastes that are not remediation wastes. In these cases, Subparts B, C, and D, and Section 724.201 do apply to the facility subject to the traditional RCRA permit.) Instead of Subparts B, C, and D, the owner or operator of a remediation waste management site must comply with the following requirements:

1) The owner or operator must obtain a USEPA identification number by applying to USEPA Region 5 using USEPA Form 8700-12, as described in Section 724.111;

2) The owner or operator must obtain a detailed chemical and physical analysis of a representative sample of the hazardous remediation wastes to be managed at the site. At a minimum, the analysis must contain all of the information that must be known to treat, store, or dispose of the waste according to this Part and 35 Ill. Adm. Code 728, and the owner or operator must keep the analysis accurate and up to date;

3) The owner or operator must prevent people who are unaware of the danger from entering the site, and the owner or operator must minimize the possibility for unauthorized people or livestock entering onto the active portion of the remediation waste management site, unless the owner or operator can demonstrate the following to the Agency:

   A) That physical contact with the waste, structures, or equipment within the active portion of the remediation waste management site will not injure people or livestock that may enter the active portion of the remediation waste management site; and

   B) That disturbance of the waste or equipment by people or livestock that enter onto the active portion of the remediation waste management site will not cause a violation of the requirements of this Part;

4) The owner or operator must inspect the remediation waste management site for malfunctions, deterioration, operator errors, and discharges that may be causing or may lead to a release of hazardous waste constituents to the environment or a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment, and the owner or operator must remedy the problem before it leads to a human health or environmental hazard. Where a hazard is imminent or has already occurred, the owner or operator must immediately take remedial action;

5) The owner or operator must provide personnel with classroom or on-the-job training on how to perform their duties in a way that ensures the remediation waste management site complies with this Part, and on how to respond effectively to emergencies;

6) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste, and the owner or operator must prevent threats to human health and the environment from ignitable, reactive, and incompatible waste;

7) For remediation waste management sites subject to regulation under Subparts I through O and Subpart X, the owner or operator must design, construct, operate, and maintain a unit within a 100-year floodplain to prevent washout of any hazardous waste by a 100-year flood, unless the owner or operator can meet the requirements of Section 724.118(b);

8) The owner or operator must not place any non-containerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground mine, or cave;

9) The owner or operator must develop and maintain a construction quality assurance program for all surface impoundments, waste piles, and landfill units that are required to comply with Sections 724.321(c) and (d), 724.351(c) and (d), and 724.401(c) and (d) at the remediation waste management site, according to Section 724.119;

10) The owner or operator must develop and maintain procedures to prevent accidents and a contingency and emergency plan to control accidents that occur. These procedures must address proper design, construction, maintenance, and operation of remediation waste management units at the site. The goal of the plan must be to minimize the possibility of, and the hazards from, a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment. The plan must explain specifically how to treat, store, and dispose of the hazardous remediation waste in question, and must be implemented immediately whenever a fire, explosion, or release of hazardous waste or hazardous waste constituents occurs that could threaten human health or the environment;

11) The owner or operator must designate at least one employee, either on the facility premises or on call (that is, available to respond to an emergency by reaching the facility quickly), to coordinate all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan;

12) The owner or operator must develop, maintain, and implement a plan to meet the requirements in subsections (j)(2) through (j)(6) and (j)(9) through (j)(10); and

13) The owner or operator must maintain records documenting compliance with subsections (j)(1) through (j)(12).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.103 Relationship to Interim Status Standards

A facility owner or operator that has fully complied with the requirements for interim status—as defined in Section 3005(e) of RCRA and regulations under Subpart C of 35 Ill. Adm. Code 703—must comply with the regulations specified in 35 Ill. Adm. Code 725 in lieu of the regulations in this Part, until final administrative disposition of his permit application is made, except as provided under Subpart S of this Part.

BOARD NOTE: As stated in Section 21(f) of the Illinois Environmental Protection Act, the treatment, storage, or disposal of hazardous waste is prohibited, except in accordance with a RCRA permit. 35 Ill. Adm. Code 703, Subpart C provides for the continued operation of an existing facility that meets certain conditions until final administrative disposition of the owner's or operator's permit application.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.104 Electronic Reporting

The filing of any document pursuant to any provision of this Part as an electronic document is subject to 35 Ill. Adm. Code 720.104.

BOARD NOTE: Derived from 40 CFR 3, as added, and 40 CFR 271.10(b), 271.11(b), and 271.12(h) (2005), as amended at 70 Fed. Reg. 59848 (Oct. 13, 2005).

(Source: Added at 31 Ill. Reg. 893, effective December 20, 2006)

SUBPART B: GENERAL FACILITY STANDARDS

Section 724.110 Applicability

a) The regulations in this Subpart B apply to owners and operators of all hazardous waste facilities, except as provided in Section 724.101 and subsection (b).

b) Section 724.118(b) applies only to facilities subject to regulation under Subparts I through O and X.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.111 USEPA Identification Number

Every facility owner or operator must apply to USEPA Region 5 for a USEPA identification number using USEPA Form 8700-12. The facility owner or operator must obtain a copy of the form from the Agency, Bureau of Land (217-782-6762), and submit a completed copy of the form to the Bureau of Land, in addition to notification to USEPA Region 5.

(Source: Amended at 35 Ill. Reg. 17965, effective October 14, 2011)

Section 724.112 Required Notices

a) The owner or operator of a facility that is arranging to receive hazardous waste subject to Subpart H of 35 Ill. Adm. Code 722 from a foreign source must submit the following required notices:

1) As required by 35 Ill. Adm. Code 722.184(b), for imports where the competent authority of the country of export does not require the foreign exporter to submit to it a notification proposing export and obtain consent from USEPA and the competent authorities for the countries of transit, such owner or operator of the facility, if acting as the importer, must provide notification of the proposed transboundary movement in English to USEPA using the allowable methods listed in 35 Ill. Adm. Code 722.182(e) at least 60 days before the first shipment is expected to depart the country of export. The notification may cover up to one year of shipments of wastes having similar physical and chemical characteristics; the same United Nations/USDOT identification number from the Hazardous Materials Table in 49 CFR 172.101, incorporated by reference in 35 Ill. Adm. Code 720.111; the same USEPA hazardous waste numbers (from Subpart C or D of 35 Ill. Adm. Code 721); the waste codes from the lists in the OECD Guidance Manual, incorporated by reference in 35 Ill. Adm. Code 720.111; and being sent from the same foreign exporter.

2) As required by 35 Ill. Adm. Code 722.184(d)(2)(O), a copy of the movement document bearing all required signatures within three working days after receipt of the shipment to the foreign exporter; to the competent authorities of the countries of export and transit that control the shipment as an export and transit shipment of hazardous waste, respectively; and, on or after the electronic import-export reporting compliance date, to USEPA electronically using USEPA's Waste Import Export Tracking System (WIETS). The original of the signed movement document must be maintained at the facility for at least three years. The owner or operator of a facility may satisfy this recordkeeping requirement by retaining electronically submitted documents in the facility's account on USEPA's WIETS, provided that copies are readily available for viewing and production if requested by any USEPA or Agency inspector. No owner or operator of a facility may be held liable for the inability to produce the documents for inspection under this section if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with USEPA's WIETS for which the owner or operator of a facility bears no responsibility.

3) As required by 35 Ill. Adm. Code 722.184(f)(4), if the facility has physical control of the waste and it must be sent to an alternate facility or returned to the country of export, such owner or operator of the facility must inform USEPA, using the allowable methods listed in 35 Ill. Adm. Code

722.184(b)(1) of the need to return or arrange alternate management of the shipment.

4) As required by 35 Ill. Adm. Code 722.184(g), the facility owner or operator must do the following:

A) The owner or operator must send copies of the signed and dated confirmation of recovery or disposal, as soon as possible, but no later than 30 days after completing recovery or disposal on the waste in the shipment and no later than one calendar year following receipt of the waste, to the foreign exporter, to the competent authority of the country of export that controls the shipment as an export of hazardous waste. For shipments recycled or disposed of on or after the electronic import-export reporting compliance date, to USEPA electronically using USEPA's WIETS.

B) If the facility performed any of recovery operations R12, R13, or RC16 or disposal operations D13 through D15 or DC17, the owner or operator must promptly, within one year of shipment delivery to the final recovery or disposal facility that performed one of recovery operations R1 through R11 or RC16 or one of disposal operations D1 through D12 or DC15 or DC16, send copies of the confirmation of recovery or disposal that it receives from the final recovery or disposal facility to the competent authority of the country of export that controls the shipment as an export of hazardous waste. On or after the electronic import-export reporting compliance date, the owner or operator must make this submission to USEPA electronically using USEPA's WIETS. The recovery and disposal operations in this subsection (a)(4)(B) are defined in 35 Ill. Adm. Code 722.181.

b) The owner or operator of a facility that receives hazardous waste from an off-site source (except where the owner or operator is also the generator) must inform the generator in writing that the owner or operator has the appropriate permits for, and will accept, the waste that the generator is shipping. The owner or operator must keep a copy of this written notice as part of the operating record.

c) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator must notify the new owner or operator in writing of the requirements of this Part and 35 Ill. Adm. Code 702 and 703.

BOARD NOTE: An owner's or operator's failure to notify the new owner or operator of the requirements of this Part in no way relieves the new owner or operator of his obligation to comply with all applicable requirements.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.113 General Waste Analysis

a) Analysis

1) Before an owner or operator treats, stores, or disposes of any hazardous wastes, or non-hazardous wastes if applicable under Section 724.213(d), the owner or operator must obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, the analysis must contain all the information that must be known to treat, store, or dispose of the waste in accordance with this Part and 35 Ill. Adm. Code 728.

2) The analysis may include data developed under 35 Ill. Adm. Code 721 and existing published or documented data on the hazardous waste or on hazardous waste generated from similar processes.

BOARD NOTE: For example, the facility's records of analyses performed on the waste before the effective date of these regulations or studies conducted on hazardous waste generated from processes similar to that which generated the waste to be managed at the facility may be included in the data base required to comply with subsection (a)(1). The owner or operator of an off-site facility may arrange for the generator of the hazardous waste to supply part or all of the information required by subsection (a)(1), except as otherwise specified in 35 Ill. Adm. Code 728.107(b) and (c). If the generator does not supply the information, and the owner or operator chooses to accept a hazardous waste, the owner or operator is responsible for obtaining the information required to comply with this Section.

3) The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated as follows:

A) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous waste, or non-hazardous waste if applicable under Section 724.213(d), has changed; and

B) For off-site facilities, when the results of the inspection required in subsection (a)(4) indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.

4) The owner or operator of an off-site facility must inspect and, if necessary, analyze each hazardous waste shipment received at the facility to determine whether it matches the identity of the waste specified on the accompanying manifest or shipping paper.

b) The owner or operator must develop and follow a written waste analysis plan that describes the procedures that it will carry out to comply with subsection (a). The owner or operator must keep this plan at the facility. At a minimum, the plan must specify the following:

1) The parameters for which each hazardous waste, or non-hazardous waste if applicable under Section 724.213(d), will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with subsection (a)).

2) The test methods that will be used to test for these parameters.

3) The sampling method that will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either of the following:

A) One of the sampling methods described in Appendix A to 35 Ill. Adm. Code 721; or

B) An equivalent sampling method.

BOARD NOTE: See 35 Ill. Adm. Code 720.121.

4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date.

5) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply.

6) Where applicable, the methods that will be used to meet the additional waste analysis requirements for specific waste management methods as specified in Sections 724.117, 724.414, 724.441, 724.934(d), 724.963(d), and 724.983 and 35 Ill. Adm. Code 728.107.

7) For surface impoundments exempted from land disposal restrictions under 35 Ill. Adm. Code 728.104(a), the procedures and schedules for the following:

A) The sampling of impoundment contents;

B) The analysis of test data; and

C) The annual removal of residues that are not delisted under 35 Ill. Adm. Code 720.122 or which exhibit a characteristic of hazardous waste and either of the following is true of the waste:

i) The residues do not meet applicable treatment standards of Subpart D of 35 Ill. Adm. Code 728; or

ii) Where no treatment standards have been established, such residues are prohibited from land disposal under 35 Ill. Adm. Code 728.132 or 728.139 or such residues are prohibited from land disposal under 35 Ill. Adm. Code 728.133(f).

8) For owners and operators seeking an exemption to the air emission standards of Subpart CC in accordance with Section 724.982, the following information:

A) If direct measurement is used for the waste determination, the procedures and schedules for waste sampling and analysis and the analysis of test data to verify the exemption.

B) If knowledge of the waste is used for the waste determination, any information prepared by the facility owner or operator or by the generator of the waste, if the waste is received from off-site, that is used as the basis for knowledge of the waste.

c) For off-site facilities, the waste analysis plan required in subsection (b) must also specify the procedures that will be used to inspect and, if necessary, analyze each shipment of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe the following:

1) The procedures that will be used to determine the identity of each movement of waste managed at the facility;

2) The sampling method that will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling; and

3) The procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container.

BOARD NOTE: 35 Ill. Adm. Code 703 requires that the waste analysis plan be submitted with Part B of the permit application.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.114 Security

a) The owner or operator must prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of the facility, unless the owner or operator demonstrates the following to the Agency:

1) That physical contact with the waste, structures or equipment within the active portion of the facility will not injure unknowing or unauthorized persons or livestock that may enter the active portion of a facility; and

2) That disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility, will not cause a violation of the requirements of this Part.

BOARD NOTE: 35 Ill. Adm. Code 703 requires that an owner or operator who wishes to make the demonstration referred to above must do so with Part B of the permit application.

b) Unless the owner or operator has made a successful demonstration under subsections (a)(1) and (a)(2), a facility must have the following:

1) A 24-hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) that continuously monitors and controls entry onto the active portion of the facility; or

2) Physical Barriers

A) An artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff), which completely surrounds the active portion of the facility; and

B) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility).

BOARD NOTE: The requirements of subsection (b) are satisfied if the facility or plant within which the active portion is located itself has a surveillance system, or a barrier and a means to control entry, that complies with the requirements of subsection (b)(1) or (b)(2).

c) Unless the owner or operator has made a successful demonstration under subsections (a)(1) and (a)(2), a sign with the legend, "Danger—Unauthorized Personnel Keep Out", must be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The sign must be legible from a distance of at least 25 feet. Existing signs with a legend other than "Danger—Unauthorized Personnel Keep

Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

BOARD NOTE: See Section 724.217(b) for discussion of security requirements at disposal facilities during the post-closure care period.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.115 General Inspection Requirements

a) The owner or operator must conduct inspections often enough to identify problems in time to correct them before they harm human health or the environment. The owner or operator must inspect the facility for malfunctions and deterioration, operator errors, and discharges that may be causing or may lead to either of the following:

1) Release of hazardous waste constituents to the environment; or

2) A threat to human health.

b) Inspection Schedule

1) The owner or operator must develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.

2) The owner or operator must keep this schedule at the facility.

3) The schedule must identify the types of problems (e.g., malfunctions or deterioration) that are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).

4) The frequency of inspection may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the items and frequencies called for in Sections 724.274, 724.293, 724.295, 724.326, 724.354, 724.378, 724.403, 724.447, 724.702, 724.933, 724.952, 724.953, 724.958, and 724.983 through 724.990, where applicable. 35 Ill. Adm. Code 703 requires the inspection schedule to be submitted with Part B of the permit application. The Agency must evaluate the schedule, along with the rest of the application, to ensure that it adequately protects human health and

the environment. As part of this review, the Agency may modify or amend the schedule as may be necessary.

5) This subsection (b)(5) corresponds with 40 CFR 264.15(b)(5), which became obsolete when USEPA terminated the Performance Track Program at 74 Fed. Reg. 22741 (May 14, 2009). USEPA has recognized that program-related rules are no longer effective at 75 Fed. Reg. 12989, 12992, note 1 (Mar. 18, 2010). This statement maintains structural consistency with the corresponding federal requirements.

c) The owner or operator must remedy any deterioration or malfunction of equipment or structures that the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

d) The owner or operator must record inspections in an inspection log or summary. The owner or operator must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made and the date, and nature of any repairs or other remedial actions.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.116 Personnel Training

a) The Personnel Training Program

1) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this Part. The owner or operator must ensure that this program includes all the elements described in the document required under subsection (d)(3).

BOARD NOTE: 35 Ill. Adm. Code 703 requires that owners and operators submit with Part B of the RCRA permit application, an outline of the training program used (or to be used) at the facility and a brief description of how the training program is designed to meet actual jobs tasks.

2) This program must be directed by a person trained in hazardous waste management procedures, and must include instruction that teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.

3) At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, where applicable:

A) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

B) Key parameters for automatic waste feed cut-off systems;

C) Communications or alarm systems;

D) Response to fires or explosions;

E) Response to groundwater contamination incidents; and

F) Shutdown of operations.

4) For facility employees that have receive emergency response training pursuant to the federal Occupational Safety and Health Administration (OSHA) regulations at 29 CFR 1910.120(p)(8) and (q), the facility is not required to provide separate emergency response training pursuant to this Section, provided that the overall facility OSHA emergency response training meets all the requirements of this Section.

b) Facility personnel must successfully complete the program required in subsection (a) within six months after the effective date of these regulations or six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements of subsection (a).

c) Facility personnel must take part in an annual review of the initial training required in subsection (a).

d) The owner or operator must maintain the following documents and records at the facility:

1) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

2) A written job description for each position listed under subsection (d)(1). This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education or other qualifications, and duties of employees assigned to each position;

3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under subsection (d)(1);

4) Records that document that the training or job experience required under subsections (a), (b), and (c) has been given to, and completed by, facility personnel.

e) Training records on current personnel must be kept until closure of the facility; training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.117 General Requirements for Ignitable, Reactive, or Incompatible Wastes

a) The owner or operator must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to specially designated locations. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

b) Where specifically required by this Part, the owner or operator of a facility that treats, stores or disposes ignitable or reactive waste, or mixes incompatible waste and other materials, must take precautions to prevent reactions that do the following:

1) Generate extreme heat or pressure, fire or explosions, or violent reactions;

2) Produce uncontrolled toxic mists, fumes, dusts or gases in sufficient quantities to threaten human health or the environment;

3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

4) Damage the structural integrity of the device or facility;

5) Through other like means threaten human health or the environment.

c) When required to comply with subsection (a) or (b), the owner or operator must document that compliance. This documentation may be based on references to published scientific or engineering literature, data from trial tests (e.g., bench scale or pilot scale tests), waste analyses (as specified in Section 724.113), or the

results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.118 Location Standards

a) Seismic Considerations

1) Portions of new facilities where treatment, storage or disposal of hazardous waste will be conducted must not be located within 61 meters (200 feet) of a fault that has had displacement in Holocene time.

2) As used in subsection (a)(1):

A) "Fault" means a fracture along which rocks on one side have been displaced with respect to those on the other side.

B) "Displacement" means the relative movement of any two sides of a fault measured in any direction.

C) "Holocene" means the most recent epoch of the Quaternary period, extending from the end of the Pleistocene to the present.

BOARD NOTE: Procedures for demonstrating compliance with this standard in Part B of the permit application are specified in 35 Ill. Adm. Code 703.182. Facilities that are located in political jurisdictions other than those listed in appendix VI to 40 CFR 264 (Political Jurisdictions in Which Compliance with § 264.18(a) Must Be Demonstrated), incorporated by reference in 35 Ill. Adm. Code 720.111(b), are assumed to be in compliance with this requirement.

b) Floodplains

1) A facility located in a 100-year floodplain must be designed, constructed, operated and maintained to prevent washout of any hazardous waste by a 100-year flood, unless the owner or operator can demonstrate the following to the Agency's satisfaction:

A) That procedures are in effect that will cause the waste to be removed safely, before flood waters can reach the facility, to a location where the wastes will not be vulnerable to flood waters; or

B) For existing surface impoundments, waste piles, land treatment units, landfills and miscellaneous units, that no adverse effect on human health or the environment will result if washout occurs, considering the following:

i) The volume and physical and chemical characteristics of the waste in the facility;

ii) The concentration of hazardous constituents that would potentially affect surface waters as a result of washout;

iii) The impact of such concentrations on the current or potential uses of and water quality standards established for the affected surface waters; and

iv) The impact of hazardous constituents on the sediments of affected surface waters or the soils of the 100-year floodplain that could result from washout;

2) As used in subsection (b)(1):

A) "100-year floodplain" means any land area that is subject to a one percent or greater chance of flooding in any given year from any source.

B) "Washout" means the movement of hazardous waste from the active portion of the facility as a result of flooding.

C) "100-year flood" means a flood that has a one percent chance of being equalled or exceeded in any given year.

BOARD NOTE: Requirements pertaining to other federal laws that affect the location and permitting of facilities are found in 40 CFR 270.3. For details relative to these laws, see USEPA's manual for SEA (special environmental area) requirements for hazardous waste facility permits. Though USEPA is responsible for complying with these requirements, applicants are advised to consider them in planning the location of a facility to help prevent subsequent project delays. Facilities may be required to obtain from the Illinois Department of Transportation on a permit or certification that a facility is flood-proofed.

c) Salt dome formations, salt bed formations, underground mines and caves. The placement of any non-containerized or bulk liquid hazardous waste in any salt dome formation, salt bed formation, underground cave or mine is prohibited.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.119 Construction Quality Assurance Program

a) Construction Quality Assurance (CQA) Program

1) A CQA program is required for all surface impoundment, waste pile and landfill units that are required to comply with Sections 724.321(c) and (d), 724.351(c) and (d), and 724.401(c) and (d). The program must ensure that

the constructed unit meets or exceeds all design criteria and specifications in the permit. The program must be developed and implemented under the direction of a CQA officer who is a registered professional engineer.

2) The CQA program must address the following physical components, where applicable:

A) Foundations;

B) Dikes;

C) Low-permeability soil liners;

D) Geomembranes (flexible membrane liners);

E) Leachate collection and removal systems and leak detection systems; and

F) Final cover systems.

b) Written CQA Plan. The owner or operator of units subject to the CQA program under subsection (a) must develop and implement a written CQA plan. The plan must identify steps that will be used to monitor and document the quality of materials and the condition and manner of their installation. The CQA plan must include the following:

1) Identification of applicable units, and a description of how they will be constructed.

2) Identification of key personnel in the development and implementation of the CQA plan, and CQA officer qualifications.

3) A description of inspection and sampling activities for all unit components identified in subsection (a)(2), including observations and tests that will be used before, during and after construction to ensure that the construction materials and the installed unit components meet the design specifications. The description must cover: Sampling size and locations; frequency of testing; data evaluation procedures; acceptance and rejection criteria for construction materials; plans for implementing corrective measures; and data or other information to be recorded and retained in the operating record under Section 724.173.

c) Contents of Program

1) The CQA program must include observations, inspections, tests and measurements sufficient to ensure the following:

A) Structural stability and integrity of all components of the unit identified in subsection (a)(2);

B) Proper construction of all components of the liners, leachate collection and removal system, leak detection system, and final cover system, according to permit specifications and good engineering practices and proper installation of all components (e.g., pipes) according to design specifications;

C) Conformity of all materials used with design and other material specifications under Sections 724.321, 724.351, and 724.401.

2) The CQA program must include test fills for compacted soil liners, using the same compaction methods as in the full scale unit, to ensure that the liners are constructed to meet the hydraulic conductivity requirements of Sections 724.321(c)(1)(A)(ii), 724.351(c)(1)(A)(ii), or 724.401(c)(1)(A)(ii) in the field. Compliance with the hydraulic conductivity requirements must be verified by using in-situ testing on the constructed test fill. The Agency must accept an alternative demonstration, in lieu of a test fill, where data are sufficient to show that a constructed soil liner will meet the hydraulic conductivity requirements of Sections 724.321(c)(1)(A)(ii), 724.351(c)(1)(A)(ii), or 724.401(c)(1)(A)(ii) in the field.

d) Certification. Waste must not be received in a unit subject to Section 724.119 until the owner or operator has submitted to the Agency by certified mail or hand delivery a certification signed by the CQA officer that the approved CQA plan has been successfully carried out and that the unit meets the requirements of Sections 724.321(c) or (d), 724.351(c) or (d), or 724.401(c) or (d); and the procedure in 35 Ill. Adm. Code 703.247(b) has been completed. Documentation supporting the CQA officer's certification must be furnished to the Agency upon request.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

SUBPART C: PREPAREDNESS AND PREVENTION

Section 724.130 Applicability

The regulations in this Subpart C apply to owners and operators of a11 hazardous waste management facilities, except as Section 724.101 provides otherwise.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.131 Design and Operation of Facility

Facilities must be designed, constructed, maintained and operated to minimize the possibility of a fire, explosion or any unplanned sudden or non-sudden release of hazardous waste or

hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.132 Required Equipment

All facilities must be equipped with the following, unless the owner or operator demonstrates to the Agency that none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment and decontamination equipment; and

d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers or water spray systems.

BOARD NOTE: 35 Ill. Adm. Code 703 requires that an owner or operator who wishes to make the demonstration referred to above must do so with Part B of the permit application.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.133 Testing and Maintenance of Equipment

All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.134 Access to Communications or Alarm System

a) Whenever hazardous waste is being poured, mixed, spread or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless the permit specifies that such a device is not required under Section 724.132.

b) If there is ever just one employee on the premises while the facility is operating, the employee must have immediate access to a device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning external emergency assistance, unless the permit specifies that such a device is not required under Section 724.132.

Section 724.135 Required Aisle Space

The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless the owner or operator demonstrates to the Agency that aisle space is not needed for any of these purposes.

BOARD NOTE: 35 Ill. Adm. Code 703 requires that an owner or operator who wishes to make the demonstration referred to above must do so with Part B of the permit application.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.137 Arrangements with Local Authorities

a) The owner or operator must attempt to make the following arrangements as appropriate for the type of waste handled at the facility and the potential need for the services of these organizations:

1) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;

2) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

3) Agreements with state emergency response teams, emergency response contractors, and equipment suppliers; and

4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses that could result from fires, explosions or releases at the facility.

b) Where state or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

SUBPART D: CONTINGENCY PLAN AND EMERGENCY PROCEDURES

Section 724.150 Applicability

The regulations in this Subpart D apply to owners and operators of all hazardous waste management facilities, except as Section 724.101 provides otherwise.

(Source: Amended at 30 Ill. Reg. 3196, effective February 23, 2006)

Section 724.151 Purpose and Implementation of Contingency Plan

a) Each owner or operator must have a contingency plan for the facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

b) The provisions of this plan must be carried out immediately whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.152 Content of Contingency Plan

a) The contingency plan must describe the actions facility personnel must take to comply with Sections 724.151 and 724.156 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

b) If the owner or operator has already prepared a Spill Prevention Control and Countermeasures (SPCC) Plan in accordance with federal 40 CFR 112, or some other emergency or contingency plan, the owner or operator need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this Part. The owner or operator may develop one contingency plan that meets all regulatory requirements. USEPA has recommended that the plan be based on the National Response Team's Integrated Contingency Plan Guidance (One Plan). When modifications are made to non-RCRA provisions in an integrated contingency plan, the changes do not trigger the need for a RCRA permit modification.

BOARD NOTE: The federal One Plan guidance appeared in the Federal Register at 61 Fed. Reg. 28642 (June 5, 1996), and was corrected at 61 Fed. Reg. 31103 (June 19, 1996). USEPA, Office of Resource Conservation and Recovery, Chemical Emergency Preparedness and Prevention Office, has made these documents available on-line for examination and download at www.epa.gov/emergencies (search for "one plan" or "integrated contingency plan" documents).

c) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services pursuant to Section 724.137.

d) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see Section 724.155), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates. For new facilities, this information must be supplied to the Agency at the time of certification, rather than at the time of permit application.

e) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list and a brief outline of its capabilities.

f) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signals to be used to begin evacuation, evacuation routes and alternative evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

(Source: Amended at 35 Ill. Reg. 17965, effective October 14, 2011)

Section 724.153 Copies of Contingency Plan

A copy of the contingency plan and all revisions to the plan must be:

a) Maintained at the facility; and

b) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.

BOARD NOTE: The contingency plan must be submitted to the Agency with Part B of the permit application under 35 Ill. Adm. Code 702 and 703, and, after modification or approval, the plan will become a condition of any permit issued.

(Source: Amended at 30 Ill. Reg. 3196, effective February 23, 2006)

Section 724.154 Amendment of Contingency Plan

The contingency plan must be reviewed, and immediately amended, if necessary, when any of the following occurs:

a) The facility permit is revised;

b) The plan fails in an emergency;

c) The facility changes—in its design, construction, operation, maintenance or other circumstances—in a way that materially increases the potential for fires, explosions or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

d) The list of emergency coordinators changes; or

e) The list of emergency equipment changes.

(Source: Amended at 33 Ill. Reg. 1106, effective December 30, 2008)

Section 724.155 Emergency Coordinator

At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

BOARD NOTE: The emergency coordinator's responsibilities are more fully spelled out in Section 724.156. Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of wastes handled by the facility, and type and complexity of the facility.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.156 Emergency Procedures

a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or the designee when the emergency coordinator is on call) must immediately do the following:

1) He or she must activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

2) He or she must notify appropriate State or local agencies with designated response roles if their help is needed.

b) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. The emergency coordinator may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.

c) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).

d) If the emergency coordinator determines that the facility has had a release, fire, or explosion that could threaten human health or the environment outside the facility, the emergency coordinator must report the findings as follows:

1) If the assessment indicates that evacuation of local areas may be advisable, the emergency coordinator must immediately notify appropriate local authorities. The emergency coordinator must be available to help appropriate officials decide whether local areas should be evacuated; and

2) The emergency coordinator must immediately notify either the government official designated as the on-scene coordinator for that geographical area or the National Response Center (using their 24-hour toll free number 800-424-8802). The report must include the following:

A) The name and telephone number of the reporter;

B) The name and address of the facility;

C) The time and type of incident (e.g., release, fire);

D) The name and quantity of materials involved, to the extent known;

E) The extent of injuries, if any; and

F) The possible hazards to human health or the environment outside the facility.

e) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing release waste, and removing or isolating containers.

f) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

g) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

BOARD NOTE: Unless the owner or operator can demonstrate, in accordance with 35 Ill. Adm. Code 721.103(d) or (e), that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of 35 Ill. Adm. Code 722, 723, and 724.

h) The emergency coordinator must ensure that the following is true in the affected areas of the facility:

1) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

2) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

i) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the owner or operator must submit a written report on the incident to the Agency. The report must include the following:

1) The name, address, and telephone number of the owner or operator;

2) The name, address, and telephone number of the facility;

3) The date, time, and type of incident (e.g., fire, explosion);

4) The name and quantity of materials involved;

5) The extent of injuries, if any;

6) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

7) The estimated quantity and disposition of recovered material that resulted from the incident.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

SUBPART E: MANIFEST SYSTEM, RECORDKEEPING AND REPORTING

Section 724.170 Applicability

The regulations in this Subpart E apply to owners and operators of both on-site and off-site facilities, except as Section 724.101 provides otherwise. Sections 724.171, 724.172, and 724.176 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources, nor do they apply to owners and operators of off-site facilities with respect to waste military munitions exempted from manifest requirements under

35 Ill. Adm. Code 726.303(a). Section 724.173(b) only applies to permittees that treat, store, or dispose of hazardous wastes on-site where such wastes were generated.

(Source: Amended at 35 Ill. Reg. 17965, effective October 14, 2011)

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), 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 each copy of the manifest;

B) The owner, operator, or agent must note any discrepancies (as defined in Section 724.172) 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;

E) Paper manifest submission requirements are the following:

i) The owner, operator, or agent must send the top copy (Page 1) of any paper manifest and any paper continuation sheet to the e-Manifest System for purposes of data entry and processing, or in lieu of submitting the 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 and any continuation sheet, or both a data string file and the image file corresponding to Page 1 of the manifest and any continuation sheet, within 30 days after the date of delivery. Submissions of copies to the e-Manifest System must be made at the mailing address or electronic mail/submission address specified at the e-Manifest program website's directory of services. Beginning on June 30, 2021, USEPA will not accept

mailed paper manifests from facilities for processing in the e-Manifest System; and

ii) Options for Compliance on June 30, 2021. Beginning on June 30, 2021, the requirement to submit the top copy (Page 1) of the paper manifest and any paper continuation sheet to the e-Manifest System for purposes of data entry and processing may be met by the owner or operator only by transmitting to the e-Manifest System an image file of Page 1 of the manifest and any continuation sheet, or by transmitting to the e-Manifest System both a data file and the image file corresponding to Page 1 of the manifest and any continuation sheet, within 30 days after the date of delivery. Submissions of copies to the e-Manifest System shall be made to the electronic mail/submission address specified at the e-Manifest program website's directory of services. Beginning on June 30, 2021, USEPA will not accept mailed paper manifests from facilities for processing in 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) The owner or operator of a facility receiving hazardous waste subject to Subpart H of 35 Ill. Adm. Code 722 from a foreign source must do the following:

A) List the relevant consent number from consent documentation supplied by USEPA to the facility for each waste listed on the manifest, matched to the relevant list number for the waste from block 9b. If additional space is needed, the owner or operator should use Continuation Sheets (USEPA Form 8700–22A); and

B) Send a copy of the manifest within 30 days of delivery to USEPA using the addresses listed in 35 Ill. Adm. Code 722.182(e) until the facility can submit such a copy to the e-Manifest system per subsection (a)(2)(E).

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;

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. The provisions of 35 Ill. Adm. Code 722.115, 722.116, and 722.117 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions of 35 Ill. Adm. Code 722.115, 722.116, and 722.117 only apply to owners or operators that are shipping hazardous waste that they generated at that facility or operating as a large quantity generator consolidating hazardous waste from very small quantity generators under 35 Ill. Adm. Code 722.117(f).

d) As required by 35 Ill. Adm. Code 722.184(d)(2)(O), 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 foreign exporter and competent authorities of all the countries of export and transit that control the shipment as an export or transit of hazardous waste. On or after the electronic import-export reporting compliance date, to USEPA electronically using USEPA's WIETS. The original copy of the movement document must be maintained at the facility for at least three years from the date of signature. The owner or operator of a facility may satisfy this recordkeeping requirement by retaining electronically submitted

documents in the facility's account on USEPA's WIETS, provided that copies are readily available for viewing and production if requested by any USEPA or authorized state inspector. No owner or operator of a facility may be held liable for the inability to produce the documents for inspection under this section if the owner or operator of a facility can demonstrate that the inability to produce the document is due exclusively to technical difficulty with USEPA's WIETS, for which the owner or operator of a facility bears no responsibility.

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 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.

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 Electronic Manifest Submissions

1) As prescribed in 40 CFR 264.1311, incorporated by reference in 35 Ill. Adm. Code 720.111, and determined in 40 CFR 264.1312, incorporated by reference in 35 Ill. Adm. Code 720.111, an owner or operator that is a

user of the e-Manifest System must be assessed a user fee by USEPA for the submission and processing of each e-Manifest and paper manifest. USEPA has stated that it would update the schedule of user fees and publish them to the user community, as provided in 40 CFR 264.1313, incorporated by reference in 35 Ill. Adm. Code 720.111.

2) An owner or operator subject to user fees under this Section must make user fee payments in accordance with the requirements of 40 CFR 264.1314, incorporated by reference in 35 Ill. Adm. Code 720.111, subject to the informal fee dispute resolution process of 40 CFR 264.1316, incorporated by reference in 35 Ill. Adm. Code 720.111, and subject to the sanctions for delinquent payments under 40 CFR 264.1315, incorporated by reference in 35 Ill. Adm. Code 720.111.

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

l) Post-Receipt Manifest Data Corrections. After a facility has certified to the receipt of hazardous wastes by signing Item 20 of the manifest, any interested person (i.e., any waste handler shown on the manifest or the Agency) may submit any post-receipt data corrections at any time (i.e., any waste handler shown on the manifest or the Agency).

1) An interested person must make all corrections to manifest data by electronic submission, either by directly entering corrected data to the web-based service provided in the e-Manifest System for such corrections, or by an upload of a data file containing data corrections relating to one or more previously submitted manifests.

2) Each correction submission must include the following information:

A) The Manifest Tracking Number and date of receipt by the facility of the original manifests for which data are being corrected;

B) The item numbers of the original manifest that is the subject of the submitted corrections; and

C) For each item number with corrected data, the data previously entered and the corresponding data as corrected by the correction submission.

3) Each correction submission shall include a statement that the person submitting the corrections certifies that, to the best of his or her knowledge or belief, the corrections that are included in the submission will cause the information reported about the previously received hazardous wastes to be true, accurate, and complete:

A) The person must execute the certification statement with a valid electronic signature; and

B) The person may submit a batch upload of data corrections under one certification statement.

4) Upon receipt by the e-Manifest System of any correction submission, other interested persons shown on the manifest will be provided electronic notice of the submitter's corrections.

5) Other interested persons shown on the manifest may respond to the submitter's corrections with comments to the submitter, or by submitting another correction to the e-Manifest System, certified by the respondent as specified in subsection (l)(3), and with notice of the corrections to other interested persons shown on the manifest.

(Source: Amended at 43 Ill. Reg. 601, effective December 6, 2018)

Section 724.172 Manifest Discrepancies

a) "Manifest discrepancies" are defined as any one of the following:

1) Significant differences (as defined by subsection (b)) between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity and type of hazardous waste a facility actually receives;

2) Rejected wastes, which may be a full or partial shipment of hazardous waste that the treatment, storage, or disposal facility cannot accept; or

3) Container residues, which are residues that exceed the quantity limits for empty containers set forth in 35 Ill. Adm. Code 721.107(b).

b) "Significant differences in quantity" are defined as the appropriate of the following: for bulk waste, variations greater than 10 percent in weight; or, for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. "Significant differences in type" are defined as obvious differences that can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or as toxic constituents not reported on the manifest or shipping paper.

c) Upon discovering a significant difference in quantity or type, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter (*e.g.,* with telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator must immediately submit to the Agency a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

d) Rejection of Hazardous Waste

1) Upon rejecting waste or identifying a container residue that exceeds the quantity limits for empty containers set forth in 35 Ill. Adm. Code 721.107(b), the facility owner or operator must consult with the generator prior to forwarding the waste to another facility that can manage the waste. If it is impossible to locate an alternative facility that can receive the waste, the facility owner or operator may return the rejected waste or residue to the generator. The facility owner or operator must send the waste to the alternative facility or to the generator within 60 days after the rejection or the container residue identification.

2) While the facility owner or operator is making arrangements for forwarding rejected wastes or residues to another facility under this Section, it must ensure that either the delivering transporter retains custody of the waste, or the facility owner or operator must provide for secure, temporary custody of the waste, pending delivery of the waste to the first transporter designated on the manifest prepared under subsection (e) or (f).

e) Except as provided in subsection (e)(7), for full or partial load rejections and residues that are to be sent off-site to an alternate facility, the facility owner or operator is required to prepare a new manifest in accordance with 35 Ill. Adm. Code 722.120(a) and the instructions set forth in subsections (e)(1) through (e)(6):

1) The facility owner or operator must write the generator's USEPA identification number in Item 1 of the new manifest. The facility owner or operator must write the generator's name and mailing address in Item 5 of the new manifest. If the mailing address is different from the generator's site address, then the facility owner or operator must write the generator's site address in the designated space in Item 5.

2) The facility owner or operator must write the name of the alternate designated facility and the facility's USEPA identification number in the designated facility block (Item 8) of the new manifest.

3) The facility owner or operator must copy the manifest tracking number found in Item 4 of the old manifest to the Special Handling and Additional Information Block of the new manifest, and indicate that the shipment is a residue or rejected waste from the previous shipment.

4) The facility owner or operator must copy the manifest tracking number found in Item 4 of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest (Item 18a).

5) The facility owner or operator must write the USDOT description for the rejected load or the residue in Item 9 (USDOT Description) of the new manifest and write the container types, quantity, and volumes of waste.

6) The facility owner or operator must sign the Generator's/Offeror's Certification to certify, as the offeror of the shipment, that the waste has been properly packaged, marked and labeled and is in proper condition for transportation, and mail a signed copy of the manifest to the generator identified in Item 5 of the new manifest.

7) For full load rejections that are made while the transporter remains present at the facility, the facility owner or operator may forward the rejected shipment to the alternate facility by completing Item 18b of the original manifest and supplying the information on the next destination facility in the Alternate Facility space. The facility owner or operator must retain a copy of this manifest for its records, and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility owner or operator must use a new manifest and comply with subsections (e)(1) through (e)(6).

f) Except as provided in subsection (f)(7), for rejected wastes and residues that must be sent back to the generator, the facility owner or operator is required to prepare a new manifest in accordance with 35 Ill. Adm. Code 722.120(a) and the instructions set forth in subsections (f)(1) through (f)(6) and (f)(8):

1) The facility owner or operator must write the facility's USEPA identification number in Item 1 of the new manifest. The facility owner or operator must write the facility's name and mailing address in Item 5 of the new manifest. If the mailing address is different from the facility's site address, then the facility owner or operator must write the facility's site address in the designated space for Item 5 of the new manifest.

2) The facility owner or operator must write the name of the initial generator and the generator's USEPA identification number in the designated facility block (Item 8) of the new manifest.

3) The facility owner or operator must copy the manifest tracking number found in Item 4 of the old manifest to the Special Handling and Additional Information Block of the new manifest, and indicate that the shipment is a residue or rejected waste from the previous shipment.

4) The facility owner or operator must copy the manifest tracking number found in Item 4 of the new manifest to the manifest reference number line in the Discrepancy Block of the old manifest (Item 18a).

5) The facility owner or operator must write the USDOT description for the rejected load or the residue in Item 9 (USDOT Description) of the new manifest and write the container types, quantity, and volumes of waste.

6) The facility owner or operator must sign the Generator's/Offeror's Certification to certify, as offeror of the shipment, that the waste has been

properly packaged, marked and labeled and is in proper condition for transportation.

7) For full load rejections that are made while the transporter remains at the facility, the facility owner or operator may return the shipment to the generator with the original manifest by completing Item 18b of the manifest and supplying the generator's information in the Alternate Facility space. The facility owner or operator must retain a copy for its records and then give the remaining copies of the manifest to the transporter to accompany the shipment. If the original manifest is not used, then the facility owner or operator must use a new manifest and comply with subsections (f)(1) through (f)(6) and (f)(8).

8) For full or partial load rejections and container residues contained in non-empty containers that are returned to the generator, the facility owner or operator must also comply with the exception reporting requirements in 35 Ill. Adm. Code 722.142(a).

g) If a facility owner or operator rejects a waste or identifies a container residue that exceeds the quantity limits for empty containers set forth in 35 Ill. Adm. Code 721.107(b) after it has signed, dated, and returned a copy of the manifest to the delivering transporter or to the generator, the facility owner or operator must amend its copy of the manifest to indicate the rejected wastes or residues in the discrepancy space of the amended manifest. The facility owner or operator must also copy the manifest tracking number from Item 4 of the new manifest to the Discrepancy space of the amended manifest, and must re-sign and date the manifest to certify to the information as amended. The facility owner or operator must retain the amended manifest for at least three years from the date of amendment, and must, within 30 days, send a copy of the amended manifest to the transporter and generator that received copies prior to their being amended.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.173 Operating Record

a) The owner or operator must keep a written operating record at the facility.

b) The following information must be recorded as it becomes available and maintained in the operating record for three years unless otherwise provided as follows:

1) A description and the quantity of each hazardous waste received and the methods and dates of its treatment, storage, or disposal at the facility, as required by Appendix A. This information must be maintained in the operating record until closure of the facility;

2) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each

hazardous waste must be recorded on a map or diagram that shows each cell or disposal area. For all facilities, this information must include cross-references to manifest document numbers, if the waste was accompanied by a manifest. This information must be maintained in the operating record until closure of the facility;

BOARD NOTE: See Section 724.219 for related requirements.

3) Records and results of waste analyses and waste determinations performed as specified in Sections 724.113, 724.117, 724.414, 724.441, 724.934, 724.963, and 724.983 and in 35 Ill. Adm. Code 728.104(a) and 728.107;

4) Summary reports and details of all incidents that require implementing the contingency plan, as specified in Section 724.156(j);

5) Records and results of inspections, as required by Section 724.115(d) (except these data need to be kept only three years);

6) Monitoring, testing, or analytical data and corrective action data where required by Subpart F or Sections 724.119, 724.291, 724.293, 724.295, 724.322, 724.323, 724.326, 724.352 through 724.354, 724.376, 724.378, 724.380, 724.402 through 724.404, 724.409, 724.702, 724.934(c) through (f), 724.935, 724.963(d) through (i), 724.964, and 724.982 through 724.990. Maintain in the operating record for three years, except for records and results pertaining to groundwater monitoring and cleanup, which must be maintained in the operating record until closure of the facility;

7) For off-site facilities, notices to generators as specified in Section 724.112(b);

8) All closure cost estimates under Section 724.242 and, for disposal facilities, all post-closure care cost estimates under Section 724.244. This information must be maintained in the operating record until closure of the facility;

9) A certification by the permittee, no less often than annually: that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that the permittee generates, to the degree the permittee determines to be economically practicable, and that the proposed method of treatment, storage, or disposal is that practicable method currently available to the permittee that minimizes the present and future threat to human health and the environment;

10) Records of the quantities and date of placement for each shipment of hazardous waste placed in land disposal units under an extension of the effective date of any land disposal restriction granted pursuant to 35 Ill. Adm. Code 728.105, a petition pursuant to 35 Ill. Adm. Code 728.106 or a

certification under 35 Ill. Adm. Code 728.108, and the applicable notice required of a generator pursuant to 35 Ill. Adm. Code 728.107(a). This information must be maintained in the operating record until closure of the facility;

11) For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;

12) For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration, if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;

13) For an off-site land disposal facility, a copy of the notice, and the certification and demonstration, if applicable, required of the generator or the owner or operator of a treatment facility under 35 Ill. Adm. Code 728.107 or 728.108, whichever is applicable;

14) For an on-site land disposal facility, the information contained in the notice required of the generator or owner or operator of a treatment facility under 35 Ill. Adm. Code 728.107, except for the manifest number, and the certification and demonstration, required under 35 Ill. Adm. Code 728.108, whichever is applicable;

15) For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;

16) For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required of the generator or the owner or operator under 35 Ill. Adm. Code 728.107 or 728.108;

17) Any records required under Section 724.101(j)(13);

18) Monitoring, testing, or analytical data where required by Section 724.447 must be maintained in the operating record for five years; and

19) Certifications, as required by Section 724.296(f), must be maintained in the operating record until closure of the facility.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.174 Availability, Retention, and Disposition of Records

a) All records, including plans, required under this Part must be furnished upon request, and made available at all reasonable times for inspection, by authorized representatives of the Agency.

b) The retention period for all records required under this Part is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested in writing by the Agency.

c) A copy of records of waste disposal locations and quantities under Section 724.173(b)(2) must be submitted to the Agency and to the County Recorder upon closure of the facility.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.175 Annual Facility Activities Report

The owner or operator must complete and submit USEPA Form 8700–13 A/B to the Agency by March 1 of each year and must cover activities during the previous year.

BOARD NOTE: Corresponding 40 CFR 264.75 requires biennial reporting. The Board has required annual reporting, since Section 20.1 of the Act requires the Agency to assemble annual reports, and only annual facility activities reports will enable the Agency to fulfill this mandate.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.176 Unmanifested Waste Report

a) If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper, as described by 35 Ill. Adm. Code 723.120(e), and if the waste is not excluded from the manifest requirement by 35 Ill. Adm. Code 260 through 265, then the owner or operator must prepare and submit a letter to the Agency within 15 days after receiving the waste. The unmanifested waste report must contain the following information:

1) The USEPA identification number, name, and address of the facility;

2) The date the facility received the waste;

3) The USEPA identification number, name, and address of the generator and the transporter, if available;

4) A description and the quantity of each unmanifested hazardous waste the facility received;

5) The method of treatment, storage, or disposal for each hazardous waste;

6) The certification signed by the owner or operator of the facility or its authorized representative; and

7) A brief explanation of why the waste was unmanifested, if known.

b) This subsection (b) corresponds with 40 CFR 264.76(b), which USEPA has marked "reserved". This statement maintains structural consistency with the corresponding federal regulations.

BOARD NOTE: Small quantities of hazardous waste are excluded from regulation under this Part and do not require a manifest. Where a facility receives unmanifested hazardous wastes, USEPA has suggested that the owner or operator obtain from each generator a certification that the waste qualifies for exclusion. Otherwise, USEPA has suggested that the owner or operator file an unmanifested waste report for the hazardous waste movement.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.177 Additional Reports

In addition to submitting the annual report and unmanifested waste reports described in Sections 724.175 and 724.176, the owner or operator must also report to the Agency:

a) Releases, fires, and explosions, as specified in Section 724.156(j);

b) Facility closures specified in Section 724.215; and

c) As otherwise required by Subparts F, K through N, AA, BB, and CC of this Part.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

SUBPART F: RELEASES FROM SOLID WASTE MANAGEMENT UNITS

Section 724.190 Applicability

a) Types of Units

1) Except as provided in subsection (b), the regulations in this Subpart F apply to owners and operators of facilities that treat, store or dispose of hazardous waste. The owner or operator must satisfy the requirements identified in subsection (a)(2) for all wastes (or constituents thereof) contained in solid waste management units at the facility regardless of the time at which waste was placed in such units.

2) All solid waste management units must comply with the requirements in Section 724.201. A surface impoundment, waste pile, land treatment unit, or landfill that receives hazardous waste after July 26, 1982 (referred to in this Subpart F as a "regulated unit") must comply with Sections 724.191 through 724.200, in lieu of Section 724.201, for purposes of detecting,

characterizing, and responding to releases to the uppermost aquifer. The financial responsibility requirements of Section 724.201 apply to regulated units.

b) The owner or operator's regulated unit or units are not subject to regulation for releases into the uppermost aquifer under this Subpart F if the following is true:

1) The owner or operator is exempted pursuant to Section 724.101; or

2) The owner or operator operates a unit that the Agency finds:

A) Is an engineered structure.

B) Does not receive or contain liquid waste or waste containing free liquids.

C) Is designed and operated to exclude liquid, precipitation, and other runon and runoff.

D) Has both inner and outer layers of containment enclosing the waste.

E) Has a leak detection system built into each containment layer.

F) The owner or operator will provide continuing operation and maintenance of these leak detection systems during the active life of the unit and the closure and post-closure care periods.

G) To a reasonable degree of certainty, will not allow hazardous constituents to migrate beyond the outer containment layer prior to the end of the post-closure care period; or

3) The Agency finds, pursuant to Section 724.380(d), that the treatment zone of a land treatment unit that qualifies as a regulated unit does not contain levels of hazardous constituents that are above background levels of those constituents by an amount that is statistically significant, and if an unsaturated zone monitoring program meeting the requirements of Section 724.378 has not shown a statistically significant increase in hazardous constituents below the treatment zone during the operating life of the unit. An exemption pursuant to this subsection (b) can only relieve an owner or operator of responsibility to meet the requirements of this Subpart F during the post-closure care period; or

4) The Agency finds that there is no potential for migration of liquid from a regulated unit to the uppermost aquifer during the active life of the regulated unit (including the closure period) and the post-closure care period specified pursuant to Section 724.217. This demonstration must be certified by a qualified geologist or geotechnical engineer. In order to

provide an adequate margin of safety in the prediction of potential migration of liquid, the owner or operator must base any predictions made pursuant to this subsection (b) on assumptions that maximize the rate of liquid migration; or

5) The owner or operator designs and operates a pile in compliance with Section 724.350(c).

c) The regulations under this Subpart F apply during the active life of the regulated unit (including the closure period). After closure of the regulated unit, the following is true of the applicability of the regulations in this Subpart F:

1) Do not apply if all waste, waste residues, contaminated containment system components, and contaminated subsoils are removed or decontaminated at closure;

2) Apply during the post-closure care period pursuant to Section 724.217 if the owner or operator is conducting a detection monitoring program pursuant to Section 724.198; or

3) Apply during the compliance period pursuant to Section 724.196 if the owner or operator is conducting a compliance monitoring program pursuant to Section 724.199 or a corrective action program pursuant to Section 724.200.

d) This Subpart F applies to miscellaneous units if necessary to comply with Sections 724.701 through 724.703.

e) The regulations of this Subpart F apply to all owners and operators subject to 35 Ill. Adm. Code 703.161, when the Agency issues a post-closure care permit or other enforceable document that contains alternative requirements for the facility, as provided in 35 Ill. Adm. Code 703.161. When alternative requirements apply to a facility, a reference in this Subpart F to "in the permit" must mean "in the enforceable document".

f) A permit or enforceable document can contain alternative requirements for groundwater monitoring and corrective action for releases to groundwater applicable to a regulated unit that replace all or part of the requirements of 35 Ill. Adm. Code 724.191 through 724.200, as provided pursuant to 35 Ill. Adm. Code 703.161, where the Board or Agency determines the following:

1) The regulated unit is situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated unit and one or more solid waste management units (or areas of concern) are likely to have contributed to the release; and

2) It is not necessary to apply the groundwater monitoring and corrective action requirements of 35 Ill. Adm. Code 724.191 through 724.200 because

alternative requirements will adequately protect human health and the environment.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.191 Required Programs

a) Owners and operators subject to this Subpart F must conduct a monitoring and response program as follows:

1) Whenever hazardous constituents pursuant to Section 724.193 from a regulated unit are detected at a compliance point pursuant to Section 724.195, the owner or operator must institute a compliance monitoring program pursuant to Section 724.199. "Detected" is defined as statistically significant evidence of contamination, as described in Section 724.198(f).

2) Whenever the groundwater protection standard pursuant to Section 724.192 is exceeded, the owner or operator must institute a corrective action program pursuant to Section 724.200. "Exceeded" is defined as statistically significant evidence of increased contamination, as described in Section 724.199(d).

3) Whenever hazardous constituents pursuant to Section 724.193 from a regulated unit exceed concentration limits pursuant to Section 724.194 in groundwater between the compliance point pursuant to Section 724.195 and the downgradient facility property boundary, the owner or operator must institute a corrective action program pursuant to Section 724.200; or

4) In all other cases, the owner or operator must institute a detection monitoring program pursuant to Section 724.198.

b) The Agency must specify in the facility permit the specific elements of the monitoring and response program. The Agency may include one or more of the programs identified in subsection (a) in the facility permit as may be necessary to adequately protect human health and the environment and must specify the circumstances under which each of the programs will be required. In deciding whether to require the owner or operator to be prepared to institute a particular program, the Agency must consider the potential adverse effects on human health and the environment that might occur before final administrative action on a permit modification application to incorporate such a program could be taken.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.192 Groundwater Protection Standard

The owner or operator must comply with conditions specified in the facility permit that are designed to ensure that hazardous constituents under Section 724.193 detected in the

groundwater from a regulated unit do not exceed the concentration limits under Section 724.194 in the uppermost aquifer underlying the waste management area beyond the point of compliance under Section 724.195 during the compliance period under Section 724.196. The Agency must establish this groundwater protection standard in the facility permit when hazardous constituents have been detected in the groundwater.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.193 Hazardous Constituents

a) The Agency must specify in the facility permit the hazardous constituents to which the groundwater protection standard of Section 724.192 applies. Hazardous constituents are constituents identified in Appendix H of 35 Ill. Adm. Code 721 that have been detected in groundwater in the uppermost aquifer underlying a regulated unit and that are reasonably expected to be in or derived from waste contained in a regulated unit, unless the Agency has excluded them under subsection (b).

b) The Agency must exclude a constituent in Appendix H of 35 Ill. Adm. Code 721 from the list of hazardous constituents specified in the facility permit if it finds that the constituent is not capable of posing a substantial present or potential hazard to human health or the environment. In deciding whether to grant an exemption, the Agency must consider the following:

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:

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) about the use of 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 granting any exemptions under subsection (b).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

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).

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-methoxy-phenyl)ethane) (CAS No. 72-43-5)	0.1
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 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;

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) about the use of 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).

(Source: Amended at 40 Ill. Reg. 11726, effective August 9, 2016)

Section 724.195 Point of Compliance

a) The Agency must specify in the facility permit the point of compliance at which the groundwater protection standard of Section 724.192 applies and at which monitoring must be conducted. The point of compliance is a vertical surface located at the hydraulically downgradient limit of the waste management area that extends down into the uppermost aquifer underlying the regulated units.

b) The waste management area is the limit projected in the horizontal plane of the area on which waste will be placed during the active life of a regulated unit.

1) The waste management area includes horizontal space taken up by any liner, dike, or other barrier designed to contain waste in a regulated unit.

2) If the facility contains more than one regulated unit, the waste management area is described by an imaginary line circumscribing the several regulated units.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.196 Compliance Period

a) The Agency must specify in the facility permit the compliance period during which the groundwater protection standard of Section 724.192 applies. The compliance period is the number of years equal to the active life of the waste management area (including any waste management activity prior to permitting, and the closure period.)

b) The compliance period begins when the owner or operator initiates a compliance monitoring program meeting the requirements of Section 724.199.

c) If the owner or operator is engaged in a corrective action program at the end of the compliance period specified in subsection (a), the compliance period is extended until the owner or operator can demonstrate that the groundwater protection standard of Section 724.192 has not been exceeded for a period of three consecutive years.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.197 General Groundwater Monitoring Requirements

The owner or operator must comply with the following requirements for any groundwater monitoring program developed to satisfy Section 724.198, 724.199, or 724.200.

a) The groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer that fulfill the following requirements:

1) They represent the quality of background groundwater that has not been affected by leakage from a regulated unit. A determination of background groundwater quality may include sampling of wells that are not hydraulically upgradient from the waste management area where the following is true:

A) Hydrogeologic conditions do not allow the owner or operator to determine what wells are upgradient; or

B) Sampling at other wells will provide an indication of background groundwater quality that is as representative or more representative than that provided by the upgradient wells;

2) They represent the quality of groundwater passing the point of compliance; and

3) They allow for the detection of contamination when hazardous waste or hazardous constituents have migrated from the hazardous waste management area to the uppermost aquifer.

b) If a facility contains more than one regulated unit, separate groundwater monitoring systems are not required for each regulated unit provided that provisions for sampling the groundwater in the uppermost aquifer will enable detection and measurement at the compliance point of hazardous constituents from the regulated units that have entered the groundwater in the uppermost aquifer.

c) All monitoring wells must be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing must be screened or perforated and packed with gravel or sand, where necessary, to enable collection of groundwater samples. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed to prevent contamination of samples and the groundwater.

d) The groundwater monitoring program must include consistent sampling and analysis procedures that are designed to ensure monitoring results that provide a reliable indication of groundwater quality below the waste management area. At a minimum the program must include procedures and techniques for the following:

1) Sample collection;

2) Sample preservation and shipment;

3) Analytical procedures; and

4) Chain of custody control.

e) The groundwater monitoring program must include sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure hazardous constituents in groundwater samples.

f) The groundwater monitoring program must include a determination of the groundwater surface elevation each time groundwater is sampled.

g) In detection monitoring or where appropriate in compliance monitoring, data on each hazardous constituent specified in the permit will be collected from background wells and wells at the compliance points. The number and kinds of samples collected to establish background must be appropriate for the form of statistical test employed, following generally accepted statistical principles. The sample size must be as large as necessary to ensure with reasonable confidence

that a contaminant release to groundwater from a facility will be detected. The owner or operator will determine an appropriate sampling procedure and interval for each hazardous constituent listed in the facility permit that must be specified in the unit permit upon approval by the Agency. This sampling procedure must fulfill the following requirements:

1) It may be a sequence of at least four samples, taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity and hydraulic gradient, and the fate and transport characteristics of the potential contaminants; or

2) It may be an alternate sampling procedure proposed by the owner or operator and approved by the Agency.

h) The owner or operator must specify one of the following statistical methods to be used in evaluating groundwater monitoring data for each hazardous constituent that, upon approval by the Agency, will be specified in the unit permit. The statistical test chosen must be conducted separately for each hazardous constituent in each well. Where practical quantification limits (pqls) are used in any of the following statistical procedures to comply with subsection (i)(5), the pql must be proposed by the owner or operator and approved by the Agency. Use of any of the following statistical methods must adequately protect human health and the environment and must comply with the performance standards outlined in subsection (i).

1) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's mean and the background mean levels for each constituent.

2) An analysis of variance (ANOVA) based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The method must include estimation and testing of the contrasts between each compliance well's median and the background median levels for each constituent.

3) A tolerance or prediction interval procedure in which an interval for each constituent is established from the distribution of the background data, and the level of each constituent in each compliance well is compared to the upper tolerance or prediction limit.

4) A control chart approach that gives control limits for each constituent.

5) Another statistical test method submitted by the owner or operator and approved by the Agency.

i) Any statistical method chosen pursuant to subsection (h) for specification in the unit permit must comply with the following performance standards, as appropriate:

1) The statistical method used to evaluate groundwater monitoring data must be appropriate for the distribution of chemical parameters or hazardous constituents. If the distribution of the chemical parameters or hazardous constituents is shown by the owner or operator to be inappropriate for a normal theory test, then the data should be transformed or a distribution-free theory test should be used. If the distributions for the constituents differ, more than one statistical method may be needed.

2) If an individual well comparison procedure is used to compare an individual compliance well constituent concentration with background constituent concentrations or a groundwater protection standard, the test must be done at a Type I error level no less than 0.01 for each testing period. If a multiple comparisons procedure is used, the Type I experimentwise error rate for each testing period must be no less than 0.05; however, the Type I error of no less than 0.01 for individual well comparisons must be maintained. This performance standard does not apply to tolerance intervals, prediction intervals or control charts.

3) If a control chart approach is used to evaluate groundwater monitoring data, the specific type of control chart and its associated parameter value must be proposed by the owner or operator and approved by the Agency if the Agency finds it to adequately protect human health and the environment.

4) If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, must be proposed by the owner or operator and approved by the Agency if the Agency finds these parameters to adequately protect human health and the environment. These parameters will be determined after considering the number of samples in the background database, the data distribution, and the range of the concentration values for each constituent of concern.

5) The statistical method must account for data below the limit of detection with one or more statistical procedures that adequately protect human health and the environment. Any practical quantification limit (pql) approved by the Agency pursuant to subsection (h) that is used in the statistical method must be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

6) If necessary, the statistical method must include procedures to control or correct for seasonal and spatial variability, as well as temporal correlation in the data.

j) Groundwater monitoring data collected in accordance with subsection (g), including actual levels of constituents, must be maintained in the facility operating record. The Agency must specify in the permit when the data must be submitted for review.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.198 Detection Monitoring Program

An owner or operator required to establish a detection monitoring program under this Subpart F must, at a minimum, discharge the following responsibilities:

a) The owner or operator must monitor for indicator parameters (e.g., specific conductance, total organic carbon, or total organic halogen), waste constituents or reaction products that provide a reliable indication of the presence of hazardous constituents in groundwater. The Agency must specify the parameters or constituents to be monitored in the facility permit, after considering the following factors:

1) The types, quantities, and concentrations of constituents in wastes managed at the regulated unit;

2) The mobility, stability, and persistence of waste constituents or their reaction products in the unsaturated zone beneath the waste management area;

3) The detectability of indicator parameters, waste constituents, and reaction products in groundwater; and

4) The concentrations or values and coefficients of variation of proposed monitoring parameters or constituents in the groundwater background.

b) The owner or operator must install a groundwater monitoring system at the compliance point as specified under Section 724.195. The groundwater monitoring system must comply with Sections 724.197(a)(2), 724.197(b), and 724.197(c).

c) The owner or operator must conduct a groundwater monitoring program for each chemical parameter and hazardous constituent specified in the permit pursuant to subsection (a) in accordance with Section 724.197(g). The owner or operator must maintain a record of groundwater analytical data, as measured and in a form necessary for the determination of statistical significance under Section 724.197(h).

d) The Agency must specify the frequencies for collecting samples and conducting statistical tests to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in the permit conditions under subsection (a) in accordance with Section 724.197(g).

e) The owner or operator must determine the groundwater flow rate and direction in the uppermost aquifer at least annually.

f) The owner or operator must determine whether there is statistically significant evidence of contamination for any chemical parameter or hazardous constituent specified in the permit pursuant to subsection (a) at a frequency specified under subsection (d).

    1) In determining whether statistically significant evidence of contamination exists, the owner or operator must use the methods specified in the permit under Section 724.197(h). These methods must compare data collected at the compliance points to the background groundwater quality data.

    2) The owner or operator must determine whether there is statistically significant evidence of contamination at each monitoring well at the compliance point within a reasonable period of time after completion of sampling. The Agency must specify in the facility permit what period of time is reasonable, after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of groundwater samples.

g) If the owner or operator determines pursuant to subsection (f) that there is statistically significant evidence of contamination for chemical parameters or hazardous constituents specified pursuant to subsection (a) at any monitoring well at the compliance point, the owner or operator must do the following:

    1) Notify the Agency of this finding in writing within seven days. The notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination.

    2) Immediately sample the groundwater in all monitoring wells and determine whether constituents in the list of Appendix I are present, and if so, in what concentration. However, the Agency must allow sampling for a site-specific subset of constituents from the Appendix I list and for other representative or related waste constituents if it determines that sampling for that site-specific subset of contaminants and other constituents is more economical and equally effective for determining whether groundwater contamination has occurred.

    3) For any compounds in Appendix I found in the analysis pursuant to subsection (g)(2), the owner or operator may resample within one month or at an alternative site-specific schedule approved by the Agency and

repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, then these constituents will form the basis for compliance monitoring. If the owner or operator does not resample for the compounds set forth in subsection (g)(2), the hazardous constituents found during this initial Appendix I analysis will form the basis for compliance monitoring.

4) Within 90 days, submit to the Agency an application for a permit modification to establish a compliance monitoring program meeting the requirements of Section 724.199. The application must include the following information:

A) An identification of the concentration of any constituent in Appendix I detected in the groundwater at each monitoring well at the compliance point;

B) Any proposed changes to the groundwater monitoring system at the facility necessary to meet the requirements of Section 724.199;

C) Any proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of Section 724.199;

D) For each hazardous constituent detected at the compliance point, a proposed concentration limit under Section 724.194(a)(1) or (a)(2), or a notice of intent to seek an alternate concentration limit under Section 724.194(b).

5) Within 180 days, submit the following to the Agency:

A) All data necessary to justify an alternate concentration limit sought under Section 724.194(b); and

B) An engineering feasibility plan for a corrective action program necessary to meet the requirement of Section 724.200, unless the following is true:

i) All hazardous constituents identified under subsection (g)(2) are listed in Table 1 of Section 724.194 and their concentrations do not exceed the respective values given in that table; or

ii) The owner or operator has sought an alternate concentration limit under Section 724.194(b) for every hazardous constituent identified under subsection (g)(2).

6) If the owner or operator determines, pursuant to subsection (f), that there is a statistically significant difference for chemical parameters or hazardous constituents specified pursuant to subsection (a) at any monitoring well at the compliance point, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis or statistical evaluation, or natural variation in the groundwater. The owner or operator may make a demonstration under this subsection (g) in addition to, or in lieu of, submitting a permit modification application under subsection (g)(4); however, the owner or operator is not relieved of the requirement to submit a permit modification application within the time specified in subsection (g)(4) unless the demonstration made under this subsection (g) successfully shows that a source other than a regulated unit caused the increase, or that the increase resulted from error in sampling, analysis, or evaluation. In making a demonstration under this subsection (g), the owner or operator must do the following:

A) Notify the Agency in writing, within seven days of determining statistically significant evidence of contamination at the compliance point, that the owner or operator intends to make a demonstration under this subsection (g);

B) Within 90 days, submit a report to the Agency that demonstrates that a source other than a regulated unit caused the contamination or that the contamination resulted from error in sampling, analysis, or evaluation;

C) Within 90 days, submit to the Agency an application for a permit modification to make any appropriate changes to the detection monitoring program facility; and

D) Continue to monitor in accordance with the detection monitoring program established under this Section.

h) If the owner or operator determines that the detection monitoring program no longer satisfies the requirements of this Section, the owner or operator must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.199 Compliance Monitoring Program

An owner or operator required to establish a compliance monitoring program under this Subpart F must, at a minimum, discharge the following responsibilities:

a) The owner or operator must monitor the groundwater to determine whether regulated units are in compliance with the groundwater protection standard under Section 724.192. The Agency must specify the groundwater protection standard in the facility permit, including the following:

1) A list of the hazardous constituents identified under Section 724.193;

2) Concentration limits under Section 724.194 for each of those hazardous constituents;

3) The compliance point under Section 724.195; and

4) The compliance period under Section 724.196.

b) The owner or operator must install a groundwater monitoring system at the compliance point as specified under Section 724.195. The groundwater monitoring system must comply with Section 724.197(a)(2), 724.197(b), and 724.197(c).

c) The Agency must specify the sampling procedures and statistical methods appropriate for the constituents and facility, consistent with Section 724.197(g) and (h).

1) The owner or operator must conduct a sampling program for each chemical parameter or hazardous constituent in accordance with Section 724.197(g).

2) The owner or operator must record groundwater analytical data as measured and in a form necessary for the determination of statistical significance under Section 724.197(h) for the compliance period of the facility.

d) The owner or operator must determine whether there is statistically significant evidence of increased contamination for any chemical parameter or hazardous constituent specified in the permit, pursuant to subsection (a), at a frequency specified under subsection (f).

1) In determining whether statistically significant evidence of increased contamination exists, the owner or operator must use the methods specified in the permit under Section 724.197(h). The methods must compare data collected at the compliance points to a concentration limit developed in accordance with Section 724.194.

2) The owner or operator must determine whether there is statistically significant evidence of increased contamination at each monitoring well at the compliance point within a reasonable time period after completion of the sampling. The Agency must specify that time period in the facility permit, after considering the complexity of the statistical test and the

availability of laboratory facilities to perform the analysis of groundwater samples.

e) The owner or operator must determine the groundwater flow rate and direction in the uppermost aquifer at least annually.

f) The Agency must specify the frequencies for collecting samples and conducting statistical tests to determine statistically significant evidence of increased contamination in accordance with Section 724.197(g).

g) The owner or operator must annually determine whether additional hazardous constituents from Appendix I, which could possibly be present but are not on the detection monitoring list in the permit, are actually present in the uppermost aquifer and, if so, at what concentration, pursuant to procedures in Section 724.198(f). To accomplish this, the owner or operator must consult with the Agency to determine the following on a case-by-case basis: which sample collection event during the year will involve enhanced sampling; the number of monitoring wells at the compliance point to undergo enhanced sampling; the number of samples to be collected from each of these monitoring wells; and, the specific constituents from Appendix I for which these samples must be analyzed. If the enhanced sampling event indicates that Appendix I constituents are present in the ground water that are not already identified in the permit as monitoring constituents, the owner or operator may resample within one month or at an alternative site-specific schedule approved by the Agency, and repeat the analysis. If the second analysis confirms the presence of new constituents, the owner or operator must report the concentration of these additional constituents to the Agency within seven days after the completion of the second analysis and add them to the monitoring list. If the owner or operator chooses not to resample, then it must report the concentrations of these additional constituents to the Agency within seven days after completion of the initial analysis, and add them to the monitoring list.

h) If the owner or operator determines, pursuant to subsection (d) that any concentration limits under Section 724.194 are being exceeded at any monitoring well at the point of compliance, the owner or operator must do the following:

1) Notify the Agency of this finding in writing within seven days. The notification must indicate what concentration limits have been exceeded.

2) Submit to the Agency an application for a permit modification to establish a corrective action program meeting the requirements of Section 724.200 within 180 days, or within 90 days if an engineering feasibility study has been previously submitted to the Agency under Section 724.198(g)(5). The application must at a minimum include the following information:

A) A detailed description of corrective actions that will achieve compliance with the groundwater protection standard specified in the permit under subsection (a); and

B) A plan for a groundwater monitoring program that will demonstrate the effectiveness of the corrective action. Such a groundwater monitoring program may be based on a compliance monitoring program developed to meet the requirements of this Section.

i) If the owner or operator determines, pursuant to subsection (d), that the groundwater concentration limits under this Section are being exceeded at any monitoring well at the point of compliance, the owner or operator may demonstrate that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation, or natural variation in groundwater. In making a demonstration under this subsection (i), the owner or operator must do the following:

1) Notify the Agency in writing within seven days that it intends to make a demonstration under this subsection (i);

2) Within 90 days, submit a report to the Agency that demonstrates that a source other than a regulated unit caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis, or evaluation;

3) Within 90 days, submit to the Agency an application for a permit modification to make any appropriate changes to the compliance monitoring program at the facility; and

4) Continue to monitor in accord with the compliance monitoring program established under this Section.

j) If the owner or operator determines that the compliance monitoring program no longer satisfies the requirements of this Section, the owner or operator must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.200 Corrective Action Program

An owner or operator required to establish a corrective action program pursuant to this Subpart F must, at a minimum, discharge the following responsibilities:

a) The owner or operator must take corrective action to ensure that regulated units are in compliance with the groundwater protection standard pursuant to Section

724.192. The Agency must specify the groundwater protection standard in the facility permit, including the following:

1) A list of the hazardous constituents identified pursuant to Section 724.193;

2) Concentration limits pursuant to Section 724.194 for each of those hazardous constituents;

3) The compliance point pursuant to Section 724.195; and

4) The compliance period pursuant to Section 724.196.

b) The owner or operator must implement a corrective action program that prevents hazardous constituents from exceeding their respective concentration limits at the compliance point by removing the hazardous waste constituents or treating them in place. The permit will specify the specific measures that must be taken.

c) The owner or operator must begin corrective action within a reasonable time period after the groundwater protection standard is exceeded. The Agency must specify that time period in the facility permit. If a facility permit includes a corrective action program in addition to a compliance monitoring program, the permit will specify when the corrective action must begin and such a requirement will operate in lieu of Section 724.199(i)(2).

d) In conjunction with a corrective action program, the owner or operator must establish and implement a groundwater monitoring program to demonstrate the effectiveness of the corrective action program. Such a monitoring program may be based on the requirements for a compliance monitoring program pursuant to Section 724.199 and must be as effective as that program in determining compliance with the groundwater protection standard pursuant to Section 724.192 and in determining the success of a corrective action program pursuant to subsection (e) where appropriate.

e) In addition to the other requirements of this Section, the owner or operator must conduct a corrective action program to remove or treat in place any hazardous constituents pursuant to Section 724.193 that exceed concentration limits pursuant to Section 724.194 in groundwater, as follows:

1) At the following locations:

A) Between the compliance point pursuant to Section 724.195 and the downgradient facility property boundary; and

B) Beyond the facility boundary, where necessary to adequately protect human health and the environment, unless the owner or operator demonstrates to the Agency that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such action. The owner and

operator are not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis.

2) The permit will specify the following measures to be taken:

A) Corrective action measures pursuant to this subsection (e) must be initiated and completed within a reasonable period of time considering the extent of contamination.

B) Corrective action measures pursuant to this subsection (e) may be terminated once the concentration of hazardous constituents pursuant to Section 724.193 is reduced to levels below their respective concentration limits pursuant to Section 724.194.

f) The owner or operator must continue corrective action measures during the compliance period to the extent necessary to ensure that the groundwater protection standard is not exceeded. If the owner or operator is conducting corrective action at the end of the compliance period, the owner or operator must continue that corrective action for as long as necessary to achieve compliance with the groundwater protection standard. The owner or operator may terminate corrective action measures taken beyond the period equal to the active life of the waste management area (including the closure period) if the owner or operator can demonstrate, based on data from the groundwater monitoring program pursuant to subsection (d), that the groundwater protection standard of Section 724.192 has not been exceeded for a period of three consecutive years.

g) The owner or operator must report in writing to the Agency on the effectiveness of the corrective action program. The owner or operator must submit these reports annually.

h) If the owner or operator determines that the corrective action program no longer satisfies this Section, the owner or operator must, within 90 days, submit an application for a permit modification to make any appropriate changes to the program.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.201 Corrective Action for Solid Waste Management Units

a) The owner or operator of a facility seeking a permit for the treatment, storage, or disposal of hazardous waste must institute corrective action as necessary to adequately protect human health and the environment for all releases of hazardous waste or constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in such unit.

b) Corrective action will be specified in the permit in accordance with this Section and Subpart S. The permit will contain schedules of compliance for such corrective action (where such corrective action cannot be completed prior to issuance of the permit) and assurances of financial responsibility for completing such corrective action.

c) The owner or operator must implement corrective action measures beyond the facility property boundary, where necessary to adequately protect human health and the environment, unless the owner or operator demonstrates to the Agency that, despite the owner or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such actions. The owner and operator are not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for such corrective action must be provided.

d) This Section does not apply to remediation waste management sites unless they are part of a facility subject to a permit for treating, storing, or disposing of hazardous wastes that are not remediation wastes.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

SUBPART G: CLOSURE AND POST-CLOSURE CARE

Section 724.210 Applicability

Except as Section 724.101 provides otherwise, the following are required:

a) Section 724.211 through 724.215 (which concern closure) apply to the owners and operators of all hazardous waste management facilities;

b) Sections 724.216 through 724.220 (which concern post-closure care) apply to the owners and operators of the following:

1) All hazardous waste disposal facilities;

2) Waste piles and surface impoundments from which the owner or operator intends to remove the wastes at closure, to the extent that Sections 724.216 through 724.220 are made applicable to such facilities in Sections 724.328 or 724.358;

3) Tank systems that are required pursuant to Section 724.297 to meet the requirements for landfills; or

4) Containment buildings that are required pursuant to Section 724.1102 to meet the requirements for landfills; and

c) A permit or enforceable document can contain alternative requirements that replace all or part of the closure and post-closure care requirements of this Subpart G (and the unit-specific standards referenced in Section 724.211(c) applying to a regulated unit) with alternative requirements set out in a permit or other enforceable document, as provided pursuant to 35 Ill. Adm. Code 703.161, where the Board or Agency determines the following:

1) The regulated unit is situated among solid waste management units (or areas of concern), a release has occurred, and both the regulated unit and one or more solid waste management units (or areas of concern) are likely to have contributed to the release; and

2) It is not necessary to apply the closure requirements of this Subpart G (and those referenced herein) because the alternative requirements will adequately protect human health and the environment and will satisfy the closure performance standard of Section 724.211(a) and (b).

(Source: Amended at 31 Ill. Reg. 893, effective December 20, 2006)

Section 724.211 Closure Performance Standard

The owner or operator must close the facility in a manner that does the following:

a) The closure minimizes the need for further maintenance;

b) The closure controls, minimizes, or eliminates, to the extent necessary to adequately protect to human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous decomposition products to the ground or surface waters or to the atmosphere; and

c) The closure complies with the closure requirements of this Part including, but not limited to, Sections 724.278, 724.297, 724.328, 724.358, 724.380, 724.410, 724.451 and 724.701 through 724.703, and 724.1102.

(Source: Amended at 31 Ill. Reg. 893, effective December 20, 2006)

Section 724.212 Closure Plan; Amendment of Plan

a) Written plan required.

1) The owner or operator of a hazardous waste management facility must have a written closure plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous waste at partial or final closure are required by Sections 724.328(c)(1)(A) and 724.358(c)(1)(A) to have contingent closure plans. The plan must be submitted with the permit application, in accordance with 35 Ill. Adm. Code 703.183, and approved by the Agency

as part of the permit issuance proceeding pursuant to 35 Ill. Adm. Code 705. In accordance with 35 Ill. Adm. Code 703.241, the approved closure plan will become a condition of any RCRA permit.

2) The Agency's approval of the plan must ensure that the approved closure plan is consistent with Sections 724.211 through 724.215 and the applicable requirements of Sections 724.190 et seq., 724.278, 724.297, 724.328, 724.358, 724.380, 724.410, 724.451, 724.701, and 724.1102. Until final closure is completed and certified in accordance with Section 724.215, a copy of the approved plan and approved revisions must be furnished to the Agency upon request, including requests by mail.

b) Content of plan. The plan must identify steps necessary to perform partial or final closure of the facility at any point during its active life. The closure plan must include, at least the following:

1) A description of how each hazardous waste management unit at the facility will be closed in accordance with Section 724.211;

2) A description of how final closure of the facility will be conducted in accordance with Section 724.211. The description must identify the maximum extent of the operations that will be unclosed during the active life of the facility;

3) An estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial closures and final closure, including, but not limited to, methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the types of off-site hazardous waste management units to be used, if applicable;

4) A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure, including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard;

5) A detailed description of other activities necessary during the closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, groundwater monitoring, leachate collection, and runon and runoff control;

6) A schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule must include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities that will allow tracking of

the progress of partial and final closure (For example, in the case of a landfill unit, estimates of the time required to treat and dispose of all hazardous waste inventory and of the time required to place a final cover must be included.);

7) For facilities that use trust funds to establish financial assurance pursuant to Section 724.243 or 724.245 and that are expected to close prior to the expiration of the permit, an estimate of the expected year of final closure; and

8) For a facility where alternative requirements are established at a regulated unit pursuant to Section 724.190(f), 724.210(c), or 724.240(d), as provided pursuant to 35 Ill. Adm. Code 703.161, either the alternative requirements applying to the regulated unit or a reference to the enforceable document containing those alternative requirements.

c) Amendment of the plan. The owner or operator must submit a written notification of or request for a permit modification to authorize a change in operating plans, facility design, or the approved closure plan in accordance with the applicable procedures in 35 Ill. Adm. Code 702, 703, and 705. The written notification or request must include a copy of the amended closure plan for review or approval by the Agency.

1) The owner or operator may submit a written notification or request to the Agency for a permit modification to amend the closure plan at any time prior to notification of partial or final closure of the facility.

2) The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved closure plan whenever any of the following occurs:

A) Changes in operating plans or facility design affect the closure plan;

B) There is a change in the expected year of closure, if applicable;

C) In conducting partial or final closure activities, unexpected events require modification of the approved closure plan; or

D) The owner or operator requests the establishment of alternative requirements, as provided pursuant to 35 Ill. Adm. Code 703.161, to a regulated unit pursuant to Section 724.190(f), 724.210(c), or 724.240(d).

3) The owner or operator must submit a written request for a permit modification including a copy of the amended closure plan for approval at least 60 days prior to the proposed change in the facility design or operation, or no later than 60 days after an unexpected event has occurred

that has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator must request a permit modification no later than 30 days after the unexpected event. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at closure and is not otherwise required to prepare a contingent closure plan pursuant to Section 724.328(c)(1)(A) or 724.358(c)(1)(A), must submit an amended closure plan to the Agency no later than 60 days after the date the owner or operator or Agency determines that the hazardous waste management unit must be closed as a landfill, subject to Section 724.410, or no later than 30 days after that date if the determination is made during partial or final closure. The Agency must approve, disapprove or modify this amended plan in accordance with the procedures in 35 Ill. Adm. Code 702, 703, and 705. In accordance with 35 Ill. Adm. Code 702.160 and 703.241, the approved closure plan will become a condition of any RCRA permit issued.

4) The Agency may request modifications to the plan under the conditions described in Section 724.212(c)(2). The owner or operator must submit the modified plan within 60 days after the Agency's request, or within 30 days if the change in facility conditions occurs during partial or final closure. Any modifications requested by the Agency must be approved in accordance with the procedures in 35 Ill. Adm. Code 702, 703, and 705.

d) Notification of partial closure and final closure.

1) The owner or operator must notify the Agency in writing at least 60 days prior to the date on which the owner or operator expects to begin closure of a surface impoundment, waste pile, land treatment, or landfill unit or final closure of a facility with such a unit. The owner or operator must notify the Agency in writing at least 45 days prior to the date on which the owner or operator expects to begin final closure of a facility with only treatment or storage tanks, container storage, or incinerator units to be closed. The owner or operator must notify the Agency in writing at least 45 days prior to the date on which the owner or operator expects to begin partial or final closure of a boiler or industrial furnace, whichever is earlier.

2) The date when the owner or operator "expects to begin closure" must be either of the following:

A) No later than 30 days after the date on which any hazardous waste management unit receives the known final volume of hazardous wastes or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous waste. If the owner or operator of a hazardous waste management unit demonstrates to the Agency

that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and that the owner or operator has taken and will continue to take all steps to adequately prevent threats to human health and the environment, including compliance with all applicable permit requirements, the Agency must approve an extension to this one-year limit; or

B) For units meeting the requirements of Section 724.213(d), no later than 30 days after the date on which the hazardous waste management unit receives the final known volume of non-hazardous wastes, or, if there is a reasonable possibility that the hazardous waste management unit will receive additional non-hazardous wastes, no later than one year after the date on which the unit received the most recent volume of non-hazardous wastes. If the owner or operator demonstrates to the Agency that the hazardous waste management unit has the capacity to receive additional non-hazardous wastes and that the owner and operator have taken, and will continue to take, all steps to adequately prevent threats to human health and the environment, including compliance with all applicable permit requirements, the Agency must approve an extension to this one-year limit.

3) If the facility's permit is terminated, or if the facility is otherwise ordered by judicial decree or Board order to cease receiving hazardous wastes or to close, then this subsection (d) does not apply. However, the owner or operator must close the facility in accordance with the deadlines established in Section 724.213.

e) Removal of wastes and decontamination or dismantling of equipment. Nothing in this Section must preclude the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure.

(Source: Amended at 31 Ill. Reg. 893, effective December 20, 2006)

Section 724.213 Closure; Time Allowed for Closure

a) All permits must require that, within 90 days after receiving the final volume of hazardous waste, or the final volume of non-hazardous wastes, if the owner or operator complies with all the applicable requirements of subsections (d) and (e), at a hazardous waste management unit or facility, the owner or operator treat, remove from the unit or facility, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan, unless the owner or operator makes the following demonstration by way of permit application or modification application. The Agency must approve a longer period if the owner or operator demonstrates that the following is true:

1) Either of the following:

A) The activities required to comply with this subsection (a) will, of necessity, take longer than 90 days to complete; or

B) All of the following is true:

i) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes, if the owner or operator complies with subsections (d) and (e);

ii) There is a reasonable likelihood that the owner or operator or another person will recommence operation of the hazardous waste management unit or facility within one year; and

iii) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

2) The owner or operator has taken and will continue to take all steps to prevent threats to human health and the environment, including compliance with all applicable permit requirements.

b) All permits must require that the owner or operator complete partial and final closure activities in accordance with the approved closure plan and within 180 days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes, if the owner or operator complies with all applicable requirements in subsections (d) and (e), at the hazardous waste management unit or facility, unless the owner or operator makes the following demonstration by way of permit application or modification application. The Agency must approve a longer closure period if the owner or operator demonstrates as follows:

1) Either of the following:

A) The partial or final closure activities will, of necessity, take longer than 180 days to complete; or

B) All of the following:

i) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes, if the owner or operator complies with subsections (d) and (e);

ii) There is reasonable likelihood that the owner or operator will recommence operation of the hazardous waste management unit or facility within one year; and

iii) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and

2) The owner and operator have taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating hazardous waste management unit or facility including compliance with all applicable permit requirements.

c) The demonstration referred to in subsections (a)(1) and (b)(1) must be made as follows:

1) The demonstration in subsection (a)(1) must be made at least 30 days prior to the expiration of the 90-day period in subsection (a); and

2) The demonstration in subsection (b)(1) must be made at least 30 days prior to the expiration of the 180-day period in subsection (b), unless the owner or operator is otherwise subject to deadlines in subsection (d).

d) Continued Receipt of Non-Hazardous Waste. The Agency must permit an owner or operator to receive only non-hazardous wastes in a landfill, land treatment unit, or surface impoundment unit after the final receipt of hazardous wastes at that unit if the following is true:

1) The owner or operator requests a permit modification in compliance with all applicable requirements in 35 Ill. Adm. Code 702, 703, and 705, and in the permit modification request demonstrates the following:

A) That the unit has the existing design capacity as indicated on the Part A application to receive non-hazardous wastes;

B) That there is a reasonable likelihood that the owner or operator or another person will receive non-hazardous wastes in the unit within one year after the final receipt of hazardous wastes;

C) That the non-hazardous wastes will not be incompatible with any remaining wastes in the unit, or with the facility design and operating requirements of the unit or facility pursuant to this Part;

D) That closure of the hazardous waste management unit would be incompatible with continued operation of the unit or facility; and

E) That the owner or operator is operating and will continue to operate in compliance with all applicable permit requirements;

2) The request to modify the permit includes an amended waste analysis plan, groundwater monitoring and response program, human exposure assessment required pursuant to 35 Ill. Adm. Code 703.186, and closure and post-closure plans and updated cost estimates and demonstrations of financial assurance for closure and post-closure care, as necessary and appropriate, to reflect any changes due to the presence of hazardous constituents in the non-hazardous wastes, and changes in closure activities, including the expected year of closure if applicable pursuant to Section 724.212(b)(7), as a result of the receipt of non-hazardous wastes following the final receipt of hazardous wastes;

3) The request to modify the permit includes revisions, as necessary and appropriate, to affected conditions of the permit to account for the receipt of non-hazardous wastes following receipt of the final volume of hazardous wastes; and

4) The request to modify the permit and the demonstrations referred to in subsections (d)(1) and (d)(2) are submitted to the Agency no later than 120 days prior to the date on which the owner or operator of the facility receives the known final volume of hazardous wastes at the unit or no later than 90 days after the effective date of this Section, whichever is later.

e) Surface Impoundments. In addition to the requirements in subsection (d), an owner or operator of a hazardous waste surface impoundment that is not in compliance with the liner and leachate collection system requirements in Section 724.321(c), (d), or (e) must receive non-hazardous wastes only as authorized by an adjusted standard pursuant to this subsection (e).

1) The petition for adjusted standard must include the following:

A) A plan for removing hazardous wastes; and

B) A contingent corrective measures plan.

2) The removal plan must provide for the following:

A) Removing all hazardous liquids; and

B) Removing all hazardous sludges to the extent practicable without impairing the integrity of the liner or liners, if any; and

C) Removal of hazardous wastes no later than 90 days after the final receipt of hazardous wastes. The Board will allow a longer time, if the owner or operator demonstrates the following:

i) That the removal of hazardous wastes will, of necessity, take longer than the allotted period to complete; and

ii) That an extension will not pose a threat to human health and the environment.

3) The following requirements apply to the contingent corrective measures plan:

A) It must meet the requirements of a corrective action plan pursuant to Section 724.199, based upon the assumption that a release has been detected from the unit.

B) It may be a portion of a corrective action plan previously submitted pursuant to Section 724.199.

C) It may provide for continued receipt of non-hazardous wastes at the unit following a release only if the owner or operator demonstrates that continued receipt of wastes will not impede corrective action.

D) It must provide for implementation within one year after a release, or within one year after the grant of the adjusted standard, whichever is later.

4) Definition of "Release." A release is defined as a statistically significant increase (or decrease in the case of pH) over background values for detection monitoring parameters or constituents specified in the permit, or over the facility's groundwater protection standard at the or over the facility's groundwater protection standard at the point of compliance, if applicable, detected in accordance with the requirements in Subpart F.

5) In the event of a release, the owner or operator of the unit must do the following:

A) Within 35 days, the owner or operator must file with the Board a petition for adjusted standard. If the Board finds that it is necessary to do so in order to adequately protect human health and the environment, the Board will modify the adjusted standard to require the owner or operator to fulfill the conditions of subsections (e)(5)(A)(i) and (e)(5)(A)(ii). The Board will retain jurisdiction or condition the adjusted standard so as to require the filing of a new petition to address any required closure pursuant to subsection (e)(7).

i) Begin to implement that corrective measures plan in less than one year; or

ii) Cease the receipt of wastes until the plan has been implemented.

B) The owner or operator must implement the contingent corrective measures plan.

C) The owner or operator may continue to receive wastes at the unit if authorized by the approved contingent measures plan.

6) Annual Report. During the period of corrective action, the owner or operator must provide annual reports to the Agency that do the following:

A) They must describe the progress of the corrective action program;

B) They must compile all groundwater monitoring data; and

C) They must evaluate the effect of the continued receipt of non-hazardous wastes on the effectiveness of the corrective action.

7) Required Closure. The owner or operator must commence closure of the unit in accordance with the closure plan and the requirements of this Part if the Board terminates the adjusted standard, or if the adjusted standard terminates pursuant to its terms.

A) The Board will terminate the adjusted standard if the owner or operator failed to implement corrective action measures in accordance with the approved contingent corrective measures plan.

B) The Board will terminate the adjusted standard if the owner or operator fails to make substantial progress in implementing the corrective measures plan and achieving the facility's groundwater protection standard, or background levels if the facility has not yet established a groundwater protection standard.

C) The adjusted standard will automatically terminate if the owner or operator fails to implement the removal plan.

D) The adjusted standard will automatically terminate if the owner or operator fails to timely file a required petition for adjusted standard.

8) Adjusted Standard Procedures. The following procedures must be used in granting, modifying or terminating an adjusted standard pursuant to this subsection (e).

A) Except as otherwise provided, the owner or operator must follow the procedures of Section 28.1 of the Act and 35 Ill. Adm. Code 101 and 104 to petition the Board for an adjusted standard.

B) Initial justification. The Board will grant an adjusted standard pursuant to subsection (e)(1) if the owner or operator demonstrates

that the removal plan and contingent corrective measures plans meet the requirements of subsections (e)(2) and (e)(3).

C) The Board will include the following conditions in granting an adjusted standard pursuant to subsection (e)(1):

i) A plan for removing hazardous wastes.

ii) A requirement that the owner or operator remove hazardous wastes in accordance with the plan.

iii) A contingent corrective measures plan.

iv) A requirement that, in the event of a release, the owner or operator must do as follows: within 35 days, file with the Board a petition for adjusted standard; implement the corrective measures plan; and, file semi-annual reports with the Agency.

v) A condition that the adjusted standard will terminate if the owner or operator fails to do as follows: implement the removal plan; or timely file a required petition for adjusted standard.

vi) A requirement that, in the event the adjusted standard is terminated, the owner or operator must commence closure of the unit in accordance with the requirements of the closure plan and this Part.

D) Justification in the Event of a Release. The Board will modify or terminate the adjusted standard pursuant to a petition filed pursuant to subsection (e)(5)(A), as provided in that subsection or in subsection (e)(7).

9) The Agency must modify the RCRA permit to include the adjusted standard.

10) The owner or operator may file a permit modification application with a revised closure plan within 15 days after an adjusted standard is terminated.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.214 Disposal or Decontamination of Equipment, Structures, and Soils

During the partial and final closure periods, all contaminated equipment, structures, and soils must be properly disposed of or decontaminated unless otherwise specified in Sections 724.297, 724.328, 724.358, 724.380, or 724.410, or under the authority of Sections 724.701 and 724.703.

By removing any hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that waste in accordance with all applicable requirements of 35 Ill. Adm. Code 722.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.215 Certification of Closure

Within 60 days after completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, or landfill unit, and within 60 days after completion of final closure, the owner or operator must submit to the Agency, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by a qualified Professional Engineer. Documentation supporting the Professional Engineer's certification must be furnished to the Agency upon request until the Agency releases the owner or operator from the financial assurance requirements for closure under Section 724.243(i).

(Source: Amended at 32 Ill. Reg. 12365, effective July 14, 2008)

Section 724.216 Survey Plat

No later than the submission of the certification of closure of each hazardous waste disposal unit, the owner or operator must submit to any local zoning authority or authority with jurisdiction over local land use and to the Agency and record with land titles, a survey plat indicating the location and dimensions of landfill cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority or the authority with jurisdiction over local land use must contain a note, prominently displayed, that states the owner's and operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable regulations of Subpart G.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.217 Post-Closure Care and Use of Property

a) Post-Closure Care Period

1) Post-closure care for each hazardous waste management unit subject to the requirements of Sections 724.217 through 724.220 must begin after completion of closure of the unit and continue for 30 years after that date and must consist of at least the following:

A) Monitoring and reporting in accordance with the requirements of Subparts F, K, L, M, N, and X; and

B) Maintenance and monitoring of waste containment systems in accordance with the requirements of Subparts F, K, L, M, N, and X.

2) Any time preceding partial closure of a hazardous waste management unit subject to post-closure care requirements or final closure, or any time during the post-closure care period for a particular unit, the Board may, in accordance with the permit modification procedures of 35 Ill. Adm. Code 702, 703, and 705, do either of the following:

A) Shorten the post-closure care period applicable to the hazardous waste management unit or facility if all disposal units have been closed and the Board has found by an adjusted standard issue pursuant to Section 28.1 of the Act and 35 Ill. Adm. Code 101 and 104 that the reduced period is sufficient to adequately protect human health and the environment (e.g., leachate or groundwater monitoring results, characteristics of the waste, application of advanced technology or alternative disposal, treatment, or re-use techniques indicate that the hazardous waste management unit or facility is secure); or

B) Extend the post-closure care period applicable to the hazardous waste management unit or facility if the Board has found by an adjusted standard issue pursuant to Section 28.1 of the Act and 35 Ill. Adm. Code 101 and 104 that the extended period is necessary to adequately protect human health and the environment (e.g., leachate or groundwater monitoring results indicate a potential for migration of hazardous wastes at levels that may be harmful to human health and the environment).

b) The Agency must require continuation at partial or final closure of any of the security requirements of Section 724.114 during part or all of the post-closure period when either of the following is true:

1) Hazardous wastes may remain exposed after completion of partial or final closure; or

2) Access by the public or domestic livestock may pose a hazard to human health.

c) Post-closure use of property on or in which hazardous wastes remain after partial or final closure must never be allowed to disturb the integrity of the final cover, liners, or any other components of the containment system or the function of the facility's monitoring systems, unless the Agency finds, by way of a permit modification, that the disturbance is necessary for either of the following reasons:

1) It is necessary to the proposed use of the property, and will not increase the potential hazard to human health or the environment; or

2) It is necessary to reduce a threat to human health or the environment.

d) All the post-closure care activities must be in accordance with the provisions of the approved post-closure plan as specified in Section 724.218.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.218 Post-Closure Care Plan; Amendment of Plan

a) Written Plan. The owner or operator of a hazardous waste disposal unit must have a written post-closure care plan. In addition, certain surface impoundments and waste piles from which the owner or operator intends to remove or decontaminate the hazardous wastes at partial or final closure are required by Sections 724.328(c)(1)(B) and 724.358(c)(1)(B) to have contingent post-closure care plans. Owners or operators of surface impoundments and waste piles not otherwise required to prepare contingent post-closure care plans under Sections 724.328(c)(1)(B) or 724.358(c)(1)(B) must submit a post-closure care plan to the Agency within 90 days from the date that the owner or operator or Agency determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of Sections 724.217 through 724.220. The plan must be submitted with the permit application, in accordance with 35 Ill. Adm. Code 703.183, and approved by the Agency as part of the permit issuance proceeding under 35 Ill. Adm. Code 705. In accordance with 35 Ill. Adm. Code 703.241, the approved post-closure care plan will become a condition of any RCRA permit issued.

b) For each hazardous waste management unit subject to the requirements of this Section, the post-closure care plan must identify the activities that will be carried on after closure and the frequency of these activities, and include at least the following:

1) A description of the planned monitoring activities and frequencies that they will be performed to comply with Subparts F, K, L, M, N, and X during the post-closure care period.

2) A description of the planned maintenance activities, and frequencies at which they will be performed, to ensure the following:

A) The integrity of the cap and final cover or other containment systems in accordance with the requirements of Subparts F, K, L, M, N, and X; and

B) The function of the facility monitoring equipment in accordance with the requirements of Subparts F, K, L, M, N, and X.

3) The name, address, and phone number of the person or office to contact about the hazardous disposal unit during the post-closure care period.

4) For a facility where alternative requirements are established at a regulated unit under Section 724.190(f), 724.210(c), or 724.240(d), as provided under 35 Ill. Adm. Code 703.161, either the alternative requirements that apply to the regulated unit, or a reference to the enforceable document containing those requirements.

c) Until final closure of the facility, a copy of the approved post-closure care plan must be furnished to the Agency upon request, including request by mail. After final closure has been certified, the person or office specified in subsection (b)(3) must keep the approved post-closure care plan during the remainder of the post-closure care period.

d) Amendment of Plan. The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved post-closure care plan in accordance with the applicable requirements of 35 Ill. Adm. Code 703 and 705. The written notification or request must include a copy of the amended post-closure care plan for review or approval by the Agency.

1) The owner or operator may submit a written notification or request to the Agency for a permit modification to amend the post-closure care plan at any time during the active life of the facility or during the post-closure care period.

2) The owner or operator must submit a written notification of or request for a permit modification to authorize a change in the approved post-closure care plan whenever any of the following occurs:

A) Changes in operating plans or facility design affect the post-closure care plan;

B) There is a change in the expected year of closure if applicable;

C) Events occur during the active life of the facility, including partial and final closures, that affect the approved post-closure care plan; or

D) The owner or operator requests establishment of alternative requirements to a regulated unit under Section 724.190(f), 724.210(c), or 724.240(d).

3) The owner or operator must submit a written request for a permit modification at least 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred that has affected the post-closure care plan. An owner or operator of a surface impoundment or waste pile that intends to remove all hazardous waste at closure and is not otherwise required to submit a contingent post-closure care plan under Sections 724.328(c)(1)(B) or 724.358(c)(1)(B) must submit a post-closure care plan to the Agency no

later than 90 days after the date that the owner or operator or Agency determines that the hazardous waste management unit must be closed as a landfill, subject to the requirements of Section 724.410. The Agency must approve, disapprove, or modify this plan in accordance with the procedure in 35 Ill. Adm. Code 703 and 705. In accordance with 35 Ill. Adm. Code 703.241, the approved post-closure care plan will become a permit condition.

4) The Agency may request modifications to the plan under the conditions described in subsection (d)(2). The owner or operator must submit the modified plan no later than 60 days after the request, or no later than 90 days if the unit is a surface impoundment or waste pile not previously required to prepare a contingent post-closure care plan. Any modifications requested by the Agency must be approved, disapproved, or modified in accordance with the procedure in 35 Ill. Adm. Code 703 and 705.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.219 Post-Closure Notices

a) No later than 60 days after certification of closure of each hazardous waste disposal unit, the owner or operator of a disposal facility must submit to the Agency, to the County Recorder and to any local zoning authority or authority with jurisdiction over local land use, a record of the type, location, and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before January 12, 1981, the owner or operator must identify the type, location, and quantity of the hazardous waste to the best of the owner or operator's knowledge and in accordance with any records the owner or operator has kept.

b) Within 60 days after certification of closure of the first hazardous waste disposal unit and within 60 days after certification of closure of the last hazardous waste disposal unit, the owner or operator must do the following:

1) Record a notation on the deed to the facility property—or on some other instrument that is normally examined during title search—that will in perpetuity notify any potential purchaser of the property as follows:

A) That the land has been used to manage hazardous wastes; and

B) That its use is restricted pursuant to this Subpart G; and

C) That the survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility required by subsection (a) and Section 724.216 have been filed with the Agency, the

County Recorder and any local zoning authority or authority with jurisdiction over local land use; and

2) Submit a certification to the Agency, signed by the owner or operator, that the owner or operator has recorded the notation specified in subsection (b)(1), including a copy of the document in which the notation has been placed, to the Agency.

c) If the owner or operator or any subsequent owner or operator of the land upon which a hazardous waste disposal unit is located wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, or contaminated soils, such person must request a modification to the post-closure plan in accordance with the applicable requirements in 35 Ill. Adm. Code 703 and 705. The owner and operator must demonstrate that the removal of hazardous wastes will satisfy the criteria of Section 724.217(c). By removing hazardous waste, the owner or operator may become a generator of hazardous waste and must manage it in accordance with all applicable requirements of 35 Ill. Adm. Code 703 and 720 through 728, and 738. If the owner or operator is granted a permit modification or otherwise granted approval to conduct such removal activities, the owner or operator may request that the Agency approve either of the following:

1) The removal of the notation on the deed to the facility property or other instrument normally examined during title search; or

2) The addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.220 Certification of Completion of Post-Closure Care

No later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit, the owner or operator must submit to the Agency, by registered mail, a certification that the post-closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post-closure plan. The certification must be signed by the owner or operator and a qualified Professional Engineer. Documentation supporting the Professional Engineer's certification must be furnished to the Agency upon request until the Agency releases the owner or operator from the financial assurance requirements for post-closure care under Section 724.245(i).

(Source: Amended at 32 Ill. Reg. 12365, effective July 14, 2008)

SUBPART H: FINANCIAL REQUIREMENTS

Section 724.240 Applicability

a) The requirements of Sections 724.242, 724.243, and 724.247 through 724.251 apply to owners and operators of all hazardous waste facilities, except as provided otherwise in this Section or in Section 724.101.

b) The requirements of Sections 724.244 and 724.245 apply only to owners and operators of the following:

1) Disposal facilities;

2) Piles, and surface impoundments from which the owner or operator intends to remove the wastes at closure, to the extent that Sections 724.244 and 724.245 are made applicable to such facilities in Sections 724.328 and 724.358;

3) Tank systems that are required pursuant to Section 724.297 to meet the requirements for landfills; or

4) Containment buildings that are required pursuant to Section 724.1102 to meet the requirements for landfills.

c) The State and the federal government are exempt from the requirements of this Subpart H.

d) A permit or enforceable document can contain alternative requirements that replace all or part of the financial assurance requirements of this Subpart H applying to a regulated unit, as provided in 35 Ill. Adm. Code 703.161, where the Board or Agency has done the following:

1) The Board or Agency has established alternative requirements for the regulated unit established pursuant to Section 724.190(f) or 724.210(c); and

2) The Board or Agency determines that it is not necessary to apply the financial assurance requirements of this Subpart H because the alternative financial assurance requirements will adequately protect human health and the environment.

(Source: Amended at 32 Ill. Reg. 12365, effective July 14, 2008)

Section 724.241 Definitions of Terms as Used in This Subpart

For the purposes of this Subpart H, the following terms have the given meanings:

a) "Closure plan" means the plan for closure prepared in accordance with the requirements of Section 724.212.

b) "Current closure cost estimate" means that the most recent of the estimates prepared in accordance with Section 724.242(a), (b), and (c).

c) "Current post-closure cost estimate" means the most recent of the estimates prepared in accordance with Section 724.244(a), (b), and (c).

d) "Parent corporation" means a corporation that directly owns at least 50 percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation.

e) "Post-closure plan" means the plan for post-closure care prepared in accordance with the requirements of Sections 724.217 through 724.220.

f) The following terms are used in the specifications for the financial test for closure, post-closure care, and liability coverage. The definitions are intended to assist in the understanding of these regulations and are not intended to limit the meanings of terms in a way that conflicts with generally accepted accounting practices.

"Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

"Current assets" means cash or other assets or resources commonly identified as those that are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

"Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

"Current plugging and abandonment cost estimate" means the most recent of the estimates prepared in accordance with 35 Ill. Adm. Code 704.212(a), (b), and (c).

"Independently audited" refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

"Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

"Net working capital" means current assets minus current liabilities.

"Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

"Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets would not include intangibles, such as goodwill and rights to patents or royalties.

g) In the liability insurance requirements the terms "bodily injury" and "property damage" have the meanings given below. The Board intends the meanings of other terms used in the liability insurance requirements to be consistent with their common meanings within the insurance industry. The definitions given below of several of the terms are intended to assist in the understanding of these regulations and are not intended to limit their meanings in a way that conflicts with general insurance industry usage.

"Accidental occurrence" means an accident, including continuous or repeated exposure to conditions, that results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

"Bodily injury" means bodily injury, sickness, or disease sustained by a person, including death resulting from any of these at any time. However, this term does not include those liabilities that, consistent with standard insurance industry practices, are excluded from coverage in liability insurance policies for bodily injury.

BOARD NOTE: Derived from the Insurance Services Office, Inc. definition of this term.

"Environmental damage" means the injurious presence in or upon land, the atmosphere, or any watercourse or body of water of solid, liquid, gaseous, or thermal contaminants, irritants, or pollutants.

BOARD NOTE: Derived from the Insurance Services Office, Inc. definition of this term. This term is used in the definition of "pollution incident".

"Legal defense costs" means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

"Nonsudden accidental occurrence" means an occurrence that takes place over time and involves continuous or repeated exposure.

"Pollutants" means any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals, and waste.

BOARD NOTE: Derived from the Insurance Services Office, Inc. definition of this term. This definition is used in the definition of "pollution incident".

"Pollution incident" means emission, discharge, release, or escape of pollutants into or upon land, the atmosphere or any watercourse or body of water, provided that such emission, discharge, release, or escape results in "environmental damage". The entirety of any such emission, discharge, release, or escape must be deemed to be one "pollution incident". "Waste" includes materials to be recycled, reconditioned, or reclaimed. The term "pollution incident" includes an "occurrence".

BOARD NOTE: Derived from the Insurance Services Office, Inc. definition of this term. This definition is used in the definition of "property damage".

"Property damage" means as follows:

Either of the following:

Physical injury to, destruction of or contamination of tangible property, including all resulting loss of use of that property; or

Loss of use of tangible property that is not physically injured, destroyed or contaminated, but has been evacuated, withdrawn from use or rendered inaccessible because of a "pollution incident".

This term does not include those liabilities that, consistent with standard insurance industry practices, are excluded from coverage in liability insurance policies for property damage.

BOARD NOTE: Derived from the Insurance Services Office, Inc. definition of this term.

"Sudden accidental occurrence" means an occurrence that is not continuous or repeated in nature.

h) "Substantial business relationship" means the extent of a business relationship necessary under applicable state law to make a guarantee contract issued incident to that relationship valid and enforceable. A "substantial business relationship" must arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that the Agency can reasonably determine that a substantial business relationship currently exists between the guarantor and the owner or operator that is adequate consideration to support the obligation of the guarantee relating to any liability towards a third party. "Applicable state law", as used in this subsection (h), means the laws of the State of Illinois and those of any sister state that govern the guarantee and the adequacy of the consideration.

BOARD NOTE: Derived from 40 CFR 264.141(h) (2017) and the discussion at 53 Fed. Reg. 33938, 33941-33943 (Sep. 1, 1988). This term is also independently

defined in 35 Ill. Adm. Code 725.141(h) and 727.240(b)(8). Any Agency determination that a substantial business relationship exists is subject to Board review pursuant to Section 40 of the Act.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.242 Cost Estimate for Closure

a) The owner or operator must have detailed a written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in Sections 724.211 through 724.215 and applicable closure requirements in Sections 724.278, 724.297, 724.328, 724.358, 724.380, 724.410, 724.451, 724.701 through 724.703, and 724.1102.

1) The estimate must equal the cost of final closure at the point in the facility's active life when the extent and manner of its operation would make closure the most expensive, as indicated by its closure plan (see Section 724.212(b)).

2) The closure cost estimate must be based on the costs to the owner or operator of hiring a third party to close the facility. 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).) The owner or operator may use costs for on-site disposal if the owner or operator demonstrates that on-site disposal capacity will exist at all times over the life of the facility.

3) The closure cost estimate must not incorporate any salvage value that may be realized with the sale of hazardous wastes, or non-hazardous wastes if permitted by the Agency pursuant to Section 724.213(d), facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure.

4) The owner or operator must not incorporate a zero cost for hazardous wastes, or non-hazardous wastes if permitted by the Agency pursuant to Section 724.213(d), that might have economic value.

b) During the active life of the facility, the owner or operator must adjust the 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 724.243. For owners and operators using the financial test or corporate guarantee, the closure cost estimate must be updated for inflation within 30 days after the close of the firm's fiscal year and before submission of updated information to the Agency as specified in Section 724.243(f)(3). The adjustment may be made by recalculating the maximum costs of closure in current dollars, or by using an inflation factor derived from the annual Implicit Price Deflator for Gross National Product (Deflator) as published by the U.S. Department of Commerce in its Survey of Current Business, as specified in subsections (b)(1) and (b)(2). 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 closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

2) Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

BOARD NOTE: The table of Deflators is available as Table 1.1.9., "Implicit Price Deflators for Gross Domestic Product", in the National Income and Product Account Tables, published by U.S. Department of Commerce, Bureau of Economic Analysis, National Economic Accounts, available on-line at the following web address: www.bea.gov/national/nipaweb/TableView.asp?SelectedTable=13&FirstYear=2002&LastYear=2004&Freq=Qtr.

c) During the active life of the facility the owner or operator must revise the closure cost estimate no later than 30 days after the Agency has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure cost estimate must be adjusted for inflation, as specified in subsection (b).

d) The owner or operator must keep the following at the facility during the operating life of the facility: the latest closure cost estimate prepared in accordance with subsections (a) and (c) and, when this estimate has been adjusted in accordance with subsection (b), the latest adjusted closure cost estimate.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.243 Financial Assurance for Closure

An owner or operator of each facility must establish financial assurance for closure of the facility. The owner or operator must choose from the options that are specified in subsections (a) through (f).

a) Closure Trust Fund

1) An owner or operator may satisfy the requirements of this Section by establishing a 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 treatment, storage or 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 must be 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 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 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 treatment, storage, or 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 closure cost estimate, except as provided in subsection (g), 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:

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

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

B) If an owner or operator establishes a trust fund as specified in 35 Ill. Adm. Code 725.243(a) and the value of that trust fund is less than the current closure cost estimate when a permit is awarded for the facility, the amount of the current 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). 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:

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

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

4) The owner or operator may accelerate payments into the trust fund or may deposit the full amount of the current 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).

5) If the owner or operator establishes a closure trust fund after having used one or more alternate mechanisms specified in this Section or in 35 Ill. Adm. Code 725.243, 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 725.243, as applicable.

6) After the pay-in period is completed, whenever the current closure cost estimate changes, 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 closure cost estimate or obtain other financial assurance as specified in this Section to cover the difference.

7) If the value of the trust fund is greater than the total amount of the current 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 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 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), the Agency must instruct the trustee to release to the owner or operator such funds as the Agency specifies in writing.

10) After beginning partial or final closure, an owner or operator or another person authorized to conduct partial or final closure may request reimbursement for closure expenditures by submitting itemized bills to the Agency. The owner or operator may request reimbursement for partial

closure only if sufficient funds are remaining in the trust fund to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for partial or final closure activities, the Agency must instruct the trustee to make reimbursement in those amounts as the Agency specifies in writing if the Agency determines that the partial or final closure expenditures are in accordance with the approved closure plan, or otherwise justified. If the Agency determines that the maximum cost of closure over the remaining life of the facility will be significantly greater than the value of the trust fund, it must withhold reimbursement of such amounts as it deems prudent until it determines, in accordance with subsection (i), that the owner or operator is no longer required to maintain financial assurance for final closure of the facility. 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.

11) The Agency must agree to termination of the trust when either of the following occurs:

A) An owner or operator substitutes alternate 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).

b) Surety Bond Guaranteeing Payment into a 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 treatment, storage or 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 fund must meet the requirements specified in subsection (a) 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);

ii) Updating of Schedule A of the trust agreement (see 35 Ill. Adm. Code 724.251) to show current 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 final closure is issued by the Board or a U.S. district court or other court of competent jurisdiction; or

C) Provide alternate 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 closure cost estimate, except as provided in subsection (g).

7) Whenever the current 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 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 closure cost estimate decreases, the penal sum may be reduced to the amount of the current 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 written consent based on its receipt of evidence of alternate financial assurance as specified in this Section.

c) Surety Bond Guaranteeing Performance of Closure

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 treatment, storage, or 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), 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 by these regulations:

i) Payments into the trust fund, as specified in subsection (a);

ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current 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 the following:

A) Perform final closure in accordance with the closure plan and other requirements of the permit for the facility whenever required to do so; 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 final closure in accordance with the approved closure plan and other permit requirements when required to do so, under the terms of the bond the surety will perform final closure, as guaranteed by the bond, 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 closure cost estimate.

7) Whenever the current 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 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, the penal sum may be reduced to the amount of the current 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 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).

10) The surety must not be liable for deficiencies in the performance of closure by the owner or operator after the Agency releases the owner or operator from the requirements of this Section in accordance with subsection (i).

d) 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 treatment, storage, or 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), 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);

ii) Updating of Schedule A of the trust agreement (as specified in Section 724.251) to show current 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 number, name and address of the facility, and the amount of funds assured for closure 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 closure cost estimate, except as provided in subsection (g).

7) Whenever the current closure cost estimate increases to an amount greater than the amount of the credit, 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 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 closure cost estimate decreases, the amount of the credit may be reduced to the amount of the current closure cost estimate following written approval by the Agency.

8) Following a final judicial determination or Board order finding that the owner or operator has failed to perform final closure in accordance with the closure plan and other permit requirements when required to do so, the Agency may draw on the letter of credit.

9) If the owner or operator does not establish alternative financial assurance, 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 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.

10) 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).

e) Closure Insurance

1) An owner or operator may satisfy the requirements of this Section by obtaining 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 treatment, storage, or 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 closure insurance policy must be issued for a face amount at least equal to the current closure cost estimate, except as provided in subsection (g). 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 closure insurance policy must guarantee that funds will be available to close the facility whenever final closure occurs. The policy must also guarantee that, once final closure 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) After beginning partial or final closure, an owner or operator or any other person authorized to conduct closure may request reimbursement for closure expenditures by submitting itemized bills to the Agency. The owner or operator may request reimbursements for partial closure only if the remaining value of the policy is sufficient to cover the maximum costs of closing the facility over its remaining operating life. Within 60 days after receiving bills for 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 partial or final closure expenditures are in accordance with the approved closure plan or otherwise justified. If the Agency determines that the maximum cost of closure over the remaining life of the facility will be significantly greater than the face amount of the policy, it must withhold reimbursement of such amounts that it deems prudent, until it determines, in accordance with subsection (i), that the owner or operator is no longer required to maintain financial assurance for closure of the facility. 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)(10). 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. 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.

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 closure cost estimate increases to an amount greater than the face amount of the policy, 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 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 closure cost estimate decreases, the face amount may be reduced to the amount of the current closure cost estimate following written approval by the Agency.

10) The Agency must give written consent to the owner or operator that it 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).

f) Financial Test and Corporate Guarantee for Closure

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):

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

iv) Assets located in the United States amounting to at least 90 percent of 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 the 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 total assets or at least six times the sum of the current closure and post-closure 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), refers to the cost estimates required to be shown in subsections 1-4 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), refers to the cost estimates required to be shown in subsections 1-4 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; and

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) That 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, that no matters came to the accountant's attention which 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) to the Agency at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

5) After the initial submission of items specified in subsection (f)(3), 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).

6) If the owner or operator no longer meets the requirements of subsection (f)(1) 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) The Agency may, based on a reasonable belief that the owner or operator may no longer meet the requirements of subsection (f)(1), require reports of financial condition at any time from the owner or operator in addition to those specified in subsection (f)(3). 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), 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)). 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) The owner or operator is no longer required to submit the items specified in subsection (f)(3) 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).

10) 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)(8), must comply with the terms of the corporate guarantee, and the wording of the corporate guarantee must be that specified in Section 724.251. The certified copy of the corporate guarantee must accompany the items sent to the Agency, as specified in subsection (f)(3). 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) If the owner or operator fails to perform final closure of a facility covered by the corporate guarantee in accordance with the 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), in the name of the owner or operator.

   B) 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) 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 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), 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 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 closure 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 closure 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 closure 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 final approved closure has been accomplished in accordance with the closure plan, the Agency must notify the owner or operator in writing that it is no longer required by this Section to maintain financial assurance for closure of the facility, unless the Agency determines that closure has not been in accordance with the approved closure plan. The Agency must provide the owner or operator a detailed written statement of any such determination that closure has not been in accordance with the approved closure plan.

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

1) An increase in, or a refusal to decrease the amount of, a bond, letter of credit, or insurance;

2) Requiring alternative assurance upon a finding that an owner or operator or parent corporation no longer meets a financial test.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

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 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.

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). 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. 11726, effective August 9, 2016)

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 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), 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:

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

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

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). 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:

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

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

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).

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), 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).

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 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), 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);

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).

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 evidence by the return receipts.

9) The owner or operator may cancel the bond if the Agency has given prior 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), 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);

      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 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).

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).

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 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), 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);

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 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).

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, 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).

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). 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). 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. 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.

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 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).

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):

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

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), 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), 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;

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) 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), 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).

6) If the owner or operator no longer meets the requirements of subsection (f)(1), 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 meet the requirements of subsection (f)(1), 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). 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), 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)). 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) 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).

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 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). 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) 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 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), 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 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.

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

1) An increase in or a refusal to decrease the amount of a bond, letter of credit, or insurance;

2) Requiring alternative assurance upon a finding that an owner or operator or parent corporation no longer meets a financial test.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.246 Use of a Mechanism for Financial Assurance of Both Closure and Post-Closure Care

An owner or operator may satisfy the requirements for financial assurance for both closure and post-closure care for one or more facilities by using a trust fund, surety bond, letter of credit, insurance, financial test, or corporate guarantee that meets the specifications for the mechanism in both Sections 724.243 and 724.245. 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 financial assurance of closure and of post-closure care.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.247 Liability Requirements

a) Coverage for Sudden Accidental Occurrences. An owner or operator of a hazardous waste treatment, storage, or disposal facility, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in subsections (a)(1), (a)(2), (a)(3), (a)(4), (a)(5), or (a)(6):

1) An owner or operator may demonstrate the required liability coverage by having liability insurance, as specified in this subsection (a).

A) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement and of the certificate of insurance must be that specified in Section 724.251. The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Agency. If requested by the Agency, the owner or operator must provide a signed duplicate original of the insurance policy. An owner or operator of a new facility must submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the Certificate of Liability Insurance to the

Agency at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste.

B) Each insurance policy must be issued by an insurer that is licensed by the Illinois Department of Insurance.

2) An owner or operator may meet the requirements of this Section by passing a financial test or using the guarantee for liability coverage, as specified in subsections (f) and (g).

3) An owner or operator may meet the requirements of this Section by obtaining a letter of credit for liability coverage, as specified in subsection (h).

4) An owner or operator may meet the requirements of this Section by obtaining a surety bond for liability coverage, as specified in subsection (i).

5) An owner or operator may meet the requirements of this Section by obtaining a trust fund for liability coverage, as specified in subsection (j).

6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by this Section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances pursuant to this subsection (a), the owner or operator must specify at least one such assurance as "primary" coverage and must specify other such assurance as "excess" coverage.

7) An owner or operator must notify the Agency within 30 days whenever any of the following occurs:

A) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in subsections (a)(1) through (a)(6);

B) A Certification of Valid Claim for bodily injury or property damages caused by sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage pursuant to subsections (a)(1) through (a)(6); or

C) A final court order establishing a judgement for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage pursuant to subsections (a)(1) through (a)(6).

b) Coverage for Nonsudden Accidental Occurrences. An owner or operator of a surface impoundment, landfill, land treatment facility, or disposal miscellaneous unit that is used to manage hazardous waste, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by nonsudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs. An owner or operator meeting the requirements of this Section may combine the required per-occurrence coverage levels for sudden and nonsudden accidental occurrences into a single per-occurrence level, and combine the required annual aggregate coverage levels for sudden and nonsudden accidental occurrences into a single annual aggregate level. Owners or operators who combine coverage levels for sudden and nonsudden accidental occurrences must maintain liability coverage in the amount of at least $4 million per occurrence and $8 million annual aggregate. This liability coverage may be demonstrated as specified in subsections (b)(1), (b)(2), (b)(3), (b)(4), (b)(5), or (b)(6):

1) An owner or operator may demonstrate the required liability coverage by having liability insurance, as specified in this subsection (b).

A) Each insurance policy must be amended by attachment of the Hazardous Waste Facility Liability Endorsement or evidenced by a Certificate of Liability Insurance. The wording of the endorsement must be that specified in Section 724.251. The wording of the certificate of insurance must be that specified in Section 724.251. The owner or operator must submit a signed duplicate original of the endorsement or the certificate of insurance to the Agency. If requested by the Agency, the owner or operator must provide a signed duplicate original of the insurance policy. An owner or operator of a new facility must submit the signed duplicate original of the Hazardous Waste Facility Liability Endorsement or the Certificate of Liability Insurance to the Agency at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal. The insurance must be effective before this initial receipt of hazardous waste.

B) Each insurance policy must be issued by an insurer that is licensed by the Illinois Department of Insurance.

2) An owner or operator may meet the requirements of this Section by passing a financial test or using the guarantee for liability coverage, as specified in subsections (f) and (g).

3) An owner or operator may meet the requirements of this Section by obtaining a letter of credit for liability coverage, as specified in subsection (h).

4) An owner or operator may meet the requirements of this Section by obtaining a surety bond for liability coverage, as specified in subsection (i).

5) An owner or operator may meet the requirements of this Section by obtaining a trust fund for liability coverage, as specified in subsection (j).

6) An owner or operator may demonstrate the required liability coverage through the use of combinations of insurance, financial test, guarantee, letter of credit, surety bond, and trust fund, except that the owner or operator may not combine a financial test covering part of the liability coverage requirement with a guarantee unless the financial statement of the owner or operator is not consolidated with the financial statement of the guarantor. The amounts of coverage demonstrated must total at least the minimum amounts required by this Section. If the owner or operator demonstrates the required coverage through the use of a combination of financial assurances pursuant to this subsection (b), the owner or operator must specify at least one such assurance as "primary" coverage and must specify other such assurance as "excess" coverage.

7) An owner or operator must notify the Agency within 30 days whenever any of the following occurs:

   A) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in subsections (b)(1) through (b)(6);

   B) A Certification of Valid Claim for bodily injury or property damages caused by sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage pursuant to subsections (b)(1) through (b)(6); or

   C) A final court order establishing a judgment for bodily injury or property damage caused by a sudden or non-sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage pursuant to subsections (b)(1) through (b)(6).

c) Request for Adjusted Level of Required Liability Coverage. If an owner or operator demonstrates to the Agency that the levels of financial responsibility required by subsection (a) or (b) are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the owner or operator may obtain an adjusted level of required liability coverage from the Agency. The request for an adjusted level of required liability coverage must be submitted to the Agency as part of the application pursuant to 35 Ill. Adm. Code 703.182 for a facility that does not have a permit, or pursuant to the procedures for permit modification pursuant to 35 Ill. Adm. Code 705.128 for a facility that has a permit. If granted, the modification will take the form of an adjusted level of required liability coverage, such level to be based on the Agency assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. The Agency may require an owner or operator who requests an adjusted level of required liability coverage to provide such technical and engineering information as is necessary to determine a level of financial responsibility other than that required by subsection (a) or (b). Any request for an adjusted level of required liability coverage for a permitted facility will be treated as a request for a permit modification pursuant to 35 Ill. Adm. Code 703.271(e)(3) and 705.128.

d) Adjustments by the Agency. If the Agency determines that the levels of financial responsibility required by subsection (a) or (b) are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the facility or group of facilities, the Agency must adjust the level of financial responsibility required pursuant to subsection (a) or (b) as may be necessary to adequately protect human health and the environment. This adjusted level must be based on the Agency's assessment of the degree and duration of risk associated with the ownership or operation of the facility or group of facilities. In addition, if the Agency determines that there is a significant risk to human health and the environment from nonsudden accidental occurrences resulting from the operations of a facility that is not a surface impoundment, landfill, or land treatment facility, the Agency may require that an owner or operator of the facility comply with subsection (b). An owner or operator must furnish to the Agency, within a time specified by the Agency in the request, which must be not be less than 30 days, any information that the Agency requests to determine whether cause exists for such adjustments of level or type of coverage. Any adjustment of the level or type of coverage for a facility that has a permit will be treated as a permit modification pursuant to 35 Ill. Adm. Code 703.271(e)(3) and 705.128.

e) Period of Coverage. Within 60 days after receiving certifications from the owner or operator and a qualified Professional Engineer that final closure has been completed in accordance with the approved closure plan, the Agency must notify the owner or operator in writing that the owner or operator is no longer required by this Section to maintain liability coverage for that facility, unless the Agency determines that closure has not been in accordance with the approved closure plan.

f) Financial Test for Liability Coverage

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 subsection (f)(1)(A) or (f)(1)(B):

A) The owner or operator must have the following:

i) Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test;

ii) Tangible net worth of at least $10 million; and

iii) Assets in the United States amounting to either of the following: at least 90 percent of the total assets; or at least six times the amount of liability coverage to be demonstrated by this test.

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 of at least $10 million;

iii) Tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and

iv) Assets in the United States amounting to either of the following: at least 90 percent of the total assets; or at least six times the amount of liability coverage to be demonstrated by this test.

2) The phrase "amount of liability coverage", as used in subsection (f)(1), refers to the annual aggregate amounts for which coverage is required pursuant to subsections (a) and (b).

3) To demonstrate that it meets this test, the owner or operator must submit the following three 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. If an owner or operator is using the financial test to demonstrate both assurance for closure or post-closure care, as specified by Sections 724.243(f) and 724.245(f) and 35 Ill. Adm. Code 725.243(e) and

725.245(e), and liability coverage, it must submit the letter specified in Section 724.251 to cover both forms of financial responsibility; a separate letter, as specified in Section 724.251, is not required.

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.

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) to the Agency at least 60 days before the date on which hazardous waste is first received for treatment, storage, or disposal.

5) After the initial submission of items specified in subsection (f)(3), the owner of 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).

6) If the owner or operator no longer meets the requirements of subsection (f)(1), the owner or operator must obtain insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of required liability coverage as specified in this Section. Evidence of insurance must be submitted to the Agency 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 test requirements.

7) 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)). 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 evidence of insurance for the entire amount of required liability

coverage, as specified in this Section, within 30 days after notification of disallowance.

g) Guarantee for Liability Coverage

1) Subject to subsection (g)(2), an owner or operator may meet the requirements of this Section by obtaining a written guarantee, referred to as a "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 and operators in subsections (f)(1) through (f)(6). The wording of the guarantee must be that specified in Section 724.251. A certified copy of the guarantee must accompany the items sent to the Agency, as specified in subsection (f)(3). 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, this 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 guarantee must provide for the following:

A) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden or nonsudden accidental occurrences (or both as the case may be) arising from the operation of facilities covered by this guarantee, or if the owner or operator fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, that the guarantor will do so up to the limits of coverage.

B) That the guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the owner or operator and to the Agency. The guarantee must not be terminated unless and until the Agency approves alternative liability coverage complying with Section 724.247 or 35 Ill. Adm. Code 725.247.

2) The guarantor must execute the guarantee in Illinois. The guarantee must be accompanied by a letter signed by the guarantor that states as follows:

A) The guarantee was signed in Illinois by an authorized agent of the guarantor;

B) The guarantee is governed by Illinois law; and

C) The name and address of the guarantor's registered agent for service of process.

3) The guarantor must have a registered agent pursuant to Section 5.05 of the Business Corporation Act of 1983 [805 ILCS 5/5.05] or Section 105.05 of the General Not-for-Profit Corporation Act of 1986 [805 ILCS 105/105.05].

h) Letter of Credit for Liability Coverage

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 (h), and submitting a copy of the letter of credit to the Agency.

2) The financial institution issuing the letter of credit must be an entity that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by the Illinois Commissioner of Banks and Trust Companies.

3) The wording of the letter of credit must be that specified in Section 724.251.

4) An owner or operator who uses a letter of credit to satisfy the requirements of this Section may also establish a trust fund. Under the terms of such a letter of credit, all amounts paid pursuant to a draft by the trustee of the standby trust in accordance with instructions from the trustee. The trustee of the standby trust fund must be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by the Illinois Commissioner of Banks and Trust Companies, or who complies with the Corporate Fiduciary Act [205 ILCS 620].

5) The wording of the standby trust fund must be identical to that specified in Section 724.251(n).

i) Surety Bond for Liability Coverage

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 (i) and submitting a copy of the bond to the Agency.

2) The surety company issuing the bond must be licensed by the Illinois Department of Insurance.

3) The wording of the surety bond must be that specified in Section 724.251.

j) Trust Fund for Liability Coverage

1) An owner or operator may satisfy the requirements of this Section by establishing a trust fund that conforms to the requirements of this subsection (j) and submitting a signed, duplicate original of the trust agreement to the Agency.

2) The trustee must be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by the Illinois Commissioner of Banks and Trust Companies, or who complies with the Corporate Fiduciary Act [205 ILCS 620].

3) The trust fund for liability coverage must be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of this Section. If at any time after the trust fund is created the amount of funds in the trust fund is reduced below the full amount of liability coverage to be provided, the owner or operator, by the anniversary of the date of establishment of the fund, must either add sufficient funds to the trust fund to cause its value to equal the full amount of liability coverage to be provided, or obtain other financial assurance as specified in this Section to cover the difference. For purposes of this subsection (j), "the full amount of the liability coverage to be provided" means the amount of coverage for sudden and non-sudden accidental occurrences required to be provided by the owner or operator by this Section, less the amount of financial assurance for liability coverage that is being provided by other financial assurance mechanisms being used to demonstrate financial assurance by the owner or operator.

4) The wording of the trust fund must be that specified in Section 724.251.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.248 Incapacity of Owners or Operators, Guarantors, or Financial Institutions

a) An owner or operator must notify the Agency by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 of the United States Code (Bankruptcy) naming the owners or operators as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee, as specified in Sections 724.243(f) and 724.245(f), must make such a notification if he is named as a debtor, as required under the terms of the corporate guarantee (see Section 724.251).

b) An owner or operator who fulfills the requirements of Sections 724.243, 724.245, or 724.247 by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to

issue such instruments. The owner or operator must establish other financial assurance or liability coverage within 60 days after such an event.

(Source: Amended at 30 Ill. Reg. 3196, effective February 23, 2006)

Section 724.251 Wording of the Instruments

The Agency must promulgate standardized forms based on 40 CFR 264.151 (Wording of the Instruments), incorporated by reference in 35 Ill. Adm. Code 720.111(b), with such changes in wording as are necessary under Illinois law. Any owner or operator required to establish financial assurance under this Subpart H must do so only upon the standardized forms promulgated by the Agency. The Agency must reject any financial assurance document that is not submitted on such standardized forms.

(Source: Amended at 30 Ill. Reg. 3196, effective February 23, 2006)

SUBPART I: USE AND MANAGEMENT OF CONTAINERS

Section 724.270 Applicability

The regulations in this Subpart I apply to the owner or operator of a hazardous waste facility that stores hazardous waste in containers, except as Section 724.101 provides otherwise.

BOARD NOTE: Under Sections 721.107 and 721.133(c), if a hazardous waste is emptied from a container the residue remaining in the container is not considered a hazardous waste if the container is "empty", as defined in Section 721.107. In that event, management of the container is exempt from the requirements of this Subpart I.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.271 Condition of Containers

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects, etc.) or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition or manage the waste in some other way that complies with the requirements of this Part.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.272 Compatibility of Waste with Container

The owner or operator must use a container made of or lined with materials that will not react with, and which are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.273 Management of Containers

a) A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.

b) A container holding hazardous waste must not be opened, handled, or stored in a manner that may rupture the container or cause it to leak.

BOARD NOTE: Reuse of containers in transportation is governed by USDOT regulations including those set forth in 49 CFR 173.28 (Reuse, Reconditioning, and Remanufacture of Packagings), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

(Source: Amended at 30 Ill. Reg. 3196, effective February 23, 2006)

Section 724.274 Inspections

At least weekly, the owner or operator must inspect areas where containers are stored. The owner or operator must look for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors. See Sections 724.115(c) and 724.271 for remedial action required if deterioration or leaks are detected.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.275 Containment

a) Container storage areas must have a containment system that is designed and operated in accordance with subsection (b), except as otherwise provided by subsection (c);

b) A containment system must be designed and operated as follows:

1) A base must underlie the containers that is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.

2) The base must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;

3) The containment system must have sufficient capacity to contain 10 percent of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination;

4) Run-on into the containment system must be prevented, unless the collection system has sufficient excess capacity in addition to that required in subsection (b)(3) to contain any run-on that might enter the system; and

5) Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in as timely a manner as is necessary to prevent overflow of the collection system.

BOARD NOTE: If the collected material is a hazardous waste, it must be managed as a hazardous waste in accordance with all applicable requirements of 35 Ill. Adm. Code 722 through 728. If the collected material is discharged through a point source to waters of the State, it is subject to the National Pollution Discharge Elimination System (NPDES) permit requirement of Section 12(f) of the Environmental Protection Act and 35 Ill. Adm. Code 309.102.

c) Storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system defined by subsection (b), except as provided by subsection (d), or provided as follows:

1) That the storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation, or

2) That the containers are elevated or are otherwise protected from contact with accumulated liquid.

d) Storage areas that store containers holding the wastes listed below that do not contain free liquids must have a containment system defined by subsection (b): F020, F021, F022, F023, F026, and F027.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.276 Special Requirements for Ignitable or Reactive Waste

Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line.

BOARD NOTE: See Section 724.117(a) for additional requirements.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.277 Special Requirements for Incompatible Wastes

a) Incompatible wastes or incompatible wastes and materials (see appendix V of 40 CFR 265 (Examples of Potentially Incompatible Waste), incorporated by reference in 35 Ill. Adm. Code 720.111(b), for examples) must not be placed in the same container, unless Section 724.117(b) is complied with.

b) Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material.

c) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

BOARD NOTE: The purpose of this Section is to prevent fires, explosions, gaseous emission, leaching, or other discharge of hazardous waste or hazardous waste constituents that could result from the mixing of incompatible wastes or materials if containers break or leak. As required by Section 724.113, the waste analysis plan must include analyses needed to comply with Section 724.277. Also Section 724.117(c) requires waste analyses, trial tests, or other documentation to assure compliance with Section 724.117(b). As required by Section 724.173, the owner or operator must place the results of each waste analysis and trial test, and any documented information, in the operating record of the facility.

(Source: Amended at 30 Ill. Reg. 3196, effective February 23, 2006)

Section 724.278 Closure

At closure, all hazardous waste and hazardous waste residues must be removed from the containment system. Remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues must be decontaminated or removed.

BOARD NOTE: At closure, as throughout the operating period, unless the owner or operator can demonstrate in accordance with 35 Ill. Adm. Code 721.103(d) that the solid waste removed from the containment system is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with all applicable requirements of 35 Ill. Adm. Code 722 through 725.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.279 Air Emission Standards

The owner or operator must manage all hazardous waste placed in a container in accordance with the requirements of Subparts AA, BB, and CC.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

SUBPART J: TANK SYSTEMS

Section 724.290 Applicability

The requirements of this Subpart J apply to owners and operators of facilities that use tank systems for storing or treating hazardous waste, except as otherwise provided in subsection (a), (b), or (c) or in Section 724.101.

a) Tank systems that are used to store or treat hazardous waste that contains no free liquids and are situated inside a building with an impermeable floor are exempted from the requirements in Section 724.293. To demonstrate the absence or

presence of free liquids in the stored or treated waste, the following test must be used: USEPA 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).

b) Tank systems, including sumps, are defined in 35 Ill. Adm. Code 720.110, that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements in Section 724.293(a).

c) Tanks, sumps, and other such collection devices or systems used in conjunction with drip pads, as defined in 35 Ill. Adm. Code 720.110 and regulated under Subpart W, must meet the requirements of this Subpart J.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.291 Assessment of Existing Tank System Integrity

a) For each existing tank system that does not have secondary containment meeting the requirements of Section 724.293, the owner or operator must determine either that the tank system is not leaking or that it is fit for use. Except as provided in subsection (c), the owner or operator must obtain and keep on file at the facility a written assessment reviewed and certified by a qualified Professional Engineer, in accordance with 35 Ill. Adm. Code 702.126(d), that attests to the tank system's integrity.

b) This assessment must determine whether the tank system is adequately designed and has sufficient structural strength and compatibility with the wastes to be stored or treated, to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment must consider the following:

1) Design standards, if available, according to which the tank and ancillary equipment were constructed;

2) Hazardous characteristics of the wastes that have been and will be handled;

3) Existing corrosion protection measures;

4) Documented age of the tank system, if available (otherwise an estimate of the age); and

5) Results of a leak test, internal inspection, or other tank integrity examination so that the following is true:

A) For non-enterable underground tanks, the assessment must include a leak test that is capable of taking into account the effects of

temperature variations, tank end deflection, vapor pockets, and high water table effects, and

B) For other than non-enterable underground tanks and for ancillary equipment, this assessment must include either a leak test, as described above, or other integrity examination that is certified by a qualified Professional Engineer, in accordance with 35 Ill. Adm. Code 702.126(d), that address cracks, leaks, corrosion, and erosion.

BOARD NOTE: The practices described in the American Petroleum Institute (API) Publication, "Guide for Inspection of Refinery Equipment", Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks", incorporated by reference in 35 Ill. Adm. Code 720.111(a), may be used, where applicable, as guidelines in conducting other than a leak test.

c) Tank systems that store or treat materials that become hazardous wastes, must conduct this assessment within 12 months after the date that the waste becomes a hazardous waste.

d) If, as a result of the assessment conducted in accordance with subsection (a), a tank system is found to be leaking or unfit for use, the owner or operator must comply with the requirements of Section 724.296.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.292 Design and Installation of New Tank Systems or Components

a) Owners or operators of new tank systems or components must obtain and submit to the Agency, at time of submittal of Part B information, a written assessment, reviewed and certified by a qualified Professional Engineer, in accordance with 35 Ill. Adm. Code 702.126(d), attesting that the tank system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. The assessment must show that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the wastes to be stored or treated and corrosion protection to ensure that it will not collapse, rupture, or fail. This assessment, which will be used by the Agency to review and approve or disapprove the acceptability of the tank system design, must include, at a minimum, the following information:

1) Design standards according to which tanks or the ancillary equipment are constructed;

2) Hazardous characteristics of the wastes to be handled;

3) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system will be in contact

with the soil or with water, a determination by a corrosion expert of the following:

A) Factors affecting the potential for corrosion, including but not limited to the following:

i) Soil moisture content;

ii) Soil pH;

iii) Soil sulfide level;

iv) Soil resistivity;

v) Structure to soil potential;

vi) Influence of nearby underground metal structures (e.g., piping);

vii) Existence of stray electric current;

viii) Existing corrosion-protection measures (e.g., coating, cathodic protection, etc.); and

B) The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following:

i) Corrosion-resistant materials of construction, such as special alloys, fiberglass reinforced plastic, etc.;

ii) Corrosion-resistant coating, such as epoxy, fiberglass, etc., with cathodic protection (e.g., impressed current or sacrificial anodes); and

iii) Electrical isolation devices, such as insulating joints, flanges, etc.

BOARD NOTE: The practices described in the National Association of Corrosion Engineers (NACE) standard, "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems", NACE Recommended Practice RP0285, and "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems", API Recommended Practice 1632, each incorporated by reference in 35 Ill. Adm. Code 720.111(a), may be used, where applicable, as guidelines in providing corrosion protection for tank systems.

4) For underground tank system components that are likely to be adversely affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage; and

5) Design considerations to ensure the following:

A) That tank foundations will maintain the load of a full tank;

B) That tank systems will be anchored to prevent flotation or dislodgment where the tank system is placed in a saturated zone, or is located within a seismic fault zone subject to the standards of Section 724.118(a); and

C) That tank systems will withstand the effects of frost heave.

b) The owner or operator of a new tank system must ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. Prior to covering, enclosing or placing a new tank system or component in use, an independent qualified installation inspector or a qualified Professional Engineer, either of whom is trained and experienced in the proper installation of tank systems or components, must inspect the system for the presence of any of the following items:

1) Weld breaks;

2) Punctures;

3) Scrapes of protective coatings;

4) Cracks;

5) Corrosion;

6) Other structural damage or inadequate construction or installation. All discrepancies must be remedied before the tank system is covered, enclosed, or placed in use.

c) New tank systems or components that are placed underground and which are backfilled must be provided with a backfill material that is a noncorrosive, porous, and homogeneous substance which is installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported.

d) All new tanks and ancillary equipment must be tested for tightness prior to being covered, enclosed or placed in use. If a tank system is found not to be tight, all repairs necessary to remedy the leaks in the system must be performed prior to the tank system being covered, enclosed, or placed into use.

e) Ancillary equipment must be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction.

BOARD NOTE: The piping system installation procedures described in "Installation of Underground Petroleum Storage Systems", API Recommended Practice 1615, or "Chemical Plant and Petroleum Refinery Piping", ASME/ANSI Standard B31.3-1987, as supplemented by B31.3a-1988 and B31.3b-1988, and "Liquid Petroleum Transportation Piping Systems for Hydrocarbons, Liquid Petroleum Gas, Anhydrous Ammonia, and Alcohols", ASME/ANSI Standard B31.4-1986, as supplemented by B31.4a-1987, each incorporated by reference in 35 Ill. Adm. Code 720.111(a), may be used where applicable, as guidelines for proper installation of piping systems.

f) The owner or operator must provide the type and degree of corrosion protection recommended by an independent corrosion expert, based on the information provided under subsection (a)(3), or other corrosion protection if the Agency determines that other corrosion protection is necessary to ensure the integrity of the tank system during use of the tank system. The installation of a corrosion protection system that is field fabricated must be supervised by an independent corrosion expert to ensure proper installation.

g) The owner or operator must obtain and keep on file at the facility written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system in accordance with the requirements of subsections (b) through (f), that attest that the tank system was properly designed and installed and that repairs, pursuant to subsections (b) and (d), were performed. These written statements must also include the certification statement, as required in 35 Ill. Adm. Code 702.126(d).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.293 Containment and Detection of Releases

a) In order to prevent the release of hazardous waste or hazardous constituents to the environment, secondary containment that meets the requirements of this Section must be provided (except as provided in subsections (f) and (g)).

1) For a new or existing tank system or component, prior to their being put into service.

2) For a tank system that stores or treats materials that become hazardous wastes within two years after the hazardous waste listing, or when the tank system has reached 15 years of age, whichever comes later.

b) Secondary containment systems must fulfill the following:

1) It must be designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, groundwater, or surface water at any time during the use of the tank system; and

2) It must be capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

c) To meet the requirements of subsection (b), secondary containment systems must, at a minimum, fulfill the following:

1) It must be constructed of or lined with materials that are compatible with the wastes to be placed in the tank system and must have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which it is exposed, climatic conditions, and the stress of daily operation (including stresses from nearby vehicular traffic);

2) It must be placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression or uplift;

3) It must be provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours, or at the earliest practicable time if the owner or operator demonstrates, by way of permit application, to the Agency that existing detection technologies or site conditions will not allow detection of a release within 24 hours; and

4) It must be sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. Spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system within 24 hours, or in as timely a manner as is possible to prevent harm to human health and the environment, if the owner or operator demonstrates to the Agency, by way of permit application, that removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours.

BOARD NOTE: If the collected material is a hazardous waste under 35 Ill. Adm. Code 721, it is subject to management as a hazardous waste in accordance with all applicable requirements of 35 Ill. Adm. Code 722 through 728. If the collected material is discharged through a point source to waters of the State, it is subject to the NPDES permit requirement of Section 12(f) of the Environmental Protection Act and 35 Ill. Adm. Code 309. If discharged to a Publicly Owned Treatment Work (POTW), it is

subject to the requirements of 35 Ill. Adm. Code 307 and 310. If the collected material is released to the environment, it may be subject to the reporting requirements of 35 Ill. Adm. Code 750.410 and federal 40 CFR 302.6.

d) Secondary containment for tanks must include one or more of the following devices:

1) A liner (external to the tank);

2) A vault;

3) A double-walled tank; or

4) An equivalent device, as approved by the Board in an adjusted standards proceeding.

e) In addition to the requirements of subsections (b), (c), and (d), secondary containment systems must satisfy the following requirements:

1) An external liner system must fulfill the following:

A) It must be designed or operated to contain 100 percent of the capacity of the largest tank within its boundary.

B) It must be designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system, unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

C) It must be free of cracks or gaps.

D) It must be designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the waste if the waste is released from the tanks (i.e., it is capable of preventing lateral as well as vertical migration of the waste).

2) A vault system must fulfill the following:

A) It must be designed or operated to contain 100 percent of the capacity of the largest tank within the vault system's boundary;

B) It must be designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Such additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event;

C) It must be constructed with chemical-resistant water stops in place at all joints (if any);

D) It must be provided with an impermeable interior coating or lining that is compatible with the stored waste and that will prevent migration of waste into the concrete;

E) It must be provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being stored or treated fulfills the following:

i) It meets the definition of ignitable waste under 35 Ill. Adm. Code 721.121; or

ii) It meets the definition of reactive waste under 35 Ill. Adm. Code 721.123, and may form an ignitable or explosive vapor; and

F) It must be provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

3) A double-walled tank must fulfill the following:

A) It must be designed as an integral structure (i.e., an inner tank completely enveloped within an outer shell) so that any release from the inner tank is contained by the outer shell;

B) It must be protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell; and

C) It must be provided with a built-in continuous leak detection system capable of detecting a release within 24 hours, or at the earliest practicable time, if the owner or operator demonstrates, by way of permit application, to the Agency that the existing detection technology or site conditions would not allow detection of a release within 24 hours.

BOARD NOTE: The provisions outlined in the Steel Tank Institute document (STI) "Standard for Dual Wall Underground Steel Storage Tanks", incorporated by reference in 35 Ill. Adm. Code 720.111(a), may be used as a guideline for aspects of the design of underground steel double-walled tanks.

f) Ancillary equipment must be provided with secondary containment (e.g., trench, jacketing, double-walled piping, etc.) that meets the requirements of subsections (b) and (c), except as follows:

1) Aboveground piping (exclusive of flanges, joints, valves, and other connections) that are visually inspected for leaks on a daily basis;

2) Welded flanges, welded joints, and welded connections that are visually inspected for leaks on a daily basis;

3) Sealless or magnetic coupling pumps and sealless valves that are visually inspected for leaks on a daily basis; and

4) Pressurized aboveground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices, etc.) that are visually inspected for leaks on a daily basis.

g) Pursuant to Section 28.1 of the Environmental Protection Act, and in accordance with 35 Ill. Adm. Code 101 and 104, an adjusted standard will be granted by the Board regarding alternative design and operating practices only if the Board finds either that the alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous waste or hazardous constituents into the groundwater or surface water at least as effectively as secondary containment during the active life of the tank system, or that in the event of a release that does migrate to groundwater or surface water, no substantial present or potential hazard will be posed to human health or the environment. New underground tank systems may not receive an adjusted standard from the secondary containment requirements of this Section through a justification in accordance with subsection (g)(2).

1) When determining whether to grant alternative design and operating practices based on a demonstration of equivalent protection of groundwater and surface water, the Board will consider whether the petitioner has justified an adjusted standard based on the following factors:

A) The nature and quantity of the wastes;

B) The proposed alternative design and operation;

C) The hydrogeologic setting of the facility, including the thickness of soils present between the tank system and groundwater; and

D) All other factors that would influence the quality and mobility of the hazardous constituents and the potential for them to migrate to groundwater or surface water.

2) When determining whether to grant alternative design and operating practices based on a demonstration of no substantial present or potential hazard, the Board will consider whether the petitioner has justified an adjusted standard based on the following factors:

A) The potential adverse effects on groundwater, surface water and land quality taking into account, considering the following:

i) The physical and chemical characteristics of the waste in the tank system, including its potential for migration;

ii) The hydrogeological characteristics of the facility and surrounding land;

iii) The potential for health risk caused by human exposure to waste constituents;

iv) The potential for damage to wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents; and

v) The persistence and permanence of the potential adverse effects.

B) The potential adverse effects of a release on groundwater quality, taking into account;

i) The quantity and quality of groundwater and the direction of groundwater flow;

ii) The proximity and withdrawal rates of groundwater users;

iii) The current and future uses of groundwater in the area; and

iv) The existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater quality.

C) The potential adverse effects of a release on surface water quality, taking the following into account:

i) The quantity and quality of groundwater and the direction of groundwater flow;

ii) The patterns of rainfall in the region;

iii) The proximity of the tank system to surface waters;

iv) The current and future uses of surface waters in the area and water quality standards established for those surface waters; and

v) The existing quality of surface water, including other sources of contamination and the cumulative impact on surface water quality.

D) The potential adverse effect of a release on the land surrounding the tank system, taking the following into account:

i) The patterns of rainfall in the region; and

ii) The current and future uses of the surrounding land.

3) The owner or operator of a tank system, for which alternative design and operating practices had been granted in accordance with the requirements of subsection (g)(1), at which a release of hazardous waste has occurred from the primary tank system but which has not migrated beyond the zone of engineering control (as established in the alternative design and operating practices), must do the following:

A) It must comply with the requirements of Section 724.296, except Section 724.296(d); and

B) It must decontaminate or remove contaminated soil to the extent necessary to do the following:

i) Enable the tank system for which the alternative design and operating practices were granted to resume operation with the capability for the detection of releases at least equivalent to the capability it had prior to the release; and

ii) Prevent the migration of hazardous waste or hazardous constituents to groundwater or surface water; and

C) If contaminated soil cannot be removed or decontaminated in accordance with subsection (g)(3)(B), the owner or operator must comply with the requirement of Section 724.297(b).

4) The owner or operator of a tank system, for which alternative design and operating practices had been granted in accordance with the requirements of subsection (g)(1), at which a release of hazardous waste has occurred from the primary tank system and which has migrated beyond the zone of engineering control (as established in the alternative design and operating practices), must do the following:

A) Comply with the requirements of Section 724.296(a), (b), (c), and (d); and

B) Prevent the migration of hazardous waste or hazardous constituents to groundwater or surface water, if possible, and decontaminate or

remove contaminated soil. If contaminated soil cannot be decontaminated or removed, or if groundwater has been contaminated, the owner or operator must comply with the requirements of Section 724.297(b); and

C) If repairing, replacing or reinstalling the tank system, provide secondary containment in accordance with the requirements of subsections (a) through (f), or make the alternative design and operating practices demonstration to the Board again, and meet the requirements for new tank systems in Section 724.292 if the tank system is replaced. The owner or operator must comply with these requirements even if contaminated soil is decontaminated or removed and groundwater or surface water has not been contaminated.

h) In order to make an alternative design and operating practices, the owner or operator must follow the following procedures in addition to those specified in Section 28.1 of the Act and 35 Ill. Adm. Code 101 and 104:

1) The owner or operator must file a petition for approval of alternative design and operating practices according to the following schedule:

A) For existing tank systems, at least 24 months prior to the date that secondary containment must be provided in accordance with subsection (a).

B) For new tank systems, at least 30 days prior to entering into a contract for installation.

2) As part of the petition, the owner or operator must also submit the following to the Board:

A) A description of the steps necessary to conduct the demonstration and a timetable for completing each of the steps. The demonstration must address each of the factors listed in subsection (g)(1) or (g)(2); and

B) The portion of the Part B permit application specified in 35 Ill. Adm. Code 703.202.

3) The owner or operator must complete its showing within 180 days after filing its petition for approval of alternative design and operating practices.

4) The Agency must issue or modify the RCRA permit so as to require the permittee to construct and operate the tank system in the manner that was provided in any Board order approving alternative design and operating practices.

i) All tank systems, until such time as secondary containment that meets the requirements of this Section is provided, must comply with the following:

1) For non-enterable underground tanks, a leak test that meets the requirements of Section 724.291(b)(5) or other tank integrity methods, as approved or required by the Agency, must be conducted at least annually.

2) For other than non-enterable underground tanks, the owner or operator must do either of the following:

A) Conduct a leak test, as in subsection (i)(1); or

B) Develop a schedule and procedure for an assessment of the overall condition of the tank system by a qualified Professional Engineer. The schedule and procedure must be adequate to detect obvious cracks, leaks, and corrosion or erosion that may lead to cracks and leaks. The owner or operator must remove the stored waste from the tank, if necessary, to allow the condition of all internal tank surfaces to be assessed. The frequency of these assessments must be based on the material of construction of the tank and its ancillary equipment, the age of the system, the type of corrosion or erosion protection used, the rate of corrosion or erosion observed during the previous inspection and the characteristics of the waste being stored or treated.

3) For ancillary equipment, a leak test or other integrity assessment, as approved by the Agency, must be conducted at least annually.

BOARD NOTE: The practices described in the API Publication, "Guide for Inspection of Refinery Equipment", Chapter XIII, "Atmospheric and Low-Pressure Storage Tanks", incorporated by reference in 35 Ill. Adm. Code 720.111(a), may be used, where applicable, as a guideline for assessing the overall condition of the tank system.

4) The owner or operator must maintain on file at the facility a record of the results of the assessments conducted in accordance with subsections (i)(1) through (i)(3).

5) If a tank system or component is found to be leaking or unfit for use as a result of the leak test or assessment in subsections (i)(1) through (1)(3), the owner or operator must comply with the requirements of Section 724.296.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.294 General Operating Requirements

a) Hazardous wastes or treatment reagents must not be placed in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.

b) The owner or operator must use appropriate controls and practices to prevent spills and overflows from tank or containment systems. These include the following at a minimum:

1) Spill prevention controls (e.g., check valves, dry disconnect couplings, etc.);

2) Overfill prevention controls (e.g., level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank); and

3) Maintenance of sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.

c) The owner or operator must comply with the requirements of Section 724.296 if a leak or spill occurs in the tank system.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.295 Inspections

a) The owner or operator must develop and follow a schedule and procedure for inspecting overfill controls.

b) The owner or operator must inspect at least once each operating day data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells, etc.) to ensure that the tank system is being operated according to its design.

BOARD NOTE: Section 724.115(c) requires the owner or operator to remedy any deterioration or malfunction the owner or operator finds. Section 724.296 requires the owner or operator to notify the Agency within 24 hours of confirming a leak. Also federal 40 CFR 302.6 may require the owner or operator to notify the National Response Center of a release.

c) In addition, except as noted under subsection (d), the owner or operator must inspect the following at least once each operating day:

1) Above ground portions of the tank system, if any, to detect corrosion or releases of waste; and

2) The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary

containment system (e.g., dikes) to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).

d) Owners or operators of tank systems that either use leak detection systems to alert facility personnel to leaks, or implement established workplace practices to ensure leaks are promptly identified, must inspect at least weekly those areas described in subsections (c)(1) and (c)(2). Use of the alternate inspection schedule must be documented in the facility's operating record. This documentation must include a description of the established workplace practices at the facility.

e) This subsection (e) corresponds with 40 CFR 264.195(e), which USEPA removed and marked "reserved". This statement maintains structural consistency with the corresponding federal requirements.

f) Ancillary equipment that is not provided with secondary containment, as described in Section 724.293(f)(1) through (f)(4), must be inspected at least once each operating day.

g) The owner or operator must inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:

1) The proper operation of the cathodic protection system must be confirmed within six months after initial installation and annually thereafter; and

2) All sources of impressed current must be inspected or tested, as appropriate, at least bimonthly (i.e., every other month).

BOARD NOTE: The practices described in "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems", NACE Recommended Practice RP0285-85 and "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems", API Recommended Practice 1632, each incorporated by reference in 35 Ill. Adm. Code 720.111(a), may be used, where applicable, as guidelines in maintaining and inspecting cathodic protection systems.

h) The owner or operator must document in the operating record of the facility an inspection of those items in subsections (a) through (c).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.296 Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank Systems

A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, must be removed from service immediately, and the owner or operator must satisfy the following requirements:

a) Cease Using; Prevent Flow or Addition of Wastes. The owner or operator must immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.

b) Removal of Waste from Tank System or Secondary Containment System

1) If the release was from the tank system, the owner or operator must, within 24 hours after detection of the leak or as otherwise provided in the permit, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.

2) If the material released was to a secondary containment system, all released materials must be removed within 24 hours or as otherwise provided in the permit to prevent harm to human health and the environment.

c) Containment of Visible Releases to the Environment. The owner or operator must immediately conduct a visual inspection of the release and, based upon that inspection, do the following:

1) Prevent further migration of the leak or spill to soils or surface water; and

2) Remove and properly dispose of any visible contamination of the soil or surface water.

d) Notifications, Reports

1) Any release to the environment, except as provided in subsection (d)(2), must be reported to the Agency within 24 hours of its detection.

2) A leak or spill of hazardous waste is exempted from the requirements of this subsection (d) if the following is true:

A) The spill was less than or equal to a quantity of one pound (0.45 kg); and

B) It was immediately contained and cleaned up.

3) Within 30 days of detection of a release to the environment, a report containing the following information must be submitted to the Agency:

A) Likely route of migration of the release;

B) Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate, etc.);

C) Results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 30 days, these data must be submitted to the Agency as soon as they become available.

D) Proximity the downgradient drinking water, surface water, and populated areas; and

E) Description of response actions taken or planned.

e) Provision of Secondary Containment, Repair, or Closure

1) Unless the owner or operator satisfies the requirements of subsections (e)(2) through (e)(4), the tank system must be closed in accordance with Section 724.297.

2) If the cause of the release was a spill that has not damaged the integrity of the system, the owner or operator may return the system to service as soon as the released waste is removed and repairs, if necessary, are made.

3) If the cause of the release was a leak from the primary tank system into the secondary containment system, the system must be repaired prior to returning the tank system to service.

4) If the source of the release was a leak to the environment from a component of a tank system without secondary containment, the owner or operator must provide the component of the system from which the leak occurred with secondary containment that satisfies the requirements of Section 724.293 before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system that can be inspected visually. If the source is an aboveground component that can be inspected visually, the component must be repaired and may be returned to service without secondary containment, as long as the requirements of subsection (f) are satisfied. If a component is replaced to comply with the requirements of this subsection (e), that component must satisfy the requirements of new tank systems or components in Sections 724.292 and 724.293. Additionally, if a leak has occurred in any portion of a tank system component that is not readily accessible for visual inspection (e.g., the bottom of an in-ground or on-ground tank), the entire component must be provided with secondary containment in accordance with Section 724.293 prior to being returned to use.

f) Certification of Major Repairs. If the owner or operator has repaired a tank system in accordance with subsection (e), and the repair has been extensive (e.g., installation of an internal liner, repair, or a ruptured primary containment or secondary containment vessel), the tank system must not be returned to service unless the owner or operator has obtained a certification by a qualified Professional Engineer, in accordance with 35 Ill. Adm. Code 702.126(d), that the

repaired system is capable of handling hazardous wastes without release for the intended life of the system. This certification must be placed in the operating record and maintained until closure of the facility.

BOARD NOTE: See Section 724.115(c) for the requirements necessary to remedy a failure. Also, federal 40 CFR 302.6 may require the owner or operator to notify the National Response Center of any "reportable quantity".

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.297 Closure and Post-Closure Care

a) At closure of a tank system, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils and structures and equipment contaminated with waste, and manage them as hazardous waste, unless 35 Ill. Adm. Code 721.103(d) applies. The closure plan, closure activities, cost estimates for closure and financial responsibility for tank systems must meet all of the requirements specified in Subparts G and H.

b) If the owner or operator demonstrates to the Agency by way of permit application that not all contaminated soils can be practicably removed or decontaminated, as required in subsection (a), then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills (Section 724.410). In addition, for the purposes of closure, post-closure and financial responsibility, such a tank system is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in Subparts G and H.

c) If an owner or operator has a tank system that does not have secondary containment which meets the requirements of Section 724.193(b) through (f), and the owner and operator has not been granted alternative design and operating practices for secondary containment requirements in accordance with Section 724.293(g), then the following apply:

    1) The closure plan for the tank system must include both a plan for complying with subsection (a) and a contingent plan for complying with subsection (b).

    2) A contingent post-closure plan for complying with subsection (b) must be prepared and submitted as part of the permit application.

    3) The cost estimates calculated for closure and post-closure care must reflect the costs of complying with the contingent closure plan and the contingent post-closure plan if those costs are greater than the costs of complying with the closure plan prepared for the expected closure under subsection (a).

4) Financial assurance must be based on the cost estimates in subsection (c)(3).

5) For the purposes of the contingent closure and post-closure plans, such a tank system is considered to be a landfill, and the contingent plans must meet all of the closure, post-closure, and financial responsibility requirements for landfills under Subparts G and H.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.298 Special Requirements for Ignitable or Reactive Waste

a) Ignitable or reactive waste must not be placed in tank systems unless the following is true:

1) The waste is treated, rendered, or mixed before or immediately after placement in the tank system so that the following is true:

A) The resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste under 35 Ill. Adm. Code 721.121 or 721.123; and

B) Section 724.117(b) is complied with; or

2) The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

3) The tank is used solely for emergencies.

b) The owner or operator of a facility where ignitable or reactive waste is stored or treated in a tank must comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon, as required in tables 2-1 through 2-6 of "Flammable and Combustible Liquids Code", NFPA 30, incorporated by reference in 35 Ill. Adm. Code 720.111(a).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.299 Special Requirements for Incompatible Wastes

a) Incompatible wastes or incompatible wastes and materials must not be placed in the same tank system, unless Section 724.117(b) is complied with.

b) Hazardous waste must not be placed in a tank system that has not been decontaminated and which previously held an incompatible waste or material, unless Section 724.117(b) is complied with.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.300 Air Emission Standards

The owner or operator must manage all hazardous waste placed in a tank in accordance with the requirements of Subparts AA, BB, and CC.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

SUBPART K: SURFACE IMPOUNDMENTS

Section 724.320 Applicability

The regulations in this Subpart K apply to owners and operators of facilities that use surface impoundments to treat, store, or dispose of hazardous waste, except as Section 724.101 provides otherwise.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.321 Design and Operating Requirements

a) Any surface impoundment that is not covered by subsection (c) or 35 Ill. Adm. Code 725.321 must have a liner for all portions of the impoundment (except for existing portions of such impoundment). The liner must be designed, constructed, and installed to prevent any migration of wastes out of the impoundment to the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the impoundment. The liner may be constructed of materials that may allow wastes to migrate into the liner (but not into the adjacent subsurface soil or groundwater or surface water) during the active life of the facility, provided that the impoundment is closed in accordance with Section 724.328(a)(1). For impoundments that will be closed in accordance with Section 724.328(a)(2), the liner must be constructed of materials that can prevent wastes from migrating into the liner during the active life of the facility. The liner must be as follows:

1) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

2) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

3) Installed to cover all surrounding earth likely to be in contact with the waste or leachate.

b) The owner or operator will be exempted from the requirements of subsection (a) if the Board grants an adjusted standard pursuant to Section 28.1 of the Act and 35 Ill. Adm. Code 101 and 104. The level of justification is a demonstration by the owner or operator that alternative design or operating practices, together with location characteristics, will prevent the migration of any hazardous constituents (see Section 724.193) into the groundwater or surface water at any future time. In deciding whether to grant an adjusted standard, the Board will consider the following:

1) The nature and quantity of the wastes;

2) The proposed alternative design and operation;

3) The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the impoundment and groundwater or surface water; and

4) All other factors that would influence the quality and mobility of the leachate produced and the potential for it to migrate to groundwater or surface water.

c) The owner or operator of each new surface impoundment unit on which construction commences after January 29, 1992, each lateral expansion of a surface impoundment unit on which construction commences after July 29, 1992, and each replacement of an existing surface impoundment unit that is to commence reuse after July 29, 1992, must install two or more liners and a leachate collection and removal system between such liners. "Construction commences" is as defined in 35 Ill. Adm. Code 720.110, under the definition of "existing facility".

1) Liner Requirements

A) The liner system must include the following:

i) A top liner designed and constructed of materials (e.g., a geomembrane) to prevent the migration of hazardous constituents into such liner during the active life and post-closure care period; and

ii) A composite bottom liner, consisting of at least two components. The upper component must be designed and constructed of materials (e.g., a geomembrane) to prevent the migration of hazardous constituents into this component during the active life and post-closure care period. The lower component must be designed and constructed of materials to minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component must be constructed of at

least three feet (91 cm) of compacted soil material with a hydraulic conductivity of no more than 1 x 10^{-7} cm/sec.

B) The liners must comply with subsections (a)(1), (a)(2), and (a)(3).

2) The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system (LDS). This LDS must be capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time through all areas of the top liner likely to be exposed to waste or leachate during the active life and post-closure care period. The requirements for a LDS in this subsection (c) are satisfied by installation of a system that is, at a minimum, as follows:

A) It is constructed with a bottom slope of one percent or more;

B) It is constructed of granular drainage materials with a hydraulic conductivity of 1 x 10^{-1} cm/sec or more and a thickness of 12 inches (30.5 cm) or more; or constructed of synthetic or geonet drainage materials with a transmissivity of 3 x 10^{-4} m^2/sec or more;

C) It is constructed of materials that are chemically resistant to the waste managed in the surface impoundment and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes and any waste cover materials or equipment used at the surface impoundment;

D) It is designed and operated to minimize clogging during the active life and post-closure care period; and

E) It is constructed with sumps and liquid removal methods (e.g., pumps) of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit must have its own sumps. The design of each sump and removal system must provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.

3) The owner or operator must collect and remove pumpable liquids in the sumps to minimize the head on the bottom liner.

4) The owner or operator of a LDS that is not located completely above the seasonal high water table must demonstrate that the operation of the LDS will not be adversely affected by the presence of groundwater.

d) Subsection (c) will not apply if the owner or operator demonstrates to the Agency, and the Agency finds for such surface impoundment, that alternative design or operating practices, together with location characteristics, will do the following:

1) It will prevent the migration of any hazardous constituent into the groundwater or surface water at least as effectively as the liners and leachate collection and removal system specified in subsection (c); and

2) It will allow detection of leaks of hazardous constituents through the top liner at least as effectively.

e) The double liner requirement set forth in subsection (c) may be waived by the Agency for any monofill, if the following is true of the unit:

1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents that would render the wastes hazardous for reasons other than the toxicity characteristic in 35 Ill. Adm. Code 721.124; and

2) Design and Location

A) Liner, location, and groundwater monitoring.

i) The monofill has at least one liner for which there is no evidence that such liner is leaking. For the purposes of this subsection (e), the term "liner" means a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, groundwater, or surface water at any time during the active life of the facility. In the case of any surface impoundment that has been exempted from the requirements of subsection (c) on the basis of a liner designed, constructed, installed, and operated to prevent hazardous waste from passing beyond the liner, at the closure of such impoundment, the owner or operator must remove or decontaminate all waste residues, all contaminated liner material, and contaminated soil to the extent practicable. If all contaminated soil is not removed or decontaminated, the owner or operator of such impoundment will comply with appropriate post-closure requirements, including but not limited to groundwater monitoring and corrective action;

ii) The monofill is located more than one-quarter mile from an "underground source of drinking water" (as that term is defined in 35 Ill. Adm. Code 702.110); and

iii) The monofill is in compliance with generally applicable groundwater monitoring requirements for facilities with permits; or

B) The owner or operator demonstrates to the Board that the monofill is located, designed, and operated so as to assure that there will be no migration of any hazardous constituent into groundwater or surface water at any future time.

f) The owner or operator of any replacement surface impoundment unit is exempt from subsection (c) if the following is true of the unit:

1) The existing unit was constructed in compliance with the design standards of 35 Ill. Adm. Code 724.321(c), (d), and (e); and

BOARD NOTE: The cited subsections implemented the design standards of sections 3004(o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act (42 USC 6924(o)(1)(A)(i) and (o)(5)).

2) There is no reason to believe that the liner is not functioning as designed.

g) A surface impoundment must be designed, constructed, maintained, and operated to prevent overtopping resulting from normal or abnormal operations; overfilling; wind and wave action; rainfall; run-on; malfunctions of level controllers, alarms, and other equipment; and human error.

h) A surface impoundment must have dikes that are designed, constructed, and maintained with sufficient structural integrity to prevent massive failure of the dikes. In ensuring structural integrity, it must not be presumed that the liner system will function without leakage during the active life of the unit.

i) The Agency must specify in the permit all design and operating practices that are necessary to ensure that the requirements of this Section are satisfied.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.322 Action Leakage Rate

a) The Agency must approve an action leakage rate for surface impoundment units subject to Section 724.321(c) or (d). The action leakage rate is the maximum design flow rate that the LDS can remove without the fluid head on the bottom liner exceeding 1 foot. The action leakage rate must include an adequate safety margin to allow for uncertainties in the design (e.g., slope, hydraulic conductivity, thickness of drainage material, etc.), construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS, and proposed response actions (e.g., the action leakage rate must consider decreases in the flow capacity of the system over time resulting

from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.).

b) To determine if the action leakage rate has been exceeded, the owner or operator must convert the weekly or monthly flow rate from the monitoring data obtained under Section 724.326(d) to an average daily flow rate (gallons per acre per day) for each sump. The average daily flow rate for each sump must be calculated weekly during the active life and closure period and, if the unit is closed in accordance with Section 724.328(b), monthly during the post-closure care period, unless the Agency approves a different frequency pursuant to Section 724.326(d).

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.323 Response Actions

a) The owner or operator of surface impoundment units subject to Section 724.321(c) or (d) must have an approved response action plan before receipt of waste. The response action plan must set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in subsection (b).

b) If the flow rate into the LDS exceeds the action leakage rate for any sump, the owner or operator must do the following:

1) Notify the Agency in writing of the exceedance within seven days after the determination;

2) Submit a preliminary written assessment to the Agency within 14 days after the determination, as to the amount of liquids, likely sources of liquids, possible location, size and cause of any leaks, and short-term actions taken and planned;

3) Determine to the extent practicable the location, size, and cause of any leak;

4) Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs or controls, and whether or not the unit should be closed;

5) Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

6) Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Agency the results of the determinations specified in subsections (b)(3), (b)(4), and (b)(5), the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the LDS exceeds the action leakage rate, the owner or operator must submit to the

Agency a report summarizing the results of any remedial actions taken and actions planned.

c) To make the leak or remediation determinations in subsections (b)(3), (b)(4), and (b)(5), the owner or operator must do either of the following:

1) Perform the following assessments:

A) Assess the source of liquids and amounts of liquids by source;

B) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the LDS to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

C) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

2) Document why such assessments are not needed.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.326 Monitoring and Inspection

a) During construction and installation, liners (except in the case of existing portions of surface impoundments exempt from Section 724.321(a)) and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation:

1) Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, and blisters; and

2) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of that liner or cover.

b) While a surface impoundment is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

1) Deterioration, malfunctions, or improper operation of overtopping control systems;

2) Sudden drops in the level of the impoundment's contents; and

3) Severe erosion or other signs of deterioration in dikes or other containment devices.

c) Prior to the issuance of a permit, and after any extended period of time (more than six months) during which the impoundment was not in service, the owner or operator must obtain a certification from a qualified engineer that the impoundment's dike, including that portion of any dike that provides freeboard, has structural integrity. The certification must establish, in particular, that the following are true of the dike:

1) It will withstand the stress of the pressure exerted by the types and amounts of wastes to be placed in the impoundment; and

2) It will not fail due to scouring or piping, without dependence on any liner system included in the surface impoundment construction.

d) Monitoring of LDS.

1) An owner or operator required to have a LDS under Section 724.321(c) or (d) must record the amount of liquids removed from each LDS sump at least once each week during the active life and closure period.

2) After the final cover is installed, the amount of liquids removed from each LDS sump must be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps must be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps must be recorded at least semi-annually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the owner or operator must return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

3) "Pump operating level" is a liquid level proposed by the owner or operator pursuant to 35 Ill. Adm. Code 703.203(b)(5) and approved by the Agency based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.327 Emergency Repairs; Contingency Plans

a) A surface impoundment must be removed from service in accordance with subsection (b) when either of the following occurs:

1) The level of liquids in the impoundment suddenly drops and the drop is not known to be caused by changes in the flows into or out of the impoundment; or

2) The dike leaks.

b) When a surface impoundment must be removed from service as required by subsection (a), the owner or operator must do the following:

1) Immediately shut off the flow or stop the addition of wastes into the impoundment;

2) Immediately contain any surface leakage that has occurred or is occurring;

3) Immediately stop the leak;

4) Take any other necessary steps to stop or prevent catastrophic failure;

5) If a leak cannot be stopped by any other means, empty the impoundment; and

6) Notify the Agency of the problem in writing within seven days after detecting the problem.

c) As part of the contingency plan required in Subpart D, the owner or operator must specify a procedure for complying with the requirements of subsection (b).

d) No surface impoundment that has been removed from service in accordance with the requirements of this section may be restored to service unless the portion of the impoundment that was failing is repaired and the following steps are taken:

1) If the impoundment was removed from service as the result of actual or imminent dike failure, the dike's structural integrity must be re-certified in accordance with Section 724.326(c).

2) If the impoundment was removed from service as the result of a sudden drop in the liquid level, then the following apply:

A) For any existing portion of the impoundment, a liner must be installed in compliance with Section 724.321(a) or 724.322; and

B) For any other portion of the impoundment, the repaired liner system must be certified by a qualified engineer as meeting the design specifications approved in the permit.

e) A surface impoundment that has been removed from service in accordance with the requirements of this Section and that is not being repaired must be closed in accordance with the provisions of Section 724.328.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.328 Closure and Post-Closure Care

a) At closure, the owner or operator must do the following:

1) Remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils and structures, and equipment contaminated with waste and leachate, and manage them as hazardous waste, unless 35 Ill. Adm. Code 721.103(d) applies; or

2) Closure in Place

A) Eliminate free liquids by removing liquid wastes or solidifying the remaining wastes and waste residues;

B) Stabilize remaining wastes to a bearing capacity sufficient to support final cover; and

C) Cover the surface impoundment with a final cover designed and constructed to do the following:

i) Provide long-term minimization of the migration of liquids through the closed impoundment;

ii) Function with minimum maintenance;

iii) Promote drainage and minimize erosion or abrasion of the final cover;

iv) Accommodate settling and subsidence so that the cover's integrity is maintained; and

v) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

b) If some waste residues or contaminated materials are left in place at final closure, the owner or operator must comply with all post-closure requirements contained in Sections 724.217 through 724.220, including maintenance and monitoring throughout the post-closure care period (specified in the permit under Section 724.217). The owner or operator must do the following:

1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap, as necessary to correct the effects of settling, subsidence, erosion, or other events;

2) Maintain and monitor the LDS in accordance with Sections 724.321(c)(2)(D) and (c)(3) and 724.326(d), and comply with all other applicable LDS requirements of this Part;

3) Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of Subpart F; and

4) Prevent run-on and run-off from eroding or otherwise damaging the final cover.

c) Contingent Plans

1) If an owner or operator plans to close a surface impoundment in accordance with subsection (a)(1), and the impoundment does not comply with the liner requirements of Section 724.321(a) and is not exempt from them in accordance with Section 724.321(b), then the following apply:

A) The closure plan for the impoundment under Section 724.212 must include both a plan for complying with subsection (a)(1) and a contingent plan for complying with subsection (a)(2) in case not all contaminated subsoils can be practicably removed at closure; and

B) The owner or operator must prepare a contingent post-closure plan under Section 724.218 for complying with subsection (b) in case not all contaminated subsoils can be practicably removed at closure.

2) The cost estimates calculated under Sections 724.242 and 724.244 for closure and post-closure care of an impoundment subject to this subsection (c) must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under subsection (a)(1).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.329 Special Requirements for Ignitable or Reactive Waste

Ignitable or reactive waste must not be placed in a surface impoundment, unless the waste and impoundment satisfy all applicable requirements of 35 Ill. Adm. Code 728 and the following:

a) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that the following is true:

1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 35 Ill. Adm. Code 721.121 or 721.123; and

2) Section 724.117(b) is complied with;

b) The waste is managed in such a way that it is protected from any material or conditions that may cause it to ignite or react; or

c) The surface impoundment is used solely for emergencies.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.330 Special Requirements for Incompatible Wastes

Incompatible wastes or incompatible wastes and materials (see Appendix E for examples) must not be placed in the same surface impoundment, unless Section 724.117(b) is complied with.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.331 Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and F027

a) Hazardous Wastes F020, F021, F022, F023, F026, and F027 must not be placed in a surface impoundment unless the owner or operator operates the surface impoundment in accordance with a management plan for these wastes that is approved by the Agency pursuant to the standards set out in this subsection (a), and in accord with all other applicable requirements of this Part. The factors to be considered are the following:

1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2) The attenuative properties of underlying and surrounding soils or other materials;

3) The mobilizing properties of other materials co-disposed with these wastes; and

4) The effectiveness of additional treatment, design, or monitoring techniques.

b) The Agency may determine that additional design, operating and monitoring requirements are necessary for surface impoundments managing hazardous wastes F020, F021, F022, F023, F026, and F027 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to adequately protect human health and the environment.

(Source: Amended at 31 Ill. Reg. 893, effective December 20, 2006)

Section 724.332 Air Emission Standards

The owner or operator must manage all hazardous waste placed in a surface impoundment in accordance with the requirements of Subparts BB and CC.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

SUBPART L: WASTE PILES

Section 724.350 Applicability

a) The regulations in this Subpart L apply to owners and operators of facilities that store or treat hazardous waste in piles, except as Section 724.101 provides otherwise.

b) The regulations in this Subpart L do not apply to owners or operators of waste piles that are closed with wastes left in place. Such waste piles are subject to regulation under Subpart N (Landfills).

c) The owner or operator of any waste pile that is inside or under a structure that provides protection from precipitation so that neither run-off nor leachate is generated is not subject to regulation under Section 724.351 or under Subpart F (Groundwater Protection), provided that the following is true:

1) Liquids or materials containing free liquids are not placed in the pile;

2) The pile is protected from surface water run-on by the structure or in some other manner;

3) The pile is designed and operated to control dispersal of the waste by wind, where necessary, by means other than wetting; and

4) The pile will not generate leachate through decomposition or other reactions.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.351 Design and Operating Requirements

a) A waste pile (except for an existing portion of a waste pile) must have the following:

1) A liner that is designed, constructed, and installed to prevent any migration of wastes out of the pile into the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the waste pile. The liner may be constructed of materials that may allow waste to migrate into the liner itself (but not into the adjacent subsurface soil or groundwater or surface water) during the active life of the facility. The liner must be as follows:

A) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate

to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation;

B) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

C) Installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

2) A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the pile. The Agency must specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must be as follows:

A) Constructed of materials that are as follows:

i) Chemically resistant to the waste managed in the pile and the leachate expected to be generated; and

ii) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials and by any equipment used at the pile; and

B) Designed and operated to function without clogging through the scheduled closure of the waste pile.

b) The owner or operator will be exempted from the requirements of subsection (a) if the Board grants an adjusted standard pursuant to Section 28.1 of the Act and 35 Ill. Adm. Code 101 and 104. The level of justification is a demonstration by the owner or operator that alternative design or operating practices, together with location characteristics, will prevent the migration of any hazardous constituents (see Section 724.193) into the groundwater or surface water at any future time. In deciding whether to grant an adjusted standard, the Board will consider the following:

1) The nature and quantity of the wastes;

2) The proposed alternative design and operation;

3) The hydrogeologic setting of the facility, including attenuative capacity and thickness of the liners and soils present between the pile and groundwater or surface water; and

4) All other factors that influence the quality and mobility of the leachate produced and the potential for it to migrate to groundwater or surface water.

c) The owner or operator of each new waste pile unit, each lateral expansion of a waste pile unit, and each replacement of an existing waste pile unit must install two or more liners and a leachate collection and removal system above and between such liners.

1) Liners

A) The liner system must include the following:

i) A top liner designed and constructed of materials (e.g., a geomembrane) to prevent the migration of hazardous constituents into such liner during the active life and post-closure care period; and

ii) A composite bottom liner, consisting of at least two components. The upper component must be designed and constructed of materials (e.g., a geomembrane) to prevent the migration of hazardous constituents into this component during the active life and post-closure care period. The lower component must be designed and constructed of materials to minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component must be constructed of at least 3 feet (91 cm) of compacted soil material with a hydraulic conductivity of no more than 1×10^{-7} cm/sec.

B) The liners must comply with subsections (a)(1)(A), (a)(1)(B), and (a)(1)(C).

2) The leachate collection and removal system immediately above the top liner must be designed, constructed, operated, and maintained to collect and remove leachate from the waste pile during the active life and post-closure care period. The Agency must specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must comply with subsections (c)(3)(C) and (c)(3)(D).

3) The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system (LDS). This LDS must be capable of detecting, collecting and removing leaks of hazardous constituents at the earliest practicable time through all areas of the top liner likely to be exposed to waste or leachate during the

active life and post-closure care period. The requirements for a LDS in this subsection (c) are satisfied by installation of a system that is, at a minimum, as follows:

A) Constructed with a bottom slope of one percent or more;

B) Constructed of granular drainage materials 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} m^2/sec or more;

C) Constructed of materials that are chemically resistant to the waste managed in the waste pile and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and equipment used at the waste pile;

D) Designed and operated to minimize clogging during the active life and post-closure care period; and

E) Constructed with sumps and liquid removal methods (e.g., pumps) of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit must have its own sumps. The design of each sump and removal system must provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.

4) The owner or operator must collect and remove pumpable liquids in the LDS sumps to minimize the head on the bottom liner.

5) The owner or operator of a LDS that is not located completely above the seasonal high water table must demonstrate that the operation of the LDS will not be adversely affected by the presence of groundwater.

d) The Agency must approve alternative design or operating practices to those specified in subsection (c) if the owner or operator demonstrates to the Agency, by way of permit or permit modification application, that such design or operating practices, together with location characteristics, will do the following:

1) Will prevent the migration of any hazardous constituent into the ground water or surface water at least as effectively as the liners and leachate collection and removal systems specified in subsection (c); and

2) Will allow detection of leaks of hazardous constituents through the top liner at least as effectively.

e) Subsection (c) does not apply to monofills that are granted a waiver by the Agency in accordance with Section 724.321(e).

f) The owner or operator of any replacement waste pile unit is exempt from subsection (c) if the following are true:

1) The existing unit was constructed in compliance with the design standards of section 3004(o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act (42 USC 6924(o)(1)(A)(i) and (o)(5)); and

BOARD NOTE: The cited provisions required the installation of two or more liners and a leachate collection system above (in the case of a landfill) and between such liners, including a top liner designed, operated and constructed of materials to prevent the migration of any constituent into such liner during the period the facility remained in operation (including any post-closure monitoring period), and a lower liner to prevent the migration of any constituent through the liner during such period. The lower liner was deemed to satisfy the requirement if it was constructed of at least a 3-foot thick layer of recompacted clay or other natural material with a permeability of no more than 1×10^{-7} cm/sec.

2) There is no reason to believe that the liner is not functioning as designed.

g) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 25-year storm.

h) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

i) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

j) If the pile contains any particulate matter that may be subject to wind dispersal, the owner or operator must cover or otherwise manage the pile to control wind dispersal.

k) The Agency must specify in the permit all design and operating practices that are necessary to ensure that the requirements of this Section are satisfied.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.352 Action Leakage Rate

a) The Agency must approve an action leakage rate for waste pile units subject to Section 724.351(c) or (d). The action leakage rate is the maximum design flow rate that the LDS can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate must include an adequate safety margin to allow for uncertainties in the design (e.g., slope, hydraulic conductivity, thickness of

drainage material, etc.), construction, operation, and location of the LDS; waste and leachate characteristics; likelihood and amounts of other sources of liquids in the LDS; and proposed response actions (e.g., the action leakage rate must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.).

b) To determine if the action leakage rate has been exceeded, the owner or operator must convert the weekly or monthly flow rate from the monitoring data obtained under Section 724.354(c) to an average daily flow rate (gallons per acre per day) for each sump. The average daily flow rate for each sump must be calculated weekly during the active life and closure period.

(Source: Amended at 32 Ill. Reg. 12365, effective July 14, 2008)

Section 724.353 Response Action Plan

a) The owner or operator of waste pile units subject to Section 724.351(c) or (d) must have an approved response action plan before receipt of waste. The response action plan must set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in subsection (b).

b) If the flow rate into the LDS exceeds the action leakage rate for any sump, the owner or operator must do the following:

1) Notify the Agency in writing of the exceedance within seven days after the determination;

2) Submit a preliminary written assessment to the Agency within 14 days after the determination, as to the amount of liquids, likely sources of liquids, possible location, size and cause of any leaks, and short-term actions taken and planned;

3) Determine to the extent practicable the location, size, and cause of any leak;

4) Determine whether waste receipt should cease or be curtailed; whether any waste should be removed from the unit for inspection, repairs, or controls; and whether the unit should be closed;

5) Determine any other short-term and long-term actions to be taken to mitigate or stop any leaks; and

6) Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Agency the results of the determinations specified in subsections (b)(3), (b)(4), and (b)(5), the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the LDS

exceeds the action leakage rate, the owner or operator must submit to the Agency a report summarizing the results of any remedial actions taken and actions planned.

c) To make the leak or remediation determinations in subsections (b)(3), (b)(4), and (b)(5), the owner or operator must do either of the following:

1) Perform the following assessments:

A) Assess the source of liquids and amounts of liquids by source;

B) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the LDS to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

C) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

2) Document why such assessments are not needed.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.354 Monitoring and Inspection

a) During construction or installation, liners (except in the case of existing portions of piles exempt from Section 724.351(a)) and cover systems (e.g., membranes, sheets or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation, the following must be done:

1) Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, and blisters; and

2) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

b) While a waste pile is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

2) Proper functioning of wind dispersal control systems, where present; or

3) The presence of leachate in and proper functioning of leachate collection and removal systems, where present.

c) An owner or operator required to have a LDS under Section 724.351(c) must record the amount of liquids removed from each LDS sump at least once each week during the active life and closure period.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.356 Special Requirements for Ignitable or Reactive Waste

Ignitable or reactive waste must not be placed in a waste pile, unless the waste and waste pile satisfy all applicable requirements of 35 Ill. Adm. Code 728, and the following:

a) The waste is treated, rendered, or mixed before or immediately after placement in the pile so that the following is true:

1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 35 Ill. Adm. Code 721.121 or 721.123; and

2) Section 724.117(b) is complied with; or

b) The waste is managed in such a way that it is protected from any material or conditions that may cause it to ignite or react.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.357 Special Requirements for Incompatible Wastes

a) Incompatible wastes, or incompatible wastes and materials, (see Appendix E for examples) must not be placed in the same pile, unless Section 724.117(b) is complied with.

b) A pile of hazardous waste that is incompatible with any waste or other material stored nearby in containers, other piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

c) Hazardous waste must not be piled on the same base where incompatible wastes or materials were previously piled, unless the base has been decontaminated sufficiently to ensure compliance with Section 724.117(b).

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.358 Closure and Post-Closure Care

a) At closure, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc), contaminated subsoils, and structures and equipment contaminated with waste and leachate and manage them as hazardous waste, unless 35 Ill. Adm. 721.103(d) applies.

b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment, as required in subsection (a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, it must close the facility and perform post-closure care in accordance with the closure and post-closure care requirements that apply to landfills (Section 724.410).

c) Contingent Closure Plan

1) The owner or operator of a waste pile that does not comply with the liner requirements of Section 724.351(a)(1), and is not exempt from them in accordance with Sections 724.350(c) or 724.351(b), must do the following:

A) Include in the closure plan for the pile under Section 724.212 both a plan for complying with subsection (a) and a contingent plan for complying with subsection (b) in case not all contaminated subsoils can be practicably removed at closure; and

B) Prepare a contingent post-closure plan under Section 724.218 for complying with subsection (b) in case not all contaminated subsoils can be practicably removed at closure.

2) The cost estimates calculated under Sections 724.242 and 724.244 for closure and post-closure care of a pile subject to this subsection (b) must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under subsection (a).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.359 Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and F027

a) Hazardous Wastes F020, F021, F022, F023, F026, and F027 must not be placed in waste piles that are not enclosed (as defined in Section 724.350(c)) unless the owner or operator operates the waste pile in accordance with a management plan for these wastes that is approved by the Agency pursuant to the standards set out

in this subsection (a), and in accord with all other applicable requirements of this Part. The factors to be considered are the following:

1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2) The attenuative properties of underlying and surrounding soils or other materials;

3) The mobilizing properties of other materials co-disposed with these wastes; and

4) The effectiveness of additional treatment, design, or monitoring techniques.

b) The Agency may determine that additional design, operating and monitoring requirements are necessary for piles managing hazardous wastes F020, F021, F022, F023, F026, and F027 in order to reduce the possibility of migration of these wastes to groundwater, surface water, or air so as to adequately protect human health and the environment.

(Source: Amended at 31 Ill. Reg. 893, effective December 20, 2006)

SUBPART M: LAND TREATMENT

Section 724.370 Applicability

The regulations in this Subpart M apply to owners and operators of facilities that treat or dispose of hazardous waste in land treatment units, except as Section 724.101 provides otherwise.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.371 Treatment Program

a) An owner or operator subject to this Subpart M must establish a land treatment program that is designed to ensure that hazardous constituents placed in or on the treatment zone are degraded, transformed or immobilized within the treatment zone. The Agency must specify in the facility permit the elements of the treatment program, including the following:

1) The wastes that are capable of being treated at the unit based on a demonstration under Section 724.372;

2) Design measures and operating practices necessary to maximize the success of degradation, transformation, and immobilization processes in the treatment zone in accordance with Section 724.373(a); and

3) Unsaturated zone monitoring provisions meeting the requirements of Section 724.378.

b) The Agency must specify in the facility permit the hazardous constituents that must be degraded, transformed or immobilized under this Subpart M. Hazardous constituents are constituents identified in Appendix H to 35 Ill. Adm. Code 721 that are reasonably expected to be in, or derived from, waste placed in or on the treatment zone.

c) The Agency must specify the vertical and horizontal dimensions of the treatment zone in the facility permit. The treatment zone is the portion of the unsaturated zone below and including the land surface in which the owner or operator intends to maintain the conditions necessary for effective degradation, transformation, or immobilization of hazardous constituents. The maximum depth of the treatment zone must be as follows:

1) No more than 1.5 meters (5 feet) from the initial soil surface; and

2) More than 1 meter (3 feet) above the seasonal high water table.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.372 Treatment Demonstration

a) For each waste that will be applied to the treatment zone, the owner or operator must demonstrate, prior to application of the waste, that the hazardous constituents in the waste can be completely degraded, transformed, or immobilized in the treatment zone.

b) In making this demonstration, the owner or operator may use field tests, laboratory analyses, available data or, in the case of existing units, operating data. If the owner or operator intends to conduct field tests or laboratory analyses in order to make the demonstration required pursuant to subsection (a), it must obtain a treatment or disposal permit pursuant to 35 Ill. Adm. Code 703.230. The Agency must specify in this permit the testing, analytical, design, and operating requirements (including the duration of the tests and analyses and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone, monitoring procedures, closure, and clean-up activities) necessary to meet the requirements in subsection (c).

c) Any field test or laboratory analysis conducted in order to make a demonstration pursuant to subsection (a) must meet the following requirements:

1) It must accurately simulate the characteristics and operating conditions for the proposed land treatment unit including the following:

A) The characteristics of the waste (including the presence of constituents of Appendix H to 35 Ill. Adm. Code 721);

B) The climate in the area;

C) The topography of the surrounding area;

D) The characteristics of the soil in the treatment zone (including depth); and

E) The operating practices to be used at the unit;

2) It must be likely to show that hazardous constituents in the waste to be tested will be completely degraded, transformed or immobilized in the treatment zone of the proposed land treatment unit; and

3) It must be conducted in a manner that adequately protects human health and the environment considering the following:

A) The characteristics of the waste to be tested;

B) The operating and monitoring measures taken during the course of the test;

C) The duration of the test;

D) The volume of waste used in the test;

E) In the case of field tests, the potential for migration of hazardous constituents to groundwater or surface water.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.373 Design and Operating Requirements

The Agency must specify in the facility permit how the owner or operator will design, construct, operate, and maintain the land treatment unit in compliance with this Section.

a) The owner or operator must design, construct, operate, and maintain the unit to maximize the degradation, transformation, and immobilization of hazardous constituents in the treatment zone. The owner or operator must design, construct, operate, and maintain the unit in accord with all design and operating conditions that were used in the treatment demonstration under Section 724.372. At a minimum, the Agency must specify the following in the facility permit:

1) The rate and method of waste application to the treatment zone;

2) Measures to control soil pH;

3) Measures to enhance microbial or chemical reactions (e.g., fertilization, tilling, etc.); and

4) Measures to control the moisture content of the treatment zone.

b) The owner or operator must design, construct, operate, and maintain the treatment zone to minimize run-off of hazardous constituents during the active life of the land treatment unit.

c) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the treatment zone during peak discharge from at least a 25-year storm.

d) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

e) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain the design capacity of the system.

f) If the treatment zone contains particulate matter that may be subject to wind dispersal, the owner or operator must manage the unit to control wind dispersal.

g) The owner or operator must inspect the unit weekly and after storms to detect evidence of the following:

1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems; and

2) Improper functioning of wind dispersal control measures.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.376 Food-Chain Crops

The Agency may allow the growth of food-chain crops in or on the treatment zone only if the owner or operator satisfies the conditions of this Section. The Agency must specify in the facility permit the specific food-chain crops that may be grown.

a) Food-Chain Crops Grown in the Treatment Zone

1) The owner or operator must demonstrate that there is no substantial risk to human health caused by the growth of such crops in or on the treatment zone by demonstrating, prior to the planting of such crops, that the following is true of hazardous constituents other than cadmium:

A) They will not be transferred to the food or feed portions of the crop by plant uptake or direct contact, and will not otherwise be ingested by food-chain animals (e.g., by grazing); or

B) They will not occur in greater concentrations in or on the food or feed portions of crops grown on the treatment zone than in or on identical portions of the same crops grown on untreated soils under similar conditions in the same region.

2) The owner or operator must make the demonstration required under this subsection (a) prior to the planting of crops at the facility for all constituents identified in Appendix H to 35 Ill. Adm. Code 721 that are reasonably expected to be in, or derived from, waste placed in or on the treatment zone.

3) In making a demonstration under this subsection (a), the owner or operator may use field tests, greenhouse studies, available data or, in the case of existing units, operating data, and must do the following:

A) Base the demonstration on conditions similar to those present in the treatment zone, including soil characteristics (e.g., pH, cation exchange capacity), specific wastes, application rates, application methods, and crops to be grown; and

B) Describe the procedures used in conducting any tests, including the sample selection criteria, sample size, analytical methods, and statistical procedures.

4) If the owner or operator intends to conduct field tests or greenhouse studies in order to make the demonstration required under this subsection (a), it must obtain a permit for conducting such activities.

b) The owner or operator must comply with the following conditions if cadmium is contained in wastes applied to the treatment zone:

1) Limited Cadmium Application

A) The pH of the waste and soil mixture must be 6.5 or greater at the time of each waste application, except for waste containing cadmium at concentrations of 2 mg/kg (dry weight) or less;

B) The annual application of cadmium from waste must not exceed 0.5 kg/ha (0.45 lb/acre) on land used for production of tobacco, leafy vegetables, or root crops grown for human consumption. For other food-chain crops, the annual cadmium application rate must not exceed 0.5 kg/ha (0.45 lb/acre).

C) The cumulative application of cadmium from waste must not exceed 5 kg/ha if the waste and soil mixture has a pH of less than 6.5; and

D) If the waste and soil mixture has a pH of 6.5 or greater or is maintained at a pH of 6.5 or greater during crop growth, the cumulative application of cadmium from waste must not exceed: 5 kg/ha if soil cation exchange capacity (CEC) is less than 50 milliequivalents per kilogram (50 meq/kg); 10 kg/ha if soil CEC is 50 to 150 meq/kg; and 20 kg/ha if soil CEC is greater than 150 meq/kg; or

2) Limited Future Use of Land and Crops

A) Animal feed must be the only food-chain crop produced;

B) The pH of the waste and soil mixture must be 6.5 or greater at the time of waste application or at the time the crop is planted, whichever occurs later, and this pH level must be maintained whenever food-chain crops are grown;

C) There must be an operating plan that demonstrates how the animal feed will be distributed to preclude ingestion by humans. The operating plan must describe the measures to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses; and

D) Future property owners must be notified by a stipulation in the land record or property deed that states that the property has received waste at high cadmium application rates and that food-chain crops must not be grown except in compliance with subsection (b)(2).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.378 Unsaturated Zone Monitoring

An owner or operator subject to this Subpart M must establish an unsaturated zone monitoring program to carry out the following responsibilities:

a) The owner or operator must monitor the soil and soil-pore liquid to determine whether hazardous constituents migrate out of the treatment zone.

1) The Agency must specify the hazardous constituents to be monitored in the facility permit. The hazardous constituents to be monitored are those specified under Section 724.371(b).

2) The Agency may require monitoring for principal hazardous constituents (PHCs) in lieu of the constituents specified under Section 724.371(b). PCHs are hazardous constituents contained in the wastes to be applied at the unit that are the most difficult to treat, considering the combined effects of degradation, transformation, and immobilization. The Agency

must establish PHCs if it finds, based on waste analyses, treatment demonstrations, or other data, that effective degradation transformation or immobilization of the PHCs will assure treatment at least equivalent levels for the other hazardous constituents in the wastes.

b) The owner or operator must install an unsaturated zone monitoring system that includes soil monitoring using soil cores and soil-pore liquid monitoring using devices such as lysimeters. The unsaturated zone monitoring system must consist of a sufficient number of sampling points at appropriate locations and depths to yield samples that fulfill the following:

1) Represent the quality of background soil-pore liquid quality and the chemical make-up of soil that has not been affected by leakage from the treatment zone; and

2) Indicate the quality of soil-pore liquid and the chemical make-up of the soil below the treatment zone.

c) The owner or operator must establish a background value for each hazardous constituent to be monitored under subsection (a). The permit will specify the background values for each constituent or specify the procedures to be used to calculate the background values.

1) Background soil values may be based on a one-time sampling at a background plot having characteristics similar to those of the treatment zone.

2) Background soil-pore liquid values must be based on at least quarterly sampling for one year at a background plot having characteristics similar to those of the treatment zone.

3) The owner or operator must express all background values in a form necessary for the determination of statistically significant increases under subsection (f).

4) In taking samples used in the determination of all background values, the owner or operator must use an unsaturated zone monitoring system that complies with subsection (b)(1).

d) The owner or operator must conduct soil monitoring and soil-pore liquid monitoring immediately below the treatment zone. The Agency must specify the frequency and timing of soil and soil-pore liquid monitoring in the facility permit after considering the frequency, timing, and rate of waste application and the soil permeability. The owner or operator must express the results of soil and soil-pore liquid monitoring in a form necessary for the determination of statistically significant increases under subsection (f).

e) The owner or operator must use consistent sampling and analysis procedures that are designed to ensure sampling results that provide a reliable indication of soil-pore liquid quality and the chemical make-up of the soil below the treatment zone. At a minimum, the owner or operator must implement procedures and techniques for the following:

1) Sample collection;

2) Sample preservation and shipment;

3) Analytical procedures; and

4) Chain of custody control.

f) The owner or operator must determine whether there is a statistically significant change over background values for any hazardous constituent to be monitored under subsection (a) below the treatment zone each time it conducts soil monitoring and soil-pore liquid monitoring under subsection (d).

1) In determining whether a statistically significant increase has occurred, the owner or operator must compare the value of each constituent, as determined under subsection (d), to the background value for that constituent according to the statistical procedure specified in the facility permit under this subsection (f).

2) The owner or operator must determine whether there has been a statistically significant increase below the treatment zone within a reasonable time period after completion of sampling. The Agency must specify that time period in the facility permit after considering the complexity of the statistical test and the availability of laboratory facilities to perform the analysis of soil and soil-pore liquid samples.

3) The owner or operator must determine whether there is a statistically significant increase below the treatment zone using a statistical procedure that provides reasonable confidence that migration from the treatment zone will be identified. The Agency must specify a statistical procedure in the facility permit that it finds fulfills the following:

A) Is appropriate for the distribution of the data used to establish background values; and

B) Provides a reasonable balance between the probability of falsely identifying migration from the treatment zone and the probability of failing to identify real migration from the treatment zone.

g) If the owner or operator determines, pursuant to subsection (f), that there is a statistically significant increase of hazardous constituents below the treatment zone, it must do the following:

1) Notify the Agency of this finding in writing within seven days. The notification must indicate what constituents have shown statistically significant increases.

2) Within 90 days, submit to the Agency an application for a permit modification to modify the operating practices at the facility in order to maximize the success of degradation, transformation, or immobilization processes in the treatment zone.

h) If the owner or operator determines, pursuant to subsection (f), that there is a statistically significant increase of hazardous constituents below the treatment zone, it may demonstrate that a source other than regulated units caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. While the owner or operator may make a demonstration under this subsection (h) in addition to, or in lieu of, submitting a permit modification application under subsection (g)(2), it is not relieved of the requirement to submit a permit modification application within the time specified in subsection (g)(2), unless the demonstration made under this subsection (h) successfully shows that a source other than regulated units caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. In making a demonstration under this subsection (h), the owner or operator must do the following:

1) Notify the Agency in writing within seven days of determining a statistically significant increase below the treatment zone that the owner or operator intends to make a determination under this subsection (h);

2) Within 90 days, submit a report to the Agency demonstrating that a source other than the regulated units caused the increase or that the increase resulted from error in sampling, analysis, or evaluation;

3) Within 90 days, submit to the Agency an application for a permit modification to make any appropriate changes to the unsaturated zone monitoring program at the facility; and

4) Continue to monitor in accordance with the unsaturated zone monitoring program established under this Section.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.379 Recordkeeping

The owner or operator must include hazardous waste application dates and rates in the operating record required under Section 724.173.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.380 Closure and Post-Closure Care

a) During the closure period the owner or operator must do the following:

1) It must continue all operations (including pH control) necessary to maximize degradation, transformation, or immobilization of hazardous constituents within the treatment zone, as required under Section 724.373(a), except to the extent such measures are inconsistent with subsection (a)(8);

2) It must continue all operations in the treatment zone to minimize run-off of hazardous constituents, as required under Section 724.373(b);

3) It must maintain the run-on control system required under Section 724.373(c);

4) It must maintain the run-off management system required under Section 724.373(d);

5) It must control wind dispersal of hazardous waste if required under Section 724.373(f);

6) It must continue to comply with any prohibitions or conditions concerning growth of food-chain crops under Section 724.376;

7) It must continue unsaturated zone monitoring in compliance with Section 724.378, except that soil-pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone; and

8) It must establish a vegetative cover on the portion of the facility being closed at such time that the cover will not substantially impede degradation, transformation, or immobilization of hazardous constituents in the treatment zone. The vegetative cover must be capable of maintaining growth without extensive maintenance.

b) For the purpose of complying with Section 724.215, when closure is completed the owner or operator may submit to the Agency certification by an independent qualified soil scientist, in lieu of a qualified Professional Engineer, that the facility has been closed in accordance with the specifications in the approved closure plan.

c) During the post-closure care period the owner or operator must do the following:

1) It must continue all operations (including pH control) necessary to enhance degradation and transformation and sustain immobilization of hazardous constituents in the treatment zone to the extent that such measures are consistent with other post-closure care activities;

2) It must maintain a vegetative cover over closed portions of the facility;

3) It must maintain the run-on control system required under Section 724.373(c);

4) It must maintain the run-off management system required under Section 724.373(d);

5) It must control wind dispersal of hazardous waste if required under Section 724.373(f);

6) It must continue to comply with any prohibitions or conditions concerning growth of food-chain crops under Section 724.376; and

7) It must continue unsaturated zone monitoring in compliance with Section 724.378, except that soil-pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone.

d) The owner or operator is not subject to regulation under subsections (a)(8) and (c) if the Agency finds that the level of hazardous constituents in the treatment zone soil does not exceed the background value of those constituents by an amount that is statistically significant when using the test specified in subsection (d)(3). The owner or operator may submit such a demonstration to the Agency at any time during the closure or post-closure care periods. For the purposes of this subsection (d), the owner or operator must do the following:

1) The owner or operator must establish background soil values and determine whether there is a statistically significant increase over those values for all hazardous constituents specified in the facility permit under Section 724.371.

A) Background soil values may be based on a one-time sampling of a background plot having characteristics similar to those of the treatment zone.

B) The owner or operator must express background values and values for hazardous constituents in the treatment zone in a form necessary for the determination of statistically significant increases under subsection (d)(3).

2) In taking samples used in the determination of background and treatment zone values, the owner or operator must take samples at a sufficient number of sampling points and at appropriate locations and depths to yield samples that represent the chemical make-up of soil that has not been affected by leakage from the treatment zone and the soil within the treatment zone, respectively.

3) In determining whether a statistically significant increase has occurred, the owner or operator must compare the value of each constituent in the treatment zone to the background value for that constituent using a statistical procedure that provides reasonable confidence that constituent presence in the treatment zone will be identified. The owner or operator must use a statistical procedure that does the following:

A) It is appropriate for the distribution of the data used to establish background values; and

B) It provides a reasonable balance between the probability of falsely identifying hazardous constituent presence in the treatment zone and the probability of failing to identify real presence in the treatment zone.

e) The owner or operator is not subject to regulation under Subpart F if the Agency finds that the owner or operator satisfies subsection (d) and if unsaturated zone monitoring under Section 724.378 indicates that hazardous constituents have not migrated beyond the treatment zone during the active life of the land treatment unit.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.381 Special Requirements for Ignitable or Reactive Waste

The owner or operator must not apply ignitable or reactive waste to the treatment zone, unless the waste and the treatment zone satisfy all applicable requirements of 35 Ill. Adm. Code 728, and the following is true:

a) The waste is immediately incorporated into the soil so that the following is true:

1) The resulting waste, mixture or dissolution of material no longer meets the definition of ignitable or reactive waste under 35 Ill. Adm. Code 721.121 or 721.123; and

2) Section 724.117(b) is complied with; or

b) The waste is managed in such a way that it is protected from any material or conditions that may cause it to ignite or react.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.382 Special Requirements for Incompatible Wastes

The owner or operator must not place incompatible wastes, or incompatible wastes and materials (see Appendix E for examples), in or on the same treatment zone, unless Section 724.117(b) is complied with.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.383 Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and F027

a) Hazardous Wastes F020, F021, F022, F023, F026, and F027 must not be placed in a land treatment unit unless the owner or operator operates the facility in accordance with a management plan for these wastes that is approved by the Agency pursuant to the standards set out in this subsection (a), and in accord with all other applicable requirements of this Part. The factors to be considered are the following:

1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

2) The attenuative properties of underlying and surrounding soils or other materials;

3) The mobilizing properties of other materials co-disposed with these wastes; and

4) The effectiveness of additional treatment, design, or monitoring techniques.

b) The Agency may determine that additional design, operating and monitoring requirements are necessary for land treatment facilities managing hazardous wastes F020, F021, F022, F023, F026, and F027 in order to reduce the possibility of migration of these wastes to groundwater, surface water, or air so as to adequately protect human health and the environment.

(Source: Amended at 31 Ill. Reg. 893, effective December 20, 2006)

SUBPART N: LANDFILLS

Section 724.400 Applicability

The regulations in this Subpart N apply to owners and operators of facilities that dispose of hazardous waste in landfills, except as Section 724.101 provides otherwise.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.401 Design and Operating Requirements

a) Any landfill that is not covered by subsection (c) or 35 Ill. Adm. Code 725.401(a) must have a liner system for all portions of the landfill (except for existing portions of such landfill). The liner system must have the following:

1) A liner that is designed, constructed, and installed to prevent any migration of wastes out of the landfill to the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the landfill. The liner must be constructed of materials that prevent wastes from passing into the liner during the active life of the facility. The liner must fulfill the following:

A) It must be constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climatic conditions, the stress of installation and the stress of daily operation;

B) It must be placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and

C) It must be installed to cover all surrounding earth likely to be in contact with the waste or leachate; and

2) A leachate collection and removal system immediately above the liner that is designed, constructed, maintained, and operated to collect and remove leachate from the landfill. The Agency must specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must fulfill the following:

A) Constructed of materials that fulfill the following:

i) Chemically resistant to the waste managed in the landfill and the leachate expected to be generated; and

ii) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and any equipment used at the landfill; and

B) Designed and operated to function without clogging through the scheduled closure of the landfill.

b) The owner or operator will be exempted from the requirements of subsection (a) if the Board grants an adjusted standard pursuant to Section 28.1 of the Act and 35 Ill. Adm. Code 101 and 104. The level of justification is a demonstration by the owner or operator that alternative design or operating practices, together with location characteristics, will prevent the migration of any hazardous constituents (see Section 724.193) into the groundwater or surface water at any future time. In

deciding whether to grant an adjusted standard, the Board will consider the following:

1) The nature and quantity of the wastes;

2) The proposed alternative design and operation;

3) The hydrogeologic setting of the facility, including the attenuative capacity and thickness of the liners and soils present between the landfill and groundwater or surface water; and

4) All other factors that influence the quality and mobility of the leachate produced and the potential for it to migrate to groundwater or surface water.

c) The owner or operator of each new landfill unit on which construction commences after January 29, 1992, each lateral expansion of a landfill unit on which construction commenced after July 29, 1992, and each replacement of an existing landfill unit that was to commence reuse after July 29, 1992, must install two or more liners and a leachate collection and removal system above and between such liners. "Construction commenced" is as defined in 35 Ill. Adm. Code 720.110 under "existing facility".

1) Liner requirements.

A) The liner system must include the following:

i) A top liner designed and constructed of materials (e.g., a geomembrane) to prevent the migration of hazardous constituents into such liner during the active life and post-closure care period; and

ii) A composite bottom liner, consisting of at least two components. The upper component must be designed and constructed of materials (e.g., a geomembrane) to prevent the migration of hazardous constituents into this component during the active life and post-closure care period. The lower component must be designed and constructed of materials to minimize the migration of hazardous constituents if a breach in the upper component were to occur. The lower component must be constructed of at least 3 feet (91 cm) of compacted soil material with a hydraulic conductivity of no more than 1×10^{-7} cm/sec.

B) The liners must comply with subsections (a)(1)(A), (a)(1)(B), and (a)(1)(C).

2) The leachate collection and removal system immediately above the top liner must be designed, constructed, operated, and maintained to collect and remove leachate from the landfill during the active life and post-closure care period. The Agency must specify design and operating conditions in the permit to ensure that the leachate depth over the liner does not exceed 30 cm (one foot). The leachate collection and removal system must comply with subsections (c)(3)(C) and (c)(3)(D).

3) The leachate collection and removal system between the liners, and immediately above the bottom composite liner in the case of multiple leachate collection and removal systems, is also a leak detection system (LDS). This LDS must be capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time through all areas of the top liner likely to be exposed to waste or leachate during the active life and post-closure care period. The requirements for a LDS in this subsection (c) are satisfied by installation of a system that, at a minimum, fulfills the following:

   A) It is constructed with a bottom slope of one percent or more;

   B) It is constructed of granular drainage materials 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} m^2/sec or more;

   C) It is constructed of materials that are chemically resistant to the waste managed in the landfill and the leachate expected to be generated, and of sufficient strength and thickness to prevent collapse under the pressures exerted by overlying wastes, waste cover materials, and equipment used at the landfill;

   D) It is designed and operated to minimize clogging during the active life and post-closure care period; and

   E) It is constructed with sumps and liquid removal methods (e.g., pumps) of sufficient size to collect and remove liquids from the sump and prevent liquids from backing up into the drainage layer. Each unit must have its own sumps. The design of each sump and removal system must provide a method for measuring and recording the volume of liquids present in the sump and of liquids removed.

4) The owner or operator must collect and remove pumpable liquids in the LDS sumps to minimize the head on the bottom liner.

5) The owner or operator of a LDS that is not located completely above the seasonal high water table must demonstrate that the operation of the LDS will not be adversely affected by the presence of ground water.

d) Subsection (c) will not apply if the owner or operator demonstrates to the Agency, and the Agency finds for such landfill, that alternative design or operating practices, together with location characteristics, will do the following:

1) It will prevent the migration of any hazardous constituent into the groundwater or surface water at least as effectively as the liners and leachate collection and removal systems, specified in subsection (c); and

2) It will allow detection of leaks of hazardous constituents through the top liner at least as effectively.

e) The Agency must not require a double liner as set forth in subsection (c) for any monofill, if the following is true:

1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and such wastes do not contain constituents that render the wastes hazardous for reasons other than the toxicity characteristics in 35 Ill. Adm. Code 721.124, with USEPA hazardous waste numbers D004 through D017; and

2) No Migration Demonstration

A) Design and Location Requirements

i) The monofill has at least one liner for which there is no evidence that such liner is leaking;

ii) The monofill is located more than one-quarter mile from an underground source of drinking water (as that term is defined in 35 Ill. Adm. Code 702.110; and

iii) The monofill is in compliance with generally applicable groundwater monitoring requirements for facilities with RCRA permits; or

B) The owner or operator demonstrates to the Board that the monofill is located, designed, and operated so as to assure that there will be no migration of any hazardous constituent into groundwater or surface water at any future time.

f) The owner or operator of any replacement landfill unit is exempt from subsection (c) if the following is true:

1) The existing unit was constructed in compliance with the design standards of 35 Ill. Adm. Code 724.401(c), (d), and (e); and

BOARD NOTE: The cited subsections implemented the design standards of sections 3004(o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act (42 USC 6924(o)(1)(A)(i) and (o)(5)).

2) There is no reason to believe that the liner is not functioning as designed.

g) The owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 25-year storm.

h) The owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

i) Collection and holding facilities (e.g., tanks or basins) associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

j) If the landfill contains any particulate matter that may be subject to wind dispersal, the owner or operator must cover or otherwise manage the landfill to control wind dispersal.

k) The Agency must specify in the permit all design and operating practices that are necessary to ensure that the requirements of this Section are satisfied.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.402 Action Leakage Rate

a) The Agency must approve an action leakage rate for landfill units subject to Section 724.401(c) or (d). The action leakage rate is the maximum design flow rate that the LDS can remove without the fluid head on the bottom liner exceeding 1 foot. The action leakage rate must include an adequate safety margin to allow for uncertainties in the design (e.g., slope, hydraulic conductivity, thickness of drainage material), construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS, and proposed response actions (e.g., the action leakage rate must consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.).

b) To determine if the action leakage rate has been exceeded, the owner or operator must convert the weekly or monthly flow rate from the monitoring data obtained under Section 724.403(c) to an average daily flow rate (gallons per acre per day) for each sump. The average daily flow rate for each sump must be calculated

weekly during the active life and closure period and monthly during the post-closure care period, unless the Agency approves a different frequency pursuant to Section 724.403(c)(2).

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.403 Monitoring and Inspection

a) During construction or installation, liners (except in the case of existing portions of landfills exempt from Section 724.401(a)) and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation the following must occur:

1) Synthetic liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters; and

2) Soil-based and admixed liners and covers must be inspected for imperfections including lenses, cracks, channels, root holes, or other structural non-uniformities that may cause an increase in the permeability of the liner or cover.

b) While a landfill is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

2) Proper functioning of wind dispersal control systems, where present; and

3) The presence of leachate in and proper functioning of leachate collection and removal systems, where present.

c) Monitoring of LDS.

1) An owner or operator required to have a LDS under Section 724.401(c) or (d) must record the amount of liquids removed from each LDS sump at least once each week during the active life and closure period.

2) After the final cover is installed, the amount of liquids removed from each LDS sump must be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps must be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps must be recorded at least semi-annually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the owner or operator must return to monthly

recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

3) "Pump operating level" is a liquid level proposed by the owner or operator pursuant to 35 Ill. Adm. Code 703.207(b)(1)(E) and approved by the Agency based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.404 Response Actions

a) The owner or operator of landfill units subject to Section 724.401(c) or (d) must have an approved response action plan before receipt of waste. The response action plan must set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in subsection (b).

b) If the flow rate into the LDS exceeds the action leakage rate for any sump, the owner or operator must do the following:

1) Notify the Agency in writing of the exceedance within seven days of the determination;

2) Submit a preliminary written assessment to the Agency within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

3) Determine to the extent practicable the location, size, and cause of any leak;

4) Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether the unit should be closed;

5) Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

6) Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Agency the results of the determinations specified in subsections (b)(3), (b)(4), and (b)(5), the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the LDS exceeds the action leakage rate, the owner or operator must submit to the Agency a report summarizing the results of any remedial actions taken and actions planned.

c) To make the leak or remediation determinations in subsections (b)(3), (b)(4), and (b)(5), the owner or operator must do either of the following:

1) Perform the following assessments:

A) Assess the source of liquids and amounts of liquids by source;

B) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the LDS to identify the source of liquids and possible location of any leaks and the hazard and mobility of the liquid; and

C) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

2) Document why such assessments are not needed.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.409 Surveying and Recordkeeping

The owner or operator of a landfill must maintain the following items in the operating record required under Section 724.173:

a) On a map, the exact location and dimensions, including depth, of each cell with respect to permanently surveyed benchmarks; and

b) The contents of each cell and the approximate location of each hazardous waste type within each cell.

Section 724.410 Closure and Post-Closure Care

a) At final closure of the landfill or upon closure of any cell, the owner or operator must cover the landfill or cell with a final cover designed and constructed to do the following:

1) Provide long-term minimization of migration of liquids through the closed landfill;

2) Function with minimum maintenance;

3) Promote drainage and minimize erosion or abrasion of the cover;

4) Accommodate settling and subsidence so that the cover's integrity is maintained; and

5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

b) After final closure, the owner or operator must comply with all post-closure requirements contained in Sections 724.217 through 724.220, including maintenance and monitoring throughout the post-closure care period (specified in the permit under Section 724.217). The owner or operator must do the following:

1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cap as necessary to correct the effects of settling, subsidence, erosion, or other events;

2) Continue to operate the leachate collection and removal system until leachate is no longer detected;

3) Maintain and monitor the LDS in accordance with Sections 724.401(c)(3)(D) and (c)(4) and 724.403(c), and comply with all other applicable LDS requirements of this Part;

4) Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of Subpart F;

5) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

6) Protect and maintain surveyed benchmarks used in complying with Section 724.409.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.412 Special Requirements for Ignitable or Reactive Waste

a) Except as provided in subsection (b) and in Section 724.416, ignitable or reactive waste must not be placed in a landfill, unless the waste and landfill meet all applicable requirements of 35 Ill. Adm. Code 728, and the waste is treated, rendered, or mixed before or immediately after placement in a landfill so that the following is true:

1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under 35 Ill. Adm. Code 721.121 or 721.123; and

2) Section 724.117(b) is complied with.

b) Except for prohibited wastes that remain subject to treatment standards in Subpart D to 35 Ill. Adm. Code 728, ignitable waste in containers may be landfilled without meeting the requirements of subsection (a), provided that the wastes are disposed of in such a way that they are protected from any material or conditions that may cause them to ignite. At a minimum, ignitable wastes must be disposed of in non-leaking containers that are carefully handled and placed so as to avoid heat, sparks, rupture, or any other condition that might cause ignition of the

wastes; must be covered daily with soil or other non-combustible material to minimize the potential for ignition of the wastes; and must not be disposed of in cells that contain or will contain other wastes that may generate heat sufficient to cause ignition of the waste.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.413 Special Requirements for Incompatible Wastes

Incompatible wastes or incompatible wastes and materials (see Appendix E for examples) must not be placed in the same landfill cell, unless Section 724.117(b) is complied with.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.414 Special Requirements for Bulk and Containerized Liquids

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); materials that pass one of the tests in subsection

(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, Fuller'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, polystrene, 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:

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 (CO_2 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 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 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.415 Special Requirements for Containers

Unless they are very small, such as an ampule, containers must be either of the following:

a) At least 90 percent full when placed in the landfill; or

b) Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.416 Disposal of Small Containers of Hazardous Waste in Overpacked Drums (Lab Packs)

Small containers of hazardous waste in overpacked drums (lab packs) may be placed in a landfill if the following requirements are met:

a) Hazardous waste must be packaged in non-leaking inside containers. The inside containers must be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the contained waste. The inside containers must be tightly and securely sealed. The inside containers must be of the size and type specified in the USDOT hazardous materials regulations (49 CFR 173 (Shippers—General Requirements for Shipments and Packages), 178 (Specifications for Packagings), and 179 (Specifications for Tank Cars), each incorporated by reference in 35 Ill. Adm. Code 720.111(b)), if those regulations specify a particular inside container for the waste.

b) The inside containers must be overpacked in an open head USDOT-specification metal shipping container (49 CFR 178 (Specifications for Packagings) and 179 (Specifications for Tank Cars)) of no more than 416 ℓ (110 gallon) capacity and surrounded by, at a minimum, a sufficient quantity of sorbent material, determined to be nonbiodegradable in accordance with Section 724.414(d), to completely sorb all of the liquid contents of the inside containers. The metal outer container must be full after packing with inside containers and sorbent material.

c) In accordance with Section 724.117(b), the sorbent material used must not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers, in accordance with Section 724.117(b).

d) Incompatible waste, as defined in 35 Ill. Adm. Code 720.110, must not be placed in the same outside container.

e) Reactive wastes, other than cyanide- or sulfide-bearing waste as defined in 35 Ill. Adm. Code 721.123(a)(5), must be treated or rendered non-reactive prior to packaging in accordance with subsections (a) through (d). Cyanide- and sulfide-bearing reactive waste may be packed in accordance with subsections (a) through (d) without first being treated or rendered non-reactive.

f) Such disposal is in compliance with 35 Ill. Adm. Code 728. Persons who incinerate lab packs according to 35 Ill. Adm. Code 728.142(c)(1) may use fiber drums in place of metal outer containers. Such fiber drums must meet the USDOT specifications in 49 CFR 173.12 (Exceptions for Shipments of Waste Materials), incorporated by reference in 35 Ill. Adm. Code 720.111(b), and be overpacked according to the requirements of subsection (b).

g) Pursuant to 35 Ill. Adm. Code 729.312, the use of labpacks for disposal of liquid wastes or wastes containing free liquids allowed under this Section is restricted to labwaste and non-periodic waste, as those terms are defined in that Part.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.417 Special Requirements for Hazardous Wastes F020, F021, F022, F023, F026, and F027

a) Hazardous wastes F020, F021, F022, F023, F026, and F027 must not be placed in a landfill, unless the owner or operator operates the landfill in accord with a management plan for these wastes that is approved by the Agency pursuant to the standards set out in this subsection (a), and in accord with all other applicable requirements of this Part. The factors to be considered are the following:

1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through the soil or to volatilize or escape into the atmosphere;

2) The attenuative properties of underlying and surrounding soils or other materials;

3) The mobilizing properties of other materials co-disposed with these wastes; and

4) The effectiveness of additional treatment, design, or monitoring requirements.

b) The Agency may determine that additional design, operating, and monitoring requirements are necessary for landfills managing hazardous wastes F020, F021, F022, F023, F026, and F027 in order to reduce the possibility of migration of these wastes to groundwater, surface water, or air so as to adequately protect human health and the environment.

(Source: Amended at 31 Ill. Reg. 893, effective December 20, 2006)

SUBPART O: INCINERATORS

Section 724.440 Applicability

a) The regulations in this Subpart O apply to owners and operators of hazardous waste incinerators (as defined in 35 Ill. Adm. Code 720.110), except as Section 724.101 provides otherwise.

b) Integration of the MACT Standards

1) Except as provided by subsections (b)(2) through (b)(4), the standards of this Part do not apply to a new hazardous waste incineration unit that became subject to RCRA permit requirements after October 12, 2005; or no longer apply when the owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the maximum achievable control technology (MACT) requirements of subpart EEE of 40 CFR 63 (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors), incorporated by reference in 35 Ill. Adm. Code 720.111(b), by conducting a comprehensive performance test and submitting to the Agency a Notification of Compliance, pursuant to 40 CFR 63.1207(j) and 63.1210(d), documenting compliance with the requirements of subpart EEE of 40 CFR 63.

2) The MACT standards of subpart EEE of 40 CFR 63 do not replace the closure requirements of Section 724.451 or the applicable requirements of Subparts A through H, BB, and CC.

3) The particulate matter standard of Section 724.443(c) remains in effect for incinerators that elect to comply with the alternative to the particulate matter standard of 40 CFR 63.1206(b)(14) and 63.1219(e) (When and How Must You Comply with the Standards and Operating Requirements?), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

4) The following requirements remain in effect for startup, shutdown, and malfunction events if the owner or operator elects to comply with 35 Ill. Adm. Code 703.320(a)(1)(A) to minimize emissions of toxic compounds from the following events:

A) Section 724.445(a), requiring that an incinerator operate in accordance with operating requirements specified in the permit; and

B) Section 724.445(c), requiring compliance with the emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes.

BOARD NOTE: Sections 9.1 and 39.5 of the Environmental Protection Act make the federal MACT standards directly applicable to entities in Illinois and authorize the Agency to issue permits based on the federal standards. Operating conditions used to determine effective treatment of hazardous waste remain effective after the owner or operator demonstrates compliance with the standards of subpart EEE of 40 CFR 63. In adopting this subsection (b), USEPA stated as follows (at 64 Fed Reg. 52828, 52975 (September 30, 1999)):

> Under this approach . . . , MACT air emissions and related operating requirements are to be included in Title V permits; RCRA permits will continue to be required for all other aspects of the combustion unit and the facility that are governed by RCRA (e.g., corrective action, general facility standards, other combustor-specific concerns such as materials handling, risk-based emissions limits and operating requirements, as appropriate, and other hazardous waste management units).

c) After consideration of the waste analysis included with Part B of the permit application, the Agency, in establishing the permit conditions, must exempt the applicant from all requirements of this Subpart O, except Section 724.441 (Waste Analysis) and Section 724.451 (Closure):

1) If the Agency finds that the waste to be burned is one of the following:

A) It is listed as a hazardous waste in Subpart D of 35 Ill. Adm. Code 721 solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both;

B) It is listed as a hazardous waste in Subpart D of 35 Ill. Adm. Code 721 solely because it is reactive (Hazard Code R) for characteristics other than those listed in Section 721.123(a)(4) and (5), and will not be burned when other hazardous wastes are present in the combustion zone;

C) It is a hazardous waste solely because it possesses the characteristic of ignitability, as determined by the test for characteristics of hazardous wastes pursuant to Subpart C of 35 Ill. Adm. Code 721; or

D) It is a hazardous waste solely because it possesses any of the reactivity characteristics described by 35 Ill. Adm. Code 721.123(a)(1), (a)(2), (a)(3), (a)(6), (a)(7), and (a)(8) and will not be burned when other hazardous wastes are present in the combustion zone; and

2) If the waste analysis shows that the waste contains none of the hazardous constituents listed in Subpart H of 35 Ill. Adm. Code 721 that would reasonably be expected to be in the waste.

d) If the waste to be burned is one that is described by subsection (b)(1)(A), (b)(1)(B), (b)(1)(C), or (b)(1)(D) and contains insignificant concentrations of the hazardous constituents listed in Subpart H of 35 Ill. Adm. Code 721, then the Agency may, in establishing permit conditions, exempt the applicant from all requirements of this Subpart O, except Section 724.441 (Waste Analysis) and Section 724.451 (Closure), after consideration of the waste analysis included with Part B of the permit application, unless the Agency finds that the waste will pose a threat to human health or the environment when burned in an incinerator.

e) The owner or operator of an incinerator may conduct trial burns subject only to the requirements of 35 Ill. Adm. Code 703.222 through 703.225 (short-term and incinerator permits).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.441 Waste Analysis

a) As a portion of the trial burn plan required by 35 Ill. Adm. Code 703.222 through 703.225, or with Part B of the permit application, the owner or operator must have included an analysis of the waste feed sufficient to provide all information required by 35 Ill. Adm. Code 703.223 or 703.205. Owners or operators of new hazardous waste incinerators must provide the information required by 35 Ill. Adm. Code 703.224 or 703.205 to the greatest extent possible.

b) Throughout normal operation the owner or operator must conduct sufficient waste analysis to verify that waste feed to the incinerator is within the physical and chemical composition limits specified in the permit (under Section 724.445(b)).

Section 724.442 Principal Organic Hazardous Constituents (POHCs)

a) Principal organic hazardous constituents (POHCs) in the waste feed must be treated to the extent required by the performance standard of Section 724.443.

b) Designation of POHCs.

1) One or more POHCs will be specified in the facility's permit, from among those constituents listed in Appendix H to 35 Ill. Adm. Code 721 for each waste feed to be burned. This specification will be based on the degree of

difficulty of incineration of the organic constituents in the waste and on their concentration or mass in the waste feed, considering the results of waste analyses and trial burns or alternative data submitted with Part B of the facility's permit application. Organic constituents that represent the greatest degree of difficulty of incineration will be those most likely to be designated as POHCs. Constituents are more likely to be designated as POHCs if they are present in large quantities or concentrations in the waste.

2) Trial POHCs will be designated for performance of trial burns in accordance with the procedure specified in 35 Ill. Adm. Code 703.222 through 703.225 for obtaining trial burn permits.

(Source: Amended at 30 Ill. Reg. 3196, effective February 23, 2006)

Section 724.443 Performance Standards

An incinerator burning hazardous waste must be designed, constructed, and maintained so that, when operated in accordance with operating requirements specified under Section 724.445, it will meet the following performance standards:

a) Destruction and Removal Efficiency

1) Except as provided in subsection (a)(2), an incinerator burning hazardous waste must achieve a destruction and removal efficiency (DRE) of 99.99% for each principal organic hazardous constituent (POHC) designated (under Section 724.442) in its permit for each waste feed. DRE is determined for each POHC from the following equation:

$$DRE = \frac{100 \times (N - O)}{N}$$

Where:

N = Mass feed rate of one principal organic hazardous constituent (POHC) in the waste stream feeding the incinerator

O = Mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere

2) An incinerator burning hazardous wastes F020, F021, F022, F023, F026, or F027 must achieve a destruction and removal efficiency (DRE) of 99.9999% for each principal organic hazardous constituent (POHC) designated (under Section 724.442) in its permit. This performance must be demonstrated on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each POHC from the equation in subsection (a)(1).

b) An incinerator burning hazardous waste and producing stack emissions of more than 1.8 kg (4 lbs) per hour of hydrogen chloride (HCl) must control HCl emissions such that the rate of emission is no greater than the larger of either 1.8 kg (4 lbs) per hour or one percent of the HCl in the stack gas prior to entering any pollution control equipment.

c) An incinerator burning hazardous waste must not emit particulate matter in excess of 180 milligrams per dry standard cubic meter (0.08 grains per dry standard cubic foot) when corrected for the amount of oxygen in the stack gas according to the following formula:

$$C = \frac{14 \times M}{21 - Y}$$

1) Where:

C = the corrected concentration of particulate matter
M = the measured concentration of particulate matter
Y = the measured concentration of oxygen in the stack gas, using the Orsat method for oxygen analysis of dry flue gas, presented in Reference Method 3 in appendix A to 40 CFR 60 (Gas Analysis for the Determination of Dry Molecular Weight), incorporated by reference in 35 Ill. Adm. Code 720.111(b)

2) This correction procedure is to be used by all hazardous waste incinerators except those operating under conditions of oxygen enrichment. For these facilities, the Agency must select an appropriate correction procedure, to be specified in the facility permit.

d) For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under Section 724.445) will be regarded as compliance with this Section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the performance requirements of this Section may be "information" justifying modification, revocation or reissuance of a permit under 35 Ill. Adm. Code 702.184.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.444 Hazardous Waste Incinerator Permits

a) The owner or operator of a hazardous waste incinerator may burn only wastes specified in its permit and only under operating conditions specified for those wastes under Section 724.445 except the following:

1) In approved trial burns under 35 Ill. Adm. Code 703.222 through 703.225; or

2) Under exemptions created by Section 724.440.

b) Other hazardous wastes may be burned only after operating conditions have been specified in a new permit or a permit modification as applicable. Operating requirements for new wastes may be based on either trial burn results or alternative data included with Part B of a permit application under 35 Ill. Adm. Code 703.205.

c) The permit for a new hazardous waste incinerator must establish appropriate conditions for each of the applicable requirements of this Subpart O, including but not limited to allowable waste feeds and operating conditions necessary to meet the requirements of Section 724.445, sufficient to comply with the following standards:

1) For the period beginning with initial introduction of hazardous waste to the incinerator and ending with initiation of the trial burn, and only for the minimum time required to establish operating conditions required in subsection (c)(2), not to exceed a duration of 720 hours operating time for treatment of hazardous waste, the operating requirements must be those most likely to ensure compliance with the performance standards of Section 724.443, based on the Agency's engineering judgement. The Agency may extend the duration of this period once for up to 720 additional hours when good cause for the extension is demonstrated by the applicant

2) For the duration of the trial burn, the operating requirements must be sufficient to demonstrate compliance with the performance standards of Section 724.443 and must be in accordance with the approved trial burn plan;

3) For the period immediately following completion of the trial burn and only for the minimum period sufficient to allow sample analysis, data computation, and submission of the trial burn results by the applicant and review of the trial burn results and modification of the facility permit by the Agency, the operating requirements must be those most likely to ensure compliance with the performance standards of Section 724.443 based on the Agency's engineering judgment.

4) For the remaining duration of the permit, the operating requirements must be those demonstrated, in a trial burn or by alternative data specified in 35 Ill. Adm. Code 703.205(c), as sufficient to ensure compliance with the performance standards of Section 724.443.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.445 Operating Requirements

a) An incinerator must be operated in accordance with operating requirements specified in the permit. These will be specified on a case-by-case basis as those demonstrated (in a trial burn or in alternative data as specified in Section

724.444(b) and included with Part B of the facility's permit application) to be sufficient to comply with the performance standards of Section 724.443.

b) Each set of operating requirements will specify the composition of the waste feed (including acceptable variations in the physical or chemical properties of the waste feed that will not affect compliance with the performance requirement of Section 724.443) to which the operating requirements apply. For each such waste feed, the permit will specify acceptable operating limits, including the following conditions:

1) Carbon monoxide (CO) level in the stack exhaust gas;

2) Waste feed rate;

3) Combustion temperature;

4) An appropriate indicator of combustion gas velocity;

5) Allowable variations in incinerator system design or operating procedures; and

6) Such other operating requirements as are necessary to ensure that the performance standards of Section 724.443 are met.

c) During start-up and shut-down of an incinerator, hazardous waste (except wastes exempted in accordance with Section 724.440) must not be fed into the incinerator unless the incinerator is operating within the conditions of operation (temperature, air feed rate, etc.) specified in the permit.

d) Fugitive emissions from the combustion zone must be controlled by the following:

1) Keeping the combustion zone totally sealed against fugitive emissions;

2) Maintaining a combustion zone pressure lower than atmospheric pressure; or

3) An alternative means of control demonstrated (with Part B of the permit application) to provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure.

e) An incinerator must be operated with a functioning system to automatically cut off waste feed to the incinerator when operating conditions deviate from limits established under subsection (a).

f) An incinerator must cease operation when changes in waste feed, incinerator design, or operating conditions exceed limits designated in its permit.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.447 Monitoring and Inspections

a) The owner or operator must conduct, as a minimum, the following monitoring while incinerating hazardous waste:

1) Combustion temperature, waste feed rate, and the indicator of combustion gas velocity specified in the facility permit must be monitored on a continuous basis.

2) Carbon monoxide must be monitored on a continuous basis at a point in the incinerator downstream of the combustion zone and prior to release to the atmosphere.

3) Upon request by the Agency, sampling and analysis of the waste and exhaust emissions must be conducted to verify that the operating requirements established in the permit achieved the performance standard of Section 724.443.

b) The incinerator and associated equipment (pumps, valves, conveyors, pipes, etc.) must be subjected to thorough visual inspection, at least daily, for leaks, spills, fugitive emissions and signs of tampering.

c) The emergency waste feed cutoff system and associated alarms must be tested at least weekly to verify operability, unless the applicant demonstrates to the Agency that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, operational testing must be conducted at least monthly.

d) This monitoring and inspection data must be recorded and the records must be placed in the operating record required by Section 724.173 and maintained in the operating record for five years.

(Source: Amended at 32 Ill. Reg. 12365, effective July 14, 2008)

Section 724.451 Closure

At closure the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from the incinerator site.

BOARD NOTE: At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with 35 Ill. Adm. Code 721.103(d), that the residue removed from the incinerator is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and must manage it in accordance with applicable requirements of 35 Ill. Adm. Code 722 through 728.

(Source: Amended at 31 Ill. Reg. 893, effective December 20, 2006)

SUBPART S: SPECIAL PROVISIONS FOR CLEANUP

Section 724.650 Applicability of Corrective Action Management Unit Regulations

a) Except as provided in subsection (b), a CAMU is subject to the requirements of Section 724.652.

b) A CAMU that is approved before April 22, 2002, or for which substantially complete applications (or equivalents) were submitted to the Agency on or before November 20, 2000, is subject to the requirements in Section 724.651 for a grandfathered CAMU. Within a grandfathered CAMU, CAMU waste, activities, and design will not be subject to the standards in Section 724.652, so long as the waste, activities, and design remain within the general scope of the CAMU, as approved.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.651 Grandfathered Corrective Action Management Units

a) To implement remedies pursuant to Section 724.201 or RCRA section 3008(h), or to implement remedies at a permitted facility that is not subject to Section 724.201, the Agency may designate an area at the facility as a corrective action management unit in accordance with the requirements of this Section. "Corrective action management unit" or "CAMU" means an area within a facility that is used only for managing remediation wastes for implementing corrective action or cleanup at that facility. A CAMU must be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the CAMU originated. One or more CAMUs may be designated at a facility.

1) Placement of remediation wastes into or within a CAMU does not constitute land disposal of hazardous wastes.

2) Consolidation or placement of remediation wastes into or within a CAMU does not constitute creation of a unit subject to minimum technology requirements.

b) Designation of a CAMU

1) The Agency may designate a regulated unit (as defined in Section 724.190(a)(2)) as a CAMU, or it may incorporate a regulated unit into a CAMU, if the following is true:

A) The regulated unit is closed or closing, meaning it has begun the closure process pursuant to Section 724.213 or 35 Ill. Adm. Code 725.213; and

B) Inclusion of the regulated unit will enhance implementation of effective, protective, and reliable remedial actions for the facility.

2) The requirements of Subparts F, G, and H and the unit-specific requirements of this Part or the 35 Ill. Adm. Code 725 requirements that applied to that regulated unit will continue to apply to that portion of the CAMU after incorporation into the CAMU.

c) The Agency must designate a CAMU in accordance with the following factors:

1) The CAMU must facilitate the implementation of reliable, effective, protective, and cost-effective remedies;

2) Waste management activities associated with the CAMU must not create unacceptable risks to humans or to the environment resulting from exposure to hazardous wastes or hazardous constituents;

3) The CAMU must include uncontaminated areas of the facility only if including such areas for the purpose of managing remediation waste is more protective than managing such wastes at contaminated areas of the facility;

4) Areas within the CAMU where wastes remain in place after its closure must be managed and contained so as to minimize future releases to the extent practicable;

5) The CAMU must expedite the timing of remedial activity implementation, when appropriate and practicable;

6) The CAMU must enable the use, when appropriate, of treatment technologies (including innovative technologies) to enhance the long-term effectiveness of remedial actions by reducing the toxicity, mobility, or volume of wastes that will remain in place after closure of the CAMU; and

7) The CAMU must, to the extent practicable, minimize the land area of the facility upon which wastes will remain in place after closure of the CAMU.

d) The owner or operator must provide sufficient information to enable the Agency to designate a CAMU in accordance with the standards of this Section.

e) The Agency must specify in the permit the requirements applicable to a CAMU, including the following:

1) The areal configuration of the CAMU.

2) Requirements for remediation waste management, including the specification of applicable design, operation, and closure requirements.

3) Requirements for groundwater monitoring that are sufficient to do the following:

A) Continue to detect and to characterize the nature, extent, concentration, direction, and movement of existing releases of hazardous constituents in groundwater from sources located within the CAMU; and

B) Detect and subsequently characterize releases of hazardous constituents to groundwater that may occur from areas of the CAMU in which wastes will remain in place after closure of the CAMU.

4) Closure and Post-Closure Care Requirements

A) Closure of a CAMU must do the following:

i) Minimize the need for further maintenance; and

ii) Control, minimize, or eliminate, to the extent necessary to adequately protect human health and the environment, for areas where wastes remain in place, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground, to surface waters, or to the atmosphere.

B) Requirements for closure of a CAMU must include the following, as appropriate:

i) Requirements for excavation, removal, treatment, or containment of wastes;

ii) For areas in which wastes will remain after closure of the CAMU, requirements for the capping of such areas; and

iii) Requirements for the removal and decontamination of equipment, devices, and structures used in remediation waste management activities within the CAMU.

C) In establishing specific closure requirements for a CAMU pursuant to this subsection (e), the Agency must consider the following factors:

i) The characteristics of the CAMU;

ii) The volume of wastes that remain in place after closure;

iii) The potential for releases from the CAMU;

iv) The physical and chemical characteristics of the waste;

v) The hydrological and other relevant environmental conditions at the facility that may influence the migration of any potential or actual releases; and

vi) The potential for exposure of humans and environmental receptors if releases were to occur from the CAMU.

D) Post-closure care requirements as necessary to adequately protect human health and the environment, including, for areas where wastes will remain in place, monitoring and maintenance activities and the frequency with which such activities must be performed to ensure the integrity of any cap, final cover, or other containment system.

f) The Agency must document the rationale for designating the CAMU and must make such documentation available to the public.

g) Incorporation of a CAMU into an existing permit must be approved by the Agency according to the procedures for Agency-initiated permit modifications pursuant to 35 Ill. Adm. Code 703.270 through 703.273 or according to the permit modification procedures of 35 Ill. Adm. Code 703.283.

h) The designation of a CAMU does not change the Agency's existing authority to address cleanup levels, media-specific points of compliance to be applied to remediation at a facility, or other remedy selection decisions.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.652 Corrective Action Management Units

a) To implement remedies pursuant to Section 724.201 or RCRA section 3008(h), or to implement remedies at a permitted facility that is not subject to Section 724.201, the Agency may designate an area at the facility as a corrective action management unit pursuant to the requirements in this Section. "Corrective action management unit" or "CAMU" means an area within a facility that is used only for managing CAMU-eligible wastes for implementing corrective action or cleanup at that facility. A CAMU must be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the CAMU originated. One or more CAMUs may be designated at a facility.

1) "CAMU-eligible waste" means the following:

A) All solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris, that

are managed for implementing cleanup. As-generated wastes (either hazardous or non-hazardous) from ongoing industrial operations at a site are not CAMU-eligible wastes.

B) Wastes that would otherwise meet the description in subsection (a)(1)(A) are not CAMU-eligible waste where the following is true:

i) The wastes are hazardous waste found during cleanup in intact or substantially intact containers, tanks, or other non-land-based units found above ground, unless the wastes are first placed in the tanks, containers, or non-land-based units as part of cleanup, or the containers or tanks are excavated during the course of cleanup; or

ii) The Agency makes the determination in subsection (a)(2) to prohibit the wastes from management in a CAMU.

C) Notwithstanding subsection (a)(1)(A), where appropriate, as-generated non-hazardous waste may be placed in a CAMU where such waste is being used to facilitate treatment or the performance of the CAMU.

2) The Agency must prohibit the placement of waste in a CAMU where the Agency determines that the wastes have not been managed in compliance with applicable land disposal treatment standards of 35 Ill. Adm. Code 728, applicable unit design requirements of this Part or 35 Ill. Adm. Code 725, or other applicable requirements of this Subtitle G, and that the non-compliance likely contributed to the release of the waste.

3) Prohibition against placing liquids in a CAMU.

A) The placement of bulk or noncontainerized liquid hazardous waste or free liquids contained in hazardous waste (whether or not sorbents have been added) in any CAMU is prohibited except where placement of such wastes facilitates the remedy selected for the waste.

B) The requirements in Section 724.414(c) for placement of containers holding free liquids in landfills apply to placement in a CAMU, except where placement facilitates the remedy selected for the waste.

C) The placement of any liquid that is not a hazardous waste in a CAMU is prohibited unless such placement facilitates the remedy selected for the waste or a demonstration is made pursuant to Section 724.414(e).

D) The absence or presence of free liquids in either a containerized or a bulk waste must be determined in accordance with Section 724.414(b). Sorbents used to treat free liquids in a CAMU must meet the requirements of Section 724.414(d).

4) Placement of CAMU-eligible wastes into or within a CAMU does not constitute land disposal of hazardous waste.

5) Consolidation or placement of CAMU-eligible wastes into or within a CAMU does not constitute creation of a unit subject to minimum technology requirements.

b) Establishing a CAMU

1) The Agency must designate a regulated unit (as defined in Section 724.190(a)(2)) as a CAMU or must incorporate a regulated unit into a CAMU, if it determines that the following is true of a regulated unit:

A) The regulated unit is closed or closing, meaning it has begun the closure process pursuant to Section 724.213 or 35 Ill. Adm. Code 725.213; and

B) Inclusion of the regulated unit will enhance implementation of effective, protective, and reliable remedial actions for the facility.

2) The Subpart F, G, and H requirements and the unit-specific requirements of this Part or 35 Ill. Adm. Code 265 that applied to the regulated unit will continue to apply to that portion of the CAMU after incorporation into the CAMU.

c) The Agency must designate a CAMU that will be used for storage or treatment only in accordance with subsection (f). The Agency must designate any other CAMU in accordance with the following requirements:

1) The CAMU must facilitate the implementation of reliable, effective, protective, and cost-effective remedies;

2) Waste management activities associated with the CAMU must not create unacceptable risks to humans or to the environment resulting from exposure to hazardous wastes or hazardous constituents;

3) The CAMU must include uncontaminated areas of the facility, only if including such areas for the purpose of managing CAMU-eligible waste is more protective than management of such wastes at contaminated areas of the facility;

4) Areas within the CAMU, where wastes remain in place after closure of the CAMU, must be managed and contained so as to minimize future releases, to the extent practicable;

5) The CAMU must expedite the timing of remedial activity implementation, when appropriate and practicable;

6) The CAMU must enable the use, when appropriate, of treatment technologies (including innovative technologies) to enhance the long-term effectiveness of remedial actions by reducing the toxicity, mobility, or volume of wastes that will remain in place after closure of the CAMU; and

7) The CAMU must, to the extent practicable, minimize the land area of the facility upon which wastes will remain in place after closure of the CAMU.

d) The owner or operator must provide sufficient information to enable the Agency to designate a CAMU in accordance with the criteria in this Section. This must include, unless not reasonably available, information on the following:

1) The origin of the waste and how it was subsequently managed (including a description of the timing and circumstances surrounding the disposal or release);

2) Whether the waste was listed or identified as hazardous at the time of disposal or release; and

3) Whether the disposal or release of the waste occurred before or after the land disposal requirements of 35 Ill. Adm. Code 728 were in effect for the waste listing or characteristic.

e) The Agency must specify, in the permit or order, requirements for the CAMU to include the following:

1) The areal configuration of the CAMU.

2) Except as provided in subsection (g), requirements for CAMU-eligible waste management to include the specification of applicable design, operation, treatment, and closure requirements.

3) Minimum Design Requirements: a CAMU, except as provided in subsection (f), into which wastes are placed must be designed in accordance with the following:

A) Unless the Agency approves alternative requirements pursuant to subsection (e)(3)(B), a CAMU that consists of new, replacement, or laterally expanded units must include a composite liner and a leachate collection system that is designed and constructed to

maintain less than a 30-cm depth of leachate over the liner. For purposes of this Section, "composite liner" means a system consisting of two components; the upper component must consist of a minimum 30-mil flexible membrane liner (FML), and the lower component must consist of at least a two-foot layer of compacted soil with a hydraulic conductivity of no more than $1x10^{-7}$ cm/sec. FML components consisting of high density polyethylene (HDPE) must be at least 60 mil thick. The FML component must be installed in direct and uniform contact with the compacted soil component;

B) Alternative Requirements. The Agency must approve alternative requirements if it determines that either of the following is true:

i) The Agency determines that alternative design and operating practices, together with location characteristics, will prevent the migration of any hazardous constituents into the groundwater or surface water at least as effectively as the liner and leachate collection systems in subsection (e)(3)(A); or

ii) The CAMU is to be established in an area with existing significant levels of contamination, and the Agency determines that an alternative design, including a design that does not include a liner, would prevent migration from the unit that would exceed long-term remedial goals.

4) Minimum Treatment Requirements. Unless the wastes will be placed in a CAMU for storage or treatment only in accordance with subsection (f), CAMU-eligible wastes that, absent this Section, would be subject to the treatment requirements of 35 Ill. Adm. Code 728, and that the Agency determines contain principal hazardous constituents must be treated to the standards specified in subsection (e)(4)(C).

A) Principal hazardous constituents are those constituents that the Agency determines pose a risk to human health and the environment substantially higher than the cleanup levels or goals at the site.

i) In general, the Agency must designate as principal hazardous constituents those contaminants specified in subsection (e)(4)(H).

BOARD NOTE: The Board has codified 40 CFR 264.552(e)(4)(i)(A)(1) and (e)(4)(i)(A)(2) as subsections (e)(4)(H)(i) and (e)(4)(H)(ii) in order to comply with Illinois Administrative Code codification requirements.

ii) The Agency must also designate constituents as principal hazardous constituents, where appropriate, when risks to human health and the environment posed by the potential migration of constituents in wastes to groundwater are substantially higher than cleanup levels or goals at the site. When making such a designation, the Agency must consider such factors as constituent concentrations, and fate and transport characteristics under site conditions.

iii) The Agency must also designate other constituents as principal hazardous constituents that the Agency determines pose a risk to human health and the environment substantially higher than that posed by the cleanup levels or goals at the site.

B) In determining which constituents are "principal hazardous constituents", the Agency must consider all constituents that, absent this Section, would be subject to the treatment requirements in 35 Ill. Adm. Code 728.

C) Waste that the Agency determines contains principal hazardous constituents must meet treatment standards determined in accordance with subsection (e)(4)(D) or (e)(4)(E).

D) Treatment Standards for Wastes Placed in a CAMU

i) For non-metals, treatment must achieve 90 percent reduction in total principal hazardous constituent concentrations, except as provided by subsection (e)(4)(D)(iii).

ii) For metals, treatment must achieve 90 percent reduction in principal hazardous constituent concentrations as measured in leachate from the treated waste or media (tested according to the TCLP) or 90 percent reduction in total constituent concentrations (when a metal removal treatment technology is used), except as provided by subsection (e)(4)(D)(iii).

iii) When treatment of any principal hazardous constituent to a 90 percent reduction standard would result in a concentration less than 10 times the Universal Treatment Standard for that constituent, treatment to achieve constituent concentrations less than 10 times the Universal Treatment Standard is not required. Universal Treatment Standards are identified in Table U to 35 Ill. Adm. Code 728.

iv) For waste exhibiting the hazardous characteristic of ignitability, corrosivity, or reactivity, the waste must also be treated to eliminate these characteristics.

v) For debris, the debris must be treated in accordance with 35 Ill. Adm. Code 728.145, or by methods or to levels established pursuant to subsections (e)(4)(D)(i) through (e)(4)(D)(iv) or subsection (e)(4)(E), whichever the Agency determines is appropriate.

vi) Alternatives to TCLP. For metal bearing wastes for which metals removal treatment is not used, the Agency must specify a leaching test other than Method 1311 (Toxicity Characteristic Leaching Procedure), in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", USEPA publication number EPA-530/SW-846, incorporated by reference in 35 Ill. Adm. Code 720.111(a) to measure treatment effectiveness, provided the Agency determines that an alternative leach testing protocol is appropriate for use, and that the alternative more accurately reflects conditions at the site that affect leaching.

E) Adjusted Standards. The Board will grant an adjusted standard pursuant to Section 28.1 of the Act to adjust the treatment level or method in subsection (e)(4)(D) to a higher or lower level, based on one or more of the following factors, as appropriate, if the owner or operator demonstrates that the adjusted level or method would adequately protect human health and the environment, based on consideration of the following:

i) The technical impracticability of treatment to the levels or by the methods in subsection (e)(4)(D);

ii) The levels or methods in subsection (e)(4)(D) would result in concentrations of principal hazardous constituents (PHCs) that are significantly above or below cleanup standards applicable to the site (established either site-specifically, or promulgated pursuant to State or federal law);

iii) The views of the affected local community on the treatment levels or methods in subsection (e)(4)(D), as applied at the site, and, for treatment levels, the treatment methods necessary to achieve these levels;

iv) The short-term risks presented by the on-site treatment method necessary to achieve the levels or treatment methods in subsection (e)(4)(D);

v) The long-term protection offered by the engineering design of the CAMU and related engineering controls under the circumstances set forth in subsection (e)(4)(I).

BOARD NOTE: The Board has codified 40 CFR 264.552(e)(4)(v)(E)(*1*) through (e)(4)(v)(E)(*5*) as subsections (e)(4)(I)(i) through (e)(4)(I)(v) in order to comply with Illinois Administrative Code codification requirements.

F) The treatment required by the treatment standards must be completed prior to, or within a reasonable time after, placement in the CAMU.

G) For the purpose of determining whether wastes placed in a CAMU have met site-specific treatment standards, the Agency must specify a subset of the principal hazardous constituents in the waste as analytical surrogates for determining whether treatment standards have been met for other principal hazardous constituents if it determines that the specification is appropriate based on the degree of difficulty of treatment and analysis of constituents with similar treatment properties.

H) Principal hazardous constituents that the Agency must designate are the following:

i) Carcinogens that pose a potential direct risk from ingestion or inhalation at the site at or above 10^{-3}; and

ii) Non-carcinogens that pose a potential direct risk from ingestion or inhalation at the site an order of magnitude or greater over their reference dose.

I) Circumstances relating to the long-term protection offered by engineering design of the CAMU and related engineering controls are the following:

i) Where the treatment standards in subsection (e)(4)(D) are substantially met and the principal hazardous constituents in the waste or residuals are of very low mobility;

ii) Where cost-effective treatment has been used and the CAMU meets the Subtitle C liner and leachate collection

requirements for new land disposal units at Section 724.401(c) and (d);

iii) Where, after review of appropriate treatment technologies, the Board determines that cost-effective treatment is not reasonably available, and the CAMU meets the Subtitle C liner and leachate collection requirements for new land disposal units at Section 724.401(c) and (d);

iv) Where cost-effective treatment has been used and the principal hazardous constituents in the treated wastes are of very low mobility; or

v) Where, after review of appropriate treatment technologies, the Board determines that cost-effective treatment is not reasonably available, the principal hazardous constituents in the wastes are of very low mobility, and either the CAMU meets or exceeds the liner standards for new, replacement, or a laterally expanded CAMU in subsections (e)(3)(A) and (e)(3)(B) or the CAMU provides substantially equivalent or greater protection.

5) Except as provided in subsection (f), requirements for groundwater monitoring and corrective action that are sufficient to do the following:

A) Continue to detect and to characterize the nature, extent, concentration, direction, and movement of existing releases of hazardous constituents in groundwater from sources located within the CAMU;

B) Detect and subsequently characterize releases of hazardous constituents to groundwater that may occur from areas of the CAMU in which wastes will remain in place after closure of the CAMU; and

C) Require notification to the Agency and corrective action as necessary to adequately protect human health and the environment for releases to groundwater from the CAMU.

6) Except as provided in subsection (f), closure and post-closure requirements, as follows:

A) Closure of corrective action management units must do the following:

i) It must minimize the need for further maintenance; and

ii) It must control, minimize, or eliminate, to the extent necessary to adequately protect human health and the environment, for areas where wastes remain in place, post-closure escape of hazardous wastes, hazardous constituents, leachate, contaminated runoff, or hazardous waste decomposition products to the ground, to surface waters, or to the atmosphere.

B) Requirements for closure of a CAMU must include the following, as appropriate and as deemed necessary by the Agency for a given CAMU:

i) Requirements for excavation, removal, treatment or containment of wastes; and

ii) Requirements for removal and decontamination of equipment, devices, and structures used in CAMU-eligible waste management activities within the CAMU.

C) In establishing specific closure requirements for a CAMU pursuant to this subsection (e), the Agency must consider the following factors:

i) CAMU characteristics;

ii) Volume of wastes that remain in place after closure;

iii) Potential for releases from the CAMU;

iv) Physical and chemical characteristics of the waste;

v) Hydrogeological and other relevant environmental conditions at the facility that may influence the migration of any potential or actual releases; and

vi) Potential for exposure of humans and environmental receptors if releases were to occur from the CAMU.

D) Cap Requirements

i) At final closure of the CAMU, for areas in which wastes will remain with constituent concentrations at or above remedial levels or goals applicable to the site after closure of the CAMU, the owner or operator must cover the CAMU with a final cover designed and constructed to meet the performance criteria listed in subsection (e)(6)(F), except as provided in subsection (e)(6)(D)(ii):

BOARD NOTE: The Board has codified 40 CFR 264.552(e)(6)(iv)(A)(*1*) through (e)(6)(iv)(A)(*5*) as subsections (e)(6)(F)(i) through (e)(6)(F)(v) in order to comply with Illinois Administrative Code codification requirements.

ii) The Agency must apply cap requirements that deviate from those prescribed in subsection (e)(6)(D)(i) if it determines that the modifications are needed to facilitate treatment or the performance of the CAMU (e.g., to promote biodegradation).

E) Post-closure requirements as necessary to adequately protect human health and the environment, to include, for areas where wastes will remain in place, monitoring and maintenance activities, and the frequency with which such activities must be performed to ensure the integrity of any cap, final cover, or other containment system.

F) The final cover design and performance criteria are as follows:

i) The final cover must provide long-term minimization of migration of liquids through the closed unit;

ii) The final cover must function with minimum maintenance;

iii) The final cover must promote drainage and minimize erosion or abrasion of the cover;

iv) The final cover must accommodate settling and subsidence so that the cover's integrity is maintained; and

v) The final cover must have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

f) A CAMU used for storage or treatment only is a CAMU in which wastes will not remain after closure. Such a CAMU must be designated in accordance with all of the requirements of this Section, except as follows:

1) A CAMU that is used for storage or treatment only and that operates in accordance with the time limits established in the staging pile regulations at Section 724.654(d)(1)(C), (h), and (i) is subject to the requirements for staging piles at Section 724.654(d)(1)(A) and (d)(1)(B), (d)(2), (e), (f), (j), and (k) in lieu of the performance standards and requirements for a CAMU in subsections (c) and (e)(3) through (e)(6).

2) A CAMU that is used for storage or treatment only and that does not operate in accordance with the time limits established in the staging pile regulations at Section 724.654(d)(1)(C), (h), and (i):

A) The owner or operator must operate in accordance with a time limit, established by the Agency, that is no longer than necessary to achieve a timely remedy selected for the waste and

B) The CAMU is subject to the requirements for staging piles at Section 724.654(d)(1)(A) and (d)(1)(B), (d)(2), (e), (f), (j), and (k) in lieu of the performance standards and requirements for a CAMU in subsections (c), (e)(4), and (e)(6).

g) A CAMU into which wastes are placed where all wastes have constituent levels at or below remedial levels or goals applicable to the site do not have to comply with the requirements for liners at subsection (e)(3)(A), caps at subsection (e)(6)(D), groundwater monitoring requirements at subsection (e)(5) or, for treatment or storage-only a CAMU, the design standards at subsection (f).

h) The Agency must provide public notice and a reasonable opportunity for public comment before designating a CAMU. Such notice must include the rationale for any proposed adjustments pursuant to subsection (e)(4)(E) to the treatment standards in subsection (e)(4)(D).

i) Notwithstanding any other provision of this Section, the Agency must impose those additional requirements that it determines are necessary to adequately protect human health and the environment.

j) Incorporation of a CAMU into an existing permit must be approved by the Agency according to the procedures for Agency-initiated permit modifications pursuant to 35 Ill. Adm. Code 703.270 through 703.273, or according to the permit modification procedures of 35 Ill. Adm. Code 703.280 through 703.283.

k) The designation of a CAMU does not change the Agency's existing authority to address cleanup levels, media-specific points of compliance to be applied to remediation at a facility, or other remedy selection decisions.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.653 Temporary Units

a) For temporary tanks and container storage areas used to treat or store hazardous remediation wastes during remedial activities required pursuant to Section 724.201 or RCRA section 3008(h), or at a permitted facility that is not subject to Section 724.201, the Agency may designate a unit at the facility as a temporary unit. A temporary unit must be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the temporary unit originated. For temporary units, the Agency may replace the design, operating,

or closure standards applicable to these units pursuant to this Part 724 or 35 Ill. Adm. Code 725 with alternative requirements that adequately protect human health and the environment.

b) Any temporary unit to which alternative requirements are applied in accordance with subsection (a) must be as follows:

1) Located within the facility boundary; and

2) Used only for treatment or storage of remediation wastes.

c) In establishing alternative requirements to be applied to a temporary unit, the Agency must consider the following factors:

1) The length of time such unit will be in operation;

2) The type of unit;

3) The volumes of wastes to be managed;

4) The physical and chemical characteristics of the wastes to be managed in the unit;

5) The potential for releases from the unit;

6) The hydrogeological and other relevant environmental conditions at the facility that may influence the migration of any potential releases; and

7) The potential for exposure of humans and environmental receptors if releases were to occur from the unit.

d) The Agency must specify in the permit the length of time a temporary unit will be allowed to operate, which must be no longer than one year. The Agency must also specify the design, operating, and closure requirements for the unit.

e) The Agency may extend the operational period of a temporary unit once, for no longer than a period of one year beyond that originally specified in the permit, if the Agency determines the following:

1) That continued operation of the unit will not pose a threat to human health and the environment; and

2) That continued operation of the unit is necessary to ensure timely and efficient implementation of remedial actions at the facility.

f) Incorporation of a temporary unit or a time extension for a temporary unit into an existing permit must be as follows:

1) Approved in accordance with the procedures for Agency-initiated permit modifications pursuant to 35 Ill. Adm. Code 703.270 through 703.273; or

2) Requested by the owner or operator as a Class 2 modification according to the procedures pursuant to 35 Ill. Adm. Code 703.283.

g) The Agency must document the rationale for designating a temporary unit and for granting time extensions for temporary units and must make such documentation available to the public.

BOARD NOTE: USEPA promulgated 40 CFR 264.553, from which this Section was derived, pursuant to HSWA provisions of RCRA Subtitle C. Since the federal provision became immediately effective in Illinois, and until USEPA authorizes this Illinois provision, an owner or operator must seek TU authorization from USEPA Region 5, as well as authorization from the Agency pursuant to this Section.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.654 Staging Piles

a) Definition of a Staging Pile. A staging pile is an accumulation of solid, non-flowing remediation waste (as defined in 35 Ill. Adm. Code 720.110) that is not a containment building and which is used only during remedial operations for temporary storage at a facility. A staging pile must be located within the contiguous property under the control of the owner or operator where the wastes to be managed in the staging pile originated. Staging piles must be designated by the Agency in accordance with the requirements in this Section.

1) For the purposes of this Section, storage includes mixing, sizing, blending, or other similar physical operations as long as they are intended to prepare the wastes for subsequent management or treatment.

2) This subsection (a)(2) corresponds with 40 CFR 264.554(a)(2), which USEPA has marked as "reserved". This statement maintains structural consistency with the federal regulations.

b) Use of a Staging Pile. An owner or operator may use a staging pile to store hazardous remediation waste (or remediation waste otherwise subject to land disposal restrictions) only if an owner or operator follows the standards and design criteria the Agency has designated for that staging pile. The Agency must designate the staging pile in a permit or, at an interim status facility, in a closure plan or order (consistent with 35 Ill. Adm. Code 703.155(a)(5) and (b)(5)). The Agency must establish conditions in the permit, closure plan, or order that comply with subsections (d) through (k).

c) Information That an Owner or Operator Must Submit to Gain Designation of a Staging Pile. When seeking a staging pile designation, an owner or operator must provide the following:

1) Sufficient and accurate information to enable the Agency to impose standards and design criteria for the facility's staging pile according to subsections (d) through (k);

2) Certification by a qualified Professional Engineer of technical data, such as design drawings and specifications, and engineering studies, unless the Agency determines, based on information that an owner or operator provides, that this certification is not necessary to ensure that a staging pile will adequately protect human health and the environment; and

3) Any additional information the Agency determines is necessary to adequately protect human health and the environment.

d) Performance Criteria That a Staging Pile Must Satisfy. The Agency must establish the standards and design criteria for the staging pile in the permit, closure plan, or order.

1) The standards and design criteria must comply with the following:

A) The staging pile must facilitate a reliable, effective, and protective remedy;

B) The staging pile must be designed so as to prevent or minimize releases of hazardous wastes and hazardous constituents into the environment, and minimize or adequately control cross-media transfer, as necessary to adequately protect human health and the environment (for example, through the use of liners, covers, or runoff and runon controls, as appropriate); and

C) The staging pile must not operate for more than two years, except when the Agency grants an operating term extension pursuant to subsection (i). An owner or operator must measure the two-year limit or other operating term specified by the Agency in the permit, closure plan, or order from the first time an owner or operator places remediation waste into a staging pile. An owner or operator must maintain a record of the date when it first placed remediation waste into the staging pile for the life of the permit, closure plan, or order, or for three years, whichever is longer.

2) In setting the standards and design criteria, the Agency must consider the following factors:

A) The length of time the pile will be in operation;

B) The volumes of wastes the owner or operator intends to store in the pile;

C) The physical and chemical characteristics of the wastes to be stored in the unit;

D) The potential for releases from the unit;

E) The hydrogeological and other relevant environmental conditions at the facility that may influence the migration of any potential releases; and

F) The potential for human and environmental exposure to potential releases from the unit.

e) Receipt of Ignitable or Reactive Remediation Waste. An owner or operator must not place ignitable or reactive remediation waste in a staging pile unless the following is true:

1) The owner or operator has treated, rendered, or mixed the remediation waste before it placed the waste in the staging pile so that the following is true of the waste:

A) The remediation waste no longer meets the definition of ignitable or reactive pursuant to 35 Ill. Adm. Code 721.121 or 721.123; and

B) The owner or operator has complied with Section 724.117(b); or

2) The owner or operator manages the remediation waste to protect it from exposure to any material or condition that may cause it to ignite or react.

f) Managing Incompatible Remediation Wastes in a Staging Pile. The term "incompatible waste" is defined in 35 Ill. Adm. Code 720.110. An owner or operator must comply with the following requirements for incompatible wastes in staging piles:

1) The owner or operator must not place incompatible remediation wastes in the same staging pile unless an owner or operator has complied with Section 724.117(b);

2) If remediation waste in a staging pile is incompatible with any waste or material stored nearby in containers, other piles, open tanks, or land disposal units (for example, surface impoundments), an owner or operator must separate the incompatible materials, or protect them from one another by using a dike, berm, wall, or other device; and

3) The owner or operator must not pile remediation waste on the same base where incompatible wastes or materials were previously piled, unless the base has been decontaminated sufficiently to comply with Section 724.117(b).

g) Staging piles are not subject to land disposal restrictions and federal minimum technological requirements. Placing hazardous remediation wastes into a staging pile does not constitute land disposal of hazardous wastes or create a unit that is subject to the federal minimum technological requirements of section 3004(o) of RCRA, 42 USC 6924(o).

h) How Long an Owner or Operator May Operate a Staging Pile. The Agency may allow a staging pile to operate for up to two years after hazardous remediation waste is first placed into the pile. An owner or operator must use a staging pile no longer than the length of time designated by the Agency in the permit, closure plan, or order (the "operating term"), except as provided in subsection (i).

i) Receiving an Operating Extension for a Staging Pile

1) The Agency may grant one operating term extension of up to 180 days beyond the operating term limit contained in the permit, closure plan, or order (see subsection (l) for modification procedures). To justify the need for an extension, an owner or operator must provide sufficient and accurate information to enable the Agency to determine that the following is true of continued operation of the staging pile:

A) Continued operation will not pose a threat to human health and the environment; and

B) Continued operation is necessary to ensure timely and efficient implementation of remedial actions at the facility.

2) The Agency must, as a condition of the extension, specify further standards and design criteria in the permit, closure plan, or order, as necessary, to ensure adequate protection of human health and the environment.

j) The Closure Requirement for a Staging Pile Located in a Previously Contaminated Area

1) Within 180 days after the operating term of the staging pile expires, an owner or operator must close a staging pile located in a previously contaminated area of the site by removing or decontaminating all of the following:

A) Remediation waste;

B) Contaminated containment system components; and

C) Structures and equipment contaminated with waste and leachate.

2) An owner or operator must also decontaminate contaminated subsoils in a manner and according to a schedule that the Agency determines will adequately protect human health and the environment.

3) The Agency must include the above requirements in the permit, closure plan, or order in which the staging pile is designated.

k) The Closure Requirement for a Staging Pile Located in a Previously Uncontaminated Area

1) Within 180 days after the operating term of the staging pile expires, an owner or operator must close a staging pile located in an uncontaminated area of the site according to Sections 724.358(a) and 724.211 or according to 35 Ill. Adm. Code 725.358(a) and 725.211.

2) The Agency must include the requirement of this Section stated in subsection (k)(1) in the permit, closure plan, or order in which the staging pile is designated.

l) Modifying an Existing Permit (e.g., a RAP), Closure Plan, or Order to Allow he Use of a Staging Pile

1) To modify a permit, other than a RAP, to incorporate a staging pile or staging pile operating term extension, either of the following must occur:

A) The Agency must approve the modification pursuant to the procedures for Agency-initiated permit modifications in 35 Ill. Adm. Code 703.270 through 703.273; or

B) An owner or operator must request a Class 2 modification pursuant to 35 Ill. Adm. Code 703.280 through 703.283.

2) To modify a RAP to incorporate a staging pile or staging pile operating term extension, an owner or operator must comply with the RAP modification requirements pursuant to 35 Ill. Adm. Code 703.304(a) and (b).

3) To modify a closure plan to incorporate a staging pile or staging pile operating term extension, an owner or operator must follow the applicable requirements pursuant to Section 724.212(c) or 35 Ill. Adm. Code 725.212(c).

4) To modify an order to incorporate a staging pile or staging pile operating term extension, an owner or operator must follow the terms of the order and the applicable provisions of 35 Ill. Adm. Code 703.155(a)(5) or (b)(5).

m) Public Availability of Information about a Staging Pile. The Agency must document the rationale for designating a staging pile or staging pile operating term extension and make this documentation available to the public.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.655 Disposal of CAMU-Eligible Wastes in Permitted Hazardous Waste Landfills

a) The Agency must approve placement of CAMU-eligible wastes in hazardous waste landfills not located at the site from which the waste originated, without the wastes meeting the requirements of 35 Ill. Adm. Code 728, if it determines that the following conditions are met:

1) The waste meets the definition of CAMU-eligible waste in Section 724.652(a)(1) and (a)(2).

2) The Agency identifies principal hazardous constituents in such waste, in accordance with Section 724.652(e)(4)(A) and (e)(4)(B), and requires that such principal hazardous constituents are treated to any of the following standards specified for CAMU-eligible wastes:

A) The treatment standards under Section 724.652(e)(4)(D); or

B) Treatment standards adjusted in accordance with Section 724.652(e)(4)(E)(i), (e)(4)(E)(iii), (e)(4)(E)(iv), or (e)(4)(F)(i); or

C) Treatment standards adjusted in accordance with Section 724.652(e)(4)(I)(ii), where treatment has been used and that treatment significantly reduces the toxicity or mobility of the principal hazardous constituents in the waste, minimizing the short-term and long-term threat posed by the waste, including the threat at the remediation site.

3) The landfill receiving the CAMU-eligible waste must have a RCRA hazardous waste permit, meet the requirements for new landfills in Subpart N, and be authorized to accept CAMU-eligible wastes; for the purposes of this requirement, "permit" does not include interim status.

b) The person seeking approval must provide sufficient information to enable the Agency to approve placement of CAMU-eligible waste in accordance with subsection (a). Information required by Section 724.652(d)(1) through (d)(3) for CAMU applications must be provided, unless not reasonably available.

c) The Agency must provide public notice and a reasonable opportunity for public comment before approving CAMU eligible waste for placement in an off-site permitted hazardous waste landfill, consistent with the requirements for CAMU approval at Section 724.652(h). The approval must be specific to a single remediation.

d) Applicable hazardous waste management requirements in this Part, including recordkeeping requirements to demonstrate compliance with treatment standards

approved under this Section, for CAMU-eligible waste must be incorporated into the receiving facility permit through permit issuance or a permit modification, providing notice and an opportunity for comment and a hearing. Notwithstanding 35 Ill. Adm. Code 702.181(a), a landfill may not receive hazardous CAMU-eligible waste under this Section unless its permit specifically authorizes receipt of such waste.

e) For each remediation, CAMU-eligible waste may not be placed in an off-site landfill authorized to receive CAMU-eligible waste in accordance with subsection (d) until the following additional conditions have been met:

1) The landfill owner or operator notifies the Agency and persons on the facility mailing list, maintained in accordance with 35 Ill. Adm. Code 705.163(a), of his or her intent to receive CAMU-eligible waste in accordance with this Section; the notice must identify the source of the remediation waste, the principal hazardous constituents in the waste, and treatment requirements.

2) Persons on the facility mailing list may provide comments, including objections to the receipt of the CAMU-eligible waste, to the Agency within 15 days after notification.

3) The Agency must object to the placement of the CAMU-eligible waste in the landfill within 30 days of notification; the Agency must extend the review period an additional 30 days if it determines that the extension is necessary because of public concerns or insufficient information.

4) CAMU-eligible wastes may not be placed in the landfill until the Agency has notified the facility owner or operator that it does not object to its placement.

5) If the Agency objects to the placement or does not notify the facility owner or operator that it has chosen not to object, the facility may not receive the waste, notwithstanding 35 Ill. Adm. Code 702.181(a), until the objection has been resolved, or the owner/operator obtains a permit modification in accordance with the procedures of 35 Ill. Adm. Code 703.280 through 703.283 specifically authorizing receipt of the waste.

6) The Board will grant an adjusted standard under Section 28.1 of the Act that modifies, reduces, or eliminates the notification requirements of this subsection (e) as they apply to specific categories of CAMU-eligible waste, if the owner or operator demonstrates that this is possible based on miminal risk.

f) Generators of CAMU-eligible wastes sent off-site to a hazardous waste landfill under this Section must comply with the requirements of 35 Ill. Adm. Code 728.107(a)(4). Off-site facilities treating CAMU-eligible wastes to comply with this Section must comply with the requirements of 35 Ill. Adm. Code

728.107(b)(4), except that the certification must be with respect to the treatment requirements of subsection (a)(2).

g) For the purposes of this Section only, the "design of the CAMU" in Section 724.652(e)(4)(E)(v) means design of the permitted Subtitle C landfill.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

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, 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) 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.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

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). 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) or close the drip pad in accordance with Section 724.675.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.672 Design and Installation of New Drip Pads

Owners and operators of new drip pads must ensure that the pads are designed, installed and operated in accordance with one of the following:

a) All of the requirements of Sections 724.673 (except Section 724.673(a)(4)), 724.674, and 724.675; or

b) All of the requirements of Sections 724.673 (except Section 724.673(b)), 724.674, and 724.675.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.673 Design and Operating Requirements

a) Drip pads must fulfill the following:

1) Not be constructed of non-earthen materials, wood, or asphalt, unless the asphalt is structurally supported;

2) Be sloped to free-drain to the associated collection system treated wood drippage, rain, other waters, or solutions of drippage and water or other wastes;

3) Have a curb or berm around the perimeter;

4) In addition, the drip pad must fulfill the following:

A) Have a hydraulic conductivity of less than or equal to 1×10^{-7} centimeters per second (cm/sec), e.g., existing concrete drip pads must be sealed, coated, or covered with a surface material with a hydraulic conductivity of less than or equal to 1×10^{-7} cm/sec such that the entire surface where drippage occurs or may run across is capable of containing such drippage and mixtures of drippage and precipitation, materials, or other wastes while being routed to an associated collection system. This surface material must be maintained free of cracks and gaps that could adversely affect its hydraulic conductivity, and the material must be chemically compatible with the preservatives that contact the drip pad. The requirements of this provision apply only to the existing drip pads and those drip pads for which the owner or operator elects to comply with Section 724.672(b) instead of Section 724.672(a).

B) 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 recertified annually. The evaluation must document the extent to which the drip pad meets the design and operating standards of this Section, except for in subsection (b).

5) Be of sufficient structural strength and thickness to prevent failure due to physical contact, climatic conditions, the stress of installation, and the stress of daily operations, e.g., variable and moving loads such as vehicle traffic, movement of wood, etc.

BOARD NOTE: In judging the structural integrity requirement of this subsection (c), the Agency should generally consider applicable standards

established by professional organizations generally recognized by the industry, including ACI 318 (Building Code Requirements for Reinforced Concrete), or ASTM C 94-90 (Standard Specification for Ready-Mixed Concrete), each incorporated by reference in 35 Ill. Adm. Code 720.111(a).

b) If an owner or operator elects to comply with Section 724.672(a) instead of Section 724.672(b), the drip pad must have the following:

1) A synthetic liner installed below the drip pad that is designed, constructed, and installed to prevent leakage from the drip pad into the adjacent subsurface soil or groundwater or surface water at any time during the active life (including the closure period) of the drip pad. The liner must be constructed of materials that will prevent waste from being absorbed into the liner and to prevent releases into the adjacent subsurface soil or groundwater or surface water during the active life of the facility. The liner must fulfill the following:

A) It must be constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or drip pad leakage to which they are exposed, climatic conditions, the stress of installation and the stress of daily operation (including stresses from vehicular traffic on the drip pad);

B) It must be placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression or uplift; and

C) It must be installed to cover all surrounding earth that could come in contact with the waste or leakage; and

2) A leakage detection system immediately above the liner that is designed, constructed, maintained, and operated to detect leakage from the drip pad. The leakage detection system must fulfill the following:

A) It must be constructed of materials that are as follows:

i) Chemically resistant to the waste managed in the drip pad and the leakage that might be generated; and

ii) Of sufficient strength and thickness to prevent collapse under the pressures exerted by overlaying materials and by any equipment used at the drip pad; and

B) It must be designed and operated to function without clogging through the scheduled closure of the drip pad; and

C) It must be designed so that it will detect the failure of the drip pad or the presence of a release of hazardous waste or accumulated liquid at the earliest practicable time.

3) A leaking collection system immediately above the liner that is designed, constructed, maintained, and operated to collect leakage from the drip pad such that it can be removed from below the drip pad. The date, time, and quantity of any leakage collected in this system and removed must be documented in the operating log.

A) The drip pad surface must be cleaned thoroughly in a manner and frequency such that accumulated residues of hazardous waste or other materials are removed, with residues being properly managed as to allow weekly inspections of the entire drip pad surface without interference of hindrance from accumulated residues of hazardous waste or other materials on the drip pad. The owner or operator must document the date and time of each cleaning and cleaning procedure used in the facility's operating log. The owner or operator must determine if the residues are hazardous, as per 35 Ill. Adm. Code 722.111, and, if so, the owner or operator must manage them under 35 Ill. Adm. Code 721 through 728, and section 3010 of RCRA (42 USC 6930).

B) The federal rules do not contain a 40 CFR 264.573(b)(3)(B). This subsection (b) is added to conform to Illinois Administrative Code rules.

c) Drip pads must be maintained such that they remain free of cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the drip pad.

BOARD NOTE: See subsection (m) for remedial action required if deterioration or leakage is detected.

d) The drip pad and associated collection system must be designed and operated to convey, drain, and collect liquid resulting from drippage or precipitation in order to prevent run-off.

e) Unless the drip pad is protected by a structure, as described in Section 724.670(b), the owner or operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the drip pad during peak discharge from at least a 24-hour, 25-year storm, unless the system has sufficient excess capacity to contain any run-on that might enter the system.

f) Unless the drip pad is protected by a structure or cover, as described in Section 724.670(b), the owner or operator must design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

g) The drip pad must be evaluated to determine that it meets the requirements of subsections (a) through (f). The owner or operator must obtain a statement from a qualified Professional Engineer certifying that the drip pad design meets the requirements of this Section.

h) Drippage and accumulated precipitation must be removed from the associated collection system as necessary to prevent overflow onto the drip pad.

i) The drip surface must be cleaned thoroughly at least once every seven days such that accumulated residues of hazardous waste or other materials are removed, using an appropriate and effective cleaning technique, including but not limited to, rinsing, washing with detergents or other appropriate solvents, or steam cleaning. The owner or operator must document, in the facility's operating log, the date and time of each cleaning and the cleaning procedure used.

j) Drip pads must be operated and maintained in a manner to minimize tracking of hazardous waste or hazardous waste constituents off the drip pad as a result of activities by personnel or equipment.

k) After being removed from the treatment vessel, treated wood from pressure and non-pressure processes must be held on the drip pad until drippage has ceased. The owner or operator must maintain records sufficient to document that all treated wood is held on the pad, in accordance with this Section, following treatment.

l) Collection and holding units associated with run-on and run-off control systems must be emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system.

m) Throughout the active life of the drip pad and as specified in the permit, if the owner or operator detects a condition that could lead to or has caused a release of hazardous waste, the condition must be repaired within a reasonably prompt period of time following discovery, in accordance with the following procedures:

1) Upon detection of a condition that may have caused or has caused a release of hazardous waste (e.g., upon detection of leakage in the leak detection system), the owner or operator must do the following:

A) Enter a record of the discovery in the facility operating log;

B) Immediately remove from service the portion of the drip pad affected by the condition;

C) Determine what steps must be taken to repair the drip pad, clean up any leakage from below the drip pad, and establish a schedule for accomplishing the clean up and repairs;

D) Within 24 hours after discovery of the condition, notify the Agency of the condition and, within 10 working days, provide written notice to the Agency with a description of the steps that will be taken to repair the drip pad and clean up any leakage, and the schedule for accomplishing this work.

2) The Agency must do the following: review the information submitted, make a determination regarding whether the pad 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.

3) Upon completing all repairs and clean up, the owner or operator must notify the Agency in writing and provide a certification, signed by an independent, qualified registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with subsection (m)(1)(D).

n) If a permit is necessary, the Agency must specify in the permit all design and operating practices that are necessary to ensure that the requirements of this Section are satisfied.

o) The owner or operator must maintain, as part of the facility operating log, documentation of past operating and waste handling practices. This must include identification of preservative formulations used in the past, a description of drippage management practices, and a description of treated wood storage and handling practices.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.674 Inspections

a) During construction or installation, liners and cover systems (e.g., membranes, sheets, or coatings) must be inspected for uniformity, damage, and imperfections (e.g., holes, cracks, thin spots, or foreign materials). Immediately after construction or installation, liners must be inspected and certified by a qualified Professional Engineer as meeting the requirements set forth in Section 724.673. The certification must be maintained at the facility as part of the facility operating record. After installation liners and covers must be inspected to ensure tight seams and joints and the absence of tears, punctures, or blisters.

b) While a drip pad is in operation, it must be inspected weekly and after storms to detect evidence of any of the following:

1) Deterioration, malfunctions, or improper operation of run-on and run-off control systems;

2) The presence of leakage in and proper functioning of leak detection system.

3) Deterioration or cracking of the drip pad surface.

BOARD NOTE: See Section 724.672(m) for remedial action required if deterioration or leakage is detected.

(Source: Amended at 32 Ill. Reg. 12365, effective July 14, 2008)

Section 724.675 Closure

a) At closure, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (pad, liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leakage, and manage them as hazardous waste.

b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment, as required in subsection (a), the owner or operator finds that not all contaminated subsoils can be practically removed or decontaminated, the operator must close the unit and perform post-closure care in accordance with closure and post-closure care requirements that apply to landfills (Section 724.410). For permitted units, the requirement to have a permit continues throughout the post-closure period. In addition, for the purposes of closure, post-closure, and financial responsibility, such a drip pad is then considered to be a landfill, and the owner or operator must meet all of the requirements for landfills specified in Subparts G and H.

c) Existing Drip Pads without Liners

1) The owner or operator of an existing drip pad that does not comply with the liner requirements of Section 724.673(b)(1) must do the following:

A) Include in the closure plan for the drip pad under Section 724.212 both a plan for complying with subsection (a) and a contingent plan for complying with subsection (b) in case not all contaminated subsoils can be practicably removed at closure; and

B) Prepare a contingent post-closure plan under Section 724.218 for complying with subsection (b) in case not all contaminated subsoils can be practicably removed at closure.

2) The cost estimates calculated under Sections 724.212 and 724.244 for closure and post closure care of a drip pad subject to this subsection (c)

must include the cost of complying with the contingent closure plan and the contingent post-closure plan, but are not required to include the cost of expected closure under subsection (a).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

SUBPART X: MISCELLANEOUS UNITS

Section 724.700 Applicability

The requirements in this Subpart X apply to owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units, except as Section 724.101 provides otherwise.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.701 Environmental Performance Standards

A miscellaneous unit must be located, designed, constructed, operated, maintained, and closed in a manner that will ensure adequate protection of human health and the environment. Permits for miscellaneous units are to contain such terms and provisions as are necessary to adequately protect human health and the environment, including, but not limited to, as appropriate, design and operating requirements, detection and monitoring requirements, and requirements for responses to releases of hazardous waste or hazardous constituents from the unit. Permit terms and provisions must include those requirements of Subparts I through O and AA through CC; 35 Ill. Adm. Code 702, 703, and 730; and federal subpart EEE of 40 CFR 63, incorporated by reference in 35 Ill. Adm. Code 720.111(b), that are appropriate for the miscellaneous unit being permitted. Adequate protection of human health and the environment includes, but is not limited to the following:

a) Preventing any releases that may have adverse effects on human health or the environment due to migration of waste constituents in the groundwater or subsurface environment, considering the following:

1) The volume and physical and chemical characteristics of the waste in the unit, including its potential for migration through soil, liners, or other containing structures;

2) The hydrologic and geologic characteristics of the unit and the surrounding area;

3) The existing quality of groundwater, including other sources of contamination and their cumulative impact on the groundwater;

4) The quantity and direction of groundwater flow;

5) The proximity to and withdrawal rates of current and potential groundwater users;

6) The patterns of land use in the region;

7) The potential for deposition or migration of waste constituents into subsurface physical structures and the root zone of food-chain crops and other vegetation;

8) The potential for health risks caused by human exposure to waste constituents; and

9) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

b) Preventing any releases that may have adverse effects on human health or the environment due to migration of waste constituents in surface water, in wetlands, or on the soil surface, considering the following:

1) The volume and physical and chemical characteristics of the waste in the unit;

2) The effectiveness and reliability of containing, confining, and collecting systems and structures in preventing migration;

3) The hydrologic characteristics of the unit and surrounding area, including the topography of the land around the unit;

4) The patterns of precipitation in the region;

5) The quantity, quality, and direction of groundwater flow;

6) The proximity of the unit to surface waters;

7) The current and potential uses of the nearby surface waters and any water quality standards in 35 Ill. Adm. Code 302 or 303;

8) The existing quality of surface waters and surface soils, including other sources of contamination and their cumulative impact on surface waters and surface soils;

9) The patterns of land use in the region;

10) The potential for health risks caused by human exposure to waste constituents; and

11) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents.

c) Preventing any release that may have adverse effects on human health or the environment due to migration of waste constituents in the air, considering the following:

1) The volume and physical and chemical characteristics of the waste in the unit, including its potential for the emission and dispersal of gases, aerosols, and particulates;

2) The effectiveness and reliability of systems and structures to reduce or prevent emissions of hazardous constituents to the air;

3) The operating characteristics of the unit;

4) The atmospheric, meteorologic, and topographic characteristics of the unit and the surrounding area;

5) The existing quality of the air, including other sources of contamination and their cumulative impact on the air;

6) The potential for health risks caused by human exposure to waste constituents; and

7) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by waste constituents.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.702 Monitoring, Analysis, Inspection, Response, Reporting, and Corrective Action

Monitoring, testing, analytical data, inspections, response and reporting procedures and frequencies must ensure compliance with Sections 724.115, 724.133, 724.175, 724.176, 724.177, 724.201, and 724.701, as well as any additional requirements needed to adequately protect human health and the environment as specified in the permit.

(Source: Amended at 31 Ill. Reg. 893, effective December 20, 2006)

Section 724.703 Post-Closure Care

A miscellaneous unit that is a disposal unit must be maintained in a manner that complies with Section 724.701 during the post-closure care period. In addition, if a treatment or storage unit has contaminated soils or groundwater that cannot be completely removed or decontaminated during closure, then that unit must also meet the requirements of Section 724.701 during post-closure care. The post-closure plan under Section 724.218 must specify the procedure that will be used to satisfy this requirement.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

SUBPART AA: AIR EMISSION STANDARDS FOR PROCESS VENTS

Section 724.930 Applicability

a) This Subpart AA applies to owners and operators of facilities that treat, store, or dispose of hazardous wastes (except as provided in Section 724.101).

b) Except for Sections 724.934(d) and (e), this Subpart AA applies to process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations that manage hazardous wastes with organic concentrations of at least 10 ppmw (parts per million by weight), if these operations are conducted as follows:

1) In units that are subject to the permitting requirements of 35 Ill. Adm. Code 703;

2) In a unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 35 Ill. Adm. Code 262.117 (i.e., a hazardous waste recycling unit that is not a 90-day tank or container) and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of 35 Ill. Adm. Code 703; or

3) In a unit that is exempt from permitting under the provisions of 35 Ill. Adm. Code 262.117 (i.e., a 90-day tank or container) and which is not a recycling unit under the provisions of 35 Ill. Adm. Code 721.106.

c) Until the owner and operator receives a final permit incorporating the requirements of this Subpart AA, the owner and operator is subject to the requirements of Subpart AA of 35 Ill. Adm. Code 725.

BOARD NOTE: The requirements of Sections 724.932 through 724.936 apply to process vents on hazardous waste recycling units previously exempt under 35 Ill. Adm. Code 721.106(c)(1). Other exemptions under 35 Ill. Adm. Code 721.104 and 724.101(g) are not affected by these requirements.

d) This subsection (d) corresponds with 40 CFR 264.1030(d), which is marked "reserved" by USEPA. This statement maintains structural consistency with USEPA rules.

e) The requirements of this Subpart AA do not apply to the process vents at a facility where the facility owner or operator certifies that all of the process vents that would otherwise be subject to this Subpart AA are equipped with and operating air emission controls in accordance with the process vent requirements of an applicable federal Clean Air Act regulation codified under 40 CFR 60, 61, or 63. The documentation of compliance under regulations at 40 CFR 60, 61, or 63 must be kept with, or made readily available with, the facility operating record.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.931 Definitions

As used in this Subpart AA, all terms not defined in this Subpart AA have the meaning given them in section 1004 of the Resource Conservation and Recovery Act, incorporated by reference in 35 Ill. Adm. Code 720.111, and 35 Ill. Adm. Code 720 through 728, and 738.

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

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

"Btu" means British thermal unit.

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

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

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

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

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

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

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

"Distillation operation" means an operation, either batch or continuous, separating one or more feed streams into two or more exit streams, each exit stream having

component concentrations different from those in the feed streams. The separation is achieved by the redistribution of the components between the liquid and vapor phase as they approach equilibrium within the distillation unit.

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

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

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

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

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

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

"ft" means foot.

"h" means hour.

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

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

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

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

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

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

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

“Kg” means kilogram.

“kPa” means kilopascals.

“lb” means pound.

“m” means meter.

“Mg” means Megagrams, or metric tonnes.

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

“MW” means Megawatts.

“Malfunction” means any sudden failure of a control device or a hazardous waste management unit or failure of a hazardous waste management unit to operate in a normal or usual manner, so that organic emissions are increased.

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

“ppmv” means parts per million by volume.

“ppmw” means parts per million by weight.

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

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

“Process vent” means any open-ended pipe or stack that is vented to the atmosphere either directly, through a vacuum-producing system, or through a tank (e.g., distillate receiver, condenser, bottoms receiver, surge control tank, separator

tank, or hot well) associated with hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations.

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

“s” means second.

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

“scm” means standard cubic meter.

“scft” means standard cubic foot.

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

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

“Solvent extraction operation” means an operation or method of separation in which a solid or solution is contracted with a liquid solvent (the two being mutually insoluble) to preferentially dissolve and transfer one or more components into the solvent.

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

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

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

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

“USDOT” means the United States Department of Transportation.

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

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

"yr" means year.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.932 Standards: Process Vents

a) The owner or operator of a facility with process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations managing hazardous wastes with organic concentrations of at least 10 ppmw must do either of the following:

1) Reduce total organic emissions from all affected process vents at the facility below 1.4 kg/h (3 lb/h) and 2.8 Mg/yr (3.1 tons/yr); or

2) Reduce, by use of a control device, total organic emissions from all affected process vents at the facility by 95 weight percent.

b) If the owner or operator installs a closed-vent system and control device to comply with the provisions of subsection (a), the closed-vent system and control device must meet the requirements of Section 724.933.

c) Determinations of vent emissions and emission reductions or total organic compound concentrations achieved by add-on control devices must be either based on engineering calculations or performance tests. If performance tests are used to determine vent emissions, emission reductions, or total organic compound concentrations achieved by add-on control devices, the performance tests must conform with the requirements of Section 724.934(c).

d) When an owner or operator and the Agency do not agree on determinations of vent emissions or emission reductions or total organic compound concentrations achieved by add-on control devices based on engineering calculations, the procedures in Section 724.934(c) must be used to resolve the disagreement.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

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 beginning operation that is subject to the provisions of this Subpart AA when operation begins must comply with the rules immediately (i.e., must have control devices installed and operating on startup of the affected unit); the 30-month implementation schedule does not apply.

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

D) An owner or operator of a facility or unit that becomes newly subject to the requirements of this Subpart AA due to an action other than those described in subsection (a)(2)(C) 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), except for periods not to exceed a total of five minutes during any two consecutive hours.

2) A flare must be operated with a flame present at all times, as determined by the methods specified in subsection (f)(2)(C).

3) A flare must be used only if the net heating value of the gas being combusted is 11.2 MJ/scm (300 Btu/scf) or greater 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).

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), less than 18.3 m/s (60 ft/s), except as provided in subsections (d)(4)(B) and (d)(4)(C).

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), 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), less than the velocity, V, as determined by the method specified in subsection (e)(4), and less than 122 m/s (400 ft/s) is allowed.

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

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

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 one mole is 20 °C

K = $1.74 \times 10\text{-}7$ (1/ppm)(g mol/scm)(MJ/kcal) where the standard temperature for (g mol/scm) is 20 °C

Ci = the concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 (Measurement of Gaseous Organic Compound Emissions by Gas Chromatography) in appendix A to 40 CFR 60 (Test Methods), and for carbon monoxide, by ASTM D 1946-90 (Standard Practice for Analysis of Reformed Gas by Gas

Chromatography), each incorporated by reference in 35 Ill. Adm. Code 720.111

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

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

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

Error! Bookmark not defined. $$\log_{10}\left(V_{max}\right) = \frac{H_T + 28.8}{31.7}$$

Where:

H_T = the net heating value as determined in subsection (e)(2)

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

$$V_{max} = 8.706 + 0.708H_T$$

Where:

H_T = the net heating value as determined in subsection (e)(2)

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 °C or ±0.5 °C, whichever is greater. The temperature sensor must be installed at a location in the combustion chamber downstream of the combustion zone.

B) For a catalytic vapor incinerator, a temperature monitoring device equipped with a continuous recorder. The device must be capable of monitoring temperature at two locations and have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °C, whichever is greater. One temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed inlet and a second temperature sensor must be installed in the vent stream at the nearest feasible point to the catalyst bed outlet.

C) For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame.

D) For a boiler or process heater having a design heat input capacity less than 44 MW, a temperature monitoring device equipped with a continuous recorder. The device must have an accuracy of ±1 percent of the temperature being monitored in °C or ±0.5 °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 °C or ±0.5 °C, whichever is greater. The temperature sensor must be installed at a location in the exhaust vent stream from the condenser exit (i.e., product side).

G) For a carbon adsorption system 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) 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.

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) must be inspected and monitored in accordance with the following requirements:

A) An initial leak detection monitoring of the closed-vent system must be conducted by the owner or operator on or before the date that the system becomes subject to this Section. The owner or operator must monitor the closed-vent system components and connections using the procedures specified in Section 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 (l)(1)(A), 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 (l)(1)(B)(i) must be monitored annually and at other times as requested by the Regional Administrator, except as provided for in subsection (o), 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).

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) 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).

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).

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:

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; or

B) The unit is equipped with and operating air emission controls in accordance with the applicable requirements of Subparts AA and CC 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 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; 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) 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); 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) as frequently as practicable during safe-to-monitor times.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

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 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:

i) For a source using Reference Method 18:

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

Where:

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

Q_{2sd} = The volumetric flow rate of gases entering or exiting control device, dscm/h, as determined by 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/m^3, at 293 K and 760 mm Hg

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

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/m^3, at 293 K and 760 mm Hg

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

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

H = the total annual hours of operation for the affected unit, h/y

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)) and by summing the annual total organic mass emission rates (A as determined in subsection (c)(1)(E)) 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).

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.

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 wastestream 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 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).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

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 (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;

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

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

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

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).

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); 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).

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); 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).

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).

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).

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).

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).

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).

5) Explanation for each period recorded under subsection (c)(4) 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 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.

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) 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 42 Ill. Reg. 22614, effective November 19, 2018)

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

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. 11726, effective August 9, 2016)

SUBPART BB: AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

Section 724.950 Applicability

a) The regulations in this Subpart BB apply to owners and operators of facilities that treat, store, or dispose of hazardous wastes (except as provided in Section 724.101).

b) Except as provided in Section 724.964(k), this Subpart BB applies to equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight that are managed in one of the following:

1) A unit that is subject to the RCRA permitting requirements of 35 Ill. Adm. Code 702, 703, and 705;

2) A unit (including a hazardous waste recycling unit) that is not exempt from permitting under the provisions of 35 Ill. Adm. Code 722.117 (i.e., a hazardous waste recycling unit that is not a “90-day” tank or container) and that is located at a hazardous waste management facility otherwise subject to the permitting requirements of 35 Ill. Adm. Code 702, 703, and 705; or

3) A unit that is exempt from permitting under the provisions of 35 Ill. Adm. Code 722.117 (i.e., a "90-day" tank or container) and which is not a recycling unit under the provisions of 35 Ill. Adm. Code 721.106.

c) Until the owner or operator receives a final permit incorporating the requirements of this Subpart BB, the owner or operator is subject to the requirements of Subpart BB of 35 Ill. Adm. Code 725.

d) Each piece of equipment to which this Subpart BB applies must be marked in such a manner that it can be distinguished readily from other pieces of equipment.

e) Equipment that is in vacuum service is excluded from the requirements of Sections 724.952 to 724.960, if it is identified as required in Section 724.964(g)(5).

f) Equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for less than 300 hours per calendar year is excluded from the requirements of Sections 724.952 through 724.960 if it is identified as required in Section 724.964(g)(6).

g) This subsection (g) corresponds with 40 CFR 264.1050(g), which relates exclusively to a facility outside Illinois. This statement maintains structural consistency with the corresponding federal regulations.

h) Purged coatings and solvents from surface coating operations subject to the federal national emission standards for hazardous air pollutants (NESHAPs) for the surface coating of automobiles and light-duty trucks at subpart IIII of 40 CFR 63 (National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks) are not subject to the requirements of this Subpart BB.

BOARD NOTE: The requirements of Sections 724.952 through 724.965 apply to equipment associated with hazardous waste recycling units previously exempt under 35 Ill. Adm. Code 721.106(c)(1). Other exemptions under 35 Ill. Adm. Code 721.104 and 724.101(g) are not affected by these requirements.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.951 Definitions

As used in this Subpart BB, all terms have the meaning given them in Section 724.931, section 1004 of the Resource Conservation and Recovery Act, incorporated by reference in 35 Ill. Adm. Code 720.111, and 35 Ill. Adm. Code 720 through 728 and 738.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.952 Standards: Pumps in Light Liquid Service

a) Monitoring

1) Each pump in light liquid service must be monitored monthly to detect leaks by the methods specified in Section 724.963(b), except as provided in subsections (d), (e), and (f).

2) Each pump in light liquid service must be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

b) Leaks

1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

2) If there are indications of liquids dripping from the pump seal, a leak is detected.

c) Repairs

1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 724.959.

2) A first attempt at repair (e.g., tightening the packing gland) must be made no later than five calendar days after each leak is detected.

d) Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of subsection (a), provided the following requirements are met:

1) Each dual mechanical seal system must be as follows:

A) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressures;

B) Equipped with a barrier fluid degassing reservoir that is connected by a closed-vent system to a control device that complies with the requirements of Section 724.960; or

C) Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to the atmosphere.

2) The barrier fluid system must not be a hazardous waste with organic concentrations 10 percent or greater by weight.

3) Each barrier fluid system must be equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

4) Each pump must be checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals.

5) Alarms

A) Each sensor as described in subsection (d)(3) must be checked daily or be equipped with an audible alarm that must be checked monthly to ensure that it is functioning properly.

B) The owner or operator must determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

6) Leaks

A) If there are indications of liquids dripping from the pump seal or the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined in subsection (d)(5)(B), a leak is detected.

B) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 724.959.

C) A first attempt at repair (e.g., relapping the seal) must be made no later than five calendar days after each leak is detected.

e) Any pump that is designated, as described in Section 724.964(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsections (a), (c), and (d), if the pump meets the following requirements:

1) It must have no externally actuated shaft penetrating the pump housing.

2) It must operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in Section 724.963(c).

3) It must be tested for compliance with subsection (e)(2) initially upon designation, annually and at other times, as specified in the RCRA permit.

f) If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of Section 724.960, it is exempt from the requirements of subsections (a) through (e).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.953 Standards: Compressors

a) Each compressor must be equipped with a seal system that includes a barrier fluid system and that prevents leakage of total organic emissions to the atmosphere, except as provided in subsections (h) and (i).

b) Each compressor seal system, as required in subsection (a), must be as follows:

1) Operated with the barrier fluid at a pressure that is at all times greater than the compressor stuffing box pressure; or

2) Equipped with a barrier fluid system that is connected by a closed-vent system to a control device that complies with the requirements of Section 724.960; or

3) Equipped with a system that purges the barrier fluid into a hazardous wastestream with no detectable emissions to atmosphere.

c) The barrier fluid must not be a hazardous waste with organic concentrations 10 percent or greater by weight.

d) Each barrier fluid system, as described in subsections (a) through (c), must be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

e) Failure Detection

1) Each sensor as required in subsection (d) must be checked daily or must be equipped with an audible alarm that must be checked monthly to ensure that it is functioning properly, unless the compressor is located within the boundary of an unmanned plant site, in which case the sensor must be checked daily.

2) The owner or operator must determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both.

f) If the sensor indicates failure of the seal system, the barrier fluid system, or both based on the criterion determined under subsection (e)(2), a leak is detected.

g) Repairs

1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 724.959.

2) A first attempt at repair (e.g., tightening the packing gland) must be made no later than five calendar days after each leak is detected.

h) A compressor is exempt from the requirements of subsections (a) and (b) if it is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal to a control device that complies with the requirements of Section 724.960, except as provided in subsection (i).

i) Any compressor that is designated, as described in Section 724.964(g)(2), for no detectable emission as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsections (a) through (h) if the following is true of the compressor:

1) It is determined to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 724.963(c).

2) It is tested for compliance with subsection (i)(1) initially upon designation, annually and other times, as specified in the RCRA permit.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.954 Standards: Pressure Relief Devices in Gas/Vapor Service

a) Except during pressure releases, each pressure relief device in gas-vapor service must be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 724.963(c).

b) Actions Following Pressure Release

1) After each pressure release, the pressure relief device must be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than five calendar days after each pressure release, except as provided in Section 724.959.

2) No later than five calendar days after the pressure release, the pressure relief device must be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the method specified in Section 724.963(c).

c) Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in Section 724.960 is exempt from the requirements of subsections (a) and (b).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.955 Standards: Sampling Connecting Systems

a) Each sampling connection system must be equipped with a closed-purge, closed-loop, or closed-vent system. This system must collect the sample purge for return to the process or for routing to the appropriate treatment system. Gases displaced during filling of the sample container are not required to be collected or captured.

b) Each closed-purge, closed-loop, or closed-vent system, as required in subsection (a), must meet one of the following requirements:

1) It must return the purged process fluid directly to the process line;

2) It must collect and recycle the purged process fluid; or

3) It must be designed and operated to capture and transport all the purged process fluid to a waste management unit that complies with the applicable requirements of Sections 724.984 through 724.986 or a control device that complies with the requirements of Section 724.960.

c) In-situ sampling systems and sampling systems without purges are exempt from the requirements of subsections (a) and (b).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.956 Standards: Open-Ended Valves or Lines

a) Equipment

1) Each open-ended valve or line must be equipped with a cap, blind flange, plug, or a second valve.

2) The cap, blind flange, plug, or second valve must seal the open end at all times except during operations requiring hazardous wastestream flow through the open-ended valve or line.

b) Each open-ended valve or line equipped with a second valve must be operated in a manner such that the valve on the hazardous wastestream end is closed before the second valve is closed.

c) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but must comply with subsection (a) at all other times.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.957 Standards: Valves in Gas/Vapor or Light Liquid Service

a) Each valve in gas-vapor or light liquid service must be monitored monthly to detect leaks by the methods specified in Section 724.963(b) and must comply with subsections (b) through (e), except as provided in subsections (f), (g), and (h), and in Sections 724.961 and 724.962.

b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

c) Monitoring Frequency

1) Any valve for which a leak is not detected for two successive months must be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.

2) If a leak is detected, the valve must be monitored monthly until a leak is not detected for two successive months.

d) Leak Repair

1) When a leak is detected, it must be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in Section 724.959.

2) A first attempt at repair must be made no later than five calendar days after each leak is detected.

e) First attempts at repair include, but are not limited to the following best practices where practicable:

1) Tightening bonnet bolts.

2) Replacing bonnet bolts.

3) Tightening packing gland nuts.

4) Injecting lubricant into lubricated packing.

f) Any valve that is designated, as described in Section 724.964(g)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of subsection (a) if the following is true of the valve:

1) It has no external actuating mechanism in contact with the hazardous wastestream.

2) It is operated with emissions less than 500 ppm above background as determined by the method specified in Section 724.963(c).

3) It is tested for compliance with subsection (f)(2) initially upon designation, annually, and at other times as specified in the RCRA permit.

g) Any valve that is designated, as described in Section 724.964(h)(1), as an unsafe-to-monitor valve is exempt from the requirements of subsection (a), if the following occurs:

1) The owner or operator of the valve determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with subsection (a).

2) The owner or operator of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.

h) Any valve that is designated, as described in Section 724.964(h)(2), as a difficult-to-monitor valve is exempt from the requirements of subsection (a), if the following occurs:

1) The owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than two meters above a support surface;

2) The hazardous waste management unit within which the valve is located was in operation before June 21, 1990; and

3) The owner or operator of the valve follows a written plan that requires monitoring of the valve at least once per calendar year.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.958 Standards: Pumps, Valves, Pressure Relief Devices, and Other Connectors

a) Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service and flanges and other connectors must be monitored within five days by the method specified in Section 724.963(b), if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.

b) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

c) Repairs

1) When a leak is detected, it must be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in Section 724.959.

2) The first attempt at repair must be made no later than five calendar days after each leak is detected.

d) First attempts at repair include, but are not limited to, the best practices described under Section 724.957(e).

e) Any connector that is inaccessible or is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined) is exempt from the monitoring requirements of subsection (a) and from the recordkeeping requirements of Section 724.964.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.959 Standards: Delay of Repair

a) Delay of repair of equipment for which leaks have been detected is allowed if the repair is technically infeasible without a hazardous waste management unit shutdown. In such a case, repair of this equipment must occur before the end of the next hazardous waste management unit shutdown.

b) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the hazardous waste management unit and that does not continue to contain or contact hazardous waste with organic concentrations at least 10 percent by weight.

c) Delay of repair for valves is allowed if the following are true:

1) The owner or operator determines that emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair; and

2) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with Section 724.960.

d) Delay of repair for pumps is allowed if the following are true:

1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system; and

2) Repair is completed as soon as practicable, but not later than six months after the leak was detected.

e) Delay of repair beyond a hazardous waste management unit shutdown is allowed for a valve if valve assembly replacement is necessary during the hazardous waste management unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next hazardous waste management unit shutdown is not allowed unless the next hazardous waste management unit

shutdown occurs sooner than six months after the first hazardous waste management unit shutdown.

(Source: Amended at 27 Ill. Reg. 3725, effective February 14, 2003)

Section 724.960 Standards: Closed-Vent Systems and Control Devices

a) An owner or operator of a closed-vent system or control device subject to this Subpart BB must comply with the provisions of Section 724.933.

b) Implementation Schedule

1) 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 BB on the effective date that the facility becomes subject to the provisions of this Subpart BB 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 BB for installation and startup.

2) Any unit that is subject to the provisions of this Subpart BB when operation begins, must comply with the rules immediately (i.e., the unit must have control devices installed and operating on startup of the affected unit); the 30-month implementation schedule does not apply.

3) 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 BB must comply with all requirements of this Subpart BB as soon as practicable but no later than 30 months after the effective date of the amendment. When control equipment required by this Subpart BB cannot be installed and begin operation by the effective date of the amendment, the facility owner or operator must prepare an implementation schedule that includes the following information: specific calendar dates for award of contracts or issuance of purchase orders for the control equipment, initiation of on-site installation of the control equipment, completion of the control equipment installation, and performance of any testing to demonstrate that the installed equipment meets the applicable standards of this Subpart BB. The owner or operator must enter the implementation schedule in the operating record or in a permanent, readily available file located at the facility.

4) An owner or operator of a facility or unit that becomes newly subject to the requirements of this Subpart BB due to an action other than those described in subsection (b)(3) 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 BB; the 30-month implementation schedule does not apply).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.961 Alternative Percentage Standard for Valves

a) An owner or operator subject to the requirements of Section 724.957 may elect to have all valves within a hazardous waste management unit comply with an alternative standard that allows no greater than two percent of the valves to leak.

b) The following requirements must be met if an owner or operator decides to comply with the alternative standard of allowing two percent of valves to leak:

1) A performance test as specified in subsection (c) must be conducted initially upon designation, annually and other times specified in the RCRA permit.

2) If a valve leak is detected it must be repaired in accordance with Section 724.957(d) and (e).

c) Performance tests must be conducted in the following manner:

1) All valves subject to the requirements in Section 724.957 within the hazardous waste management unit must be monitored within one week by the methods specified in Section 724.963(b).

2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

3) The leak percentage must be determined by dividing the number of valves subject to the requirements in Section 724.957 for which leaks are detected by the total number of valves subject to the requirements in Section 724.957 within the hazardous waste management unit.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.962 Skip Period Alternative for Valves

a) An owner or operator subject to the requirements of Section 724.957 may elect for all valves within a hazardous waste management unit to comply with one of the alternative work practices specified in subsections (b)(2) and (b)(3).

b) Reduced Monitoring

1) An owner or operator must comply with the requirements for valves, as described in Section 724.957, except as described in subsections (b)(2) and (b)(3).

2) After two consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than two percent, an owner or operator may begin to skip one of the quarterly leak detection periods (i.e., the owner or operator may monitor for leaks once every six months) for the valves subject to the requirements in Section 724.957.

3) After five consecutive quarterly leak detection periods with the percentage of valves leaking equal to or less than two percent, an owner or operator may begin to skip three of the quarterly leak detection periods (i.e., the owner or operator may monitor for leaks once every year) for the valves subject to the requirements in Section 724.957.

4) If the percentage of valves leaking is greater than 2 percent, the owner or operator must monitor monthly in compliance with the requirements in Section 724.957, but may again elect to use this Section after meeting the requirements of Section 724.957(c)(1).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.963 Test Methods and Procedures

a) Each owner or operator subject to the provisions of this Subpart BB must comply with the test methods and procedures requirements provided in this Section.

b) Leak detection monitoring, as required in Sections 724.952 through 724.962, 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 instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

c) When equipment is tested for compliance with no detectable emissions, as required in Sections 724.952(e), 724.953(i), 724.954, and 724.957(f), the test must comply with the following requirements:

1) The requirements of subsections (b)(1) through (b)(4) apply.

2) The background level must be determined as set forth in Reference Method 21.

3) The instrument probe must be traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

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

d) In accordance with the waste analysis plan required by Section 724.113(b), an owner or operator of a facility must determine, for each piece of equipment, whether the equipment contains or contacts a hazardous waste with organic concentration that equals or exceeds 10 percent by weight using the following:

1) Methods described in ASTM Methods D 2267-88 (Standard Test Method for Aromatics in Light Naphthas and Aviation Gasolines by Gas Chromatography), E 168-88 (Standard Practices for General Techniques of Infrared Quantitative Analysis), E 169-87 (Standard Practices for General Techniques of Ultraviolet-Visible Quantitative Analysis), or E 260-85 (Standard Practice for Packed Column Gas Chromatography), each incorporated by reference in 35 Ill. Adm. Code 720.111(a);

2) 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 in 35 Ill. Adm. Code 720.111(a), for computing total organic concentration of the sample, or analyzed for its individual constituents; or

3) Application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced. Documentation of a waste determination by knowledge is required. Examples of documentation that must be used to support a determination under this provision include production process information documenting that no organic compounds are used, 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 have a total organic content less than 10 percent, or 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) If an owner or operator determines that a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the determination can be revised only after following the procedures in subsection (d)(1) or (d)(2).

f) When an owner or operator and the Agency do not agree on whether a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the procedures in subsection (d)(1) or (d)(2) must be used to resolve the dispute.

g) Samples used in determining the percent organic content must be representative of the highest total organic content hazardous waste that is expected to be contained in or contact the equipment.

h) To determine if pumps or valves are in light liquid service, the vapor pressures of constituents must either be obtained from standard reference texts or be determined by ASTM D 2879-92 (Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope), incorporated by reference in 35 Ill. Adm. Code 720.111(a).

i) Performance tests to determine if a control device achieves 95 weight percent organic emission reduction must comply with the procedures of Section 724.934(c)(1) through (c)(4).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.964 Recordkeeping Requirements

a) Lumping Units

1) Each owner or operator subject to the provisions of this Subpart BB must comply with the recordkeeping requirements of this Section.

2) An owner or operator of more than one hazardous waste management unit subject to the provisions of this Subpart BB may comply with the recordkeeping requirements for these hazardous waste management units in one recordkeeping system if the system identifies each record by each hazardous waste management unit.

b) Owners and operators must record the following information in the facility operating record:

1) For each piece of equipment to which this Subpart BB applies, the following:

A) Equipment identification number and hazardous waste management unit identification.

B) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan).

C) Type of equipment (e.g., a pump or pipeline valve).

D) Percent-by-weight total organics in the hazardous wastestream at the equipment.

E) Hazardous waste state at the equipment (e.g., gas-vapor or liquid).

F) Method of compliance with the standard (e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals").

2) For facilities that comply with the provisions of Section 724.933(a)(2), an implementation schedule, as specified in that Section.

3) Where an owner or operator chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan, as specified in Section 724.935(b)(3).

4) Documentation of compliance with Section 724.960, including the detailed design documentation or performance test results specified in Section 724.935(b)(4).

c) When each leak is detected as specified in Sections 724.952, 724.953, 724.957, or 724.958, the following requirements apply:

1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with Section 724.958(a), and the date the leak was detected, must be attached to the leaking equipment.

2) The identification on equipment except on a valve, may be removed after it has been repaired.

3) The identification on a valve may be removed after it has been monitored for two successive months as specified in Section 724.957(c) and no leak has been detected during those two months.

d) When each leak is detected as specified in Section 724.952, 724.953, 724.957, or 724.958, the following information must be recorded in an inspection log and must be kept in the facility operating record:

1) The instrument and operator identification numbers and the equipment identification number.

2) The date evidence of a potential leak was found in accordance with Section 724.958(a).

3) The date the leak was detected and the dates of each attempt to repair the leak.

4) Repair methods applied in each attempt to repair the leak.

5) "Above 10,000", if the maximum instrument reading measured by the methods specified in Section 724.963(b) after each repair attempt is equal to or greater than 10,000 ppm.

6) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

7) Documentation supporting the delay of repair of a valve in compliance with Section 724.959(c).

8) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a hazardous waste management unit shutdown.

9) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.

10) The date of successful repair of the leak.

e) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of Section 724.960 must be recorded and kept up-to-date in the facility operating record, as specified in Section 724.935(c)(1) and (c)(2), and monitoring, operating and inspection information in Section 724.935(c)(3) through (c)(8).

f) For a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system, the Agency must specify the appropriate recordkeeping requirements, indicating proper operation and maintenance of the control device, in the RCRA permit.

g) The following information pertaining to all equipment subject to the requirements in Sections 724.952 through 724.960 must be recorded in a log that is kept in the facility operating record:

1) A list of identification numbers for equipment (except welded fittings) subject to the requirements of this Subpart BB.

2) List of Equipment

A) A list of identification numbers for equipment that the owner or operator elects to designate for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, under the provisions of Sections 724.952(e), 724.953(i), and 724.957(f).

B) The designation of this equipment as subject to the requirements of Section 724.952(e), 724.953(i), or 724.957(f) must be signed by the owner or operator.

3) A list of equipment identification numbers for pressure relief devices required to comply with Section 724.954(a).

4) Compliance Tests

A) The dates of each compliance test required in Sections 724.952(e), 724.953(i), 724.954, and 724.957(f).

B) The background level measured during each compliance test.

C) The maximum instrument reading measured at the equipment during each compliance test.

5) A list of identification numbers for equipment in vacuum service.

6) Identification, either by list or location (area or group), of equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for less than 300 hours per year.

h) The following information pertaining to all valves subject to the requirements of Section 724.957(g) and (h) must be recorded in a log that is kept in the facility operating record:

1) A list of identification numbers for valves that are designated as unsafe to monitor, an explanation for each valve stating why the valve is unsafe to monitor, and the plan for monitoring each valve.

2) A list of identification numbers for valves that are designated as difficult to monitor, an explanation for each valve stating why the valve is difficult to monitor, and the planned schedule for monitoring each valve.

i) The following information must be recorded in the facility operating record for valves complying with Section 724.962:

1) A schedule of monitoring.

2) The percent of valves found leaking during each monitoring period.

j) The following information must be recorded in a log that is kept in the facility operating record:

1) Criteria required in Sections 724.952(d)(5)(B) and 724.953(e)(2) and an explanation of the design criteria.

2) Any changes to these criteria and the reasons for the changes.

k) The following information must be recorded in a log that is kept in the facility operating record for use in determining exemptions, as provided in Section 724.950 and other specific Subparts:

1) An analysis determining the design capacity of the hazardous waste management unit.

2) A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the requirements in Section 724.960 and an analysis determining whether these hazardous wastes are heavy liquids.

3) An up-to-date analysis and the supporting information and data used to determine whether or not equipment is subject to the requirements in Sections 724.952 through 724.960. The record must include supporting documentation as required by Section 724.963(d)(3) when application of the knowledge of the nature of the hazardous wastestream or the process by which it was produced is used. If the owner or operator takes any action (e.g., changing the process that produced the waste) that could result in an increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements in Sections 724.952 through 724.960, then a new determination is required.

l) Records of the equipment leak information required by subsection (d) and the operating information required by subsection (e) need be kept only three years.

m) The owner or operator of any facility with equipment that is subject to this Subpart BB and to regulations at federal 40 CFR 60 (Standards of Performance for New Stationary Sources), 61 (National Emission Standards for Hazardous Air Pollutants), or 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), may elect to determine compliance with this Subpart BB by documentation of compliance either pursuant to Section 724.964 or by documentation of compliance with the regulations at 40 CFR 60, 61, or 63, pursuant to the relevant provisions of 40 CFR 60, 61, or 63, each incorporated by reference in 35 Ill. Adm. Code 720.111(b). The documentation of compliance under the regulation at 40 CFR 60, 61, or 63 must be kept with or made readily available with the facility operating record.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.965 Reporting Requirements

a) A semiannual report must be submitted by owners and operators subject to the requirements of this Subpart BB 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) The equipment identification number of each valve for which a leak was not repaired, as required in Section 724.957(d).

B) The equipment identification number of each pump for which a leak was not repaired, as required in Section 724.952(c) and (d)(6).

C) The equipment identification number of each compressor for which a leak was not repaired, as required in Section 724.953(g).

3) Dates of hazardous waste management unit shutdowns that occurred within the semiannual reporting period.

4) For each month during the semiannual reporting period, dates when the control device installed as required by Sections 724.952, 724.953, 724.954, or 724.955, exceeded or operated outside of the design specifications, as defined in Section 724.964(e) and as indicated by the control device monitoring required by Section 724.960 and was not corrected within 24 hours, the duration and cause of each exceedance, and any corrective measures taken.

b) If, during the semiannual reporting period, leaks from valves, pumps, and compressors are repaired as required in Sections 724.957(d), 724.952(c) and (d)(6), and 724.953(g), respectively, and the control device does not exceed or operate outside of the design specifications, as defined in Section 724.964(e) for more than 24 hours, a report to the Agency is not required.

(Source: Amended at 32 Ill. Reg. 12365, effective July 14, 2008)

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

Section 724.980 Applicability

a) The requirements of this Subpart CC apply to owners and operators of all facilities that treat, store, or dispose of hazardous waste in tanks, surface

impoundments, or containers subject to Subpart I, J, or K, except as Section 724.101 and subsection (b) provide otherwise.

b) The requirements of this Subpart CC do not apply to the following waste management units at the facility:

1) A waste management unit that holds hazardous waste placed in the unit before December 6, 1996, and in which no hazardous waste is added to the unit on or after December 6, 1996.

2) A container that has a design capacity less than or equal to 0.1 m^3 (3.5 ft^3 or 26.4 gal).

3) A tank in which an owner or operator has stopped adding hazardous waste and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.

4) A surface impoundment in which an owner or operator has stopped adding hazardous waste (except to implement an approved closure plan) and the owner or operator has begun implementing or completed closure pursuant to an approved closure plan.

5) A waste management unit that is used solely for on-site treatment or storage of hazardous waste that is placed in the unit as a result of implementing remedial activities required pursuant to the Act or Board regulations or under the corrective action authorities of RCRA section 3004(u), 3004(v), or 3008(h); CERCLA authorities; or similar federal or State authorities.

6) A waste management unit that is used solely for the management of radioactive mixed waste in accordance with all applicable regulations under the authority of the Atomic Energy Act of 1954 (42 USC 2011 et seq.) and the Nuclear Waste Policy Act of 1982 (42 USC 10101 et seq.).

7) A hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable federal Clean Air Act regulation codified under 40 CFR 60 (Standards of Performance for New Stationary Sources), 61 (National Emission Standards for Hazardous Air Pollutants), or 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories), each incorporated by reference in 35 Ill. Adm. Code 720.111(b). For the purpose of complying with this subsection (b)(7), a tank for which the air emission control includes an enclosure, as opposed to a cover, must be in compliance with the enclosure and control device requirements of Section 724.984(i), except as provided in Section 724.982(c)(5).

8) A tank that has a process vent, as defined in 35 Ill. Adm. Code 724.931.

c) Until the owner and operator receives a final permit incorporating the requirements of this Subpart CC, the owner and operator are subject to the requirements of Subpart CC of 35 Ill. Adm. Code 725.

d) The requirements of this Subpart CC, except for the recordkeeping requirements specified in Section 724.989(i), are stayed for a tank or container used for the management of hazardous waste generated by organic peroxide manufacturing and its associated laboratory operations, when the owner or operator of the unit meets all of the following conditions:

1) The owner or operator identifies that the tank or container receives hazardous waste generated by an organic peroxide manufacturing process producing more than one functional family of organic peroxides or multiple organic peroxides within one functional family, that one or more of these organic peroxides could potentially undergo self-accelerating thermal decomposition at or below ambient temperatures, and that organic peroxides are the predominant products manufactured by the process. For the purposes of this subsection (d), "organic peroxide" means an organic compound that contains the bivalent -O-O- structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

2) The owner or operator prepares documentation, in accordance with Section 724.989(i), explaining why an undue safety hazard would be created if air emission controls specified in Sections 724.984 through 724.987 are installed and operated on the tanks and containers used at the facility to manage the hazardous waste generated by the organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1).

3) The owner or operator notifies the Agency in writing that hazardous waste generated by an organic peroxide manufacturing process or processes meeting the conditions of subsection (d)(1) are managed at the facility in tanks or containers meeting the conditions of subsection (d)(2). The notification must state the name and address of the facility and be signed and dated by an authorized representative of the facility owner or operator.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

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.

(Source: Amended at 40 Ill. Reg. 11726, effective August 9, 2016)

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).

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 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.

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:

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), 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/m^3) 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).

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 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 of "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure" annually.

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

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), 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).

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

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) 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).

   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, 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. 11726, effective August 9, 2016)

Section 724.983 Waste Determination Procedures

a) Waste Determination Procedure for Average Volatile Organic (VO) Concentration of a Hazardous Waste at the Point of Waste Origination

1) An owner or operator must determine the average VO concentration at the point of waste origination for each hazardous waste placed in a waste management unit exempted under the provisions of Section 724.982(c)(1) from using air emission controls in accordance with standards specified in Section 724.984 through Section 724.987, as applicable to the waste management unit.

A) An owner or operator must make an initial determination of the average VO concentration of the waste stream before the first time any portion of the material in the hazardous waste stream is placed in a waste management unit exempted under the provisions of Section 724.982(c)(1) from using air emission controls. Thereafter, an owner or operator must make an initial determination of the average VO concentration of the waste stream for each averaging period that a hazardous waste is managed in the unit.

B) An owner or operator must perform a new waste determination whenever changes to the source generating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste to increase to a level that is equal to or greater than the applicable VO concentration limits specified in Section 724.982.

2) For a waste determination that is required by subsection (a)(1), the average VO concentration of a hazardous waste at the point of waste origination must be determined in accordance with the procedures specified in 35 Ill. Adm. Code 725.984(a)(2) through (a)(4).

b) Waste Determination Procedures for Treated Hazardous Waste

1) An owner or operator must perform the applicable waste determination for each treated hazardous waste placed in a waste management unit exempted under the provisions of Section 724.982(c)(2)(A) through (c)(2)(F) from using air emission controls in accordance with standards specified in Sections 724.984 through 724.987, as applicable to the waste management unit.

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

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

2) The waste determination for a treated hazardous waste must be performed in accordance with the procedures specified in 35 Ill. Adm. Code 725.984(b)(2) through (b)(9), as applicable to the treated hazardous waste.

c) Procedure to Determine the Maximum Organic Vapor Pressure of a Hazardous Waste in a Tank

1) An owner or operator must determine the maximum organic vapor pressure for each hazardous waste placed in a tank using Tank Level 1 controls in accordance with standards specified in Section 724.984(c).

2) The maximum organic vapor pressure of the hazardous waste may be determined in accordance with the procedures specified in 35 Ill. Adm. Code 725.984(c)(2) through (c)(4).

d) The procedure for determining no detectable organic emissions for the purpose of complying with this Subpart CC must be conducted in accordance with the procedures specified in 35 Ill. Adm. Code 725.984(d).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.984 Standards: Tanks

a) The provisions of this Section apply to the control of air pollutant emissions from tanks for which Section 724.982(b) references the use of this Section for such air emission control.

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

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

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

i) For a tank design capacity equal to or greater than 151 m^3 (39,900 gal), the maximum organic vapor pressure limit for the tank is 5.2 kPa (0.75 psig).

ii) For a tank design capacity equal to or greater than 75 m^3 (19,800 gal) but less than 151 m^3 (39,900 gal), the maximum organic vapor pressure limit for the tank is 27.6 kPa (4.00 psig).

iii) For a tank design capacity less than 75 m^3 (19,800 gal), the maximum organic vapor pressure limit for the tank is 76.6 kPa (11.1 psig).

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

C) The owner or operator does not treat the hazardous waste in the tank using a waste stabilization process, as defined in 35 Ill. Adm. Code 725.981.

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

c) Owners and operators controlling air pollutant emissions from a tank using Tank Level 1 controls must meet the requirements specified in subsections (c)(1) through (c)(4):

1) The owner or operator must determine the maximum organic vapor pressure for a hazardous waste to be managed in the tank using Tank Level 1 controls before the first time the hazardous waste is placed in the tank. The maximum organic vapor pressure must be determined using the procedures specified in Section 724.983(c). Thereafter, the owner or operator must perform a new determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum organic vapor pressure to increase to a level that is equal to or greater than the maximum organic vapor pressure limit for the tank design

capacity category specified in subsection (b)(1)(A), as applicable to the tank.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

B) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device that vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device must be designed

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

C) Opening of a safety device, as defined in 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 must inspect the air emission control equipment in accordance with the following requirements.

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

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

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

D) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).

d) Owners and operators controlling air pollutant emissions from a tank using Tank Level 2 controls must use one of the following tanks:

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

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

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

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

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

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

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

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

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

i) A single continuous seal that is either a liquid-mounted seal or a metallic shoe seal, as defined in 35 Ill. Adm. Code 725.981; or

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

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

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

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

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

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

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

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

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

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

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

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

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

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

B) The owner or operator must inspect the internal floating roof components as follows, except as provided in subsection (e)(3)(C):

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

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

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

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

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

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

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

F) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).

4) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any tank complying with the requirements of this subsection (e).

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

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

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

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

i) The primary seal must be a liquid-mounted seal or a metallic shoe seal, as defined in 35 Ill. Adm. Code 725.981. The total area of the gaps between the tank wall and the primary seal must not exceed 212 square centimeters (cm^2) per meter (10.0 square inches (in^2) per foot) of tank diameter, and the width of any portion of these gaps must not exceed 3.8 centimeters (cm) (1.5 in). If a metallic shoe seal is used for the primary seal, the metallic shoe seal must be designed so that one end extends into the liquid in the tank and the other end extends a vertical distance of at least 61 cm (24 in) above the liquid surface.

ii) The secondary seal must be mounted above the primary seal and cover the annular space between the floating roof and the wall of the tank. The total area of the gaps between the tank wall and the secondary seal must not exceed 21.2 cm^2 per meter (1.00 in^2 per foot) of tank diameter, and the width of any portion of these gaps must not exceed 1.3 cm (0.51 in).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

vi) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).

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

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

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

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

iv) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).

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

operator must notify the Agency of the date and location of the inspection, as follows:

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

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

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

D) Procedure for determining the total surface area of gaps in the primary seal and the secondary seal:

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

ii) Seal gaps, if any, must be measured around the entire perimeter of the floating roof in each place where a 0.32 cm (0.125 in) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the tank and measure the circumferential distance of each such location.

iii) For a seal gap measured under subsection (f)(3), the gap surface area must be determined by using probes of various widths to measure accurately the actual distance from the

tank wall to the seal and multiplying each such width by its respective circumferential distance.

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

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

4) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any tank complying with the requirements of subsection (f).

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

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

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

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

C) The fixed roof and its closure devices must be made of suitable materials that will minimize exposure of the hazardous waste to the

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

D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 724.987.

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

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

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

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

B) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

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

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

otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 724.987.

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

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

E) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 724.989(b).

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

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

2) All tank openings must be equipped with closure devices designed to operate with no detectable organic emissions, as determined using the procedure specified in Section 724.983(d).

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

A) The tank does not need to be operated as a closed-vent system at those times when the opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is required to avoid an unsafe condition.

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

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

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

2) The enclosure must be vented through a closed-vent system to an enclosed combustion control device that is designed and operated in accordance with the standards for either a vapor incinerator, boiler, or process heater specified in Section 724.987.

3) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any enclosure, closed-vent system, or control device used to comply with the requirements of subsections (i)(1) and (i)(2).

4) The owner or operator must inspect and monitor the closed-vent system and control device, as specified in Section 724.987.

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

1) Transfer of hazardous waste, except as provided in subsection (j)(2), to the tank from another tank subject to this Section or from a surface impoundment subject to Section 724.985 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of subpart RR of 40 CFR 63 (National Emission Standards for Individual Drain Systems), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

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

A) The hazardous waste meets the average VO concentration conditions specified in Section 724.982(c)(1) at the point of waste origination.

B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 724.982(c)(2).

C) The hazardous waste meets the requirements of Section 724.982(c)(4).

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

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

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

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

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

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

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

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

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.985 Standards: Surface Impoundments

a) The provisions of this Section apply to the control of air pollutant emissions from surface impoundments for which Section 724.982(b) references the use of this Section for such air emission control.

b) The owner or operator must control air pollutant emissions from the surface impoundment by installing and operating either of the following:

1) A floating membrane cover in accordance with the provisions specified in subsection (c); or

2) A cover that is vented through a closed-vent system to a control device in accordance with the provisions specified in subsection (d).

c) The owner or operator that controls air pollutant emissions from a surface impoundment using a floating membrane cover must meet the requirements specified in subsections (c)(1) through (c)(3).

1) The surface impoundment must be equipped with a floating membrane cover designed to meet the following specifications:

A) The floating membrane cover must be designed to float on the liquid surface during normal operations and form a continuous barrier over the entire surface area of the liquid.

B) The cover must be fabricated from a synthetic membrane material that is either of the following:

i) High density polyethylene (HDPE) with a thickness no less than 2.5 millimeters (mm) (0.098 in); or

ii) A material or a composite of different materials determined to have both organic permeability properties that are equivalent to those of the material listed in subsection (c)(1)(B)(i) and chemical and physical properties that maintain the material integrity for the intended service life of the material.

C) The cover must be installed in such a manner that there are no visible cracks, holes, gaps, or other open spaces between cover section seams or between the interface of the cover edge and its foundation mountings.

D) Except as provided for in subsection (c)(1)(E), each opening in the floating membrane cover must be equipped with a closure device

so designed as to operate that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device.

E) The floating membrane cover may be equipped with one or more emergency cover drains for removal of stormwater. Each emergency cover drain must be equipped with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening or a flexible fabric sleeve seal.

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

2) Whenever a hazardous waste is in the surface impoundment, the floating membrane cover must float on the liquid and each closure device must be secured in the closed position, except as follows:

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

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

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

B) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

3) The owner or operator must inspect the floating membrane cover in accordance with the following procedures:

A) The floating membrane cover and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

B) The owner or operator must perform an initial inspection of the floating membrane cover and its closure devices on or before the date that the surface impoundment becomes subject to this Section. Thereafter, the owner or operator must perform the inspections at least once every year except for the special conditions provided for in subsection (g).

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

D) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 724.989(c).

d) The owner or operator that controls air pollutant emissions from a surface impoundment using a cover vented to a control device must meet the requirements specified in subsections (d)(1) through (d)(3).

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

A) The cover and its closure devices must be designed to form a continuous barrier over the entire surface area of the liquid in the surface impoundment.

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

closure device must be designed to operate with no detectable organic emissions using the procedure specified in Section 724.983(d).

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

D) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 724.987.

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

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

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

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

B) Opening of a safety device, as defined in 35 Ill. Adm. Code 725.981, is allowed at any time conditions require doing so to avoid an unsafe condition.

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

A) The surface impoundment cover and its closure devices must be visually inspected by the owner or operator to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the cover section seams or between the interface of the cover edge and its foundation mountings; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

B) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 724.987.

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

D) In the event that a defect is detected, the owner or operator must repair the defect in accordance with the requirements of subsection (f).

E) The owner or operator must maintain a record of the inspection in accordance with the requirements specified in Section 724.989(c).

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

1) Transfer of hazardous waste, except as provided in subsection (e)(2), to the surface impoundment from another surface impoundment subject to this Section or from a tank subject to Section 724.984 must be conducted using continuous hard-piping or another closed system that does not allow exposure of the waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of subpart RR of 40 CFR 63 (National Emission Standards for Individual Drain Systems), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

2) The requirements of subsection (e)(1) do not apply when transferring a hazardous waste to the surface impoundment under any of the following conditions:

A) The hazardous waste meets the average VO concentration conditions specified in Section 724.982(c)(1) at the point of waste origination.

B) The hazardous waste has been treated by an organic destruction or removal process to meet the requirements in Section 724.982(c)(2).

C) The hazardous waste meets the requirements of Section 724.982(c)(4).

f) The owner or operator must repair each defect detected during an inspection performed in accordance with the requirements of subsection (c)(3) or (d)(3) as follows:

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

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

g) Following the initial inspection and monitoring of the cover, as required by the applicable provisions of this Subpart CC, subsequent inspection and monitoring may be performed at intervals longer than one year in the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions. In this case, the owner or operator may designate the cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:

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

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

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

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) apply to the container.

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

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

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

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

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

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

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

ii) If 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 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) If 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(USEPA Form 8700-22), incorporated by reference in 35 Ill. Adm. Code 720.111, 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).

B) If 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).

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 m^3 (120 gal) or greater that do not meet applicable USDOT regulations, as specified in subsection (f), 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).

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).

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).

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

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

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

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:

A) If 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 (USEPA Form 8700-22), incorporated by reference in 35 Ill. Adm. Code 722.111, 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).

B) If 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).

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.

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).

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).

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 of "Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure", initially when the enclosure is first installed and, thereafter, annually.

B) The closed-vent system and control device must be designed and operated in accordance with the requirements of Section 724.987.

3) Safety devices, as defined in 35 Ill. Adm. Code 725.981, may be installed and operated as necessary on any container, enclosure, closed-vent system, or control device used to comply with the requirements of subsection (e)(1).

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), containers must be used that meet the applicable USDOT regulations on packaging hazardous materials for transportation, as follows:

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

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

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

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), the procedure specified in Section 724.983(d) must be used.

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

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

h) Procedure for Determining a Container to be Vapor-Tight Using Reference Method 27 for the Purpose of Complying with Subsection (d)(1)(C)

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 0.75 kPa (0.11 psig) within five minutes after it is pressurized to a minimum of 4.5 kPa (0.65 psig), then the container is determined to be vapor-tight.

(Source: Amended at 43 Ill. Reg. 601, effective December 6, 2018)

Section 724.987 Standards: Closed-Vent Systems and Control Devices

a) This Section applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions in accordance with standards of this Subpart CC.

b) The closed-vent system must meet the following requirements:

1) The closed-vent system must route the gases, vapors, and fumes emitted from the hazardous waste in the waste management unit to a control device that meets the requirements specified in subsection (c).

2) The closed-vent system must be designed and operated in accordance with the requirements specified in Section 724.933(k).

3) When the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device must be equipped with either a flow indicator, as specified in subsection (b)(3)(A), or a seal or locking device, as specified in subsection (b)(3)(B). For the purpose of complying with this subsection (b), low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring-loaded pressure-relief valves, and other fittings used for safety purposes are not considered to be bypass devices.

A) If a flow indicator is used to comply with this subsection (b)(3), the indicator must be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For the purposes of this subsection (b), a flow indicator means a device that indicates the presence of either gas or vapor flow in the bypass line.

B) If a seal or locking device is used to comply with subsection (b)(3), the device must be placed on the mechanism by which the bypass device position is controlled (e.g., valve handle or damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The owner or operator must visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position.

4) The closed-vent system must be inspected and monitored by the owner or operator in accordance with the procedure specified in Section 724.933(l).

c) The control device must meet the following requirements:

1) The control device must be one of the following devices:

A) A control device designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95 percent by weight;

B) An enclosed combustion device designed and operated in accordance with the requirements of Section 724.933(c); or

C) A flare designed and operated in accordance with the requirements of Section 724.933(d).

2) The owner or operator that elects to use a closed-vent system and control device to comply with the requirements of this Section must comply with the requirements specified in subsections (c)(2)(A) through (c)(2)(F).

A) Periods of planned routine maintenance of the control device, during which the control device does not meet the specifications of subsection (c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable, must not exceed 240 hours per year.

B) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) for control devices do not apply during periods of planned routine maintenance.

C) The specifications and requirements in subsections (c)(1)(A), (c)(1)(B), and (c)(1)(C) for control devices do not apply during a control device system malfunction.

D) The owner or operator must demonstrate compliance with the requirements of subsection (c)(2)(A) (i.e., planned routine maintenance of a control device, during which the control device

does not meet the specifications of subsection (c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable, must not exceed 240 hours per year) by recording the information specified in Section 724.989(e)(1)(E).

E) The owner or operator must correct control device system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants.

F) The owner or operator must operate the closed-vent system so that gases, vapors, or fumes are not actively vented to the control device during periods of planned maintenance or control device system malfunction (i.e., periods when the control device is not operating or not operating normally), except in cases when it is necessary to vent the gases, vapors, or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.

3) The owner or operator using a carbon adsorption system to comply with subsection (c)(1) must operate and maintain the control device in accordance with the following requirements:

A) Following the initial startup of the control device, all activated carbon in the control device must be replaced with fresh carbon on a regular basis, in accordance with the requirements of Section 724.933(g) or Section 724.933(h).

B) All carbon that is a hazardous waste and that is removed from the control device must be managed in accordance with the requirements of Section 724.933(n), regardless of the average volatile organic concentration of the carbon.

4) An owner or operator using a control device other than a thermal vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with subsection (c)(1) must operate and maintain the control device in accordance with the requirements of Section 724.933(j).

5) The owner or operator must demonstrate that a control device achieves the performance requirements of subsection (c)(1), as follows:

A) An owner or operator must demonstrate using either a performance test, as specified in subsection (c)(5)(C), or a design analysis, as specified in subsection (c)(5)(D), the performance of each control device, except for the following:

i) A flare;

ii) A boiler or process heater with a design heat input capacity of 44 megawatts or greater;

iii) A boiler or process heater into which the vent stream is introduced with the primary fuel;

iv) A boiler or industrial furnace burning hazardous waste for which the owner or operator has been issued a final permit under 35 Ill. Adm. Code 702, 703, and 705 and has designed and operates the unit in accordance with the interim status requirements of Subpart H of 35 Ill. Adm. Code 726; or

v) A boiler or industrial furnace burning hazardous waste that the owner or operator has designed and operates in accordance with the interim status requirements of Subpart H of 35 Ill. Adm. Code 726.

B) An owner or operator must demonstrate the performance of each flare in accordance with the requirements specified in Section 724.933(e).

C) For a performance test conducted to meet the requirements of subsection (c)(5)(A), the owner or operator must use the test methods and procedures specified in Section 724.934(c)(1) through (c)(4).

D) For a design analysis conducted to meet the requirements of subsection (c)(5)(A), the design analysis must meet the requirements specified in Section 724.935(b)(4)(C).

E) The owner or operator must demonstrate that a carbon adsorption system achieves the performance requirements of subsection (c)(1) based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.

6) If the owner or operator and the Agency do not agree on a demonstration of control device performance using a design analysis then the disagreement must be resolved using the results of a performance test performed by the owner or operator in accordance with the requirements of subsection (c)(5)(C). The Agency may choose to have an authorized representative observe the performance test.

7) The closed-vent system and control device must be inspected and monitored by the owner or operator in accordance with the procedures specified in Section 724.933(f)(2) and (l). The readings from each monitoring device required by Section 724.933(f)(2) must be inspected at least once each operating day to check control device operation. Any necessary corrective measures must be immediately implemented to

ensure the control device is operated in compliance with the requirements of this Section.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.988 Inspection and Monitoring Requirements

a) The owner or operator must inspect and monitor air emission control equipment used to comply with this Subpart CC in accordance with the applicable requirements specified in Section 724.984 through Section 724.987.

b) The owner or operator must develop and implement a written plan and schedule to perform the inspections and monitoring required by subsection (a). The owner or operator must incorporate this plan and schedule into the facility inspection plan required under 35 Ill. Adm. Code 724.115.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.989 Recordkeeping Requirements

a) Each owner or operator of a facility subject to the requirements of this Subpart CC must record and maintain the information specified in subsections (b) through (j), as applicable to the facility. Except for air emission control equipment design documentation and information required by subsections (i) and (j), records required by this Section must be maintained in the operating record for a minimum of three years. Air emission control equipment design documentation must be maintained in the operating record until the air emission control equipment is replaced or is otherwise no longer in service. Information required by subsections (i) and (j) must be maintained in the operating record for as long as the waste management unit is not using air emission controls specified in Sections 724.984 through 724.987, in accordance with the conditions specified in Section 724.980(d) or (b)(7), respectively.

b) The owner or operator of a tank using air emission controls in accordance with the requirements of Section 724.984 must prepare and maintain records for the tank that include the following information:

1) For each tank using air emission controls in accordance with the requirements of Section 724.984, the owner or operator must record the following:

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

B) A record for each inspection required by Section 724.984 that includes the following information:

i) Date inspection was conducted.

ii) For each defect detected during the inspection: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the requirements of Section 724.984, the owner or operator must also record the reason for the delay and the date that completion of repair of the defect is expected.

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

A) The owner or operator using a fixed roof to comply with the Tank Level 1 control requirements specified in Section 724.984(c) must prepare and maintain records for each determination for the maximum organic vapor pressure of the hazardous waste in the tank performed in accordance with the requirements of Section 724.984(c). The records must include the date and time the samples were collected, the analysis method used, and the analysis results.

B) The owner or operator using an internal floating roof to comply with the Tank Level 2 control requirements specified in Section 724.984(e) must prepare and maintain documentation describing the floating roof design.

C) Owners and operators using an external floating roof to comply with the Tank Level 2 control requirements specified in Section 724.984(f) must prepare and maintain the following records:

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

ii) Records for each seal gap inspection required by Section 724.984(f)(3) describing the results of the seal gap measurements. The records must include the date that the measurements were performed, the raw data obtained for the measurements, and the calculations of the total gap surface area. In the event that the seal gap measurements do not conform to the specifications in Section 724.984(f)(1), the records must include a description of the repairs that were made, the date the repairs were made, and the date the tank was emptied, if necessary.

D) Each owner or operator using an enclosure to comply with the Tank Level 2 control requirements specified in Section 724.984(i) must prepare and maintain the following records:

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

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

c) The owner or operator of a surface impoundment using air emission controls in accordance with the requirements of Section 724.985 must prepare and maintain records for the surface impoundment that include the following information:

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

2) Documentation describing the floating membrane cover or cover design, as applicable to the surface impoundment, that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in Section 724.985(c).

3) A record for each inspection required by Section 724.985 that includes the following information:

A) Date inspection was conducted.

B) For each defect detected during the inspection the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of Section 724.985(f), the owner or operator must also record the reason for the delay and the date that completion of repair of the defect is expected.

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

d) The owner or operator of containers using Container Level 3 air emission controls in accordance with the requirements of Section 724.986 must prepare and maintain records that include the following information:

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

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

e) The owner or operator using a closed-vent system and control device in accordance with the requirements of Section 724.987 must prepare and maintain records that include the following information:

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

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

B) If a design analysis is used, then design documentation, as specified in Section 724.935(b)(4). The documentation must include information prepared by the owner or operator or provided by the control device manufacturer or vendor that describes the control device design in accordance with Section 724.935(b)(4)(C) and certification by the owner or operator that the control equipment meets the applicable specifications.

C) If performance tests are used, then a performance test plan as specified in Section 724.935(b)(3) and all test results.

D) Information as required by Section 724.935(c)(1) and Section 724.935(c)(2), as applicable.

E) An owner or operator must record, on a semiannual basis, the information specified in subsections (e)(1)(E)(i) and (e)(1)(E)(ii) for those planned routine maintenance operations that would require the control device not to meet the requirements of Section 724.987(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable.

i) A description of the planned routine maintenance that is anticipated to be performed for the control device during

the next six-month period. This description must include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.

ii) A description of the planned routine maintenance that was performed for the control device during the previous six-month period. This description must include the type of maintenance performed and the total number of hours during those six months that the control device did not meet the requirements of Section 724.987(c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable, due to planned routine maintenance.

F) An owner or operator must record the information specified in subsections (e)(1)(F)(i) through (e)(1)(F)(iii) for those unexpected control device system malfunctions that would require the control device not to meet the requirements of Section 724.987 (c)(1)(A), (c)(1)(B), or (c)(1)(C), as applicable.

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

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

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

G) Records of the management of carbon removed from a carbon adsorption system conducted in accordance with Section 724.987(c)(3)(B).

f) The owner or operator of a tank, surface impoundment, or container exempted from standards in accordance with the provisions of Section 724.982(c) must prepare and maintain the following records, as applicable:

1) For tanks, surface impoundments, or containers exempted under the hazardous waste organic concentration conditions specified in Section 724.982(c)(1) or (c)(2)(A) through (c)(2)(F), the owner or operator must record the information used for each waste determination (e.g., test results, measurements, calculations, and other documentation) in the facility operating log. If analysis results for waste samples are used for the waste determination, then the owner or operator must record the date, time, and

location that each waste sample is collected in accordance with the applicable requirements of Section 724.983.

2) For tanks, surface impoundments, or containers exempted under the provisions of Section 724.982(c)(2)(G) or (c)(2)(H), the owner or operator must record the identification number for the incinerator, boiler, or industrial furnace in which the hazardous waste is treated.

g) An owner or operator designating a cover as "unsafe to inspect and monitor" pursuant to Section 724.984(l) or Section 724.985(g) must record in a log that is kept in the facility operating record the following information: the identification numbers for waste management units with covers that are designated as "unsafe to inspect and monitor", the explanation for each cover stating why the cover is unsafe to inspect and monitor, and the plan and schedule for inspecting and monitoring each cover.

h) The owner or operator of a facility that is subject to this Subpart CC and to the control device standards in federal subpart VV of 40 CFR 60 (Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry) or subpart V of 40 CFR 61 (National Emission Standard for Equipment Leaks (Fugitive Emission Sources)), each incorporated by reference in 35 Ill. Adm. Code 720.111(b), may elect to demonstrate compliance with the applicable Sections of this Subpart CC by documentation either pursuant to this Subpart CC, or pursuant to the provisions of subpart VV of 40 CFR 60 or subpart V of 40 CFR 61, to the extent that the documentation required by 40 CFR 60 or 61 duplicates the documentation required by this Section.

i) For each tank or container not using air emission controls specified in Sections 724.984 through 724.987 in accordance with the conditions specified in Section 724.980(d), the owner or operator must record and maintain the following information:

1) A list of the individual organic peroxide compounds manufactured at the facility that meet the conditions specified in Section 724.980(d)(1).

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

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

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

3) An explanation of why managing the hazardous waste containing the organic peroxide compounds identified pursuant to subsection (i)(1) in the tanks or containers identified pursuant to subsection (i)(2) would create an undue safety hazard if the air emission controls specified in Sections 724.984 through 724.987 were installed and operated on these waste management units. This explanation must include the following information:

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

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

j) For each hazardous waste management unit not using air emission controls specified in Sections 724.984 through 724.987 in accordance with the requirements of Section 724.980(b)(7), the owner and operator must record and maintain the following information:

1) The certification that the waste management unit is equipped with and operating air emission controls in accordance with the requirements of an

applicable federal Clean Air Act regulation codified under 40 CFR 60, 61, or 63.

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

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.990 Reporting Requirements

a) Each owner or operator managing hazardous waste in a tank, surface impoundment, or container exempted from using air emission controls under the provisions of Section 724.982(c) must report to the Agency each occurrence when hazardous waste is placed in the waste management unit in noncompliance with the conditions specified in Section 724.982(c)(1) or (c)(2), as applicable. Examples of such occurrences include placing in the waste management unit a hazardous waste having an average VO concentration equal to or greater than 500 ppmw at the point of waste origination or placing in the waste management unit a treated hazardous waste that fails to meet the applicable conditions specified in Section 724.982(c)(2)(A) through (c)(2)(F). The owner or operator must submit a written report within 15 calendar days of the time that the owner or operator becomes aware of the occurrence. The written report must contain the USEPA identification number, the facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent recurrence of the noncompliance. The report must be signed and dated by an authorized representative of the owner or operator.

b) Each owner or operator using air emission controls on a tank in accordance with the requirements of Section 724.984(c) must report to the Agency each occurrence when hazardous waste is managed in the tank in noncompliance with the conditions specified in Section 724.984(b). The owner or operator must submit a written report within 15 calendar days of the time that the owner or operator becomes aware of the occurrence. The written report must contain the USEPA identification number, the facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent recurrence of the noncompliance. The report must be signed and dated by an authorized representative of the owner or operator.

c) Each owner or operator using a control device in accordance with the requirements of Section 724.987 must submit a semiannual written report to the Agency, except as provided for in subsection (d). The report must describe each occurrence during the previous six-month period when either of the two following events occurs: a control device is operated continuously for 24 hours or longer in noncompliance with the applicable operating values defined in Section

724.935(c)(4) or a flare is operated with visible emissions for five minutes or longer in a two-hour period, as defined in Section 724.933(d). The written report must include the USEPA identification number, the facility name and address, and an explanation why the control device could not be returned to compliance within 24 hours, and actions taken to correct the noncompliance. The report must be signed and dated by an authorized representative of the owner or operator.

d) A report to the Agency in accordance with the requirements of subsection (c) is not required for a six-month period during which all control devices subject to this Subpart CC are operated by the owner or operator so that both of the following conditions result: during no period of 24 hours or longer did a control device operate continuously in noncompliance with the applicable operating values defined in Section 724.935(c)(4) and no flare was operated with visible emissions for five minutes or longer in a two-hour period, as defined in Section 724.933(d).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.991 Alternative Control Requirements for Tanks (Repealed)

(Source: Repealed at 22 Ill. Reg. 636, effective December 16, 1997)

SUBPART DD: CONTAINMENT BUILDINGS

Section 724.1100 Applicability

The requirements of this Subpart DD apply to owners or operators who store or treat hazardous waste in units designed and operated under Section 724.1101. The owner or operator is not subject to the definition of land disposal in 35 Ill. Adm. Code 728.102 provided that the unit fulfills the following:

a) It is a completely enclosed, self-supporting structure that is designed and constructed of manmade 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 the following:

1) pressure gradients;

2) settlement, compression, or uplift;

3) physical contact with the hazardous wastes to which they are exposed;

4) climatic conditions; or

5) the stresses of daily operation including the movement of heavy equipment within the unit and contact of such equipment within the unit and contact of such equipment with containment walls.

b) It has a primary barrier that is designed to be sufficiently durable to withstand the movement of personnel, wastes, and handling equipment within the unit.

c) If used to manage liquids, the unit has the following:

1) A primary barrier designed and constructed of materials to prevent migration of hazardous constituents into the barrier;

2) A liquid collection system designed and constructed of materials to minimize the accumulation of liquid on the primary barrier; and

3) A secondary containment system designed and constructed of materials to prevent migration of hazardous constituents into the barrier, with a leak detection and liquid collection system capable of detecting, collecting, and removing leaks of hazardous constituents at the earliest practicable time, unless the unit has been granted a variance from the secondary containment system requirements under Section 724.1101(b)(4);

d) It has controls sufficient to permit fugitive dust emissions to meet the no visible emission standard in Section 724.1101(c)(1)(A); and

e) It is designed and operated to ensure containment and prevent the tracking of materials from the unit by personnel or equipment.

(Source: Amended at 32 Ill. Reg. 12365, effective July 14, 2008)

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), must be designed and constructed of materials of sufficient strength and thickness to support themselves, the waste contents, and any personnel and heavy equipment that operate within the unit, and to prevent failure due to pressure gradients, settlement, compression, or uplift, physical contact with the hazardous wastes to which they are exposed; climatic conditions; and the stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls.

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

A) They provide an effective barrier against fugitive dust emissions under subsection (c)(1)(D); 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 design features:

1) A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (e.g., a geomembrane covered by a concrete wear surface).

2) A liquid collection and removal system to minimize the accumulation of liquid on the primary barrier of the containment building, as follows:

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} m^2/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 724.293(e)(1). In addition, the containment building must meet the requirements of Section 724.293(b), (c)(1) and (c)(2) to be an acceptable secondary containment system for a tank.)

4) This subsection (b)(4) corresponds with 40 CFR 264.1101(b)(4), which is now obsolete and without effect. This statement maintains structural consistency with the federal rules.

c) An owner or operator of a containment building must do each of the following:

1) It must use controls and practice to ensure containment of the hazardous waste within the unit, and at a minimum do each of the following:

A) It must maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier;

B) It must maintain the level of the stored or treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded;

C) It must take measures to prevent the tracking of hazardous waste out of the unit by personnel or by equipment used in handling the waste. An area must be designated to decontaminate equipment and any rinsate must be collected and properly managed; and

D) It must take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (see Reference Method 22 (Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares) in appendix A to 40 CFR 60 (Test 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).

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 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).

4) It must inspect and record in the facility's operating record 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 at least once every seven days.

d) For a containment building that contains areas both with and without secondary containment, the owner or operator must do the following:

1) Design and operate each area in accordance with the requirements enumerated in subsections (a) through (c);

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

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.1102 Closure and Post-Closure Care

a) At closure of a containment building, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate and manage them as hazardous waste, unless 35 Ill. Adm. Code 721.103(e) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for containment buildings must meet all of the requirements specified in Subparts G and H.

b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in subsection (a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (Section 724.410). In addition, for the purposes of closure, post-closure, and financial responsibility, such a containment building is then considered to be a landfill, and the owner or operator must meet all the requirements for landfills specified in Subparts G and H.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

SUBPART EE: HAZARDOUS WASTE MUNITIONS AND EXPLOSIVES STORAGE

Section 724.1200 Applicability

The requirements of this Subpart EE apply to owners or operators who store munitions and explosive hazardous wastes, except as Section 724.101 provides otherwise.

BOARD NOTE: Depending on explosive hazards, hazardous waste munitions and explosives may also be managed in other types of storage units, including containment buildings (Subpart DD of this Part), tanks (Subpart J of this Part), or containers (Subpart I of this Part); see 35 Ill. Adm. Code 726.305 for storage of waste military munitions.

(Source: Added at 22 Ill. Reg. 17972, effective September 28, 1998)

Section 724.1201 Design and Operating Standards

a) An owner or operator of a hazardous waste munitions and explosives storage unit must design and operate the unit with containment systems, controls, and monitoring that fulfill each of the following requirements:

1) The owner or operator minimizes the potential for detonation or other means of release of hazardous waste, hazardous constituents, hazardous decomposition products, or contaminated run-off to the soil, groundwater, surface water, and atmosphere;

2) The owner or operator provides a primary barrier, which may be a container (including a shell) or tank, designed to contain the hazardous waste;

3) For wastes stored outdoors, the owner or operator provides that the waste and containers will not be in standing precipitation;

4) For liquid wastes, the owner or operator provides a secondary containment system that assures that any released liquids are contained and promptly detected and removed from the waste area or a vapor detection system that assures that any released liquids or vapors are promptly detected and an appropriate response taken (e.g., additional containment, such as overpacking or removal from the waste area); and

5) The owner or operator provides monitoring and inspection procedures that assure the controls and containment systems are working as designed and that releases that may adversely impact human health or the environment are not escaping from the unit.

b) Hazardous waste munitions and explosives stored under this Subpart EE may be stored in one of the following:

1) Earth-covered magazines. The owner or operator of an earth-covered magazine must fulfill each of the following requirements:

A) The magazine is constructed of waterproofed, reinforced concrete or structural steel arches, with steel doors that are kept closed when not being accessed;

B) The magazine is so designed and constructed that it fulfills each of the following requirements:

i) The magazine is of sufficient strength and thickness to support the weight of any explosives or munitions stored and any equipment used in the unit;

ii) The magazine provides working space for personnel and equipment in the unit; and

iii) The magazine can withstand movement activities that occur in the unit; and

C) The magazine is located and designed, with walls and earthen covers that direct an explosion in the unit in a safe direction, so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

2) Above-Ground Magazines. Above-ground magazines must be located and designed so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

3) Outdoor or Open Storage Areas. Outdoor or open storage areas must be located and designed so as to minimize the propagation of an explosion to adjacent units and to minimize other effects of any explosion.

c) An owner or operator must store hazardous waste munitions and explosives in accordance with a standard operating procedure that specifies procedures that ensure safety, security, and environmental protection. If these procedures serve the same purpose as the security and inspection requirements of Section 724.114, the preparedness and prevention procedures of Subpart C, and the contingency plan and emergency procedures requirements of Subpart D, then the standard operating procedure may be used to fulfill those requirements.

d) An owner or operator must package hazardous waste munitions and explosives to ensure safety in handling and storage.

e) An owner or operator must inventory hazardous waste munitions and explosives at least annually.

f) An owner or operator must inspect and monitor hazardous waste munitions and explosives and their storage units as necessary to ensure explosives safety and to ensure that there is no migration of contaminants out of the unit.

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.1202 Closure and Post-Closure Care

a) At closure of a magazine or unit that stored hazardous waste under this Subpart EE, the owner or operator must remove or decontaminate all waste residues, contaminated containment system components, contaminated subsoils, and structures and equipment contaminated with waste and manage them as hazardous waste unless 35 Ill. Adm. Code 721.103(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for magazines or units must meet all of the requirements specified in Subparts G and H, except that

the owner or operator may defer closure of the unit as long as it remains in service as a munitions or explosives magazine or storage unit.

b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in subsection (a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, the owner or operator must close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills (see Section 724.410).

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)

Section 724.Appendix A Recordkeeping Instructions

See appendix I to 40 CFR 264 (Recordkeeping Instructions), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

(Source: Amended at 30 Ill. Reg. 3196, effective February 23, 2006)

Section 724.Appendix B EPA Report Form and Instructions (Repealed)

(Source: Repealed at 9 Ill. Reg. 11964, effective July 24, 1985)

Section 724.Appendix D Cochran's Approximation to the Behrens-Fisher Student's T-Test

See appendix IV to 40 CFR 264 (Cochran's Approximation to the Behrens-Fisher Students' T-Test), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

(Source: Amended at 30 Ill. Reg. 3196, effective February 23, 2006)

Section 724.Appendix E Examples of Potentially Incompatible Waste

See appendix V to 40 CFR 264 (Examples of Potentially Incompatible Waste), incorporated by reference in 35 Ill. Adm. Code 720.111(b).

(Source: Amended at 30 Ill. Reg. 3196, effective February 23, 2006)

Section 724.APPENDIX I Groundwater Monitoring List

a) Common names are those widely used in government regulations, scientific publications and commerce; synonyms exist for many chemicals.

b) "CAS RN" means "Chemical Abstracts Service Registry Number". Where "total" is entered, all species in the groundwater that contain this element are included.

c) CAS index names are those used in the 9th Cumulative index.

d) PCBs (CAS RN 1336-36-3). This category contains congener chemicals, including constituents Aroclor-1016 (CAS RN 12674-11-2), Aroclor-1221 (CAS RN 11104-28-2), Aroclor-1232 (CAS RN 11141-16-5), Aroclor-1242 (CAS RN 53469-21-9), Aroclor-1248 (CAS RN 12672-29-6), Aroclor-1254 (CAS RN 11097-69-1) and Aroclor-1260 (CAS RN 11096-82-5).

e) PCDDs. This category includes congener chemicals, including tetrachloro-dibenzo-p-dioxins (see also 2,3,7,8-TCDD), pentachlorodibenzo-p-dioxins and hexachlorodibenzo-p-dioxins.

f) PCDFs. This category contains congener chemicals, including tetrachloro-dibenzofurans, pentachlorodibenzofurans, and hexachlorodibenzofurans.

Common Name	CAS RN	Chemical Abstracts Service Index Name
Acenaphthene	83-32-9	Acenaphthylene, 1,2-dihydro-
Acenaphthylene	208-96-8	Acenaphthylene
Acetone	67-64-1	2-Propanone
Acetophenone	98-86-2	Ethanone, 1-phenyl-
Acetonitrile; Methyl cyanide	75-05-8	Acetonitrile
2-Acetylaminofluorene; 2-AAF	53-96-3	Acetamide, N-9H-fluoren-2-yl-
Acrolein	107-02-8	2-Propenal
Acrylonitrile	107-13-1	2-Propenenitrile
Aldrin	309-00-2	1,4:5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro- (1α,4α,4aβ,5α,8α,8aβ)-
Allyl chloride	107-05-1	1-Propene, 3-chloro-
4-Aminobiphenyl	92-67-1	(1,1'-Biphenyl)-4-amine
Aniline	62-53-3	Benzenamine
Anthracene	120-12-7	Anthracene
Antimony	(Total)	Antimony
Aramite	140-57-8	Sulfurous acid, 2-chloroethyl 2-(4-(1,1-dimethylethyl)phenoxy)-1-methylethyl ester
Arsenic	(Total)	Arsenic
Barium	(Total)	Barium
Benzene	71-43-2	Benzene
Benzo(a)anthracene; Benz-anthracene	56-55-3	Benz(a)anthracene
Benzo(b)fluoranthene	205-99-2	Benz(e)acephenanthrylene
Benzo(k)fluoranthene	207-08-9	Benzo(k)fluoranthene
Benzo(ghi)perylene	191-24-2	Benzo(ghi)perylene
Benzo(a)pyrene	50-32-8	Benzo(a)pyrene
Benzyl alcohol	100-51-6	Benzenemethanol
Beryllium	(Total)	Beryllium

α-BHC	319-84-6	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1α,2α,3β,4α,5β,6β)-
β-BHC	319-85-7	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1α,2β,3α,4β,5α,6β)-
δ-BHC	319-86-8	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1α,2α,3α,4β,5α,6β)-
γ-BHC; Lindane	58-89-9	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1α,2α,3β,4α,5α,6β)-
Bis(2-chloroethoxy)-methane	111-91-1	Ethane, 1,1'-(methylenebis(oxy))bis(2-chloro-
Bis(2-chloroethyl) ether	111-44-4	Ethane, 1,1'-oxybis(2-chloro-
Bis(2-chloro-1-methylethyl) ether; 2,2'-Dichlorodiiso-propyl ether	108-60-1	Propane, 2,2'-oxybis(1-chloro-
Bis(2-ethylhexyl) phthalate	117-81-7	1,2-Benzenedicarboxylic acid, bis(2-ethyl-hexyl) ester
Bromodichloromethane	75-27-4	Methane, bromodichloro-
Bromoform; Tribromo-methane	75-25-2	Methane, tribromo-
4-Bromophenyl phenyl ether	101-55-3	Benzene, 1-bromo-4-phenoxy-
Butyl benzyl phthalate; Benzyl butyl phthalate	85-68-7	1,2-Benzenedicarboxylic acid, butyl phenylmethyl ester
Cadmium	Total	Cadmium
Carbon disulfide	75-15-0	Carbon disulfide
Carbon tetrachloride	56-23-5	Methane, tetrachloro-
Chlordane	57-74-9	4,7-Methano-1H-indene,1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-
p-Chloroaniline	106-47-8	Benzeneamine, 4-chloro-
Chlorobenzene	108-90-7	Benzene, chloro-
Chlorobenzilate	510-15-6	Benzeneacetic acid, 4-chloro-α-(4-chloro-phenyl)-α-hydroxy-, ethyl ester
p-Chloro-m-cresol	59-50-7	Phenol, 4-chloro-3-methyl-
Chloroethane; Ethyl chloride	75-00-3	Ethane, chloro-
Chloroform	67-66-3	Methane, trichloro-
2-Chloronapthalene	91-58-7	Naphthalene, 2-chloro-
2-Chlorophenol	95-57-8	Phenol, 2-chloro-
4-Chlorophenyl phenyl ether	7005-72-3	Benzene, 1-chloro-4-phenoxy-
Chloroprene	126-99-8	1,3-Butadiene, 2-chloro-
Chromium	(Total)	Chromium
Chrysene	218-01-9	Chrysene
Cobalt	(Total)	Cobalt
Copper	(Total)	Copper
m-Cresol	108-39-4	Phenol, 3-methyl-

o-Cresol	95-48-7	Phenol, 2-methyl-
p-Cresol	106-44-5	Phenol, 4-methyl-
Cyanide	57-12-5	Cyanide
2,4-D; 2,4-Dichloro-phenoxyacetic acid	94-75-7	Acetic acid, (2,4-dichlorophenoxy)-
4,4'-DDD	72-54-8	Benzene, 1,1'-(2,2-dichloroethylidene)bis-(4-chloro-
4,4'-DDE	72-55-9	Benzene, 1,1'-(dichloroethylidene)bis(4-chloro-
4,4'-DDT	50-29-3	Benzene, 1,1'-(2,2,2-trichloroethylidene)-bis(4-chloro-
Diallate	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2-propenyl) ester
Dibenz(a,h)anthracene	53-70-3	Dibenz(a,h)anthracene
Dibenzofuran	132-64-9	Dibenzofuran
Dibromochloromethane; Chlorodibromomethane	124-48-1	Methane, dibromochloro-
1,2-Dibromo-3-chloro-propane; DBCP	96-12-8	Propane, 1,2-dibromo-3-chloro-
1,2-Dibromoethane; Ethylene dibromide	106-93-4	Ethane, 1,2-dibromo-
Di-n-butyl phthalate	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester
o-Dichlorobenzene	95-50-1	Benzene, 1,2-dichloro-
m-Dichlorobenzene	541-73-1	Benzene, 1,3-dichloro-
p-Dichlorobenzene	106-46-7	Benzene, 1,4-dichloro-
3,3'-Dichlorobenzidine	91-94-1	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dichloro-
trans-1,4-Dichloro-2-butene	110-57-6	2-Butene, 1,4-dichloro-, (E)-
Dichlorodifluoromethane	75-71-8	Methane, dichlorodifluoro-
1,1-Dichloroethane	75-34-3	Ethane, 1,1-dichloro-
1,2-Dichloroethane; Ethylene dichloride	107-06-2	Ethane, 1,2-dichloro-
1,1-Dichloroethylene; Vinylidene chloride	75-35-4	Ethene, 1,1-dichloro-
trans-1,2-Dichloroethylene	156-60-5	Ethene, 1,2-dichloro-, (E)-
2,4-Dichlorophenol	120-83-2	Phenol, 2,4-dichloro-
2,6-Dichlorophenol	87-65-0	Phenol, 2,6-dichloro-
1,2-Dichloropropane	78-87-5	Propane, 1,2-dichloro-
cis-1,3-Dichloropropene	10061-01-5	1-Propene, 1,3-dichloro-, (Z)-
trans-1,3-Dichloropropene	10061-02-6	1-Propene, 1,3-dichloro-, (E)-
Dieldrin	60-57-1	(1aR,2R,2aS,3S,6R,6aR,7,7S,7aS)-rel-3,4,5,6,9,9-Hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-2,7:3,6-dimethanonaphth(2,3-b)oxirene
Diethyl phthalate	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester

O,O-Diethyl O-2-pyrazinyl phosphorothioate; Thionazin	297-97-2	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester
Dimethoate	60-51-5	Phosphorodithioic acid, O,O-dimethyl S-(2-(methylamino)-2-oxoethyl) ester
p-(Dimethylamino)azobenzene	60-11-7	Benzenamine, N,N-dimethyl-4-(phenylazo)-
7,12-Dimethylbenz(a)anthracene	57-97-6	Benz(a)anthracene,7,12-dimethyl-
3,3'-Dimethylbenzidine	119-93-7	(1,1'-Biphenyl)-4,4'-diamine, 3,3'-dimethyl-
α,α-Dimethylphenethylamine	122-09-8	Benzeneethanamine, α,α-dimethyl-
2,4-Dimethylphenol	105-67-9	Phenol, 2,4-dimethyl-
Dimethyl phthalate	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester
m-Dinitrobenzene	99-65-0	Benzene, 1,3-dinitro-
4,6-Dinitro-o-cresol	534-52-1	Phenol, 2-methyl-4,6-dinitro-
2,4-Dinitrophenol	51-28-5	Phenol, 2,4-dinitro-
2,4-Dinitrotoluene	121-14-2	Benzene, 1-methyl-2,4-dinitro-
2,6-Dinitrotoluene	606-20-2	Benzene, 2-methyl-1,3-dinitro-
Dinoseb; DNBP; 2-sec-Butyl-4,6-dinitrophenol	88-85-7	Phenol, 2-(1-methylpropyl)-4,6-dinitro-
Di-n-octyl phthalate	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester
1,4-Dioxane	123-91-1	1,4-Dioxane
Diphenylamine	122-39-4	Benzeneamine, N-phenyl-
Disulfoton	298-04-4	Phosphorodithioic acid, O,O-diethyl S-(2-(ethylthio)ethyl) ester
Endosulfan I	959-98-8	6,9-Methano-2,4,3-benzodioxathiepin,6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3α,5aβ,6α,9α,9aβ)-
Endosulfan II	33213-65-9	6,9-Methano-2,4,3-benzodioxathiepin,6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-, 3-oxide, (3α,5aα,6β,9β,9aα)-
Endosulfan sulfate	1031-07-8	6,9-Methano-2,4,3-benzodioxathiepin,6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-,3,3-dioxide
Endrin	72-20-8	2,7:3,6-Dimethanonaphth(2,3-b)oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aα,2β,2aβ,3α,6α,6aβ,7β,7aα)-

Endrin aldehyde	7421-93-4	1,2,4-Methanocyclopenta(cd)pentalene-5-carboxaldehyde, 2,2a,3,3,4,7-hexachloro-decahydro-, (1α,2β,2aβ,4β,4aβ,5β,6aβ,6bβ,7R)-
Ethylbenzene	100-41-4	Benzene, ethyl-
Ethyl methacrylate	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester
Ethyl methanesulfonate	62-50-0	Methanesulfonic acid, ethyl ester
Famphur	52-85-7	Phosphorothioic acid, O-(4-((dimethyl-amino)sulfonyl)phenyl)-O,O-dimethyl ester
Fluoranthene	206-44-0	Fluoranthene
Fluorene	86-73-7	9H-Fluorene
Heptachlor	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-
Heptachlor epoxide	1024-57-3	2,5-Methano-2H-indeno(1,2-b)oxirene, 2,3,4,5,6,7,7-heptachloro-1a,1b,5,5a,6,6a-hexahydro-, (1aα,1bβ,2α,5α,5aβ,6β,6aα)-
Hexachlorobenzene	118-74-1	Benzene, hexachloro-
Hexachlorobutadiene	87-68-3	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-
Hexachlorocyclopentadiene	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexa-chloro-
Hexachloroethane	67-72-1	Ethane, hexachloro-
Hexachlorophene	70-30-4	Phenol, 2,2'-methylenebis(3,4,6-trichloro-
Hexachloropropene	1888-71-7	1-Propene, 1,1,2,3,3,3-hexachloro-
2-Hexanone	591-78-6	2-Hexanone
Indeno(1,2,3-cd)pyrene	193-39-5	Indeno(1,2,3-cd)pyrene
Isobutyl alcohol	78-83-1	1-Propanol, 2-methyl-
Isodrin	465-73-6	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-(1α,4α,4aβ,5β,8β,8aβ)-
Isophorone	78-59-1	2-Cyclohexen-1-one, 3,5,5-trimethyl-
Isosafrole	120-58-1	1,3-Benzodioxole, 5-(1-propenyl)-
Kepone	143-50-0	1,3,4-Metheno-2H-cyclobuta-(c,d)penta-len-2-one, 1,1a,3,3a,4,5,5,5a,5b,6-deca-chlorooctahydro-
Lead	(Total)	Lead
Mercury	(Total)	Mercury
Methacrylonitrile	126-96-7	2-Propenenitrile, 2-methyl-
Methapyrilene	91-80-5	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-
Methoxychlor	72-43-5	Benzene, 1,1'-(2,2,2-trichloroethylidene)-bis(4-methoxy-
Methyl bromide; Bromo-methane	74-83-9	Methane, bromo-
Methyl chloride; Chloro-methane	74-87-3	Methane, chloro-

3-Methylcholanthrene	56-49-5	Benz(j)aceanthrylene, 1,2-dihydro-3-methyl-
Methylene bromide; Dibromomethane	74-95-3	Methane, dibromo-
Methylene chloride; Dichloromethane	75-09-2	Methane, dichloro-
Methyl ethyl ketone; MEK	78-93-3	2-Butanone
Methyl iodide; Iodomethane	74-88-4	Methane, iodo-
Methyl methacrylate	80-62-6	2-Propenoic acid, 2-methyl-, methyl ester
Methyl methanesulfonate	66-27-3	Methanesulfonic acid, methyl ester
2-Methylnaphthalene	91-57-6	Naphthylene, 2-methyl-
Methyl parathion; Parathion methyl	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl) ester
4-Methyl-2-pentanone; Methyl isobutyl ketone	108-10-1	2-Pentanone, 4-methyl-
Naphthalene	91-20-3	Naphthalene
1,4-Naphthoquinone	130-15-4	1,4-Naphthalenedione
1-Naphthylamine	134-32-7	1-Naphthalenamine
2-Naphthylamine	91-59-8	2-Naphthalenamine
Nickel	(Total)	Nickel
o-Nitroaniline	88-74-4	Benzenamine, 2-nitro-
m-Nitroaniline	99-09-2	Benzenamine, 3-nitro-
p-Nitroaniline	100-01-6	Benzenamine, 4-nitro-
Nitrobenzene	98-95-3	Benzene, nitro-
o-Nitrophenol	88-75-5	Phenol, 2-nitro-
p-Nitrophenol	100-02-7	Phenol, 4-nitro-
4-Nitroquinoline 1-oxide	56-57-5	Quinoline, 4-nitro-, 1-oxide
N-Nitrosodi-n-butylamine	924-16-3	1-Butanamine, N-butyl-N-nitroso-
N-Nitrosodiethylamine	55-18-5	Ethanamine, N-ethyl-N-nitroso-
N-Nitrosodimethylamine	62-75-9	Methanamine, N-methyl-N-nitroso-
N-Nitrosodiphenylamine	86-30-6	Benzenamine, N-nitroso-N-phenyl-
N-Nitrosodipropylamine; Di-n-propylnitrosamine	621-64-7	1-Propanamine, N-nitroso-N-propyl-
N-Nitrosomethylethylamine	10595-95-6	Ethanamine, N-methyl-N-nitroso-
N-Nitrosomorpholine	59-89-2	Morpholine, 4-nitroso-
N-Nitrosopiperidene	100-75-4	Piperidene, 1-nitroso-
N-Nitrosopyrrolidine	930-55-2	Pyrrolidine, 1-nitroso-
5-Nitro-o-toluidine	99-55-8	Benzenamine, 2-methyl-5-nitro-
Parathion	56-38-2	Phosphorothioic acid, O,O-diethyl-O-(4-nitrophenyl) ester
Polychlorinated biphenyls; PCBs	See (g)	1,1'-Biphenyl, chloro derivatives
Polychlorinated dibenzo-p-dioxins; PCDDs	See (h)	Dibenzo(b,e)(1,4)dioxin, chloro derivatives
Polychlorinated dibenzofurans; PCDFs	See (i)	Bibenzofuran, chloro derivatives

Pentachlorobenzene	608-93-5	Benzene, pentachloro-
Pentachloroethane	76-01-7	Ethane, pentachloro-
Pentachloronitrobenzene	82-68-8	Benzene, pentachloronitro-
Pentachlorophenol	87-86-5	Phenol, pentachloro-
Phenacetin	62-44-2	Acetamide, N-(4-ethoxyphenyl)
Phenanthrene	85-01-8	Phenanthrene
Phenol	108-95-2	Phenol
p-Phenylenediamine	106-50-3	1,4-Benzenediamine
Phorate	298-02-2	Phosphorodithioic acid, O,O-diethyl S-((ethylthio)methyl) ester
2-Picoline	109-06-8	Pyridine, 2-methyl-
Pronamide	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propenyl)-
Propionitrile; Ethyl cyanide	107-12-0	Propanenitrile
Pyrene	129-00-0	Pyrene
Pyridine	110-86-1	Pyridine
Safrole	94-59-7	1,3-Benzodioxole, 5-(2-propenyl)-
Selenium	(Total)	Selenium
Silver	(Total)	Silver
Silvex; 2,4,5-TP	93-72-1	Propanoic acid, 2-(2,4,5-trichloro-phenoxy)-
Styrene	100-42-5	Benzene, ethenyl-
Sulfide	18496-25-8	Sulfide
2,4,5-T; 2,4,5-Trichloro-phenoxyacetic acid	93-76-5	Acetic acid, (2,4,5-trichlorophenoxy)-
2,3,7,8-TCDD; 2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-8	Dibenzo(b,e)(1,4)dioxin, 2,3,7,8-tetra-chloro-
1,2,4,5-Tetrachlorobenzene	95-94-3	Benzene, 1,2,4,5-tetrachloro-
1,1,1,2-Tetrachloroethane	630-20-6	Ethane, 1,1,1,2-tetrachloro-
1,1,2,2,-Tetrachloroethane	79-34-5	Ethane, 1,1,2,2-tetrachloro-
Tetrachloroethylene; Perchloroethylene; Tetra-chloroethene	127-18-4	Ethene, tetrachloro-
2,3,4,6-Tetrachlorophenol	58-90-2	Phenol, 2,3,4,6-tetrachloro-
Tetraethyl dithiopyro-phosphate; Sulfotepp	3689-24-5	Thiodiphosphoric acid $(((HO)_2P(S))_2O)$, tetraethyl ester
Thallium	(Total)	Thallium
Tin	(Total)	Tin
Toluene	108-88-3	Benzene, methyl-
o-Toluidine	95-53-4	Benzenamine, 2-methyl-
Toxaphene	8001-35-2	Toxaphene
1,2,4-Trichlorobenzene	120-82-1	Benzene, 1,2,4-trichloro-
1,1,1-Trichloroethane; Methyl chloroform	71-55-6	Ethane, 1,1,1-trichloro-
1,1,2-Trichloroethane	79-00-5	Ethane, 1,1,2-trichloro-

Trichloroethylene; Trichloroethene	79-01-6	Ethene, trichloro-
Trichlorofluoromethane	75-69-4	Methane, trichlorofluoro-
2,4,5-Trichlorophenol	95-96-4	Phenol, 2,4,5-trichloro-
2,4,6-Trichlorophenol	88-06-2	Phenol, 2,4,6-trichloro-
1,2,3-Trichloropropane	96-18-4	Propane, 1,2,3-trichloro-
O,O,O-Triethyl phosphorothioate	126-68-1	Phosphorothioic acid, O,O,O-triethyl ester
sym-Trinitrobenzene	99-35-4	Benzene, 1,3,5-trinitro-
Vanadium	(Total)	Vanadium
Vinyl acetate	108-05-4	Acetic acid, ethenyl ester
Vinyl chloride	75-01-4	Ethene, chloro-
Xylene (total)	1330-20-7	Benzene, dimethyl-
Zinc	(Total)	Zinc

(Source: Amended at 42 Ill. Reg. 22614, effective November 19, 2018)