Illinois Environmental Protection Agency

RCRA PART B PERMIT APPLICATION DECISION GUIDE

Purpose: This decision guide, together with the RCRA permit application checklist, is designed to assist applicants in the preparation of a RCRA Part B permit application. All permit applications should follow the format of the decision guide as specified below to facilitate a timely review of all documents.

NOTE: Pursuant to 35 Ill. Adm. Code 702.108, the Agency has no authority to issue any permit that is inconsistent with Board regulations. If an applicant seeks a permit which would authorize actions which would be inconsistent with Board regulations, including delayed compliance dates, the applicant should file a variance petition pursuant to Title IX of the Environmental Protection Act and 35 Ill. Adm. Code 104.

Currently, the only hazardous waste management units contained in this decision guide are containers, tanks, and miscellaneous units. If a permit application contains units not contained in this decision guide, the application should follow the decision guide dated December 1990 for those units. All other sections of the permit application should follow the format of this decision guide.

A FORMS, CERTIFICATIONS, CONFIDENTIALITY, & PUBLIC INVOLVEMENT

A.1 Forms and Permits

A.1.1 RCRA Part A Application: 702.121, 702.123, 702.126(a) and (d), 703.181

The Part A application must be complete and consistent with the Part B application. 703.181 specifies the contents of a Part A application. Signatures must be provided for both the owner and operator. This includes landowners of a site that are different from the company operating the hazardous waste facility.

A.1.2 Permits or Construction Approvals: 702.123

The RCRA permit application must include a list of all permits or construction approvals received or applied for under any of the following programs: RCRA, UIC program under SDWA and 704, NPDES program under the CWA and 309, PSD program, and Title 5 permits under the CAA, Nonattainment program under the CAA, NESHAPS pre-construction approval under the CAA, open dumping permits under the MPRSA, dredge or fill permits under Section 404 of the CWA, other relevant environmental permits including Illinois permits.

A.2 Certifications: 703.182

A.2.1 Siting Certification: 703.184(f) , Environmental Protection Act: Sections 39(c) & 39.2

All pollution control facilities must demonstrate that they have complied with the requirements of Section 39.2 of the Environmental Protection Act. That is, the applicant must demonstrate that they have received approval from the local county or municipality before the Illinois EPA reviews a permit application for the site if applicable.

All new applications for proposed pollution control facilities must include a completed Certification of Siting Approval Form LPC-PA8.

A.2.2 Facility Certification: 702.121, 703.182, 702.126

Applications must be accompanied by a certification letter as specified in 702.126(d). The required signatures are as follows: (1) for a corporation, a principal executive officer (at least at the level of vice-president); (2) for a partnership or sole proprietorship, a general partner or the proprietor, respectively; (3) for a municipal, state, Federal, or other public Agency, either a principal executive officer or ranking elected official.

Signatures must be provided for both the owner and operator. This includes landowners of a site that are different from the company operating the hazardous waste facility.

A.2.3 Technical Information Certification: 703.182, Illinois Professional Engineering Act

Certain technical data, such as design drawings, specifications and engineering studies, must be certified (sealed) by a qualified Professional Engineer who is licensed to practice in the State of Illinois in accordance with Ill. Rev. Stat., par. 5101, Sec. 1 and par. 5119, Sec. 13.1.

Work required by your application or the regulations may also be subject to other laws governing professional services, such as the Illinois Professional Land Surveyor Act of 1989, the Professional Engineering Practice Act of 1989, the Professional Geologist Licensing Act, and the Structural Engineering Licensing Act of 1989. All work that falls within the scope and definitions of these laws must be performed in compliance with them. The Illinois EPA may refer any discovered violation of these laws to the appropriate regulating authority.

A.2.4 Prior Conduct Certification: Section 31 Environmental Protection Act

Applications must be accompanied by a completed and signed prior conduct certification evaluation, as required under Section 39(i) of the Act. Both the Agency form and applicant's signature must be originals, not copies.

A.3 Public Disclosure Exemption Claims and Trade Secret Claims: Section 7 of the Act; 2 Ill. Adm. Code Part 1828; 35 Ill. Adm. Code Part 130

Any documents submitted that are not properly marked and justified will not be regarded as exempt and will be released to the public upon request.

A.3.1 No Information Claimed Exempt from Public Disclosure

If no information in the application is claimed exempt from public disclosure, the applicant should clearly state this in the cover letter. This will release any disclaimers on drawings, plans etc. that are included in the application.

A.3.2 Trade Secrets Claims

This claim should be asserted if any portion of the application is regarded as trade secret pursuant to 35 Ill. Adm. Code 130.

- Provide claim and justification letter with submittal.
- Stamp each page in red ink "TRADE SECRET" that is to be exempt.
- Provide sanitized version for public review.

A.3.3 Exempt or Exempt In-Part Data Claims: 2 Ill. Adm. Code 1828.401

This claim should be asserted if any portion of the application is regarded as exempt or exempt in part pursuant to 2 Ill. Adm. Code 1828.401.

- Provide claim and justification letter with submittal.
- Marking requirements as specified.
- Provide Sanitized version for public review.

A.3.4 Justification Letter: 2 Ill. Adm. Code 1828.401

All submittals must be accompanied by a claim and statement of justification if an exemption is required.

A.3.5 Privileged Information: 2 Ill. Adm. Code 1828.401

This claim should be asserted if any portion of the submittal is regarded as privileged and meets the definition of privileged information pursuant to 1828.401.

- Provide claim and justification letter with submittal.
- Marking requirements as specified.

- Provide sanitized version for public review.

A.4 Public Participation

A.4.1 Facility Mailing List & Information Repositories: Environmental Protection Act, Section 39(d), 703.193, 703.248, 705.163

Applicability: The following requirements apply to all permit applications.

A.4.1.1 Facility Mailing List. Submit a dated copy of the facility mailing list as an attachment to the permit application. Both a printed copy and an electronic copy in MS Word format need to be provided. The list must be updated and resubmitted to the Illinois EPA as needed to include individuals who have interacted with the facility such as those attending the pre-application meeting, respondents to mailings, and when a permit modification is requested.

The Agency will review and approve all updates prior to using the mailing list. Mailing lists originally developed by the Illinois EPA are available from the Agency's RCRA public participation coordinator.

A.4.1.2 Identification of Repositories:
All documents submitted to the Illinois EPA in furtherance of the permit application, with the exception of trade secrets, must be made available to the public at the office of the local government and in another location in the host community (or nearest community to the facility) no later than the date the permit application was provided to the Illinois EPA.

Provide the name, address, contact person, phone number, and business hours for each repository. List the information and indicate the dates it was added to each repository.

Note: The community repository may not be located at the subject facility and must be available to the community for review and copying of application documents after regular office hours. Public libraries are recommended repository locations.

A.4.1.3 Contents of Repository, Public Notice of Repository Availability:
The repository contents must include all of the documents identified in A.4.1.2. The applicant is required to maintain and update the repository throughout the application process. Verify the contents and update the application information as new information is developed and submitted to the Agency. Document each new repository submission by referencing it in the letter submitting that same information to the Agency.

The applicant's notice of the repositories' availability for public review must include all of the following information:

- Identification and address or map of the applicant facility and the hazardous waste management operations or proposed operations that this permit application addresses.
- A statement that hazardous waste permit application materials have been prepared and are available for community members to review and copy at the repository location.
- The location and business hours of the repository.
- A statement that the applicant will update the repository materials periodically during the Illinois EPA's review of the permit application.
- The name, address and telephone number of the applicant's contact person to address questions regarding the application or to be added to the facility's mailing list for future permit activities.
- A statement "For general information on the hazardous waste management permit program in Illinois, please contact" then provide the address of the RCRA Public Involvement Coordinator, Illinois EPA.

Note: The applicant is required to maintain and update the repository throughout the application process.

A.4.1.4 Documentation of Public Notices of Repositories:
Provide documentation that the public notices of the repositories were completed as required by the regulations. These notices must be made no later than the date the permit application is submitted to the Illinois EPA. Specifically:

- Provide a copy of the letter sent to individuals on the approved facility mailing list. Indicate the date the letter was sent, and the revision date of the mailing list used for the mailings.
- Provide either the publisher's certification stating that it published the notice as a display ad once per week for three consecutive weeks, or provide newspaper tear sheets containing the display ad for each date the ad ran. [This information may be submitted separate from the original permit application if it is not evaluated on the date the application is submitted to the Illinois EPA.]

A.4.2 Notification of Permit Application Submittal: 703.192, 705.163(a)(5)

Applicability: The following additional requirements only apply to applications for new permit and all permit renewals. The requirements of this section do not apply to applications that are submitted for the sole purpose of conducting post-closure or corrective action at a facility.

Note: This notice may be combined with the applicant's notice of repository availability. If this is done, those on the entire mailing list must be noticed.

A.4.2.1 Content of Permit Application Notice:
The applicant's notice of the permit application submittal must include all of the following information:

- A statement that a hazardous waste management permit application was submitted to the Illinois EPA.
- The date that the application was submitted.
- A brief description of the facility and proposed operations, including the address or a map (e.g., a sketched or copied street map) of the facility location on the front page of the notice;
- The location where the applicant has established an information repository where copies of the permit application and any supporting documents can be viewed and copied;
- The name, telephone number, and address of the applicant's contact person to whom people can write in order to be placed on the mailing list;
- The mailing address of the RCRA Public Involvement Coordinator in the Illinois EPA Bureau of Land to whom information, inquiries and opinions may be directed throughout the review process;
- The name and telephone number of the appropriate Illinois EPA regional office;

A.4.2.2 Documentation of Permit Application Notice:
Within 30 days of submitting the permit application to the Illinois EPA, the applicant must provide documentation that notice of the submittal was provided to any unit of local government that has jurisdiction over the area where the facility is located, and each State Agency that has any authority under State law with respect to the construction or operation of the facility.

- Provide one copy of the letter sent to each local and state agency.
- Provide a list of the contact names, agencies, and their addresses, that received the notice.

A.4.2.3 New Combustion Units 703.232(d)(3), 703.223(f)
Applicants for new BIFs and incinerators performing trial burns for their initial Part B permit must notify all persons on the mailing list required in Section A.4.1 and all local and state agencies indicated in Section A.4.2 of the plans to perform a trial burn. The notice must include all information required in Section 4.2.1 above [703.232(d)(3)(B)] as well as the scheduled commencement and completion dates for the trial burn. This notice must be mailed within a reasonable time period (not less than 15 and not more than 30 days) before the scheduled trial burn.

Notice of trial burn. The trial burn may not commence until the applicant provides documentation to the Agency that this notice has been issued to all required parties.

F.4.1 **Unloading Operations:** Describe procedures, structures, and equipment used to prevent hazards when wastes are loaded or unloaded at the facility.

F.4.1.1 Locations: Identify the location(s) where loading/unloading operations will occur on a scale drawing of the facility. Describe the secondary containment capacity of these area(s).

F.4.1.2 Structures & Equipment: Describe the structures and equipment (e.g. truck docks, ramps, forklifts, hoses, etc.) used to load or unload wastes.

F.4.1.3 Procedures: Describe the procedures followed when wastes are loaded or unloaded from vehicles.

F.4.2 **Run-Off:** Describe the procedures, structures, and equipment used to prevent run-off from hazardous waste handling areas from entering other areas of the facility or environment, or prevention of flooding (e.g., berms, dikes, trenches).

F.4.3 **Water Supplies:** Describe the procedures, structures, and equipment used to prevent contamination of water supplies.

F.4.4 **Equipment and Power Failure:** Describe the procedures, structures, and equipment used to mitigate the effects of equipment failure and power outage.

F.4.5 **Personnel Protection Equipment:** Describe the procedures, structures, and equipment used to prevent the undue exposure of personnel to hazardous waste (e.g., protective clothing and equipment).

G EVALUATION-ASSESSMENT OF POTENTIAL HAZARDS & CONTINGENCY PLAN

724.151 requires the Contingency Plan 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. In order to develop a Contingency Plan that meets these requirements, the owner/operator must provide information in the RCRA permit application that demonstrates development of the contingency plan was based upon an evaluation of the facility's hazardous waste management activities, potential emergency situations (a release, fire, or explosion), and the consequences of these situations both on-site and off-site.

To properly respond to an emergency, the facility's emergency coordinator (EC) must identify the character, source and amount of waste involved in the emergency. Concurrently, the EC must also assess the possible hazards to human health or the environment resulting from the emergency. This assessment must consider both (1) the direct and indirect health and/or environmental effects of the emergency, and (2) the extent of the area which will be impacted by the emergency. Finally, the EC must determine if the incident could threaten human health or the environment outside of the facility and if the evacuation of local areas may be advisable.

In some cases, an incident at a hazardous waste facility could impact off-site receptors, and may even require evacuation of the surrounding area. Furthermore, it may only take a few seconds or minutes for a toxic concentration of a gaseous release to reach the nearest receptors. Due to the fact that there will be a very limited time to properly assess the hazards and their effects during an actual emergency, the RCRA permit application needs to include an evaluation-assessment of the potential hazards, and their consequences, before an emergency actually occurs. **A simple statement that the EC will make an assessment of the situation at the time of the emergency is not acceptable.**

Section G of the Decision Guide is divided into two parts: Evaluation-Assessment of Potential Hazards, and the Contingency Plan. While the first part can (and needs to) refer to information in other portions of the permit application, Section G.2, the Contingency Plan must be a complete stand alone document.

Note: Alternate procedures or default values may be used for the evaluation-assessment of potential hazards. For an alternate method or default value to be acceptable, the applicant must demonstrate that it is at least as effective as those identified in the sections below.

G.1 Evaluation-Assessment of Potential Hazards Report: 703.183(t), 703.183(g), 724.137, 724.150 through 724.156

The applicant must conduct an evaluation of the off-site impacts a waste-related emergency may have on the surrounding area. This evaluation may necessitate changes in the design and operation of the facility to minimize/eliminate these off-site impacts. An evaluation report must be prepared and submitted to the Agency as part of the RCRA Part B permit application. The Evaluation-Assessment Report must contain the following information (reference can be made to other sections of the Part B application when applicable):

G.1.1 **Executive Summary:** In addition to summarizing the evaluation, the executive summary of the report must include a description of the worst-case scenario for both a spill and a fire at the facility. This description needs to include all of the following:

- The location(s) of the worst-case spill and fire at the facility.
- The chemicals involved.
- Identify the maximum horizontal extent of the AEL concentration in the gas plume on a scale drawing of the area. Show the source, facility property line, roads, and all receptors.
- Indicate the duration of the release.

G.1.2 **Facility Description:** The evaluation must consider the operations, and physical locations of those operations, at the facility. In addition, it needs to consider the potential receptors located in the area around the facility.

G.1.2.1 General Information: Demonstrate that the operations and activities at the site as described in Sections B and D of the permit application were considered in the evaluation. Provide the average temperature, and the prevailing wind direction and speed for each month.

G.1.2.2 Surrounding Area: Provide a scale drawing/map of the area around the facility that shows all of the following present within 1,000 feet of the facility's property line.

- Off-site receptors. This includes all residential areas, schools, factories, hospitals, nursing homes, apartment complexes, day care facilities, nearest highway, etc.
- The topography of the area.
- All roads and railroad crossings in the area.

G.1.3 Chemical & Physical Properties of Wastes Managed at the Site: The evaluation must consider the waste types and the chemical and physical properties of the materials managed at the facility. In addition, in order to determine the consequences of a fire or spill, it needs to consider the products of incomplete combustion of those materials, and the appropriate exposure limit (AEL) for each compound managed at the facility.

G.1.3.1 Waste Properties: Identify all constituents in Appendix H of 721 that are (will be) present in the wastes managed at the facility. Provide the chemical and physical properties for these compounds. The information provided in Section C.1.2 of the application can be referenced.

G.1.3.2 Products of Incomplete Combustion (PICs): Identify the most toxic products of incomplete combustion that would be generated if any of the wastes managed at the facility were to be engulfed in a fire. This information must be compiled for each waste to be managed at the facility. Examples of incomplete products of combustion that would be of concern are shown in the following table:

Waste Type Involved in Fire	**Products of Incomplete Combustion**
Aliphatic chlorinated hydrocarbons	Phosgene, HCl
Non-substituted aromatics	CO, CO_2, Alcohols
Nitrated compounds	NO, NO_2, N_2O
Sulfur bearing wastes	SO_2, SO_3
Cyanide bearing wastes	Hydrogen cyanide gas
Fluoride bearing wastes	Hydrogen fluoride gas
Bromine containing wastes	Hydrogen bromide gas

G.1.3.3 Appropriate Exposure Limit: Identify an appropriate exposure limit (AEL) for each of the wastes or compounds managed at the site. Also identify an AEL for each of the products of incomplete combustion. Provide the basis for choosing the AEL for each compound. The AEL should be established pursuant to be procedures on Page 6-17 of the document entitled "Handbook of Chemical Hazard Analysis Procedures" available free of charge from the Federal Emergency Management Agency (FEMA) in Washington, D.C. (202/646-3484). As a starting point, the AEL could be established as the highest value of the following:

- IDLH/10
- TLV-STEL
- 3 x TLV-TWA (if no TLV-STEL exists)
- TLV-C

G.1.3.4 Ranking of AELs: Provide a ranking of the hazardous wastes managed at the facility according to their AEL (lowest AEL receives highest ranking). A separate ranking (independent of AEL) based upon vapor pressure must also be prepared (compound with highest vapor pressure receives highest ranking).

G.1.4 Air Modeling: The evaluation/assessment of the consequences of a fire or spill at the facility necessarily includes air modeling of these incidents. Therefore, the following information needs to be provided regarding the model that will be used:

G.1.4.1 Air Model: Describe the model to be used. Several public domain models are available on USEPA's Support Center for Regulatory Air Models web pages.: These include:

SLAB --- Used to model denser-than-air releases and neutrally-buoyant releases from the following possible sources: ground-level evaporating pool; an elevated horizontal jet; a stack or elevated vertical jet; an instantaneous volume source.

HGSYSTEM --- This model is specific to hydrogen fluoride and non-reactive ideal gas releases that are the result of spills or a jet release from a pressurized vessel.

DEGADIS --- Used to model both instantaneous and continuous ground level releases of heavier-than-air gases. The model can simulate evaporation from a pool as well as a vertical jet release.

AFTOX --- This model can simulate instantaneous or continuous releases of liquid or gas associated with a tank or pipe rupture, stack dispersal, or evaporation from a pool.

ADAM --- A modified box and Gaussian dispersion model which incorporates thermo-dynamics, chemistry, heat transfer, aerosol loading, and dense gas effects. Release scenarios include continuous and instantaneous, area and point, pressurized and unpressurized, and liquid/vapor/two-phased options.

ARCHIE --- This model is used to model ground level evaporating pools. It is free and available by calling the Federal Emergency Management Agency at 202/646-3484.

If a different, or proprietary model is proposed, a licensed copy of the computer model software should be provided with the application so that the Agency can duplicate the computer model scenarios and results. If this is not possible, the applicant must provide all input parameters, background documents on the model, and other information the Illinois EPA deems necessary in order to insure that the model is appropriate for the situation, and to verify the output.

The following need to be provided for all models:

G.1.4.2 Limitations: Identify and discuss the strengths and weaknesses of the model.

G.1.4.3 Justify Assumptions: Identify the assumptions associated with the model in applying it to the situation at hand. Provide justifications for all assumptions used in the evaluation.

G.1.4.4 Input Data: Identify all input data. The sources of all input data must be documented. At a minimum, the input data must include the following conditions:

- Stable (Type F) atmospheric conditions should be evaluated (wind speed of 1.5 m/s (3.4 mph)
- The maximum air temperature for summer at the site, (the facility may also want to model the conditions at the site during the winter, and spring/fall).
- The AELs established Section G.1.3 should be used in determining the area impacted by the release and the length of time over which the release will impact human health (e.g. exceed the AEL).
- Size and depth of the pool. Specify the dimensions of any secondary containment, if present.

G.1.5 Evaluation/Assessment Report: Using the information required above, perform an evaluation, and report the findings for each of the following scenarios and wastes/compounds managed at the facility. That is, use the air model to evaluate the transport and dispersion of air-borne toxic compounds generated during spills, fires, or an explosion (e.g. releases) at the facility.

Note: For the purpose of these evaluations, an “off-site impact” is any situation in which an AEL is found beyond the facility property line.

G.1.5.1 Scenarios: Evaluate the consequences of a release in each of the following scenarios:

- The largest container used to manage hazardous waste (this includes a tank truck).
- The largest tank used to manage hazardous waste.
- The largest volume that can be released from a tank or container that does not have an off-site impact.

Unless the application proposes to limit the amount of a particular compound that is managed in a unit at the facility, the evaluation must assume that the container and tank in these scenarios contain 100% of each of the following compounds.

Note: if the application proposes to limit the amount of a certain compound at the facility, the Waste Analysis Plan must include procedures to verify this condition is always met.

G.1.5.2 Wastes: For each of the above scenarios, evaluate all the following compounds:

- The compound with the highest AEL ranking (see Section G.1.3.4).
- The compound with the highest vapor pressure ranking.
- The compound with the highest combined AEL and vapor pressure ranking.

Note: If the facility does not manage these "worst case" compounds on a regular basis, it may also want to evaluate additional compounds that are regularly managed at the facility as part of the permit application.

G.1.5.3 Air Model Results & Evaluation: Present the results of each air modeling run. In addition to the computer printouts, this presentation must include an evaluation and discussion of the results. For each compound of concern and scenario evaluated, provide the following information and discuss:

G.1.5.3.1 The on-site and off-site effects. Identify the possible hazards that may result from a release, fire or explosion involving the compound being modeled. Discuss the effects of any toxic, irritating or asphyxiating gases that could be generated, the effects of any hazardous surface water run-off from the water or chemical agents used to control a fire, and any heat-induced explosions.

G.1.5.3.2 The areas and populations which could be affected;

G.1.5.3.3 Identify the maximum extent of the AEL concentration on a scale drawing of the facility and surrounding area. At a minimum, the drawing must show the concentrations within the plume, the source, facility property line, roads, railroad crossings, buildings, major topographic features, and all receptors. Also indicate the locations of any fire stations, police stations, and hospitals. Show the location of the plume for both the wind direction that would carry the gas plume to the nearest off-site receptors, and the most common wind direction as indicated on the wind rose.

G.1.5.3.4 Identify the time it will take AEL concentration in the gas plume to reach its maximum extent.

G.1.5.3.5 Identify the time the AEL concentration will remain at a steady state, and the overall duration of the off-site impact.

G.1.5.3.6 Describe the arrangements, if any, the residents in the community have with facility in response to a sounding of the facility alarm siren.

G.1.5.3.7 Indicate the conditions that would result in evacuation of the facility or the surrounding area. Identify the time required to initiate evacuation procedures.

G.2 Contingency Plan: 703.183(t), 703.183(g), 724.137, 724.150 through 724.156

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. 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.

The Contingency Plan must be a complete stand alone document. Therefore, all figures and other information referenced in the Contingency Plan must be included as part of the plan. This is necessary because the Contingency Plan is intended to be a document that will actually be used in an actual emergency situation and will be sent to local fire and police departments, hospitals, and emergency response agencies. Thus, all the necessary information must be readily available in it.

The Contingency Plan serves two main functions. It specifies the procedures the facility emergency coordinator (EC) needs to follow when responding to an incident, and it identifies the conditions the local and state agencies may encounter when responding to an emergency at the facility. That is, it identifies both the hazards at the facility, and the facility's capabilities to respond to those hazards.

The applicant needs to utilize the information developed above in Section G.1 above to develop the Contingency Plan. Specifically, this information can be used to assess emergency situations and develop emergency response procedures.

G.2.1 General Information:

G.2.1.1 General Description: Provide a general description of the operations and activities carried out at the site.

G.2.1.2 Facility Drawing: Provide a scale drawing of the facility that shows the following:

- All buildings and roadways.
- Areas where hazardous waste is managed (generated, transported, transferred, accumulated, stored, treated, or disposed). Identify those areas used to manage ignitable, reactive, corrosive, and incompatible wastes.
- The locations of communications, alarms, fire protection, spill control, PPE, and other emergency equipment.

G.2.1.3 Waste Types: Identify (e.g. list) all wastes managed at the facility. Identify the characteristics of each waste (ignitable, reactive, corrosive, toxic, or incompatible), and describe how they are managed in each area shown on the facility drawing.

G.2.1.4 Surrounding Land Uses: Provide a description of the area surrounding the facility. Provide a USGS topographic map that shows the facility and the following features within 1,000 feet of the facility property line:

- The topography
- Roads
- Population centers. Identify all schools, factories, hospitals, day care facilities, nursing homes, apartment complexes, residential areas, etc.

G.2.1.5 Possible Hazards: Identify the possible hazards that may result from a release, fire or explosion (e.g., the effects of any toxic, irritating or asphyxiating gases that could be generated, the effects of any hazardous surface water run-off from water or chemical agents used to control fire, and heat-induced explosions).

G.2.1.6 Worst Case Scenario: Provide a copy of the executive summary from the Hazards Evaluation Report required in Section G.1 above. Provide a description of the worst-case scenario for both a spill and a fire at the facility that includes:

- The location(s) of the worst-case spill and fire at the facility
- The chemicals involved
- The time it will take the AEL in a toxic gas plume from both a spill and a fire to reach the property line

- The time it will take the AEL in a toxic gas plume from both a spill and a fire to reach the nearest off-site receptors

G.2.1.7 Emergency Equipment: This equipment includes, but is not limited to: PPE, respirators, spill control materials, communications, emergency generators, fire extinguishers, fire suppression systems, etc.

- List, and provide the quantity of, all emergency equipment available at the facility for responding to a spill, leak, release, fire, or explosion involving hazardous waste.
- Indicate the location of all equipment on the scale drawing of the facility required above.
- Provide a brief description of each piece of equipment and its capabilities (e.g. fire extinguishers are designed for certain types of fires). Describe why the emergency equipment is appropriate for responding to the types of incidents that could occur at the facility.

G.2.2 Emergency Coordinators (EC): 724.152(d), 724.155

G.2.2.1 Emergency Coordinators: Provide the names, addresses, office and home phone numbers, and duties, of the primary and alternate emergency coordinators who are responsible for coordinating all emergency response measures.

G.2.2.2 Availability and Responsibility of Emergency Coordinators: Demonstrate that at least one emergency coordinator will be 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) at all times.

G.2.2.3 Authority to Commit Resources: The application must include a statement that clearly gives the Emergency Coordinator authority to commit the resources necessary to implement the Contingency Plan and to stop processes or operations at the facility in the event of an emergency. The ability of the EC to commit resources or shut down certain operations in an emergency must not be contingent on the EC gaining approval to do so from a supervisor during the emergency.

G.2.3 Assessment: Describe the information and procedures the EC will use during an emergency to assess the possible hazards to human health or the environment resulting from the emergency. This assessment should be based on, and use, the information developed in Section G.1. The assessment must consider both the direct and indirect effects of the release, fire or explosion (e.g., the effects of any toxic, irritating or asphyxiating gases that could be generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).

G.2.3.1 Off-Site Impact: Identify the information and procedures the EC will use during an emergency to determine if a release, fire, or explosion could threaten human health or the environment outside the facility. An "off-site impact" is any situation in which an AEL is found beyond the facility property line.

G.2.3.2 Evacuation Determination: Identify the information and procedures the EC will use to determine if evacuation of local areas may be advisable.

G.2.4 Implementation: 724.151, 724.152(a)

G.2.4.1 When: Provide a clear description of when the Contingency Plan will be implemented. Identify the minimum criteria (e.g. smallest release or fire) that will result in implementation of the Contingency Plan. Provide justification for this criteria based on the Evaluation of Potential Hazards performed in Section G.1.

Note: If no air modeling was performed, the Contingency Plan must be implemented whenever 1 gallon or more of waste is released (unless an adequate alternate method for assessment of air releases is provided).

G.2.4.2 How: Describe how the Contingency Plan will be implemented. Provide a step-by-step description of the actions the EC and facility personnel will take to implement the Contingency Plan.

G.2.5 Emergency Response Procedures: 724.156

It is recommended that important names, phone numbers, and key emergency response procedures be placed on the very first page of the Contingency Plan in order to assist the EC during the initial phases of an actual emergency response.

G.2.5.1 Identification of Materials Released: Describe the information and procedures the EC will use to identify the compound(s) involved in the spill, fire, or explosion; the exact source, amount and aerial extent of any material released during the emergency.

G.2.5.2 Notification: Describe the procedures the EC will follow to immediately notify all facility personnel and the appropriate state or local agencies that there is an imminent or actual emergency situation. Describe how the EC will determine who to notify first, second, etc.

G.2.5.2.1 Describe how the EC will notify all facility personnel (e.g. by activating an alarm or communications system).

G.2.5.2.2 Identify the names and phone numbers of the state or local agencies (e.g. police, fire, on-scene coordinator for that geographical area, etc.) that could be notified if their help is needed. Indicate the local or state agency that will have primary authority for responding to a release, fire or explosion.

G.2.5.2.3 Specify the names and phone numbers of the state or local agencies the EC will notify if the assessment of the incident indicates that evacuation of local areas may be advisable. Indicate the local or state agency that will have primary authority for determining if a local area outside the facility needs to be evacuated.

G.2.5.2.4 The Contingency Plan must specify that the EC shall immediately report the following information to the government official designated as the on-scene coordinator for that geographical area (in the applicable regional contingency plan under 40 CFR 300) or the National Response Center (using their 24-hour toll free number 800-424-8802). The application must specify that the EC will provide all of the following information:

- Name and telephone number of reporter
- Name and address of facility
- Time and type of incident (e.g., release, fire)
- Name and quantity of the material(s) involved, to the extent known
- The extent of injuries, if any
- The possible hazards to human health or the environment outside the facility

G.2.6 Control Procedures: 724.152(a), 724.156

Describe the procedures facility personnel will take to control a release, fire, or explosion.

G.2.6.1 Prevention of Recurrence or Spread of Fires, Explosions, or Releases: Describe the steps the EC will take during an emergency to ensure that fires, explosions, or releases do not occur, reoccur, 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.

G.2.6.2 Monitoring: If the facility stops operations in response to a fire, explosion, or release, specify the equipment the EC will use to monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate. Specify the equipment to be monitored, monitoring frequency, and necessary actions the EC must take if a leak or pressure buildup is detected.

G.2.6.3 Containers: (724.152, 724.271):

Specify the procedures, and the order they will be performed, to respond to a container spill, leak, fire or explosion. Include procedures for the expeditious removal of spilled waste and repair or replacement of the container(s).

G.2.6.4 Tank System: (724.296): 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.

G.2.6.4.1 Specify the procedures, and the order they will be performed, to respond to a tank spill, leak, fire or explosion. Include procedures for the expeditious removal of spilled waste and repair or replacement of the tank(s).

G.2.6.4.2 Demonstrate that these procedures will meet the requirements of 724.296.

[Reserved] Control Procedures for Surface Impoundment, Waste Pile, Landfills, etc.

G.2.7 Evacuation Plan: 724.152(f)

G.2.7.1 Evacuation Signals: Describe the signal(s) used to notify facility personnel to evacuate the facility.

G.2.7.2 Evacuation Routes: Identify the primary and alternate evacuation routes and the location(s) where employees will meet after evacuating the facility on the scale drawing of the facility. Describe how these routes and locations were chosen.

G.2.8 Post-Emergency Actions: 724.156(g), 724.156(h)

G.2.8.1 Storage and Treatment of Released Material: Describe the steps that will be taken immediately after an emergency to provide for the treatment, storage, or disposal of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

G.2.8.2 Management of Incompatible Waste: Describe procedures that will be used to prevent incompatible waste from being treated, stored or located in the affected areas until clean-up procedures are completed.

G.2.8.3 Post-Emergency Equipment Maintenance: Describe procedures followed to ensure that all emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

G.2.9 Reporting Requirements: 724.156(i) and (j)
Describe the procedures that will be utilized to meet the following requirements:

G.2.9.1 Post-Emergency Response Actions: Notify the Illinois EPA's Bureau of Land (BOL) Permit Section, Regional Office, and the appropriate state and local agencies that clean-up operations have been completed and that the emergency equipment has been cleaned and is fit for its intended use.

G.2.9.2 Note in the Operating Record: The application must document that the operating record for the facility will record the time, date and details of any incident that requires implementation of the contingency plan.

G.2.9.3 Written Report: The application must document that the owner/operator will submit a written report to the Illinois EPA's BOL Permit Section, Planning and Reporting Section, and Regional Office within 15 days after the incident has occurred which includes the following information:

- Name, address and telephone number of the owner or operator;
- Name, address and telephone number of the facility;
- Date, time and type of incident (e.g., fire, explosion);
- Name and quantity of material(s) involved;
- The extent of injuries, if any;
- An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
- Estimated quantity and disposition of recovered material that resulted from the incident.

G.2.10 Coordination Agreement Requirements: 724.137, 724.152(c), 724.153(b)
A facility applying for a RCRA permit is required to attempt to develop emergency plans and coordination agreements with the appropriate state and local emergency response agencies. The facility will also need to

conduct periodic meetings with these agencies to review the agreements and the facility's operations and to discuss any change in the facility or its contingency plan.

G.2.10.1 Documentation of Agreements & Arrangements: For each of the emergency response entities identified in the Contingency Plan, provide written documentation of one of the following:

- An agreement was reached with the emergency response agency,
- An attempt to make an arrangement with the emergency response agencies was made, or
- The emergency response agency refused to enter into an arrangement with the facility.

G.2.10.2 Coordination Agreements: Describe the arrangements agreed to by the local police and fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services. The agreements must be sufficient to define the responsibilities of each entity in the event that the contingency plan is implemented.

G.2.10.3 Facility Operations: Document that the facility has made arrangements to familiarize police, fire departments and emergency response teams with the layout of the facility, properties of hazardous wastes handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and the possible evacuation routes and evacuation meeting locations.

G.2.10.4 Familiarize Local Hospitals: Document that the facility has made arrangements to familiarize local hospitals with the properties of the hazardous waste handled at the facility and the types of injuries or illnesses that could result from fires, explosions or releases at the facility.

G.2.10.5 Primary Response Authority: Identify the agency that will be the primary on-site emergency response authority. For example, state whether a facility's emergency response team or the responding fire department would have primary authority. In cases where more than one police and fire department might respond to an emergency, describe the agreements reached to designate the primary emergency authority to a specific police and a specific fire department. Describe the agreements reached with any others to provide support to the primary emergency authority.

G.2.10.6 Primary Evacuation Authority: Identify the agency (e.g. police department) that will be the primary authority in determining whether to evacuate an area.

H PERSONNEL TRAINING

H.1 Training Program

H.1.1 Training Director: 724.116(a)(2)
Demonstrate that a person trained in hazardous waste management directs the program.

H.1.2 Job Title - Job Description: 724.116(d)(1) and (d)(2)
Identify the job title and job description (requisite skills, education, etc.) of each employee whose position at the facility is related to hazardous waste management.

H.1.3 Relevance of Training to Job Position: 724.116(a)(2)
Describe how training will be designed to meet actual job tasks. That is, demonstrate that facility personnel are instructed in hazardous waste management procedures (including contingency plan implementation) that are relevant to their positions. Note: On-the-job training may be used to comply with these requirements.

H.1.4 Outlines of Training Programs: 724.116(a), 724.116(c), (d)(3), 724.156
Provide outlines of both the introductory and continuing training programs by owners or operators to prepare personnel to operate or maintain the facility in a safe manner.

H.1.4.1 Training Content, Frequency and Techniques: Describe the content, frequency, and techniques used in both introductory and continuing training (including an annual review of the initial training to be given) to each employee.

H.1.4.2 Training for Emergency Response: Demonstrate that facility personnel are able to respond effectively to emergencies and are familiar with emergency procedures, emergency equipment, and emergency systems. The training program needs to include the following, when applicable:

- Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment
- Key parameters for automatic waste feed cut-off systems
- Communications or alarm systems
- Response to fires, explosion or releases
- Response to groundwater contamination incidents
- Shutdown of operations
- Coordination with local officials to effectively evacuate local areas in the event of an emergency

H.2 Implementation of Introductory and Continuing Training Programs

H.2.1 Completion of Training: 724.116(b)
Indicate that training has been successfully completed by facility personnel within six months of their employment or assignment to the facility or transfer to a new position within the 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.

H.2.2 Record Keeping: 724.116(d)(4) and (e)
Describe the procedures that will be used to document that the required training has been given to and completed by facility personnel. Also describe the procedures followed to insure that this documentation is retained as part of the facility records that are maintained until closure of the facility. Training records on former employees must be kept at least three years from the date the employee last worked at the facility.

I CLOSURE AND POST-CLOSURE REQUIREMENTS

Note: A permit or enforceable document can contain alternative requirements that replace all or part of the closure and post-closure care requirements of this section of the Decision Guide provided the conditions in 703.161 and 724.210(c) are met.

I.1 Closure Plan: 703.183(m), 724.212

Provide a written closure plan that describes how each hazardous waste management unit (HWMU) will be closed in compliance with all of the applicable requirements.

I.1.1 Closure Performance Standard: 724.211

I.1.1.1 General Requirements: Describe how the HWMUs will be closed in a manner that minimizes the need for post-closure maintenance and controls, minimizes or eliminates, to the extent necessary to 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.

I.1.1.2 Specific Requirements: Describe how closure of the facility complies with the closure requirements of Part 724 including, but not limited to, the requirements of Sections 724.278, 724.297, 724.328, 724.358, 724.380, 724.410, 724.451 and 724.701 through 724.703, and 724.1102.

I.1.2 Maximum Operations and Waste Inventory: 724.212(b)(2) & (3)

Provide the dimensions and capacity of each HWMU that will exist during the active life of the facility. Provide an estimate of the maximum inventory of wastes ever in storage and in treatment at any time during the active life of the facility.

I.1.3 Partial Closure

Identify if partial closure is anticipated during the active life of the facility.

- Describe how and when the facility will be partially closed.
- Identify the maximum extent of facility operations after partial closure.

I.1.4 Closure Methods: 724.212(b)(3)

Provide a detailed description of the methods to be used during partial or final closure of the facility. Describe the methods for removing, transporting, treating, storing or disposing of all hazardous wastes, and identification of the type(s) of off-site hazardous waste management units to be used, if applicable.

I.1.5 Removal and Decontamination Procedures: 724.212(b)(4)

Provide a detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structure, and soils during partial and final closure. This description must include, but not be 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.

I.1.6 Other Activities: 724.212(b)(5)

Provided 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 run-on and runoff control.

I.1.7 Unit Specific Closure Activities: 724.212(a)(2)

Describe how the closure activities described above in Sections I.1.4, I.1.5 and I.1.6 address the unit specific closure activities required below. (Note the specific activities can/should be included as part of Sections I.1.4, I.1.5 and I.1.6 above.)

I.1.7.1 Closure of Container Storage Areas (724.278): Describe how all hazardous waste and hazardous waste residue will be removed from the containment system, and how remaining containers, liners, bases, and soil containing or contaminated with hazardous waste or hazardous waste residues will be decontaminated or removed.

I.1.7.2 Closure of Tank Systems (724.297, 724.410): Show that at closure, the owner or operator shall remove or decontaminate all hazardous waste and hazardous waste residues, contaminated containment system components (liners, etc.), contaminated soils, structures and equipment.

If all of the contaminated soils cannot be practicably removed or decontaminated, the tank system must close, perform post-closure care, and provide financial assurance in accordance with the requirements for landfills. If the tank system does not have a secondary containment system which meets Part 724 standards and has not been granted alternative design or operation under 724.293(g), the closure plan must incorporate the contingency that the tank system will be closed as a landfill and must also include a contingent post-closure plan and financial assurance for post-closure care.

RESERVED -- Closure of Waste Piles, Surface Impoundments, Incinerators, Landfills, Containment Buildings, etc.

I.1.8 Closure Schedule: 724.212(b)(6), 724.213

Provide a schedule for closure of each hazardous waste management unit. 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 which will allow tracking of the progress of partial and final closure. For example, provide estimates of the time required to remove the entire hazardous waste inventory, decontaminate structures, and remove equipment.

If closure is expected to exceed 90 days for treatment, removal or disposal of wastes and/or 180 days for completion of closure activities, provide a petition for a schedule that justifies that a longer period of closure time is required.

I.1.9 Expected Year of Final Closure: 724.212(b)(7)

Facilities that use trust funds to establish financial assurance under Section 724.243 or 724.245, and that are expected to close prior to the expiration of the permit, must provide an estimate of the expected year of final closure.

I.1.10 Alternate Requirements: 724.212(b)(8)

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, must provide either the alternative requirements applying to the regulated unit, or a reference to the enforceable document containing those alternative requirements.

I.2 Post-Closure Plan: 703.183(m), 703.203(f), 703.204(h), 703.207(e), 724.218, 724.297(b) and (c), 724.328(b), 724.328(c)(1)(B), 724.380(c), 724.410(b)

Provide a copy of the most recent post-closure plan or, if applicable, the contingent post-closure plan.

I.2.1 Applicability

Identify the units at the facility to which the post-closure requirements apply. Post-closure requirements (724.216 through 724.220) apply to the owners and operators of:

- All hazardous waste disposal facilities,
- Waste piles and surface impoundments that can not be clean closed,
- Tank systems which are required under 724.297 to meet the requirements for landfills,
- Containment buildings that are required under 724.1102 to meet the requirements for landfills.

I.2.2 **Post-Closure Inspection Plan**: **724.218(b), 724.328(b), 724.328(c)(1)(B), 724.358(b), 724.358(c)(1)(B), 724.380(c), 724.410(b)**

Describe the inspection procedures followed at the facility during the post-closure care period and provide copies of the inspection schedule and repair schedule used to document inspections and repairs at the facility in accordance with the RCRA requirements. Identify where copies of the inspection and repair records will be maintained at the facility.

The inspection schedule must include all of the following:

I.2.2.1 Items Inspected: The schedule must identify each item the owner/operator will inspect at the facility in order to comply with the RCRA requirements. These include:

- All RCRA regulated units
- Monitoring equipment
- Safety and emergency equipment
- Security control devices
- Erosion damage
- Cover settlement, subsidence and displacement
- Vegetative cover condition
- Integrity of run-on and run-off control measures
- Cover drainage system functioning
- Leak detection system
- Leachate collection and removal system
- Gas venting system
- Well condition
- Benchmark integrity
- All operating and structural equipment that are vital to prevent, detect, or respond to environmental or human health hazards

I.2.2.2 Types of Problems: For each item inspected, the schedule needs to identify the types of problems (e.g. malfunctions or deterioration) the inspector must look for during an inspection (e.g. inoperable sump pump, leaking fitting, cracks, eroding berm, etc.).

I.2.2.3 Inspection Frequency: Identify the inspection frequency for each item on the schedule and provide justification for the proposed inspection frequencies. The frequency of inspection needs to be based on the rate of possible deterioration of equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or operator error goes undetected between inspections.

I.2.2.4 Documentation of Inspection: The schedule must include the date and time of each inspection, the name of the inspector, notation of the observations made, and the nature and date of any repairs or remedial action.

I.2.2.5 Repair Log: The repair log must be used to schedule and record repairs (deterioration, or malfunction of equipment or structures) revealed by an inspection of the items listed in the inspection log. The repair log must include the following items:

I.2.2.6 Contents of Repair Log: Identify the item needing repair, the problem identified during the inspection, the date the problem was detected, the time frame within which the repair must be made, the name of the person making the repair, notation of the observations made, and the nature and date of any repairs or remedial action.

I.2.2.7 Repair Times: Identify the time frames within which repairs will be made. The time frame for making repairs can vary for the items inspected and types of problems discovered. However, it must be sufficient to insure the problem(s) identified during an inspection do not lead to an environmental or human health hazard. Where a hazard is imminent, or has already occurred, remedial action must be taken immediately.

The Illinois EPA expects most repairs to be remedied immediately upon detection. The application needs to identify the problems that could take longer than 24 hours to repair and provide justification for the longer repair time.

I.2.3 Post-Closure Monitoring Plan: 724.328(b), 724.328(c)(1)(B), 724.358(b), 724.358(c)(1)(B), 724.410(b)
Describe the monitoring to be conducted during the post-closure care period, including, as applicable, the procedures for conducting and evaluating the data gathered from:

- Groundwater monitoring;
- Leachate collection and removal; and
- Leak detection between liners.

I.2.4 Post-Closure Maintenance Plan: 724.328(b), 724.328(c)(1)(B), 724.358(b), 724.358(c)(1)(B), 724.410(b)

I.2.4.1 Procedures, Equipment & Materials: Describe the preventive and corrective maintenance procedures, equipment requirements and materials that will be needed during post-closure. Include the following items in the maintenance plan, as applicable:

- Repair of security control devices;
- Erosion damage repair;
- Correction of settlement, subsidence and displacement;
- Mowing, fertilization and other vegetative cover maintenance;
- Repair of run-on and run-off control structures;
- Leachate removal system maintenance; and
- Well replacement.

I.2.4.2 Rationale: Describe the rationale used to determine the need for corrective maintenance activities.

I.3 Survey Plat: 724.216

The application needs to indicate that a survey plat will be prepared and submitted no later than the submission of the certification of closure for each disposal unit or areas where hazardous waste is left in place. The application also needs to describe the wording placed on the survey plat.

I.3.1 Identify Units/Areas: The survey plat must indicate the location and dimensions of landfill cells or other disposal units/areas with respect to permanently surveyed benchmarks and the legal boundary of the facility.

I.3.2 Note on Plat: The plat must contain a note, prominently displayed that states:

(1) The land has been used to manage hazardous wastes.
(2) The owner's and operator's obligations to restrict disturbance of the units containing hazardous waste in accordance with the applicable Subpart G regulations.

I.3.3 Certification of Plat: The plat must be prepared and certified using the wording at 702.126(d)(1) by a professional land surveyor.

I.3.4 Recording of Survey Plat: The survey plat must be filed with any local zoning authority, or authority with jurisdiction over local land use, the Illinois EPA, and record with land titles.

I.3.5 Existing Facilities with Closed Disposal Units: If the facility includes a RCRA disposal unit that is already certified closed, provide a copy of the survey plat for that unit with the RCRA permit application.

I.4 Notice in Deed and Certification: 703.183(n), 724.216, 724.217(c), 724.219

For all disposal units or areas where hazardous waste is left in place, the application needs to indicate that as part of the closure activities, the permittee must:

I.4.1 Notice in Deed: Record a notation on the deed to the facility property, or on some other instrument which is normally examined during title search that will in perpetuity notify any potential purchaser of the property that:

- The land has been used to manage hazardous waste.
- Use of these areas is restricted.
- A survey plat and record of the type, location and quantity of material in the disposal units or areas have been filed with the Illinois EPA, the County Recorder, and any local zoning authority or authority with jurisdiction over local land use.
- For hazardous wastes disposed prior to January 12, 1981, 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.

I.4.2 Certification of Notification: Submit a certification, signed by the owner or operator, that the owner or operator has properly recorded the notification required in I.4.1, including a copy of the document in which the notification has been placed, to the Illinois EPA.

I.4.3 Existing Facilities with Closed Disposal Units: If the facility includes a RCRA disposal unit that is already certified closed, provide a copy of the notice for that unit and a copy of the document in which the notification was placed, with the RCRA permit application.

I.5 Closure Cost Estimate: 703.183(o), 724.242

Provide a copy of the closure cost estimate.

I.5.1 Third Party Costs: Cost estimates must be based on third party costs and cannot include salvage value for sale of hazardous wastes, facility structures or equipment.

I.5.2 Maximum Cost Estimate: The estimate must be calculated to cover the cost of closure when the cost would be greatest (e.g. for the maximum volume of permitted waste). Partial closure cost estimates may be provided when appropriate, but only in addition to the estimated maximum full closure cost estimate.

I.5.3 Unit Costs: The estimate must include unit costs for each closure activity, and be calculated to cover the cost of closure when the cost would be greatest (not including partial closure).

I.5.4 Annual Updates: The cost estimate must be updated annually using an inflation factor or by recalculating the maximum cost of closure in current dollars. Existing facilities should provide a copy of the most recent cost estimate that was provided to the IEPA.

I.6 Financial Assurance Mechanism for Closure: 703.183(o), 724.243

Provide a copy of the established financial assurance mechanism for facility closure. The mechanism must be one of those described in 724.243. Contact the Illinois EPA Bureau of Land Permit Section to obtain the proper forms and instructions.

I.7 Post Closure Cost Estimate: 703.183(p), 724.244

Provide a copy of the post-closure cost estimate.

I.7.1 Third Party Costs: Cost estimates must be based on third party costs and cannot include salvage value for sale of hazardous wastes, facility structures or equipment.

I.7.2 Unit Costs: The estimate must include unit costs for each activity, and be calculated to cover the cost of closure when the cost would be greatest.

I.7.3 Annual Cost Estimate: Provide an estimate of the annual cost of providing post-closure monitoring and maintenance of the facility in accordance with the post-closure plan.

I.7.4 Post-Closure Cost Estimate: Calculate the post-closure cost estimate by multiplying the annual cost estimate by the number of years of post-closure care required by 724.217.

I.7.5 Annual Updates: The cost estimate must be updated annually using an inflation factor or by recalculating the maximum cost of closure in current dollars. Existing facilities should provide a copy of the most recent cost estimate that was provided to the IEPA.

I.8 Financial Assurance Mechanism for Post-Closure Care: 703.183(p), 724.245

Provide a copy of the established financial assurance mechanism for post-closure care of the facility. The mechanism must be one of those described in 724.245. Contact the Illinois EPA Bureau of Land Permit Section to obtain the proper forms and instructions.

I.9 Liability Requirements: 703.183(q), 724.247

I.9.1 Provide copies of the financial assurance required to document compliance with applicable liability requirements for sudden and non-sudden accidental occurrences. The mechanisms must be one of those described in 724.247. Contact the Illinois EPA Bureau of Land Permit Section to obtain the proper forms and instructions.

I.9.2 Request for Variance: Request for an adjusted level of required liability coverage must be accompanied by supporting information to demonstrate that established levels of financial responsibility specified in 724.247(a) or (b) are not consistent with the degree and duration of risk associated with treatment, storage, or disposal at the applicant's facility or group of facilities.

I.10 State Mechanisms: 40 CFR 264.149, 40 CFR 264.150, 40 CFR 264.151, 40 CFR 220.14(b)(18)

If the State of Illinois assumes legal responsibility for compliance with closure, post-closure, or liability requirements, or the state assures that state funds are available to cover those requirements, submit a copy of a letter from the state describing the state assumption of responsibility and including the facility EPA ID number, name, address, and amounts of liability coverage or funds for closure or post-closure care that are assured by the state, together with a letter requesting that the state's assumption of responsibility be considered acceptable.

J. OTHER FEDERAL LAWS: 703.183(t)

Provide information in the application that demonstrates compliance with the requirements of applicable Federal laws such as the Clean Air Act, Clean Water Act, the Wild and Scenic Rivers Act, National Historic Preservation Act of 1966, Endangered Species Act, Coastal Zone Management Act, and Fish and Wildlife Coordination Act. Provide all relevant documentation such as copies of required permits or letters from Federal Agencies stating the facility is in compliance with the Federal law in question.

K. CORRECTIVE ACTION (35 Ill. Adm. Code 724.201)

35 Ill. Adm. Code 724.201 requires that facilities seeking a RCRA permit institute corrective action, as necessary, to 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 the unit. The information identified in Items K.1 through K.3 below must be contained in the original RCRA permit application submitted by a facility to allow Illinois EPA to develop permit conditions for ensuring this requirement is met; only the information in Item K.4 below needs to be submitted by facilities seeking a renewed RCRA permit.

K.1 Identification of Solid Waste Management Units (703.187(a))

Identify the solid waste management units (SWMUs) present at the facility. A SWMU includes any unit where solid waste has been managed in the past and which is not a hazardous waste management unit. Units that are SWMUs include, but are not limited to, the following:

- Landfills
- Surface impoundments
- Waste piles
- Land treatment units
- Injection wells
- Incinerators
- Tanks (including wastewater treatment units, elementary neutralization units, and tanks used in reuse/recovery operations)
- Container storage areas, transfer stations
- Waste recycling operations

K.2 Characterization of the SWMUs (703.187(a))

For each solid waste management unit identified above, submit the following information:

- Type of unit
- Location on the topographic map required by Item B-2 of the decision guide/checklist
- Engineering drawings and construction details as available
- General dimensions
- Dates when the unit was in operation
- Description (including physical and chemical characterization) of the materials or wastes placed in each unit
- Quantity or volume of waste managed in the unit, if known
- A description of: (1) the soil types present at the unit; and (2) the geology of the area where the unit is located.
- An indication of whether the wastes managed in the unit have been removed or still remain in it.

K.3 Characterization of Releases from SWMUs (703.187(b))

Provide all available information on whether or not any releases have occurred from each of the solid waste management units identified above. Reasonable efforts to identify releases must be made, even if releases have not been verified. (A release may include: spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment. Releases otherwise permitted or authorized under law or discharges into the injection zone of a UIC permitted class 1 injection well are not required to be identified). If a determination is made that there has not been any releases from a given SWMU, then a description of the efforts and information used to reach this conclusion must be provided.

The information to be provided regarding the releases, as available, includes:

- Date of the release
- Type of waste or constituent released
- Physical and chemical characteristics of the released material
- Quantity or volume released
- Nature of the release (such as spill, overflow, ruptured pipe or tank, etc.).
- Groundwater monitoring and other analytical data available to describe the nature and extent of the release.
- Physical evidence of distressed vegetation or soil contamination
- Historical evidence of releases, such as tanker truck accidents
- Any state, local or federal enforcement actions which may address releases
- Any public citizen complaints about the facility which could indicate a release
- Any information showing the migration of the release.
- A detailed description of any remedial activities taken in response to the release.

K.4 Information Required for Renewal Applications (703.187(c))

Facilities seeking a renewed RCRA permit have likely completed a substantial amount of corrective action efforts to date. A summary of this information must be provided in the renewal application; this information will form the foundation for determining future corrective action efforts to ensure the requirements of 35 Ill. Adm. Code 724.201 are met.

K.4.1 Required Information if USEPA Oversaw Initial Corrective Action Program

Facilities applying for a renewed RCRA permit which conducted corrective action efforts in accordance with requirements of the USEPA portion of the original RCRA permit issued to the facility must provide the following information regarding these efforts:

K.4.1.1 A detailed chronology of all correspondence between USEPA and the facility regarding corrective action efforts, starting from the issuance of the original RCRA permit;

K.4.1.2 Copies of all letters received from USEPA regarding corrective action efforts, starting with the issuance of the original RCRA permit;

K.4.1.3 Copies of all letters and documents sent to the USEPA regarding corrective action efforts conducted in accordance with the original RCRA permit;

K.4.1.4 A detailed discussion of each of the solid waste management units identified and addressed in accordance with the provision of the facility's original RCRA permit, including: (1) detailed description of each SWMU of concern (such as construction/operating details, types of waste managed in the unit end drawing showing the layout of the units geology/hydrology of the area where the unit is located, etc.); (2) a scaled drawing showing the location of the unit within the facility; (3) a summary of the investigation/remediation efforts completed to date; and (4) discussion of any investigation/remediation efforts which must still be carried out to complete corrective action responsibilities for the unit.

K.4.1.5 The information in the appropriate portions of Section E (Groundwater Monitoring) regarding any on-going groundwater monitoring/remediation program being carried out at the facility.

Compiling all the information regarding corrective action efforts completed to date, as required above, is necessary to create an administrative record adequate to support the requirements to be placed in the facility's renewed RCRA permit regarding corrective action. In addition, this information will form the foundation for completing the facility's RCRA corrective action program.

K.4.2 Required Information if IEPA Oversaw Initial Corrective Action Program

Facilities which carried out corrective action under the requirements of the Illinois EPA portion of the original permit must provide the following information regarding corrective action efforts completed at the facility:

K.4.2.1 A detailed chronology of all corrective action efforts completed to date, starting with the issuance of the original RCRA permit;

K.4.2.2 A discussion of all corrective action related correspondence between the facility and Illinois EPA, including copies of all Illinois EPA letters regarding corrective action efforts at the facility (starting with the original permit);

K.4.2.3 A detailed discussion of each of the solid waste management units identified and addressed in accordance with the facility's original RCRA permit. This must include: (1) detailed description of each SWMU of concern (such as construction/operating details, types of waste managed in the unit end drawing showing the layout of the units geology/hydrology of the area where the unit is located, etc.); (2) a scaled drawing showing the location of the unit within the facility; (3) a summary of the investigation/remediation efforts completed to date; and (4) a discussion of any investigation/remediation efforts which must still be carried out to complete corrective action responsibilities for the unit.

K.4.2.4 The information in the appropriate portions of Section E (Groundwater Monitoring) regarding any on-going groundwater monitoring/remediation program being carried out at the facility.

Due to the fact that copies of all corrective action correspondence for these projects should be in Illinois EPA's files, it will not be necessary to include copies of submittals made by the facility in the application. However, the application must contain copies, in chronological order, of the cover letter of all submittals made to date by the facility and all Illinois EPA letters sent to the facility regarding corrective action (starting with the original permit). This will allow the permit application to provide an adequate administrative record of the corrective action efforts completed at the facility.

AA AIR EMISSION STANDARDS FOR PROCESS VENTS

Applicability: The requirements in this section apply to all process vents associated with hazardous waste where distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operations occur and the hazardous wastes have an organic concentration of at least 10 parts per million by weight (ppmw).

NOTE: The requirements of 724.932 through 724.936 apply to process vents on hazardous waste recycling units previously exempt under 721.106(c)(1). Other exemptions under 721.104, 722.134, and 724.101(g) are not affected by these requirements. However, these requirements do not apply to process vents where the facility owner or operator has certified that the vents are operating in accordance with the process vent requirements of an applicable federal Clean Air Act regulation codified under 40 CFR 60, 61, or 63.

AA.1 Identification

Identify any units doing distillation, fractionation, thin-film evaporation, solvent extraction or air steam stripping operations that manage hazardous waste.

AA.2 Exemptions from Subpart AA Requirements: 724.930 and 724.934(d), (e), and (f)

If the applicant believes that a process vent associated with a hazardous waste distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping operation would be exempted from the requirements of AA, the permit application must include calculations and supporting documentation which show that the time-weighted, annual average total organic concentration of the waste managed by the waste management unit is less than 10 ppmw. One of the following methods must be used:

AA.2.1 **Direct Measurement, 724.934(d)(1):** If the determination is made using direct measurement, all of the following information must be provided in the permit application:

- Samples: A minimum of four grab samples must be collected from each waste stream managed in the affected unit under process conditions expected to cause the maximum waste organic concentrations. Identify the sample collection methods, and how volatilization or organics during sampling was minimized. Describe why the process conditions during sampling were expected to cause the maximum waste organic concentrations.

- Sample Locations: Identify the sample locations on a P&ID or detailed drawing of the unit. Describe how the sample location complies with the requirements of 724.934(d)(1)(B).

- Sample Analysis: Identify the total organic concentration of the sample, the calculations used to arrive at this value, and the analytical method (SW-846 method 9060 or 8240) used to determine the concentrations.

- Calculations: Provide the calculations used to determine the time-weighted, annual average total organic concentration of the waste. These calculations must include the arithmetic mean of the results of the analyses of the samples for each waste stream managed in the unit. The time-weighted average must be calculated using the annual quantity of each waste stream processed and the mean organic concentration of each waste stream managed in the unit.

AA.2.2 **Knowledge, 724.934(d)(2) :** If the determination is made using knowledge of the waste, the permit application must include documentation of the waste determination. Examples of documentation include, but are not limited to:

- Production process information documenting that no organic compounds are used.
- Production process information from another facility that uses an identical process and has demonstrated through direct measurement that the waste from the process is less than 10 ppmw organic.

- Prior specification analysis results on the same waste stream, and documentation that no process changes have occurred since that analysis which could affect the organic concentration of the waste.

AA.2.3 **Date of determination, 724.934(e):** The application must identify the date(s) that the applicant determined that the affected unit is exempt from the requirements of Subpart AA. This must be done by the effective date of the regulations, or the date that the waste is first managed in a waste management unit. For continuously generated waste, the application must include copies of the annual determination(s). The determination must also be done whenever there is a change in the waste or the process that generates or treats the waste.

AA.3 Identification of Process Vents: 724.932, 703.210

The application must identify all process vents subject to Subpart AA (including those covered by an exemption). The locations of the affected units must be identified on a scale drawing of the facility. The affected process vents must be shown on P&ID's of the affected units.

AA.4 Standards for Process Vents: 703.210, 724.932

AA.4.1 **Compliance with standards**: The application must identify how the owner/operator will comply with the standards for process vents. The owner/operator must either:

- Reduce total organic emissions from all affected process vents at the facility below 3 lb/hr and 3.1 tons/year, or
- Reduce, by use of a control device, total organic emissions from all affected process vents at the facility by 95 weight percent.

AA.4.2 **Determining Compliance**: The application must demonstrate how the owner/operator will determine compliance with 724 Subpart AA.

AA.4.2.1 The engineering calculations and performance tests must both include annual throughput and operating hours of each affected unit, estimated emission rates for the affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility).

AA4.2.2 If performance tests are used to determine vent emissions, emission reductions, or total organic compound concentrations achieved by add-on control devices, the performance test must conform with the requirements of 724.934(c).

AA.5 Standards: closed-vent systems and control devices: 703.210, 724.932, 724.933 and 724.935

Closed-vent systems and control devices used to comply with the provisions of this Subpart must be operated at all times when emissions may be vented to them.

AA.5.1 **Implementation Schedule**: If a closed-vent system and control device has not been installed at the time that this permit application is submitted and the facility meets the qualifications at 724.933(a)(2), the application must include an implementation schedule for compliance with AA.4.

AA5.2 **Documentation of Compliance:** If a closed-vent system and control device are installed to comply with the provisions of 724.932(a), the application must include documentation that the requirements of 724.933 are met. This documentation must include the following:

AA.5.2.1 Resources. A list of all information references and sources used in preparing the documentation.

AA.5.2.2 Records. Copies of records including the dates of each compliance test required by 724.933(k).

AA.5.2.3 Design Information. A design analysis, specifications, drawings, schematics, and piping, and instrumentation diagrams (P&IDs) based on the appropriate sections of APTI Course 415, or other approved engineering texts which present basic control device design information or manufacturers literature. The design analysis must address the vent stream characteristics and control device parameters as specified in 724.935(b)(4)(C).

AA.5.2.4 Certification of Operating Conditions. A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions which exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

AA.5.2.5 Certification of Efficiency: A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater unless the total organic emission limits of 724.932(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent.

AA.5.3 Control Devices: Applications that propose to use a control device to meet the requirements of 724.933 must include the following information:

AA.5.3.1 Vapor Recovery. If a control device involves vapor recovery (e.g. a condenser or absorber), the application must document how the system is 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 724.932(a)(1) for all affected process vents is attained at an efficiency less than 95 weight percent.

AA.5.3.2 Combustion Device. If an enclosed combustion device (e.g. a vapor incinerator, boiler or process heater) is used, the application must document how the system is designed and operated to 1) reduce the organic emissions vented to it by 95 weight percent or greater; 2) achieve a total organic compound concentration of 20 ppmv, expressed as the sum of the actual compounds, not carbon equivalents, on a dry basis corrected to 3 percent oxygen; or 3) provide a minimum residence time of 0.50 seconds at a minimum temperature of 760ºC. 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.

AA.5.3.3 Flare. If a flare is used, the application must document how it is designed and operated to meet conditions specified in 724.933(d) and 724.933(e).

AA.5.3.4 Carbon Absorption (on-site regeneration). If a carbon absorption system that regenerates the carbon bed directly on-site in the control device is used, the application must document how the system is designed and operated to meet conditions specified in 724.933(g).

AA.5.3.5 Carbon Absorption (off-site regeneration). If a carbon absorption system that does not regenerate the carbon bed directly on-site and the control device is used, the application must document how the system is designed and operated to meet conditions specified in 724.933(h).

AA.5.3.6 Alternate Control Device. If an operator proposes to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser or carbon absorption system to meet the requirements of this part, the application must document how this is accomplished.

AA.5.3.6.1 The documentation must include 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.

AA.5.3.6.2 If test data is used to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in 725.935(b)(3) must be provided.

AA.5.4 Closed Vent Systems: Applications that propose to use a closed vent system to meet the requirements of 724.933 must include the following information.

AA.5.4.1 Operation. The application must describe how the closed vent system is designed and operated such that it does not have any detectable emissions. A detectable emission is indicated by an instrument reading of 500 ppm above background and by visual inspections, as determined by the methods specified in 724.934(b).

AA.5.4.2 Monitoring and Testing. The application must describe the monitoring and testing procedures followed during leak detection tests and how they meet the requirements of 724.934(b). The application must include the monitoring and testing frequency, and the results of all leak detection tests.

AA.5.4.3 Control of Emissions. The application must describe how the operator will control any detectable emission as soon as practicable, but no later than 15 calendar days after it is detected. The operator must make the first attempt to repair the system no later than 5 days after the emission is detected.

AA.6 Monitoring and Inspections of Control Devices: 724.933(f)

The application must describe how the operator will monitor and inspect each control device to insure the proper operation and maintenance of the device. The application must describe how the operator has implemented the following requirements:

AA.6.1 Flow Indicator. Each affected process vent must be equipped with a flow indicator that provides a record of stream flow from each affected process vent to the control device at least once every hour.

AA.6.1.1 Flow Rates. The application must identify the minimum, maximum and nominal flow rates for the affected unit, process vent and control device. It must identify the range of the flow indicator and document that it is capable of accurately sensing both the minimum and maximum flow rates.

AA.6.1.2 Location of Indicator. The application must include detailed engineering drawings such as P&IDs and process flow drawings which show that the flow indicator sensor is 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.

AA.6.2 Continuous Monitor and Reorder. Each affected process vent must be equipped with a device that continuously monitors and records the operation of the control device as specified in 724.933(f)(2).

AA.6.2.1 Parameters. The application must identify the parameters that will be monitored and recorded (e.g. flow rate, temperature, CO, concentration of organics, etc.), the minimum, maximum and nominal values for those parameters, and the range(s) of the monitor and recorder. It must document that the monitors and recording devices are capable of accurately recording both the minimum and maximum values of all parameters.

AA.6.2.2 Location of Indicator. The application must include detailed engineering drawings such as P&IDs and process flow drawings that show that the sensors are installed in accordance with the requirements of 724.933(f)(2).

AA.6.3 Specifications. The application must include a copy of the manufacturer's specifications for the installation, calibration, maintenance, and operation of each flow indicator, continuous monitor and recorder. The application must document that the installation, calibration, maintenance, and operation of each device is in accordance with the manufacturer's specifications.

AA.6.4 Calibration and Maintenance. The application must include a maintenance and calibration schedule for the flow indicator, continuous monitor and recorder required by 724.933(f)(2). The calibration schedule must identify the frequency that the devices will be calibrated and the specific procedures followed to calibrate them. The maintenance schedule must identify the frequency that the devices (or parts) are scheduled for maintenance.

AA.6.5 Inspection Schedule. Provide an inspection schedule for the flow indicator, continuous monitor and recorder required by 724.933(f)(1) and (2). Readings from the devices must be inspected at least once each day to check control device operation. Describe the corrective measures to be taken to ensure the control devices operate in compliance with this section. Describe how corrective measures will be immediately implemented, if necessary.

AA.6.6 **Carbon Adsorption System (On-Site Regeneration)**. Applications that include a carbon adsorption system such as a fixed-bed carbon adsorber that regenerates the carbon bed directly on-site in the control device, must identify the time interval at which the owner or operator replaces the existing carbon in the control device with fresh carbon. This time interval shall not be longer than the design service life of the carbon established as a requirement of Section 724.935(b)(4)(C)(vi). the application must identify the carbon regeneration cycle time and the design service life of the carbon determined using the design analysis specified at 724.935(b)(4)(C)(vi). A complete copy of that design analysis must also be provided.

AA.6.7 **Carbon Adsorption System (Off-Site Regeneration)**. The carbon in a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly on-site in the control device, must be replaced on a regular basis. The application must identify when the carbon is replaced. The carbon replacement interval must be based on the design analysis specified at 724.935(b)(4)(C)(vii), and a complete copy of that design analysis must be provided as part of the application. One of the following methods must be used:

AA.6.7.1 Monitoring Schedule. The application must include a monitoring schedule that shows how the concentration level of organic compounds in the exhaust vent stream form the system will be monitored in accordance with 724.933(h)(1). The application must show that when carbon breakthrough is indicated, the existing carbon will be replaced with fresh carbon immediately. The application must identify the monitoring frequency and how it was developed from the design analysis required in 724.935(b)(4)(C)(vii).

AA.6.7.2 Predetermined Time Interval. The application must identify a predetermined time interval when the existing carbon will be replaced with fresh carbon. The time interval must be less than the design carbon replacement interval determined by the design analysis specified at 724.935(b)(4)(C)(vii).

AA.6.8 **Sampling and Monitoring**. Provide a detailed description of sampling and monitoring procedures, including sampling an 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.

AA.6.9 **Alternate Parameter**. If the owner/operator proposes to monitor an alternate operational or process parameter, the application must include the control device's design specifications, and demonstrate that the parameter will ensure that the control device is operated in conformance with these standards.

AA.7 Test Methods and Procedures for Closed Vent Systems: 724.934(b)

If the application includes a closed vent system that must be tested for compliance with 724.933(k), the application must include a detailed description of the test methods and procedures that will be followed. All of the following requirements must be addressed:

AA.7.1 Instrument. Show that the detection instrument meets the performance criteria f Reference Method 21 in 40 CFR 60. Identify the type of instrument(s) that will be used (OVA, FID, PID, etc.), and document that the instrument is appropriate for the parameters it will be used to monitor (discuss the response of the instrument to different groups of compounds and power of the lamp used in PIDs).

AA.7.2 Calibration Plan. Describe how the instrument will be calibrated before use on each day of use. The calibration plan must address all of the requirements of 724.934(b)(3), (4), and (5).

AA.7.3 Monitoring Plan. Provide a monitoring plan that meets the requirements of Reference Method 21 in 40 CFR 60. Identify the inspection frequency. Explain the procedures to be used to ensure the instrument probe is traversed around all potential leak interfaces as close to the interface as possible as described in Reference Method 21.

AA.8 Performance Tests: 724.934(c)

If a performance tests is used to determine compliance with Sections 724.932(a) or 724.933(c), it must meet the following requirements:

AA.8.1 Reference Methods. The application must include detailed descriptions of the performance tests used to determine total organic compound concentrations and mass flow rates entering an existing control devices. It must document that the tests are conducted and data reduced in accordance with the reference methods and calculation procedures specified in 724.934(c)(1).

AA.8.2 Operating Conditions. The application must identify the operating conditions of the hazardous waste management unit at which the highest load or capacity level is reasonably expected to occur, and the organic concentrations at these conditions. Justification of how these operating conditions were selected, including analytical test results, must also be provided.

AA.8.3 Data. The application must include copies of all calculations, process information and analytical results necessary to justify that the performance tests were conducted at conditions that meet the requirements Subpart AA.

AA.8.4 Drawings. Provide a P&ID and scale drawings of all affected units that show all process vents, control devices, sample locations, sampling ports and safe sampling platforms.

AA.9 Recordkeeping and Reporting Requirements: 724.935, 724.936

The application must include a detailed description of the information that is documented in the operating record to comply with the recordkeeping and reporting requirements of 724 Subpart AA. The information to demonstrate compliance with AA must be kept in the operating record.

CC AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS AND CONTAINERS

Applicability: The following items must be provided for all tanks systems, surface impoundments and containers that treat, store or dispose of hazardous waste.

CC.1 Exemptions from Subpart CC: 724.980 (b) and (d)

Waste Management Units are exempt from the requirements of all of Subpart CC if it meets one of the following requirements. Applications for waste management units covered by an exemption must include documentation that the waste management system meets one of the following exemptions:

- Waste was placed in the unit before December 6, 1996 and no additional hazardous waste was added to the unit on or after December 6, 1996.
- A container with a design capacity less than or equal to $0.1m^3$ (26.4 gal).
- A tank, that the owner or operator has stopped adding hazardous waste and has begun implementing or completed closure pursuant to an approved closure plan.
- A surface impoundment, that the owner or operator has stopped adding hazardous waste (except to implement an approved closure plan) and has begun implementing or completed closure pursuant to an approved closure plan.
- A unit used solely for on-site treatment or storage of hazardous waste that is generated as the result of implementing remedial activities required by IEPA or USEPA.
- A unit used solely for the management of radioactive mixed waste in accordance with all applicable regulations under the authority of the Atomic Energy Act and the Nuclear Waste Policy act.
- A unit equipped with 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.
- A tank that has a process vent.
- A tank or container used for the management of hazardous waste generated by organic peroxide manufacturing and its associated laboratory operations, when the owner complies with the requirements of 724.980 (d) (1) thru (3).

CC.2 Exemptions from 724.984 through 724.987: 724.982 (c)

A tank, surface impoundment or container is exempt from the standards specified in 724.984 through 724.987 if one of the following conditions is true. Applications for waste management units covered by an exemption must include documentation that the waste management system meets one of these requirements:

- A tank, surface impoundment or container for which all hazardous waste entering the unit has an average volatile organic concentration at the point of waste origination of less than 500 parts per million by weight (ppmw).
- A tank, surface impoundment or container for which the organic content of all hazardous waste entering the waste management unit has been reduced by an organic destruction or removal process that achieves specified criteria.
- A tank used for biological treatment of hazardous waste that destroys or degrades the organics contained in the hazardous waste such that the requirements 724.982 (c)(2)(D) are met.
- A tank, surface impoundment or container for which all hazardous waste placed in the unit meets applicable organic concentration limits in 728 Table T or has been treated by appropriate treatment technology.
- A tank located inside an enclosure vented to a control device that is used for bulk feed of hazardous waste to a waste incinerator that meets 724.982 (c)(5).

CC.3 Standards for Tanks: 724.984

CC.3.1 General information: Prepare a table, which provides the following information regarding each tank:

- The design capacity of the tank
- The maximum organic vapor pressure of the waste(s) to be placed in the tank
- An indication whether the tank is heated or if waste stabilization is conducted within the tank
- The level of control to be used on the tank

Note: Tanks used for waste stabilization or 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 limit for the tank are required to comply with Level 2 controls.

CC.3.2 **Level 1 Controls for Tanks:** Applications demonstrating compliance with Level 1 controls must include technical data, design drawings and specifications and engineering studies as appropriate to demonstrate the following:

CC.3.2.1 Fixed Roof Design: Provide a description of the fixed roof design /closure devices which documents that that a continuous barrier exists over the entire waste in tank, contains no visible open spaces between roof section joints or between the interface of the roof edge and tank wall, contains openings with closure devices or closed-vent systems and is made of suitable material.

CC.3.2.2 Closure Devices: Provide normal operating procedures for the closure devices and explain when the closure devices would not be secured in a closed position.

CC.3.3 **Level 2 Controls for Tanks:** Applications demonstrating compliance with Level 2 controls must include technical data, design drawings, and specifications and engineering studies as appropriate to demonstrate the following:

CC.3.3.1 Design: A design that satisfies one of the following:

- A fixed-roof tank equipped with an internal floating roof, which meets the requirements of 724.985(e).
- A tank equipped with an external floating roof, which meets the requirements of 724.985(f).
- A tank vented through a closed-vent system to a control device, which meets the requirements of 724.985(g).
- A pressure tank designed and operated in accordance with the requirements of 724.985(h).
- 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 of 724.985(i).

CC.3.3.2 Closure devices/Closed vent systems: Provide normal operating procedures for the closure devices/closed vent systems and explain when the closure devices would not be secured in a closed position.

CC.4 Standards for Surface Impoundments: 724.985

Owners and Operators controlling air pollutant emissions from a surface impoundment must submit technical data, design drawings, and specifications and engineering studies as appropriate to demonstrate the following:

- A floating membrane cover that meets the provisions specified in 724.985(c).
- A cover that is vented through a closed-vent system to a control device that meets the provisions in 724.985(d).

CC.5 Standards for Containers: 724.986

Identify each container area subject to Subpart CC.

Note: For each container subject to this section, the application must document that the owner or operator is controlling air pollutant emissions in accordance with the following:

- For a container having a design capacity greater than 26 gal and less that or equal to 120 gal, the owner or operator shall control air pollutant emissions from the container in accordance with Container Level 1 standards.
- For a container having a design capacity greater than 120 gal that is not in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with the Container Level 1 standards.
- For a container having a design capacity greater than 120 gal that is in light material service, the owner or operator shall control air pollutant emissions from the container in accordance with Container Level 2 standards.

When a container having a design capacity greater than 26 gal is used for treatment of a hazardous waste by a stabilization process, the owner or operator shall control air pollutants emissions from the container in accordance with Container Level 3 standards at those times during the waste stabilization process when the hazardous waste in the container is exposed to the atmosphere.

CC.5.1 Level 1 Standards: 724.986(c)

CC.5.1.1 Containers: The application must state which of the following Container Level 1 controls the facility is using for each container using Container Level 1 controls:

- A container meeting the applicable U.S. Department of Transportation (USDOT) regulations on packaging hazardous materials for transportation.
- 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).
- An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container such that no hazardous waste is exposed to the atmosphere. One example of such a barriers is application of a suitable organic-vapor suppressing foam.

CC.5.1.2 Covers and Closure Devices: The application must include detailed procedures to demonstrate compliance with 724.986(c)(2) and (3).

CC.5.2 Level 2 Standards: 724.986(d)

CC.5.2.1 Container: The application must state which of the following Container Level 2 controls the facility is using for each container using Container Level 2 controls:

- A container that meets the applicable USDOT regulations on packaging hazardous materials for transportation as specified in 724.986(f).
- A container that operates with no detectable organic emissions, as defined in 725.981, and determined in accordance with the procedure specified in 724.986(g).
- A container that has been demonstrated within the preceding 12 months to be vapor-tight by using 40 CFR Appendix A, Method 27, incorporated by reference in 720.111, in accordance with the procedures specified in 724.986(h).

CC.5.2.2 Covers, Closure Devices, Pressure Relief Device and Safety Device: The application must contain procedures for the operation of covers, closure devices, pressure relief devices and safety devices that meet the requirements 724.986(d)(3).

CC.5.3 Level 3 Standards: 724.986(e)

CC.5.3.1 The application must state which of the following Container Level 3 controls the facility is using for each container using Container Level 3 controls:

- A container that is vented directly through a closed-vent system to a control device in accordance with the requirements of 724.986(e)(2)(B).
- A container that is vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with the requirements of 724.986(e)(2)(A) and (B).

CC.5.3.2 The application must include design information on the air control equipment used to satisfy the requirements of 724.986(e).

CC.5.3.3 The application must contain procedures for record keeping that meet the requirements of 35 Ill. Adm. Code 724.989(d).

CC.6 Waste Transfer: 724.984 (j), 724.985 (e), 724.986 (d) (2)

The application must include a discussion of how wastes are transferred in and out of the units regulated by Subpart CC.

CC.7 Repairs: 724.984 (k), 724.985 (f), 724.986 (c) (4) (C), 724.986 (d) (4) (C)

The application must contain repair procedures for tanks and surface impoundments, which meet the following criteria:

CC.7.1 The owner or operator shall 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.

CC.7.2 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 shall 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.

CC.8 Standards for Closed-vent Systems and Control Devices: 724.987

This section applies to closed-vent systems and control devices installed and operated by the owner or operator to control air emissions in accordance with the standards of 724, Subpart CC.

CC.8.1 The application must include the following:

CC.8.1.1 The application must demonstrate that the closed-vent system routes gases, vapors, and fumes emitted from the hazardous waste in the waste management unit are routed to a control device that meets the requirements of 724.987(c).

CC.8.1.2 The application must demonstrate that the closed-vent system shall be designed and operated in accordance with the requirements specified in 724.933(k).

CC.8.1.3 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, the application must demonstrate compliance with 724.987(b)(3).

CC.9 Inspection and Monitoring Requirements: 724.988

The application must demonstrate compliance with the following requirements:

CC.9.1 The owner or operator shall inspect and monitor air emission control equipment used to comply with 724 Subpart CC in accordance with the applicable requirements specified in 724.984 through 724.987.

CC.9.2 The owner or operator shall develop and implement a written plan and schedule to perform the inspection and monitoring required by 724.989(a). The owner or operator shall incorporate this plan and schedule into the facility inspection plan required under 724.115.

CC.10 Record Keeping Requirements: 724.989

The application must contain a record keeping procedure that demonstrates compliance with 724.989.

CC.11 Reporting Requirements: 724.990

The application must contain a reporting procedure that demonstrates compliance with 724.990.