



# ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

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BRUCE RAUNER, GOVERNOR

ALEC MESSINA, ACTING DIRECTOR

## HAZARDOUS WASTE MANAGEMENT RCRA PERMIT

0890105010 -- Kane County  
IL6890030046  
Fermilab  
RCRA Log No. B-131R2  
RCRA Permit File

Issue Date: December 27, 2016  
Effective Date: January 31, 2017  
Expiration Date: January 31, 2027  
Modification Date:

### Owner

United States Department of Energy  
Fermi National Accelerator Laboratory  
Attn: Michael J. Weis, Site Manager  
Fermi Site Office  
Kirk Road and Pine Street  
Post Office Box 2000  
Batavia, Illinois 60510-0511

### Operator

Fermi Research Alliance, LLC  
Fermi National Accelerator Laboratory  
Attn: Nigel Lockyer, Director  
Kirk Road and Pine Street  
Post Office Box 500  
Batavia, Illinois 60510-0500

A renewed RCRA permit is hereby granted to the Owner and Operator identified above pursuant to the Resource Conservation and Recovery Act, Illinois Environmental Protection Act, and Title 35 Illinois Administrative Code (Ill. Adm. Code) parts 702, 703, 705, and 720 through 729 for the Fermi National Accelerator Laboratory (Fermilab) to construct/maintain and operate a waste management facility involved in the on-site storage of containers of hazardous waste for time periods greater than 90 days. In addition, this permit requires Fermilab to complete corrective action at five solid waste management units. Fermilab is located at Kirk Road and Pine Street, Batavia, Illinois.

This permit consists of the conditions contained herein (including those in any attachments) and applicable regulations contained in the Illinois Environmental Protection Act and Title 35 Ill. Adm. Code Parts 702, 703, 705 and 720 through 729 in effect on the effective date of this permit. The Illinois Environmental Protection Act (415 ILCS 5/39) grants the Illinois Environmental Protection Agency the authority to impose conditions on permits which are issued.

The permit is issued based on the information submitted in the approved permit application identified on the page titled "Approved Permit Application And List Of Plans And Documents". Any inaccuracies found in the information provided in the permit application may be grounds for the termination or modification of this permit (see 35 Ill. Adm. Code 702.187 and 702.186) and potential enforcement action (415 ILCS 5/44(h)).

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If you have any questions regarding the groundwater aspects of this permit, please contact Terri Blake Myers at 217/524-3384. Questions regarding other aspects of this permit should be directed to Mark L. Crites at 217/524-3269.

Sincerely,



Joyce Munie, P.E., Manager  
Permit Section  
Division of Land Pollution Control  
Bureau of Land

JLM:MLC:0890105010-RCRA-B131R2-Approval.doc

JKM MLC ~~BM~~

RCRA PERMIT

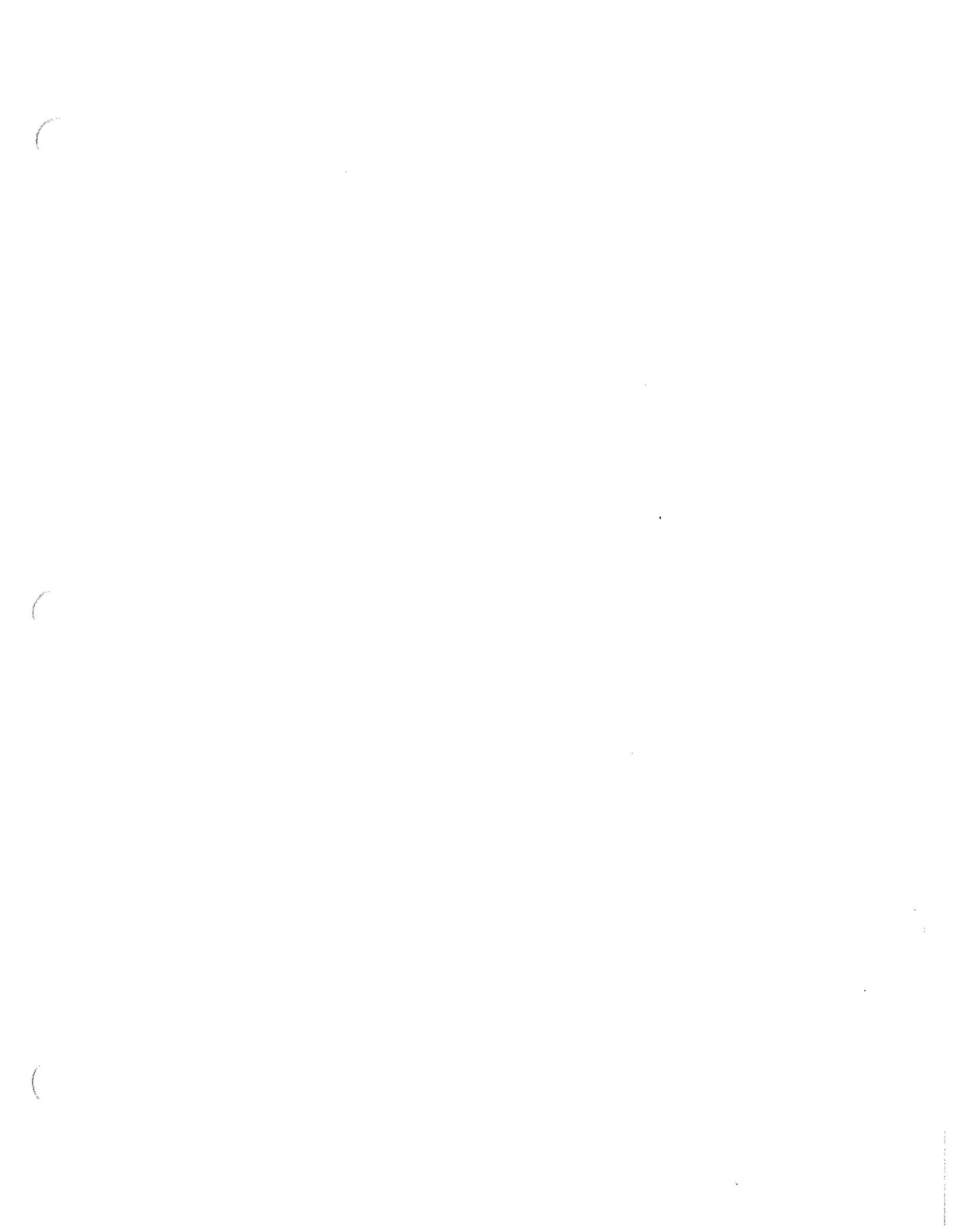
ISSUED TO

UNITED STATES DEPARTMENT OF ENERGY  
FERMI NATIONAL ACCELERATOR LABORATORY

BATAVIA, ILLINOIS

0890105010 - KANE COUNTY

IL6890030046



RCRA Permit  
Fermi National Accelerator Laboratory

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GENERAL FACILITY DESCRIPTION  
U.S. Department of Energy  
Fermi National Accelerator Laboratory  
Batavia, Illinois  
IL6890030046  
STATE ID #0890105010

The Fermi National Accelerator Laboratory (Fermilab) facility conducts research into high energy physics. As a byproduct of these research activities, the Fermilab facility generates several forms of waste. These include (1) wastes classified as hazardous under the Resource Conservation and Recovery Act (RCRA) which are subject to Illinois Environmental Protection Agency (Illinois EPA) regulation; (2) mixed (radioactive and hazardous) wastes, the hazardous component of which is subject to Illinois EPA regulation and the radioactive component of which is subject to regulation under the Atomic Energy Act and DOE orders; and (3) waste PCBs subject to U.S. Environmental Protection Agency (EPA) regulation under the Toxic Substances Control Act (TSCA). All of the afore-mentioned wastes are generated by the on-site development, production, and maintenance of materials and equipment that support the operation of a series of proton accelerators and associated experimental areas.

Fermilab has been a RCRA regulated facility under interim status from November 1980 to October 1991 and under its Resource Conservation and Recovery Act (RCRA) Permit since October 1991. A renewed RCRA permit was issued on August 4, 2006. The waste management activities include storage of waste in containers.

Fermilab is owned by the U.S Department of Energy (DOE) and operated under contract with the Fermi Research Alliance, LLC. Fermilab occupies 6,800 acres near the western edge of the Chicago metropolitan area, 35 miles west of downtown Chicago. The facility is located just east of Batavia, Illinois with its main entrance on Pine Street. It lies in western DuPage County and eastern Kane County, the western-most of the six collar counties surrounding Chicago. The mailing addresses for the U.S. DOE and Fermi Research Alliance, LLC are as follows:

U.S. Department of Energy  
Fermi National Accelerator Laboratory  
Kirk Road and Pine Street  
P.O. Box 2000  
Batavia, Illinois 60510

Fermi Research Alliance, LLC  
Fermi National Accelerator Laboratory  
Kirk Road and Pine Street  
P.O. Box 500  
Batavia, Illinois 60510

### APPROVED PERMIT APPLICATION AND LIST OF PLANS AND DOCUMENTS

Pursuant to Illinois hazardous waste management requirements, Fermilab has prepared the following formal plans and documents covering the various facets of the design, operation and monitoring its hazardous waste management unit. The issuance of this permit approves the plans and documents identified below unless otherwise indicated in the permit.

The Approved Permit Renewal Application was dated December 18, 2015 and received by the Illinois Environmental Protection Agency (Illinois EPA) on December 30, 2015. It consisted of one volume. Additional information was submitted to Illinois EPA on April 29, 2016, and was received on May 4, 2016.

Each plan or document regarding all aspects of this permit and its location within the approved Permit Renewal Application are as follows:

<u>Plan or Document</u>	<u>Location in Approved Permit Application</u>
Waste Analysis Plan	Section C.2
Inspection Plan for Building WS-3	Section F.2
Contingency Plan	Section G
Closure Plan	Section I
Training Program	Section H
Design and Operating Plans, Specifications and Procedures for Container Storage	Section D

Section I: CONTAINERS

A. SUMMARY

Containers of hazardous wastes shall be stored in the hazardous waste storage building (Building WS-3), as depicted in Drawing 12 of the approved permit application. The hazardous waste storage building consists of an enclosed, roofed steel building and a diked concrete base. The concrete shall be coated with a chemical resistant epoxy. Hazardous wastes will be segregated as follows:

1. A maximum of 112 – 55 gallon drums of hazardous waste may be stored in the General storage area, consisting of 14 double-stacked pallets with 4 drums each.
2. The Acid Storage Containment area may contain a maximum of 14 – 55 gallon drums, consisting of 7 single-stacked pallets containing 2 drums each.
3. The Mixed Waste Cabinet may contain up to 60 gallons of mixed waste in small containers.
4. The Mercury Waste Cabinet has a capacity of 45 gallons of mercury waste. The mercury waste will be stored in various types of small containers.

Exhibit D-1 in the Approved Permit Application describes the types of containers that may be used to store wastes. Exhibit D-3 of the Approved Permit Application details the specifications of the Mixed Waste Cabinet and the Mercury Waste Cabinet.

Fermilab may store solid and liquid wastes in Building WS-3 as identified below. Wastes include hazardous and mixed wastes along with wastes contaminated with polychlorinated biphenyls (PCBs).

<u>Hazardous Waste Code</u>	<u>Waste Description</u>	<u>Storage Location</u>
D008	Exceeds toxicity characteristic for lead.	General Storage Area
D009	Exceeds toxicity characteristic for mercury.	Mercury Storage Cabinet
D002	Waste exhibiting the characteristic of corrosivity. Some of this waste is mixed waste. <sup>1</sup>	Acid Storage Containment area or Mixed Waste Storage Cabinet.
N/A <sup>2</sup>	PCB Contaminated waste.	General Storage Area.

Notes:

1. Mixed wastes are wastes that contain both radioactive waste subject to the Atomic Energy Act and hazardous waste identified by one or more of the EPA hazardous waste codes listed above.
2. PBC Wastes are waste that contains polychlorinated biphenyls (PCB's). These wastes are subject to U.S. Environmental Protection Agency (U.S. EPA) regulation under the Toxic Substances Control Act (TSCA).

Laboratory wastes are transferred from various laboratories to the hazardous waste storage building by trained hazardous waste storage facility personnel. The only wastes which may be stored in the hazardous waste storage building are wastes as identified in the table above.

**B. WASTE IDENTIFICATION**

1. The storage of all hazardous waste containers permitted for storage for greater than 90 days shall be performed in the approved storage area shown as the hazardous waste storage facility (Building WS-3) on Drawing 12 of the approved permit application.
2. The Permittee may only store the wastes identified in Condition I.A in the container storage area.
3. The Permittee is prohibited from storing waste (hazardous or non-hazardous) in the permitted unit that is not identified in the table in Condition I.A.
4. Preservation techniques used for sample handling and shipping prior to analysis shall be consistent with the latest edition of SW-846.

**C. CONDITION OF CONTAINERS** -- If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee must transfer the hazardous waste from this container to a container that is in good condition or manage the waste in accordance with the approved permit application.

**D. COMPATIBILITY OF WASTE WITH CONTAINERS** -- The Permittee must use a container made of or lined with material which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

**E. MANAGEMENT OF CONTAINERS** -- The Permittee shall comply with the following management practices:

1. A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste.
2. A container holding hazardous waste must not be opened, handled, or stored in a manner that may rupture the container or cause it to leak.
3. Aisle spacing for the storage of all hazardous waste containers must be maintained at a minimum distance of two feet.

F. INSPECTION

The Permittee shall conduct regular inspections of the Container Storage Facility, Secondary Containment Area, Security Equipment and Facility Periphery, Emergency Equipment and Personnel Protective Equipment in accordance with the inspection schedule shown in Exhibit F-1 of the approved permit application. Forms identified as Exhibits F-2, F-3, F-4 and F-5 of the approved permit application shall be used for documentation of these inspections. Any deficiencies found during the inspections shall be corrected in a timely manner.

G. CONTAINMENT -- The Permittee shall construct, operate, and maintain the containment system according to the design plans and operating specifications contained in the Approved Permit Application.

H. CLOSURE -- At closure, at a minimum, all hazardous waste and hazardous waste residues and constituents must be removed from the containment system. Remaining wastes, liners, bases, soil and groundwater containing or contaminated with hazardous waste, hazardous waste residue or hazardous constituents must be decontaminated or removed. Closure of the container storage area shall be carried out in accordance with the closure plan in the approved permit application, as modified below:

1. The Permittee shall notify the Agency's Division of Land Pollution Control (DLPC) in writing of its intent to close the container storage area at least 45 days prior to the date closure is expected to begin. Along with this notification, the Permittee shall submit a sampling and analysis plan to be used in demonstrating the storage area has been properly decontaminated. This plan must be approved by the Agency's DLPC in writing prior to being implemented. Agency review of this plan will be subject to the permit appeal provisions contained in Sections 39(a) and 40(a) of the Illinois Environmental Protection Act. The response from the Agency will approve and establish:

- a. The sampling and decontamination plan;

- b. What contaminants must be analyzed for;
  - c. Analytical requirements (SW-846 Methods should be utilized); and
  - d. The level at which decontamination or removal is considered complete.
2. All sweepings, washwater and rinsate generated during the closure of the unit shall be managed as a hazardous waste, unless it can be shown to be exempt under 35 Ill. Adm. Code Part 721.
  3. If all of the hazardous wastes or contaminated material or media cannot be practicably removed or decontaminated in accordance with the closure requirements outlined in the permit and in the approved closure plan, the Permittee shall provide post-closure care in accordance with 35 Ill. Adm. Code Part 724 for the container storage area. If it is determined that the closure requirements cannot be met and post-closure care is required, this permit must be modified to require post-closure care in accordance with the applicable requirements of 35 Ill. Adm. Code, Subtitle G, Part 724, Subparts G and H.
  4. Should post-closure care, as described above, become necessary, the Permittee shall submit an application for modification to this permit, including an amended closure and post-closure care plan for this unit, within thirty (30) days following discovery that clean closure cannot be accomplished. If a determination is made to not pursue clean closure prior to the implementation of the closure plan, the modification request shall be made no later than sixty (60) days after the determination is made.
  5. Within sixty (60) days after closure of the container storage area is complete, the Permittee shall submit certification to the Agency that the unit has been closed in accordance with the approved closure plan.

This statement is to be completed by both the responsible officer and by the qualified Professional Engineer registered in the State of Illinois upon completion of closure. Submit one copy of the certification with original signatures and three (3) additional copies. The statement must include:

- a. The USEPA ID Number for the facility.
- b. The Facility Name.

- c. Dated signatures of the Owner, Operator, and Qualified Illinois P.E.
- d. The Qualified Illinois P.E.'s seal and mailing address.
- e. The following Closure Certification Statement:

**Closure Certification Statement**

The hazardous waste management unit at the facility described in this document has been closed in accordance with the specifications in the approved closure plan. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signatures must meet the requirements of 35 Ill. Adm. Code Section 702.126. The qualified Professional Engineer (registered in the State of Illinois) should be present at all critical, major points (activities) during the closure. These might include soil sampling, soil removal, backfilling, final cover placement, etc. The frequency of inspections by the qualified Professional Engineer must be sufficient to determine the adequacy of each critical activity. The Agency's review of closure certification for partial or final closure will be conducted in accordance with 35 Ill. Adm. Code 724.243.

A Closure Documentation Report is to be submitted with the closure certification which includes the following items, if applicable:

- a. The volume of waste and waste residue removed, including wastes resulting from decontamination activities.
- b. A description of the method of waste handling and transport.
- c. Copies of the waste manifests.

- d. A description of the sampling and analytical methods used including sample preservation methods and chain-of-custody information.
  - e. A chronological summary of closure activities and the cost involved.
  - f. Tests performed, methods and results.
  - g. Color photographs of closure activities which document conditions before, during and after closure.
  - h. A scale drawing of all excavated or decontaminated areas and sample locations.
6. To avoid creating another regulated storage unit during closure, it is recommended that you obtain any necessary permits for waste disposal prior to initiating excavation activities. If it is necessary to store excavated hazardous waste on-site prior to off-site disposal, do so only in containers or tanks for less than ninety (90) days. Do not create regulated waste pile units by storing the excavated hazardous waste in piles. The ninety (90) day accumulation time exemption (35 Ill. Adm. Code 722.134) only applies to containers and tanks.
7. Under the provisions of 29 CFR 1910 (51 FR 15,654, December 19, 1986), cleanup operations must meet the applicable requirements of OSHA's Hazardous Waste Operations and Emergency Response standard. These requirements include hazard communication, medical surveillance, health and safety programs, air monitoring, decontamination and training. General site workers engaged in activities that expose or potentially expose them to hazardous substances must receive a minimum of 40 hours of safety and health training off site plus a minimum of three days of actual field experience under the direct supervision of a trained experienced supervisor. Managers and supervisors at the cleanup site must have at least an additional eight hours of specialized training on managing hazardous waste operations.
8. If the Agency determines that implementation of this closure plan fails to satisfy the requirements of 35 Ill. Adm. Code, Section 724.211, the Agency reserves the right to amend the closure plan. Revisions of closure plans are subject to the appeal provisions of Section 40 of the Illinois Environmental Protection Act.

I. SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE

1. The Permittee shall not locate containers which hold ignitable or reactive waste within 50 feet of the facility's property line.
2. The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste.

Ignitable or reactive wastes must be separated and protected from sources of ignition or reaction including but not limited to:

- a. Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (e.g., static, electrical, or mechanical), spontaneous ignition (e.g., from heat producing chemical reactions), and radiant heat.
  - b. While ignitable or reactive waste is being handled, the Permittee must confine smoking and open flame to specially designated locations.
  - c. "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.
3. Aisle spacing for the storage of all hazardous waste containers must be maintained at a minimum distance of two feet.

J. SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTE

1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same container, unless the procedures specified in the approved permit application are followed.

Incompatible wastes or materials must not be placed in the same container unless precautions are taken to prevent reactions which:

- a. Generate extreme heat or pressure, fire or explosions, or violent reactions
- b. Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment
- c. Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions
- d. Damage the structural integrity of the device or facility
- e. Through other like means, threaten human health or the environment.

- f. The basic methods for preventing such reactions are to:
  - i. Treat one or both of the incompatible wastes/materials to render them compatible prior to placing them in the container
  - ii. Physically separate the incompatible wastes/materials in the containers so that it is not possible for the incompatible wastes/materials to come in contact with each other.
- 2. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material.
- 3. The Permittee shall not store containers holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments unless separated from the other material and protected from them by means of a dike, berm, wall, or other devices.

K. SPECIAL REQUIREMENTS FOR IGNITABLE AND COMBUSTIBLE WASTES

The Permittee shall store containers of ignitable and combustible (NFPA definition) wastes in an area separate from the area where all other wastes are stored. This separation shall be in addition to the separation of incompatibles required by 35 Ill. Adm. Code 724.277.

L. CONTINGENCY PLAN - ADDITIONAL SPECIAL CONDITIONS

- 1. The Permittee shall implement the facility contingency plan contained in the approved permit application any time there is (1) a release of hazardous waste, or (2) a fire or explosion which involves hazardous waste or which occurs in areas where hazardous wastes are treated, stored or disposed.
- 2. Based on air modeling results contained in the approved permit application, the types and volumes of waste permitted for storage in Building WS-3 will not have an impact off-site if spills occur. Therefore, the local response entities are not required to be notified because of spills, unless it is found that the actual release may have an off-site impact. Then the Permittee shall contact the local emergency response entities as soon as possible after implementation of the contingency plan:
  - a. The entities which must be notified include:

1. Warrenville Fire Department
  2. DuPage County Sheriff's Department
  3. Kane County Sheriff's Department
  4. Illinois Emergency Management Agency (IEMA)
  5. National Response Center
  6. Central DuPage Hospital
  7. Provena Mercy Center Hospital
  8. DLPC, FOS – Des Plaines Region (within 24 hours)
- b. The information which must be initially relayed to each entity includes:
1. The type of emergency (release, fire or explosion);
  2. The type of wastes involved in the emergency, and the approximate quantity involved;
  3. An initial assessment of the conditions at the site and whether outside help is needed to properly respond to the situation.
- c. If the Permittee is able to properly respond to the emergency without any aid from the entities identified in Condition 2.a above, the Permittee shall notify each of these entities that the emergency situation no longer exists once all required emergency response and cleanup activities have been completed.
3. The Permittee shall provide applicable local emergency entities with changes/modifications to the contingency plan and offer to meet and review the plan on an annual basis. Copies of the meeting notes and list of attendees shall be placed in the facility's operating record and be available to the Illinois EPA for review upon verbal or written request.

Section II: Standard Conditions

**GENERAL REQUIREMENTS**

1. **EFFECT OF PERMIT.** The existence of a RCRA permit shall not constitute a defense to a violation of the Environmental Protection Act or Subtitle G, except for development, modification or operation without a permit. Issuance of this permit does not convey property rights or any exclusive privilege. Issuance of this permit does not authorize any injury to persons or property or invasion of other private rights, or infringement of state or local law or regulations. (35 Ill. Adm. Code 702.181)
2. **PERMIT ACTIONS.** This permit may be modified, reissued or revoked for cause as specified in 35 IAC 703.270 through 703.273 and Section 702.186. The filing of a request by the Permittee for a permit modification or reissuance, or a notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition. (35 Ill. Adm. Code 702.146)
3. **SEVERABILITY.** The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby. (35 Ill. Adm. Code 705.202)
4. **PERMIT CONDITION CONFLICT.** In case of conflict between a special permit condition and a standard condition, the special condition will prevail. (35 Ill. Adm. Code 702.160)
5. **DUTY TO COMPLY.** The Permittee shall comply with all conditions of this permit except for the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance constitutes a violation of the Environmental Protection Act and is grounds for enforcement action; permit revocation or modification; or for denial of a permit renewal application. (35 Ill. Adm. Code 702.141 and 703.242)
6. **DUTY TO REAPPLY.** If the Permittee wishes to continue an activity allowed by this permit after the expiration date of this permit, the Permittee must apply for a new permit at least 180 days before this permit expires, unless permission for a later date has been granted by the Illinois EPA. (35 Ill. Adm. Code 702.142 and 703.125)
7. **PERMIT EXPIRATION.** This permit and all conditions herein will remain in effect beyond the permit's expiration date if the Permittee has submitted a timely, complete application (see 35 Ill. Adm. Code 703.181-703.209) and through no fault of the

Permittee the Illinois EPA has not issued a new permit as set forth in 35 Ill. Adm. Code 702.125.

8. **NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE.** It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (35 Ill. Adm. Code 702.143)
9. **DUTY TO MITIGATE.** In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment. (35 Ill. Adm. Code 702.144)
10. **PROPER OPERATION AND MAINTENANCE.** The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory, and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit. (35 Ill. Adm. Code 702.145)
11. **DUTY TO PROVIDE INFORMATION.** The Permittee shall furnish to the Illinois EPA, within a reasonable time, any relevant information which the Illinois EPA may request to determine whether cause exists for modifying, revoking and reissuing or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Illinois EPA, upon request, copies of records required to be kept by this permit. (35 Ill. Adm. Code 702.148)
12. **INSPECTION AND ENTRY.** The Permittee shall allow an authorized representative of the Illinois EPA, upon the presentation of credentials and other documents as may be required by law, to:
  - a. Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
  - d. Sample or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the appropriate Act, any substances or parameters at any location. (35 Ill. Adm. Code 702.149)
13. MONITORING AND RECORDS. (35 Ill. Adm. Code 702.150)
- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste must be the appropriate method from Appendix A of 35 Ill. Adm. Code 721. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, latest versions; Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, latest versions; or an equivalent method as specified in the approved Waste Analysis Plan.
  - b. The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, and records of all data used to complete the application for this permit for a period of at least 3 years from the date of the sample, measurement, report or application. These periods may be extended by request of the Illinois EPA at any time. The permittee shall maintain records from all groundwater monitoring wells and associated groundwater surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.
  - c. Records of monitoring information shall include:
    - i. The date(s), exact place, and time of sampling or measurements;
    - ii. The individual(s) who performed the sampling or measurements;
    - iii. The date(s) analyses were performed;
    - iv. The individual(s) who performed the analyses;
    - v. The analytical technique(s) or method(s) used; and
    - vi. The result(s) of such analyses. (35 Ill. Adm. Code 702.150)

14. **REPORTING PLANNED CHANGES.** The permittee shall give written notice to the Illinois EPA as soon as possible of any planned physical alterations or additions to the permitted facility. In general, proposed changes to the facility will need to be submitted to the Illinois EPA as permit modification request that complies with the requirements of 35 Ill. Adm. Code 703.280. (35 Ill. Adm. Codes 702.152(a))
15. **CONSTRUCTION CERTIFICATION.** For a new hazardous waste management facility, the permittee shall not commence treatment, storage or disposal of hazardous waste; and for a facility being modified the permittee shall not treat, store or dispose of hazardous waste in the modified portion of the facility, until:
  - a. The permittee has submitted to the Illinois EPA by certified mail or hand delivery a letter signed by the permittee and a registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and
  - b.
    1. The Illinois EPA has inspected the modified or newly constructed facility and finds it is in compliance with the condition of the permit; or
    2. If, within 15 days of the date of submission of the letter in paragraph (a), the permittee has not received notice from the Illinois EPA of its intent to inspect, prior inspection is waived and the permittee may commence treatment, storage or disposal of hazardous waste. (35 Ill. Adm. Code 703.247)
16. **ANTICIPATED NONCOMPLIANCE.** The Permittee shall give advanced written notice to the Illinois EPA of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements, regulations, or the Act. (35 Ill. Adm. Code 702.152(b))
17. **TRANSFER OF PERMITS.** This permit may not be transferred by the permittee to a new owner or operator unless the permit has been modified or reissued pursuant to 35 Ill. Adm. Code 703.260(b) or 703.272. Changes in the ownership or operational control of a facility must be made as a Class 1 modification with the prior written approval of the Illinois EPA. The new owner or operator shall submit a revised permit application no later than 90 days prior to the scheduled change. (35 Ill. Adm. Code 703.260)
18. **MONITORING REPORTS.** Monitoring results shall be reported at the intervals specified in the permit. (35 Ill. Adm. Code 702.152(d))
19. **COMPLIANCE SCHEDULES.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule

of this permit shall be submitted no later than specified in 35 Ill. Adm. Code 702.162. (35 Ill. Adm. Code 702.152(e))

20. TWENTY-FOUR HOUR REPORTING.

- a. The Permittee shall report to the Illinois EPA any noncompliance with the permit which may endanger health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the following circumstances. This report shall include the following:
  - i. Information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies.
  - ii. Information concerning the release or discharge of any hazardous waste or of a fire or explosion at the HWM facility, which could threaten the environment or human health outside the facility.
- b. The description of the occurrence and its cause shall include:
  - i. Name, address, and telephone number of the owner or operator;
  - ii. Name, address, and telephone number of the facility;
  - iii. Date, time, and type of incident;
  - iv. Name and quantity of material(s) involved;
  - v. The extent of injuries, if any;
  - vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where applicable; and
  - vii. Estimated quantity and disposition of recovered material that resulted from the incident.
- c. A written submission shall also be provided within 5 days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times and if the noncompliance has not been corrected; the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The

Illinois EPA may waive the five day written notice requirement in favor of a written report within fifteen days. (35 Ill. Adm. Code 702.152(f) and 703.245(b))

21. **OTHER NONCOMPLIANCE.** The Permittee shall report all instances of noncompliance not otherwise required to be reported under Standard Conditions 18, 19 and 20, at the time monitoring reports, as required by this permit, are submitted. The reports shall contain the information listed in Standard Condition 20. (35 Ill. Adm. Code 702.152(g))
22. **OTHER INFORMATION.** Where the Permittee becomes aware that it failed to submit any relevant facts in the permit application, or submitted incorrect information in a permit application or in any report to the Illinois EPA, the Permittee shall promptly submit such facts or information. (35 Ill. Adm. Code 702.152(h))
23. **REPORTING REQUIREMENTS.** The following reports required by 35 Ill. Adm. Code 724 shall be submitted in addition to those required by 35 Ill. Adm. Code 702.152 (reporting requirements):
  - a. **Manifest discrepancy report:** if a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy with the waste generator or transporter. If the discrepancy is not resolved within 15 days after receiving the waste, the permittee must immediately submit to the Illinois EPA a letter describing the discrepancy and attempts to reconcile it and a copy of the manifest or shipping paper at issue. (35 Ill. Adm. Code 724.172(b))
  - b. **Unmanifested waste report:** The permittee must submit to the Illinois EPA within 15 days of receipt of unmanifested waste an unmanifested waste report on EPA form 8700-13B. (35 Ill. Adm. Code 724.176)
  - c. **Annual report:** an annual report must be submitted covering facility activities during the previous calendar year. (35 Ill. Adm. Code 724.175)
24. **SUBMITTAL OF REPORTS OR OTHER INFORMATION.** All written reports or other written information required to be submitted by the terms of this permit shall be sent to:

Illinois Environmental Protection Agency  
Bureau of Land  
Planning and Reporting Section - #24  
1021 North Grand Avenue East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

25. **SIGNATORY REQUIREMENT.** All permit applications, reports or information submitted to the Illinois EPA shall be signed and certified as required by 35 Ill. Adm. Code 702.126. (35 Ill. Adm. Code 702.151)
26. **CONFIDENTIAL INFORMATION.** Any claim of confidentiality must be asserted in accordance with 35 Ill. Adm. Code 702.103 and 35 Ill. Adm. Code 161.
27. **DOCUMENTS TO BE MAINTAINED AT FACILITY SITE.** The Permittee shall maintain at the facility, until closure is complete, the following documents and amendments, revisions and modifications to these documents:
  - a. Waste analysis plan as required by 35 Ill. Adm. Code 724.113(b) and this permit.
  - b. Personnel training documents and records as required by 35 Ill. Adm. Code 724.116(d) and this permit.
  - c. Contingency plan as required by 35 Ill. Adm. Code 724.153(a) and this permit.
  - d. Closure plan as required by 35 Ill. Adm. Code 724.212(a) and this permit.
  - e. Cost estimate for facility closure as required by 35 Ill. Adm. Code 724.242(d) and this permit.
  - f. Operating record as required by 35 Ill. Adm. Code 724.173 and this permit.
  - g. Inspection schedules as required by 35 Ill. Adm. Code 724.115(b) and this permit.
28. **WASTE MINIMIZATION.** The Permittee shall certify at least annually that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that he generates to the degree determined by the Permittee to be economically practicable, and the proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment, in accordance with 35 Ill. Adm. Code 724.173(b)(9).

#### **GENERAL FACILITY STANDARDS**

29. **NOTICE OF WASTE FROM A FOREIGN SOURCE.** The permittee who has arranged to receive hazardous waste from a foreign source must notify the Illinois EPA in writing at least four weeks in advance of the date the waste is expected at the facility. (35 Ill. Adm. Code 724.112(a))

30. **NOTICE OF WASTE FROM OFF-SITE.** The Permittee who receives hazardous waste from an off-site source (except where the Permittee is also the generator), must inform the generator in writing that the permittee has the appropriate permits for, and will accept, the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the facility operating record. (35 Ill. Adm. Code 724.112(b))
31. **GENERAL WASTE ANALYSIS.** The Permittee shall comply with the procedures described in the approved waste analysis plan. (35 Ill. Adm. Code 724.113)
32. **SECURITY.** The Permittee shall comply with the security provisions of 35 Ill. Adm. Code 724.114(b) and (c).
33. **GENERAL INSPECTION REQUIREMENTS.** The Permittee shall follow the approved inspection schedule. The Permittee shall remedy any deterioration or malfunction discovered by an inspection as required by 35 Ill. Adm. Code 724.115(c). Records of inspections shall be kept as required by 35 Ill. Adm. Code 724.115(d).
34. **PERSONNEL TRAINING.** The Permittee shall conduct personnel training as required by 35 Ill. Adm. Code 724.116 and shall maintain training documents and records as required by 35 Ill. Adm. Code 724.116(d) and (e).
35. **GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE.** The Permittee shall comply with the requirements of 35 Ill. Adm. Code 724.117.

#### **PREPAREDNESS AND PREVENTION**

36. **DESIGN AND OPERATION OF FACILITY.** The Permittee shall maintain and operate the facility to minimize the possibility of fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. (35 Ill. Adm. Code 724.131)
37. **REQUIRED EQUIPMENT.** The Permittee shall equip the facility with the equipment set forth in the approved contingency plan, as required by 35 Ill. Adm. Code 724.132.
38. **TESTING AND MAINTENANCE OF EQUIPMENT.** The Permittee shall test and maintain the equipment specified in the contingency plan and this permit as necessary to assure its proper operation in time of emergency. Such testing and maintenance activities are set forth in the approved inspection schedule. (35 Ill. Adm. Code 724.133)

39. **ACCESS TO COMMUNICATIONS OR ALARM SYSTEM.** The Permittee shall maintain access to the communications or alarm system as required by 35 Ill. Adm. Code 724.134.
40. **REQUIRED AISLE SPACE.** The Permittee shall maintain aisle space as required by 35 Ill. Adm. Code 724.135 and National Fire Protection Association (NFPA) requirements.
41. **ARRANGEMENTS WITH STATE AND LOCAL AUTHORITIES AND EMERGENCY RESPONSE CONTRACTORS.** The Permittee shall attempt to make emergency response arrangements with State and local authorities and agreements with State emergency response teams and emergency response contractors and equipment suppliers as required by 35 Ill. Adm. Code 724.137. If State or local officials refuse to enter in preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record.

#### **CONTINGENCY PLAN**

42. **IMPLEMENTATION OF PLAN.** The provisions of the contingency plan must be carried out by the Permittee immediately whenever there is a fire, explosion or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment (35 Ill. Adm. Code 724.151(b)). At a minimum, this includes any fire or explosion which occurs in an area where hazardous waste is being managed (treated, stored or disposed) (35 Ill. Adm. Code 703.241). Within 15 days of any incident that requires implementation of the contingency plan, the owner or operator must submit a written report to the Illinois EPA as required by 35 Ill. Adm. Code 724.156(j).
43. **COPIES OF PLAN.** A copy of the contingency plan, including any revisions, must be maintained at the facility and submitted to all local police and fire departments, hospitals and state and local emergency response teams as required by 35 Ill. Adm. Code 724.153.
44. **AMENDMENTS TO PLAN.** The Permittee shall review and immediately amend, if necessary, the contingency plan, as required by 35 Ill. Adm. Code 724.154.
45. **EMERGENCY COORDINATOR.** A trained emergency coordinator shall be available at all times in case of an emergency as required by 35 Ill. Adm. Code 724.155 and 724.156.

#### **MANIFEST SYSTEM RECORD KEEPING AND REPORTING**

46. **MANIFEST SYSTEM.** The Permittee shall comply with the manifest requirements of 35 Ill. Adm. Code 724.171, 724.172 and 724.176.

47. **OPERATING RECORD.** The Permittee shall maintain a written operating record at the facility in accordance with 35 Ill. Adm. Code 724.173.
48. **ANNUAL REPORT.** The Permittee shall prepare and submit an annual report to the Illinois EPA prior to March 1st of each year in accordance with the requirements of 35 Ill. Adm. Code 724.175.

### CLOSURE

49. **PERFORMANCE STANDARD.** The Permittee shall close the facility as required by 35 Ill. Adm. Code 724.211 and in accordance with the approved closure plan.
50. **AMENDMENT TO CLOSURE PLAN.** The Permittee must amend the closure plan whenever there is a change in the expected year of closure or whenever a change in the facility operation plans or facility design affects the closure plan pursuant to 35 Ill. Adm. Code 724.212(c).
51. **NOTIFICATION OF CLOSURE.** The Permittee shall notify the Illinois EPA at least 60 days prior to the date it expects to begin closure. (35 Ill. Adm. Code 724.212(d))
52. **TIME ALLOWED FOR CLOSURE.** After receiving the final volume of hazardous waste, the Permittee shall treat or remove from the site all hazardous waste and complete closure activities in accordance with the schedule(s) specified in the closure plan. (35 Ill. Adm. Code 724.213)
53. **DISPOSAL AND/OR DECONTAMINATION OF EQUIPMENT.** When closure is completed, the Permittee shall decontaminate and/or dispose of all facility equipment and structures as required by the approved closure (35 Ill. Adm. Code 724.214) plan.
54. **CERTIFICATION OF CLOSURE.** When closure is completed, the Permittee shall submit certification to the Illinois EPA in accordance with 35 Ill. Adm. Code 724.215 that the facility has been closed as specified by the approved closure plans.
55. **COST ESTIMATE FOR FACILITY CLOSURE.** The Permittee's original closure cost estimate, prepared in accordance with 35 Ill. Adm. Code 724.242, must be:
  - a. Adjusted for inflation 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with Section 724.243. However, if the owner/operator is using the financial test or corporate guarantee, it must be updated for inflation within 30 days after close of the firm's fiscal year, and before the submission of updated information to the Illinois EPA as specified in Section 724.243(f).

- b. Revised no later than 30 days after the Illinois EPA has approved a request to modify the closure plan, if the change in the closure plan increases the cost of closure.
  - c. Kept on record at the facility and updated. (35 Ill. Adm. Code 724.242)
  - d. Made immediately available to Illinois EPA personnel upon Illinois EPA request.
56. **FINANCIAL ASSURANCE FOR FACILITY CLOSURE.** The Permittee shall demonstrate compliance with 35 Ill. Adm. Code 724.243 by providing documentation of financial assurance, as required by 35 Ill. Adm. Code 724.251, in at least the amount of the cost estimates required by the previous Permit Condition. Changes in financial assurance mechanisms must be approved by the Illinois EPA pursuant to 35 Ill. Adm. Code 724.243.

Financial assurance documents submitted to Illinois EPA should be directed to the following address:

Illinois Environmental Protection Agency  
Bureau of Land #24  
Financial Assurance Program  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276

57. **LIABILITY REQUIREMENTS.** The Permittee shall demonstrate continuous compliance with the requirements of 35 Ill. Adm. Code 724.247 and the documentation requirements of 35 Ill. Adm. Code 724.251.
58. **INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS.** The Permittee shall comply with 35 Ill. Adm. Code 724.248 whenever necessary.

#### **LAND DISPOSAL RESTRICTIONS**

59. **DISPOSAL PROHIBITION.** Any waste identified in 35 Ill. Adm. Code Part 728, Subpart C, or any mixture of such a waste with nonrestricted wastes, is prohibited from land disposal unless it meets the standards of 35 Ill. Adm. Code Part 728, Subpart D, or unless it meets the requirements for exemptions under Subpart C. "Land disposal" means placement in or on the land and includes, but is not limited to, placement in a landfill,

surface impoundment, waste pile, injection well, land treatment facility, or vault intended for disposal.

60. **DILUTION PROHIBITION.** The Permittee shall not in any way dilute a restricted waste or residual from treatment of a restricted waste as a substitute for adequate treatment in order to achieve compliance with 35 Ill. Adm. Code 728, Subpart D (35 Ill. Adm. Code 728.103).

61. **WASTE ANALYSIS.**

- a. The Permittee must test his waste or extract developed, using the test method identified in Appendix I of 40 CFR Part 268, or use knowledge of the waste, to determine if the waste is restricted from land disposal.
- b. For any waste with treatment standards expressed as concentrations in the waste extract, the Permittee must test the treatment residues or an extract of such residues developed using the test method described in Appendix I of 40 CFR Part 268, to assure that the treatment residues or extract meet the applicable treatment standard.
- c. If the treatment residues do not meet the treatment standards, or if the Permittee ships any restricted wastes to a different facility, the Permittee shall comply with the requirements applicable to generators in 35 Ill. Adm. Code 728.107 and 728.150(a)(1).

62. **STORAGE RESTRICTIONS**

- a. The Permittee shall not store hazardous wastes restricted from land disposal under 35 Ill. Adm. Code Part 728, Subpart C unless such wastes are stored only in containers or tanks, and are stored solely for the purpose of the accumulation of such quantities as is necessary to facilitate proper recovery, treatment, or disposal, and: (1) each container is clearly marked to identify its contents and the date each period of accumulation begins; (2) each tank is clearly marked to identify its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, as required by 35 Ill. Adm. Code 728.150.
- b. The Permittee must comply with the operating record requirements of 35 Ill. Adm. Code 724.173.

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63. NEW DETERMINATIONS OF PROHIBITED WASTES

Wastes which are prohibited from land disposal under 35 Ill. Adm. Code Part 728, Subpart C, or for which treatment standards have been established under 35 Ill. Adm. Code 728, Subpart D, subsequent to the date of issuance of this permit, shall be subject to the conditions number 59 through 62 above.

### SECTION III: CORRECTIVE ACTION

#### A. INTRODUCTION

1. In accordance with Section 3004 of RCRA and 35 IAC 724.201, the Permittee shall institute such corrective action as necessary to protect human health and the environment from all releases of hazardous wastes or hazardous constituents from any solid waste management unit (SWMU) at its facility in Batavia, Illinois. This section contains the conditions which must be followed to ensure these requirements are met.
2. The original RCRA permit was issued by Illinois EPA for this facility on September 30, 1991 and the renewed RCRA permit issued on June 30, 2006; contained corrective action requirements. Activities have been completed for all the SWMUs of concern at the facility. In addition, corrective measures have been completed for all but five of the SWMUs of concern. This section identifies the requirements which must still be carried out to complete corrective action at the five remaining SWMUs of concern.
3. The Permittee must provide corrective action, as appropriate, for any future releases from SWMUs present at the facility.
4. The requirements of 35 Ill. Adm. Code 742 must be met, when applicable, in establishing remediation objectives for corrective action.
5. Final actions by Illinois EPA on all corrective action-related submittals for this facility are subject to the appeal provisions of Sections 39(a) and 40(a) of the Illinois Environmental Protection Act.

#### B. CORRECTIVE ACTION EFFORTS COMPLETED TO DATE

1. Twenty solid waste management units have been addressed under the corrective action requirements of Fermilab's RCRA permit (the original permit only identified fifteen solid waste management units of concern (SWMU 1-15 in the table below)); the other five units have been discovered since the issuance of the original RCRA permit. The following table identifies the twenty units of concern at this facility and the status of corrective action efforts at each unit.

No.	Name	Status of Corrective Action (CA) Efforts
1	East Booster Tower	RFI completed. No further CA required; see May 16, 1995 IEPA letter. (B-131-CA-1)
2	Ind. Bldg. No. 2	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
3	Ind. Bldg. No. 3	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)

No.	Name	Status of Corrective Action (CA) Efforts
4	Machine Repair Shop	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
5	Village Machine Shop	Soil contamination present. Proposed engineered barrier approved April 24, 2002 (B-131-CA-19). Institutional control must still be established to provide for maintenance of barrier and to restrict exposure to soil beneath barrier. (see also May 14, 2001 letter)
6	Site 38 High Energy Storage Area	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
7	Laboratory No. 3	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
8	Laboratory No. 6	RFI complete. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
9	Site 37	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
10	Southeast Annex	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
11	Master Substation	RFI completed. No further CA required; see IEPA letter dated May 16, 1995. (B-131-CA-1)
12	CUB Pipe & Clay Tile Field	Investigation/remediation completed for soils. (see June 5, 2001 letter (Log No. B-131-CA-16)). Semi-annual groundwater monitoring program to continue in accordance with provisions of June 5, 2001 letter. Groundwater monitoring requirements clarified in a November 7, 2001 letter (B-131-CA-20).
13	Meson Hill Landfill	Certification of closure accepted June 23, 2000. Post-closure including groundwater monitoring, to be carried out until June 15, 2013 in accordance with letters of June 23, 2000 (Log No. B-131-CA-10); May 22, 2001 (Log No. B-131-CA-18); March 18, 2002 (Log No. B-131-CA-21); August 21, 2002 (Log No. B-131-CA-22); January 31, 2003 (Log No. B-131-CA-23). Post Closure considered complete (B-131R-CA-2). An institutional control must still be established for this unit.
14	Railhead Storage Yard	No further remediation required provided that access to the area is restricted and institutional controls are in place in accordance with IEPA letter of June 10, 1998 (B-131-CA-7 & 8).
15	Meson & Neutrino Activated Areas	The Meson and Neutrino Area is no longer subject to the corrective action requirements of this permit, as it is not a solid waste management unit
16	Site 38 Corral	RFI completed. No further CA required; see November 22, 1996 IEPA letter. (B-131-CA-4)
17	Anderson Barn	RFI completed. No further CA required; see November 22, 1996 IEPA letter. (B-131-CA-4)
18	Printed Circuit Laboratory	RFI completed. No further CA required; see November 22, 1996 IEPA letter. (B-131-CA-4)
19	Oxidation Pond	RFI completed. No further CA required; see November 22, 1996 IEPA letter. (B-131-CA-4)
20	IB2	RFI completed. No further CA required; provided a barrier is in place and exposure to the soil beneath the barrier is restricted. See IEPA letter dated July 22, 1994. (B-131). An institutional control must be established to ensure these requirements are properly implemented in the future.

The following table summarizes the corrective action efforts completed for 20 solid waste management units (SWMUs) at Fermilab (Illinois EPA ID No. 0890105010). This table presents a chronological summary on these efforts, based on Illinois EPA's approval letters. *Note: NFA = No Further Action*

Date of IEPA Approval Letter	Log No.	Brief Description of IEPA Actions
September 23, 1991	B-131	Issued a RCRA permit for storing hazardous waste for time period greater than 90 days in a container storage area. Section III of permit required facility to conduct corrective action, as necessary, at SWMUs 1-15.
November 23, 1993	B-131	Approved RFI Phase I workplan for SWMU 1 through 15, subject to certain conditions and modifications.

<i>Date of IEPA Approval Letter</i>	<i>Log No.</i>	<i>Brief Description of IEPA Actions</i>
May 11, 1994		Identified closure and post-closure care requirements for the Meson Hill Landfill (SWMU 13).
May 18, 1994	B-131	Approved: (1) extension request to complete RFI activities; and (2) notification of a newly discovered SWMU (SWMU 20; IB2 addition). It must be noted that SMWUs 16 thru 19 are addressed in the May 16, 1995 and November 22, 1996 letters below.
June 23, 1994	B-131	Approved locations of monitoring wells around the Meson Hill Landfill (SWMU 13), subject to certain conditions and modifications.
July 22, 1994	B-131	Approved a request to proceed on construction of the IB2 addition (SWMU 20) without remediation of soil in the foot print area, provided (1) an impermeable barrier is constructed over the unit; and (2) a site safety plan is developed and implemented during any future excavation/construction in the area.
August 2, 1994	B-131	Reiterated that previous letter constitutes final action for IB2 addition; indicates no further action necessary at IB2 addition.
May 16, 1995	B-131	Approved RFI Phase I report for SWMUs 1-15. No Further Action (NFA) required for SWMUs 1-4; 6-11. Required RFI Phase II workplan for SWMUs 5 and 12. Required submittal of a closure/post-closure plan for the Meson Hill Landfill (SWMU 13). Required workplan for further investigation at SWMU 14. Required submittal of additional information regarding the Meson and Neutrino Activated Areas (SWMU 15).  Also, approved workplan for 4 newly identified SWMUs: Site 38 Corral, Anderson Barn, Printed Circuit Laboratory, Oxidation Pond (SWMUs 16-19).
June 13, 1995	B-131-CA-2	Approved plan entitled "Assessment Plan for Railhead Storage Yard" (SWMU 14).
September 7, 1995	B-131-CA-1	Approved plan for an interim action at CUB Pipe and Tile Field (SWMU 12). Removal/excavation of perforated steel pipe (old field) and soil at SWMU 12.
November 22, 1996	B-131-CA-1	Approved supplemental RFI Phase I Assessment Report for SWMUs 16, 17, 18 and 19; NFA needed for these units.
November 22, 1996	B-131-CA-4	Approved assessment report for Railhead Storage Yard (SWMU 14) and recommendation for Phase II RFI.
December 10, 1996	B-131-CA-3	Approved interim measures report for SWMU 12 and Phase II RFI for SWMUs 5 and 12.
December 12, 1997	B-131-CA-6	Approved closure/post-closure plan for Meson Hill Landfill (SWMU 13).
April 14, 1998	B-131-CA-5	Approved additional investigative efforts for SWMU 15; required continued monitoring and leachate management as part of long-term corrective action at unit.
June 10, 1998	B-131-CA-7 B-131-CA-8	Response to 4 submittals regarding SWMUs 5, 12, 14. Determined: (1) additional investigation necessary at SWMU 5; (2) additional remediation necessary at SWMU 12; and (3) NFA at SWMU 14 provided restrict access to soil.
November 10, 1999	B-131-CA-15	Approved abandonment of MWD-2 at CUB Tile Field (SWMU 12).
June 23, 2000	B-131-CA-10	Certification of closure of Meson Hill Landfill (SWMU 13) approved with post-closure care according to plan of April 15, 1997 and approved on December 12, 1997. (Log No. B-131-CA-6). A gate must be installed at the entrance and access restricted to DOE and Fermilab personnel only.
July 7, 2000	B-131-CA-12	NFA for inorganics in soil at SWMU 12 (CUB Tile Field). Additional info needed regarding potential radiological contamination at unit. Approved a groundwater monitoring program for unit.
July 24, 2000	B-131-CA-9 B-131-CA-13	A response to three submittals regarding the Meson and Neutrino Area (SWMU 15). Determined that corrective action for this SWMU is continued management and monitoring. The leachate in the sumps and retention pits at this unit must continue to be monitored and properly managed. A leachate management plan and groundwater monitoring program must be submitted to

<i>Date of IEPA Approval Letter</i>	<i>Log No.</i>	<i>Brief Description of IEPA Actions</i>
		Illinois EPA for review and approval.
May 14, 2001	B-131-CA-14	Approved supplemental Phase II RFI report documenting the result of an additional investigation at the Village Machine Shop (SWMU 5). Extent of soil characterized and low level of Chlorinated Solvent detected. No health hazard at SWMU 5, provided an engineered barrier is placed over soils.
May 22, 2001	B-131-CA-18	A request is made to change the GW monitoring program approved on June 23, 2000 for the Meson Hill Landfill (SWMU 13).
June 5, 2001	B-131-CA-16	(1) concluded that no further action is necessary for soil at CUB Tile Field (SWMU 12) and; (2) established groundwater monitoring program at SWMU 12.
November 7, 2001	B-131-CA-20	Clarified required groundwater monitoring program for SWMU 12 (CUB Tile Field).
March 18, 2002	B-131-CA-21	Approved a September 17, 2001 submittal which: (1) indicated "a significant change" in concentration of total dissolved sulfate in groundwater at Meson Hill Landfill (SWMU 13) had occurred; and (2) contained an Assessment Monitoring Plan with 5 references. Report documenting results of activities in plan must be submitted to IEPA for review/approval.
April 22, 2002	B-131-CA-17	Approved proposed leachate and groundwater monitoring program for Meson and Neutrino Area (SWMU 15) (required to be submitted by our June 24, 2000 letter).
April 24, 2002	B-131-CA-19	Approved proposed engineered barrier over "Village Machine Shop" (SWMU 5). An ELUC must be established for SWMU 5, as well as for the Meson Hill Landfill and Railhead Storage Yard. Approved proposal to delay establishment of an ELUC until such time as final remedies have been selected for all SWMUs.
August 21, 2002	B-131-CA-22	Response to assessment groundwater monitoring report for the Meson Hill Landfill (SWMU 13) (submitted in accordance with Illinois EPA's March 18, 2002 letter). Illinois EPA agreed with conclusion that G107 does not represent background conditions for downgradient wells G101-G106. Required that a submittal be made to install a new background well and re-establish background values.
January 31, 2003	B-131-CA-23	Approved installation of a new background well at the Meson Hill Landfill (SWMU 13) (near SE corner of landfill east of wells G102 and G103); new well is G108. Procedures for establishing background groundwater quality and for implementing an overall groundwater monitoring program also set forth in letter. (Note: document submitted in accordance with Illinois EPA's August 21, 2002 letter).
June 30, 2006	B-131R	Condition III.B.3 of the renewed RCRA Permit for Fermilab indicates the Meson and Neutrino Area is no longer subject to the corrective action requirements of this permit, as it is not a solid waste management unit.
April 3, 2006	B-131-CA-24 and 25	Background values for groundwater monitoring at the Meson Hill Landfill were approved.
April 7, 2015	B-131R-CA-1	The facility may discontinue groundwater monitoring at the Meson Hill Landfill required by the January 31, 2003 Illinois EPA letter
March 22, 2016	B-131R-CA-2	The Meson Hill landfill post-closure activities have been completed.

2. Corrective action must still be completed at the following SWMUs:
  - a. Storage Area within the Railhead Storage Yard (SWMU 14);
  - b. The Village Machine Shop (SWMU 5);

- c. The CUB Pipe/Clay Tile Field (SWMU12);
- d. Building 1B2 (SWMU 20); and
- e. The Meson Hill Landfill (SWMU13).

Subsection C through H below identify the corrective action efforts which must still be completed at these SWMUs.

C. REMAINING CORRECTIVE ACTION REQUIREMENTS AT SWMU 14 WITHIN THE RAILHEAD STORAGE YARD

1. An RCRA Facility Investigation was completed at SWMU 14 and, in a June 10, 1998 letter, Illinois EPA determined that, subject to certain conditions, no further corrective action was necessary at this unit. The conditions placed on this determination are re-iterated in this subsection and must continue to be met.
2. Low levels of lead are present in the shallow subsurface soils at SWMU 14. These levels will not pose a threat to human health or the environment provided the requirements of this sub-section are met.
3. The Permittee must restrict access to this area to only authorized DOE/Fermilab representatives.
4. Fermilab Security Services shall routinely observe the area for signs of unauthorized entry into the area. If access problems are observed, Fermilab and the Department of Energy must take steps necessary to correct this problem.
5. The Permittee must develop and implement a site safety plan to address possible worker exposure to the soils at SWMU 14 during any future construction/excavation activities at the unit.
6. The Permittee must manage any soil removed from SWMU 14 in the future as a waste in accordance with 35 Ill. Adm. Code, Subtitle G: Waste Disposal.
7. The Permittee must establish an institutional control in accordance with Subsection H below to ensure that the requirements of Conditions III.C.3 thru III.C.6 above are met in the future.

D. REMAINING CORRECTIVE ACTION REQUIREMENTS AT THE VILLAGE MACHINE SHOP (SWMU 5)

1. A RCRA Facility Investigation completed at this unit found low levels of chlorinated solvents in the soils remaining at the two former hazardous waste container storage areas at the Village Machine Shop. Illinois EPA determined in a May 14, 2001 letter that, subject to certain conditions, no further corrective action was necessary for these units. The conditions which must be met are re-stated in this subsection.
2. The Permittee has constructed an engineered barrier over the two former hazardous waste container storage areas to restrict exposure to the remaining soils. Plans for and construction of this barrier were approved by Illinois EPA on April 24, 2002.
3. The Permitted must properly maintain the engineered barrier identified in Condition III.D.2 above in the future.
4. The Permittee will implement a site safety plan to address possible worker exposure to the soils beneath the engineered barriers at the Village Machine Shop during any future construction/excavation activities in these soils.
5. The Permittee must manage any soil removed from this beneath the engineered barriers identified in Condition III.D.2 in the future as a waste in accordance with 35 Ill. Adm. Code, Subtitle G: Waste Disposal.
6. The Permittee must establish an institutional control in accordance with Subsection I below to ensure that the requirements of Conditions III.D.2 through Condition III.D. 5 above are met in the future.

E. REMAINING CORRECTIVE ACTION REQUIREMENTS AT THE CUB PIPE/CLAY TILE FIELD (SWMU 12)

1. Fermilab has completed a substantial amount of investigative and remedial activities at this unit and continues to carry out a groundwater monitoring program.
2. In a June 5, 2001 letter, Illinois EPA determined that no further action was necessary for the soils at this unit.
3. The Illinois EPA approved a No Further Action (NFA) determination for soils at SWMU No. 12 in Condition 1 the June 5, 2001 Illinois EPA letter (Log No. B-131-CA-16). However, groundwater monitoring is required at this SWMU due to the presence of some inorganic constituents exceeding appropriate 35 Ill. Adm. Code 620 Groundwater Quality Standards (GQSs). Groundwater monitoring at

this unit must be conducted in accordance with Conditions of the June 5, 2001 letter, the November 7, 2001 Illinois EPA letter (Log No. B-131-CA-20), Appendix 2 of the approved Permit Renewal Application, and any Illinois EPA approval of modifications to the corrective action plan.

4. The groundwater monitoring requirements associated with the corrective action activities at the CUB Pipe and Clay Tile Field (SWMU 12) must continue to be carried out in accordance with the RCRA Permit, the Illinois EPA's June 5, 2001 letter (Log No. B-131-CA-16), and the clarified requirements in the November 7, 2001 letter (Log No. B-131-CA-20).

F. REMAINING CORRECTIVE ACTION REQUIREMENTS AT BUILDING IB2 (SWMU 20)

1. On April 25, 1994, Fermilab notified Illinois EPA of the presence of a SWMU at the location where Building IB2 was to be constructed. Additional information regarding this SWMU was submitted to Illinois EPA on June 10, 1994. In a July 22, 1994 letter, Illinois EPA indicated that no further action was necessary at this unit, provided certain conditions were met. The conditions placed on this determination are re-iterated in this subsection and must continue to be met as follows:
  - a. The Permittee must manage any soil removed from this area in the future as a waste in accordance with 35 Ill. Adm. Code, Subtitle G: Waste Disposal.
  - b. The Permittee will maintain the impermeable barrier constructed over the contaminated soil beneath the building.
  - c. The Permittee will implement a site safety plan to address worker exposure to the remaining soil in the area as part of any future construction or excavation effort at this unit.
2. An institutional control must be established in accordance with Subsection H below to ensure that the requirements of Conditions III.F.2 thru III.F.4 above are met in the future.

G. REMAINING REQUIREMENTS FOR THE MESON HILL LANDFILL (SWMU 13)

1. A closure and post-closure plan for the Meson Hill Landfill was approved by Illinois EPA on December 12, 1997. Certification that Fermilab closed this landfill in

accordance with the approved plan has been accepted by Illinois EPA on June 22, 2000. Certification of closure of completion required post-closure care period for the landfill was approved by Illinois EPA on March 22, 2016.

2. The Permittee must establish an institutional control in accordance with Subsection I below which indicates that (1) the area where the Meson Hill Landfill is located has been used for the disposal of waste; and (2) post-closure use of the area must not disturb the integrity of the final cover the landfill, its liner, or any other components of the containment system.
3. In order to provide consistency throughout the Permit Renewal Application, within sixty (60) days of the effective date of this Permit, the Permittee must submit revisions associated with the completion of post-closure care for Meson Hill Landfill (SWMU 13) as documented by the Illinois EPA's March 22, 2016 letter. The response to: (1) be in the form of revised pages that allows incorporation of the new information into the appropriate sections of the application; and (2) have the revision date on each revised page or drawing identified on it for tracking purposes.

H. REQUIREMENTS FOR AN INSTITUTIONAL CONTROL

1. An institutional control meeting the requirements of 35 Ill. Adm. Code 742 must eventually be established to place certain restrictions on the following SWMUs: (1) the Railhead Storage Yard; (2) the Village Machine Shop; (3) Building IB2; and (4) the Meson Hill Landfill.
  - a. The restrictions for the Railhead Storage Yard are set forth in Conditions III.C.3 thru III.C.6 above;
  - b. The restrictions for the Village Machine Shop are set forth in Conditions III.D.3 thru III.D.5 above;
  - c. The restrictions for Building IB2 are set forth in Conditions III.F.2.a thru III.F.4 above.
  - d. The restrictions for the Meson Hill Landfill are set forth in Condition III.G.2 above.

I. REQUIREMENTS FOR ADDRESSING NEWLY- IDENTIFIED SWMU(s)

1. The Permittee shall notify the Illinois EPA's DLPC in writing of any newly-identified SWMU(s) discovered during the course of groundwater

monitoring, field investigations, environmental audits, or other means, no later than thirty (30) calendar days after discovery. The notification shall provide the following information, as available:

- a. The location of the newly-identified SWMU in relation to other SWMUs on a scaled map or drawing;
  - b. The type and past and present function of the unit;
  - c. The general dimensions, capacities, and structural description of the unit (available drawings and specifications provided);
  - d. The period during which the unit was operated;
  - e. The specifics on all materials, including but not limited to, wastes and hazardous constituents, that have been or are being managed at the SWMU, to the extent available; and
  - f. The results of any relevant available sampling and analysis which may aid in determining whether releases of hazardous wastes or hazardous constituents have occurred or are occurring from the unit.
2. If the submitted information demonstrates a potential for a release of hazardous waste or hazardous waste constituents from the newly identified SWMU, Illinois EPA may request in writing that the Permittee prepare a plan and schedule for assessing the unit. This SWMU Assessment plan must also propose investigations, including field investigations if necessary, to determine the release potential to specific environmental media for the newly-identified SWMU. The SWMU Assessment Plan must demonstrate that the proposed sampling and analysis program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste and hazardous constituents from the newly-discovered SWMU(s) to the environment.
  3. Within 60 calendar days after receipt of the Illinois EPA's DLPC request for a SWMU Assessment Plan, the Permittee shall submit a SWMU Assessment Plan.
  4. After the Permittee submits the SWMU Assessment Plan, the Illinois EPA's DLPC shall either approve, approve with conditions or disapprove the Plan in writing. If the plan is approved, the Permittee shall begin to implement the Plan within forty-five (45) calendar days of receiving such written notification. If the Plan is disapproved, the Illinois EPA's DLPC shall notify the Permittee in writing of the Plan's deficiencies and specify a due date for submittal of a revised plan.

5. The Permittee shall submit a report documenting the results of the approved SWMU Assessment Plan to the Illinois EPA's DLPC in accordance with the schedule in the approved SWMU Assessment Plan. The SWMU Assessment Report shall describe all results obtained from the implementation of the approved SWMU Assessment Plan.
6. The Permittee must implement additional investigation efforts and a Corrective Measures Program, as necessary, to properly address any contamination encountered during the assessment. Guidance regarding the implementation of this program will be provided at the time Illinois EPA notifies the Permittee of the need for such a program.
7. The results of all corrective action efforts required by this subsection must meet the requirements of 35 Ill. Adm. Code 724.201 and 742.
8. Illinois EPA action on all submittals made under this subsection shall be subject to the appeal provisions of Sections 39(a) and 40(a) of the Illinois Environmental Protection Act.

J. FUTURE RELEASES FROM SWMUs

There exists a potential that a release may occur in the future from SWMUs identified in the RFA which did not require any corrective action at the time that the RFA or RFI was completed. If the Permittee discovers that a release has occurred from such a SWMU in the future, then the Illinois EPA must be notified of this release within thirty (30) days after its discovery following the procedures set forth in Condition III.I.1 above. Additional investigation and, as necessary, corrective measures efforts at this SWMU must be carried out in accordance with the procedure set forth in Subsection I above. The results of all corrective action efforts required by this condition must meet the requirements of 35 Ill. Adm. Code 724.201 and 742.

K. INTERIM MEASURES/STABILIZATION

1. At any time during the corrective action program at this facility, the Permittee may initiate additional interim measures for the purpose of preventing continuing releases and/or mitigating the results of releases and/or mitigating the migration of hazardous wastes or hazardous constituents. It shall not be necessary to conduct all phases of a RCRA Facility Investigation (RFI) investigation prior to implementing an interim measure if the Illinois EPA's DLPC and the Permittee agree that a problem can be corrected, or a release cleaned up, without additional study and/or without a formal Corrective Measures Study (CMS).

- a. Prior to implementing any interim measures beyond those specified above, the Permittee must submit detailed information regarding the proposed interim measure to the Illinois EPA's DLPC for approval. This information shall include, at a minimum:
  - (1) Objectives of the interim measures: how the measure is mitigating a potential threat to human health and the environment and/or is consistent with and integrated into any long-term solution at the facility;
  - (2) Design, construction, and maintenance requirements;
  - (3) Schedules for design and construction; and
  - (4) Schedules for progress reports.
- b. If the Illinois EPA's DLPC determines that a release cannot be addressed without additional study and/or a formal CMS, then the Illinois EPA's DLPC will notify the Permittee that these must be performed. Any proposal made under this provision or any other activity resulting from such proposal, including the invocation of dispute resolution, shall not affect the schedule for implementation of the RFI or of any other portion of the permit.
- c. If the Illinois EPA determines that interim measures are necessary to protect human health or the environment, the Permittee will be notified by way of a permit modification.

Section IV:  
Reporting And Notification Requirements

The reporting and notification requirements of each section of the RCRA Permit are summarized below. This summary is provided to highlight the various reporting and notification requirements of this Permit.

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
<u>Section I:</u>	<u>Container Storage</u>	
H.1.	Intent to close container storage area	At least 45 days prior to commencement of closure.
H.1.	Decontamination and/or soil sampling and analysis plan for review.	At least 45 days prior to commencement of closure.
H.4.	Modification of permit and closure and post-closure care plan	No later than 60 days after determination that container storage area cannot be clean closed.
H.5.	Certification for closure of container storage area	No later than 60 days after closure is complete.
<u>Section II:</u>	<u>Standard Conditions</u>	
6	Complete application for new permit.	At least 180 days prior to permit expiration.
11	Information requested by Agency and copies of records required to be kept by this permit.	Reasonable time.
14	Planned physical alterations or additions.	At least 15 days prior to planned change.
16	Notify Agency of changes which may result in permit noncompliance.	In advance of planned changes.
17	Transfer of permit.	No later than 90 days prior to transfer.
19	Information required in a compliance schedule.	Within 14 days after each schedule date.

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
20	Any non-compliance which may endanger health or environment.	Telephone Within 24 hours after discovery.  In writing within 5 days after discovery.
21	All other instances of noncompliance.	March 1 of each year along with Annual Report.
29	Expected receipt of hazardous waste from foreign source.	At least 4 weeks prior to receipt of waste.
42	Implementation of Contingency Plan.	
	Notify appropriate state and local agencies with designated response roles.	As needed.
	Notify appropriate local officials.	Immediately, if emergency coordinator's assessment indicates evacuation of local area is advisable.
	Notify the Agency (217/782-3637) or Illinois EMA (217/782-7860) if emergency coordinator determines there has been a release, fire or explosion which could threaten human health or the environment, outside the facility.	Immediately after determination is made.
	Notify Agency and appropriate state and local authorities, in writing that facility is in compliance with 35 Ill. Adm. Code 724.156(h).	Prior to resuming operation in affected areas.
	Report to Agency details regarding incident which required implementation of contingency plan.	Within 15 days after event.
48	Submit annual report required by 35 Ill. Adm. Code 724.175.	March 1 of each year.
50	Application for Permit modification amending closure plan.	Whenever a change affects the closure plan.

<u>Condition</u>	<u>Submittal</u>	<u>Due Date</u>
51	Expected closure.	At least 60 days prior to beginning closure.
<u>Section III: Corrective Action</u>		
G.8	Completion of post-closure care for the Meson Hill Landfill.	After completion of post-closure care period.
I.1	Discovery of newly identified SWMUs.	30 days after discovery.
I.3	SWMU Assessment Plan.	Within 60 calendar days of plan being requested by Illinois EPA.
I.5	Results of the approved SWMU Assessment Plan.	In accordance with the schedule in the approved SWMU Assessment Plan.
J.	Releases from SWMUs identified in RFA.	Within 30 days after discovery of release.
K.1.a	Proposed interim measures for preventing continuing releases.	Prior to implementing interim measures.

Section V: Special Permit Conditions

A. Required Forms

1. The permittee shall provide a completed Illinois EPA permit application form LPC-PA23 with all additional information, permit modifications, and permit applications that are submitted to the Illinois EPA Bureau of Land.
2. The permittee is required to complete and provide the following 39i Certification forms to the Illinois EPA Bureau of Land:
  - a. A 39i (legal entity) certification form must be filled out for the legal entity (i.e. Company) that appears on the permit application being submitted, and
  - b. A 39i (individual) form must be filled out for the individual that signs the 39i (legal entity) certification form, and
  - c. A 39i (individual) form must be filled out for each individual who signs the permit application.

Note: If the applicant wants additional staff to be able to send in future modifications, certifications, etc. those individuals should also send in an individual 39i certification form.

B. Compliance Schedule

1. The permittee shall submit the necessary 39i certification form(s) and supporting documentation within 30 days of any of the following events:
  - a. The owner or operator, or officer of the owner or operator, or any employee who has control over operating decisions regarding the facility has violated federal, State, or local laws, regulations, standards, or ordinances in the operation of waste management facilities or sites; or
  - b. The owner or operator, or officer of the owner or operator, or any employee who has control over operating decisions regarding the facility has been convicted in this or another State of any crime which is a felony under the laws of this State, or conviction of a felony in a federal court; or
  - c. The owner or operator, or officer of the owner or operator, or any employee who has control over operating decisions regarding the facility

has committed an act of gross carelessness or incompetence in handling, storing, processing, transporting, or disposing of waste.

- d. A new person is associated with the owner or operator who can sign the permit application or who has control over operating decisions regarding the facility, such as a corporate officer or a delegated employee.

The 39i certification must describe the violation(s), convictions, carelessness, or incompetence as outlined in a, b, or c above and must include the date that a new person as described in d above began employment with the applicant.

The 39i certification form and supporting documentation shall be submitted to the address specified below:

Illinois Environmental Protection Agency  
Bureau of Land #33 – 39i Certification  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276

[The 39i certification forms will be treated as confidential by the Agency. The applicant may also request the information on the 39i certification form be maintained confidential in accordance with 2 Ill. Adm. Code 1828.]

C. Standard Conditions

1. This Condition supercedes Standard Conditions II.55 through II.58. "Standard Conditions II.55 through II.58 are not applicable to this Permit."

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) PERMIT

Facility Name and Location: Fermi National Accelerator Laboratory  
Kirk Road and Pine Street  
Batavia, IL 60510-0500

Owner(s): U.S Department of Energy  
P.O. Box 2000  
Batavia, IL 60510-0500

Operator(s): Fermi Research Alliance, LLC  
P.O Box 500  
Batavia, IL 60510-500

EPA Identification Number: IL6 890 030 046

Effective Date: January 17, 2017

Expiration Date: January 31, 2027

**Authorized Activities:**

The U.S. Environmental Protection Agency hereby issues a Resource Conservation and Recovery Act (RCRA) permit (hereinafter referred to as the "permit") to Fermi National Accelerator Laboratory. U.S. Department of Energy, owner, Fermi Research Alliance LLC, operator (hereinafter referred to as the "Permittee" or addressed in the second person as "you") in connection with the hazardous waste storage activities at Kirk Road and Pine Street Batavia, Illinois, 60510.

This permit is issued under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984 (42 USC § 6901 *et seq.*) (collectively referred to as RCRA) and EPA's regulations promulgated thereunder (codified, and to be codified, in Title 40 of the Code of Federal Regulations (40 CFR)).

Specifically, this permit addresses: (1) certain restrictions and prohibitions on land disposal of hazardous wastes in accordance with 40 CFR Part 268; (2) other Federal RCRA regulations for which the State has not yet been authorized; (3) air emissions standards for containers in accordance with 40 CFR § 264.1080 *et seq.* (40 CFR Part 264, Subpart CC).

This permit contains the federal RCRA permit conditions. The Permittee also has a state RCRA permit which contains conditions issued by the State of Illinois's RCRA program authorized under 40 C.F.R. Part 271. Any hazardous waste activity which requires a RCRA permit and is not included in this permit or the state RCRA permit is prohibited.

**Permit Approval:**

On January 31, 1986, the State of Illinois received final authorization pursuant to Section 3006 of RCRA, 42 U.S.C. § 6926 and 40 C.F.R. Part 271, to administer the pre-HSWA RCRA hazardous waste program. The State of Illinois has also received final authorization to administer certain additional RCRA requirements on several occasions since then. However, because the EPA has not yet authorized the State of Illinois to administer certain regulations, including the air emission standards for containers handling hazardous wastes (40 C.F.R. § 264.1080 *et seq.*, also known as "Subpart CC"), recent additions to the regulations covering the land disposal restrictions (40 C.F.R. Part 268), and changes to other sections of applicable regulations, the EPA, Region 5, is issuing the RCRA permit requirements for operations at the Permittee's facility which falls under these regulations.

You must comply with all terms and conditions contained in this permit. This permit consists of all the conditions contained herein, all documents attached hereto, and all documents listed or cross-referenced in these documents, approved submittals (including plans, schedules and other documents), and the applicable regulations contained in 40 C.F.R. Parts 124, 260, 261, 262, 264, 268, 270, and applicable provisions of RCRA. You must also comply with the State permit.

This permit is based on the assumptions that: (1) the information submitted in the Permittee's RCRA permit application dated December 18, 2015, and all other modifications to that application (hereinafter, referred to as the "Application") are complete and accurate, and, (2) the facility is configured, operated, and maintained as specified in the permit, and as described in the permit application.

Any inaccuracies in the information submitted by or on behalf of the Permittee constitute grounds for the EPA to terminate, revoke and reissue, or modify this permit in accordance with 40 C.F.R. §§ 270.41, 270.42 and 270.43; and for enforcement action. You must promptly inform the EPA of any deviation from, or changes in, the information in the Application that might affect your ability to comply with the applicable regulations or conditions of this permit.

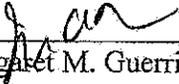
**Opportunity to Appeal:**

Petitions for review must be submitted within thirty (30) days after the EPA serves notice of the final permit decision. Any person who filed comments on the draft permit or participated in the public hearing may petition the Environmental Appeals Board to review any condition of the permit decision. Any person who failed to file comments or failed to participate in the public hearing on the draft permit may file a petition for review only to the extent of the changes from the draft to the final permit decision. The procedures for permit appeals are found in 40 C.F.R. § 124.19.

**Effective Date:**

This permit is effective as of **January 17, 2017** and will remain in effect until **January 31, 2027**, unless revoked and reissued under 40 C.F.R. § 270.41, terminated under 40 C.F.R. § 270.43, or continued in accordance with 40 C.F.R. § 270.51(a).

By:

  
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Margaret M. Guerriero  
Director  
Land and Chemicals Division

Date:

1/17/17

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## SECTION I—STANDARD PERMIT CONDITIONS

### I.A EFFECT OF PERMIT

This permit contains federal permit conditions. The Permittee also has a state RCRA permit. You are hereby allowed to store hazardous waste at this facility in accordance with this permit and the effective State permit. Under this permit, the storage, treatment and disposal of RCRA hazardous waste must comply with all terms and conditions in this permit. Other aspects of the storage, treatment and disposal of RCRA hazardous wastes are subject to the conditions in the state-issued portion of the RCRA permit. Any hazardous waste activity that requires a RCRA permit and is not included either in this permit or the state RCRA permit is prohibited.

Subject to 40 C.F.R. § 270.4, compliance with the RCRA permit during its term constitutes compliance for purposes of enforcement with Subtitle C of RCRA except for those requirements not included in the permit which: (1) become effective by statute; (2) are promulgated under 40 C.F.R. Part 268 restricting the placement of hazardous waste in or on the land; (3) are promulgated under 40 C.F.R. Part 264 regarding leak detection systems; or (4) promulgated under 40 CFR Part 265, Subparts AA, BB, or CC limiting air emissions. 40 C.F.R. § 270.4.

This permit does not: (1) convey any property rights or any exclusive privilege; (2) authorize any injury to persons or property, or invasion of other private rights; or, (3) authorize any infringement of state or local law or regulations. Compliance with the terms of this permit does not constitute a defense to any order issued, or any action brought, under: (1) Sections 3008(a), 3008(h), 3013, or 7003 of RCRA; (2) Sections 104, 106(a), or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 USC §§ 9601 *et seq.* (commonly known as CERCLA); or, (3) any other law protecting human health, welfare, or the environment. 40 C.F.R. §§ 270.4 and 270.30(g).

### I.B PERMIT ACTIONS

#### I.B.1 Permit Review, Modification, Revocation and Reissuance, and Termination

The EPA may review and modify, revoke and reissue, or terminate this permit for cause, as specified in 40 C.F.R. §§ 270.41, 270.42, and 270.43. The EPA may also review and modify this permit, consistent with 40 C.F.R. § 270.41, to include any terms and conditions it determines are necessary to protect human health and the environment under Section 3005(c)(3) of RCRA. The filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance on your part will not stay the applicability or enforceability of any permit condition. 40 C.F.R. § 270.30(f).

You must not perform any construction associated with a Class 3 permit modification request until such modification request is granted and the modification becomes effective.

You may perform construction associated with a Class 2 permit modification request beginning sixty (60) days after submission of the request unless the Director establishes a later date. 40 C.F.R. § 270.42(b)(8).

### **I.B.2 Permit Renewal**

This permit may be renewed as specified in 40 C.F.R. § 270.30(b) and Condition I.E.2 of this permit. In reviewing any application for a permit renewal, the EPA will consider improvements in the state of control and measurement technology, and changes in applicable regulations. 40 C.F.R. § 270.30(b) and RCRA Section 3005(c)(3).

### **I.C SEVERABILITY**

This permit's provisions are severable; if any permit provision, or the application of any permit provision to any circumstance, is held invalid, such provision's application to other circumstances and the remainder of this permit will not be affected. Invalidation of any statutory or regulatory provision on which any condition of this permit is based does not affect the validity of any other statutory or regulatory basis for that condition. 40 CFR § 124.16(a).

### **I.D DEFINITIONS**

The terms used in this permit have the same meaning as in 40 C.F.R. Parts 124, 260 through 266, 268, and 270, unless this permit specifically provides otherwise. Where neither the regulations nor the permit define a term, the term's definition will be the standard dictionary definition, or its generally accepted scientific or industrial meaning.

### **I.E DUTIES AND REQUIREMENTS**

#### **I. E.1 Duty to Comply**

You must comply with all conditions of this permit, except to the extent and for the duration for which an emergency permit authorizes such noncompliance (see 40 C.F.R. § 270.61). Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of RCRA and will be grounds for: enforcement action; permit termination, revocation and reissuance; modification; or denial of a permit renewal application. 40 C.F.R. § 270.30(a).

#### **I.E.2 Duty to Reapply**

If you wish to continue the permit regulated activities after the expiration date, you must apply for and obtain a new permit. You must submit a complete application for a new permit at least 180 days before the permit expiration date, unless the Director grants permission for a later submittal date. The Director will not grant permission to submit the

complete application for a new permit later than the permit's expiration date. 40 C.F.R. § 270.10(h) and § 270.30(b).

### **I.E.3 Permit Expiration**

Unless revoked or terminated, this permit and all conditions herein will be effective for a fixed term not to exceed 10 years from this permit's effective date. This permit and all conditions herein will remain in effect beyond the permit's expiration date if you have submitted a timely, complete application (40 C.F.R. §§ 270.10, 270.11 and 270.13 through 270.29), and, through no fault of your own, the Director has not made a final determination regarding permit reissuance. 40 C.F.R. §§ 270.50, and 270.51.

### **I.E.4 Need to Halt or Reduce Activity Not a Defense**

In an enforcement action, you are not entitled to a defense that it would have been necessary to halt or reduce the permitted activity to maintain compliance with this permit. 40 C.F.R. § 270.30(c).

### **I.E.5 Duty to Mitigate**

In the event of noncompliance with this permit, you must take all reasonable steps to minimize releases to the environment resulting from the noncompliance and must implement all reasonable measures to prevent significant adverse impacts on human health or the environment. 40 C.F.R. § 270.30(d).

### **I.E.6 Proper Operation and Maintenance**

You must always properly operate and maintain all facilities and treatment and control systems (and related appurtenances) that you install or use to comply with this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires you to operate back-up or auxiliary facilities or similar systems only when necessary to comply with this permit. 40 CFR § 270.30(e).

### **I.E.7 Duty to Provide Information**

You must provide the Director, within a reasonable time, any relevant information that the Director requests to determine whether there is cause to modify, revoke and reissue, or terminate this permit, or to determine permit compliance. You must also provide the Director, upon request, with copies of any records this permit requires. The information you must maintain under this permit is not subject to the Paperwork Reduction Act of 1980, 44 U.S.C. §§ 3501 *et seq.* 40 C.F.R. §§ 264.74(a) and 270.30(h).

### **I.E.8 Inspection and Entry**

Upon the presentation of credentials and other legally required documents, you must allow the Director or an authorized representative to:

**I.E.8.a** enter at reasonable times upon your premises where a regulated activity is located or conducted, or where records must be kept under the conditions of this permit;

**I.E.8.b** have access to and copy, at reasonable times, any records that you must keep under the conditions of this permit;

**I.E.8.c** inspect, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and,

**I.E.8.d** sample or monitor any substances or parameters at any location at reasonable times, to ensure permit compliance or as RCRA otherwise authorizes. 40 CFR § 270.30(i). Notwithstanding any provision of this permit, EPA retains the inspection, access and information gathering authority which it has under RCRA and other applicable laws.

### **I.E.9 Monitoring and Records**

**I.E.9.a** Samples and measurements taken for monitoring purposes must be representative of the monitored activity. The methods used to obtain a representative sample of the wastes, contaminated media, treatment residue, or other waste to be analyzed must be the appropriate methods from Appendix I of 40 C.F.R. Part 261, or the methods specified in the State-approved waste analysis plan, or an equivalent method approved by the Director. Laboratory methods must be those specified in *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods* (SW-846, latest edition), *Methods for Chemical Analysis of Water and Wastes* (EPA 600/4-79-020), or an equivalent method, as specified in the referenced waste analysis plan. 40 C.F.R. § 270.30(j)(1).

**I.E.9.b** You must retain, at the facility, all records as specified in 40 C.F.R. § 264.74.

**I.E.9.c** You must submit all monitoring results at the intervals specified in this permit.

**I.E.9.d** You must retain all reports, records, or other documents, required by this permit, and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the reports, records, or other

documents, unless a different period is specified in this permit. The 3-year period may be extended by request of the Director at any time and is automatically extended during the course of any unresolved enforcement action regarding this facility. 40 C.F.R. §§ 270.30(j) and 270.31.

#### **I.E.10 Reporting Planned Changes**

You must notify the Director promptly of any planned physical alterations or additions to the permitted facility. 40 C.F.R. § 270.30(l)(1).

#### **I.E.11 Reporting Anticipated Noncompliance**

You must notify the Director, in advance, of any planned changes in the permitted facility or activity that may result in permit noncompliance. Advance notice will not constitute a defense for any noncompliance. 40 C.F.R. § 270.30(l)(2).

#### **I.E.12 Certification of Construction**

You must not operate any RCRA air emission control devices completed after the effective date of this permit until you have submitted to the Director, by certified mail or hand-delivery, a letter signed both by your authorized representative and by a registered professional engineer. That letter must state that the portions of the facility covered by this permit (including all air emission control devices required by this permit) have been constructed in compliance with the applicable conditions of this permit. In addition, you must not operate the permitted control devices until either:

**I.E.12a** the Director or his/her representative has inspected those portions of the facility and finds them in compliance with the conditions of the permit; or,

**I.E.12b** the Director waives the inspection and the Permittee may commence treatment, storage or disposal of hazardous waste in accordance with 40 C.F.R. § 270.30.

#### **I.E.13 Transfer of Permits**

This permit is not transferable to any person, except after notice to the Director. You must inform the Director in writing and obtain prior written approval of the Director before transferring ownership or operational control of the facility. 40 C.F.R. § 270.42, Appendix I. Under 40 C.F.R. § 270.40, the Director may require permit modification, or revocation and reissuance to change the Permittee's name and incorporate other RCRA requirements. Before transferring ownership or operation of the facility during its operating life, you must notify the Director and obtain prior approval and notify the new owner or operator in writing of the requirements of this permit and the requirements of 40 C.F.R. Parts 264, 268, and 270. 40 C.F.R. §§ 264.12(c), 270.30(l)(3), and 270.40(a).

**I.E.14 Twenty-Four Hour Reporting**

All reports to the Director under this Section are in addition to all other reports that you must make by operation of law. Compliance with this Section does not relieve you of the obligation to make all other reports required by law.

**I.E.14.a** You must report to the Director any noncompliance with this permit and/or other situations that may endanger human health or the environment. Any such information must be reported orally promptly and no later than 24 hours from the time you become aware of the circumstances. The report must also include the following information:

- (1) any information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies;
- (2) any information of a release or discharge of hazardous waste; or,
- (3) any information of a fire or explosion from the hazardous waste management facility. 40 C.F.R. §§ 270.30(I)(6) and 270.33.

**I.E.14.b** You must include the following information:

- (1) name, title and telephone number of the person making the report;
- (2) name, address and telephone number of the facility;
- (3) name, address and telephone number of the owner and/or operator;
- (4) date, time and type of incident;
- (5) location and cause of incident;
- (6) identification and quantity of material(s) involved;
- (7) extent of injuries, if any;
- (8) assessment of actual or potential hazards to the environment and human health outside the facility, where applicable;
- (9) description of any emergency action taken to minimize the threat to human health and the environment; and,
- (10) estimated quantity and disposition of recovered material that resulted from the incident. 40 C.F.R. §§ 270.30(I)(6).

**I.E.14.c** In addition to the oral notification required under Conditions I.E.14.a and I.E.14.b of this permit, a written notice must also be provided within five (5) calendar days after you become aware of the circumstances. The written notice must include, but is not limited to, the following:

- (1) name, address, and telephone number of the person reporting;
- (2) incident description (noncompliance and/or release or discharge of hazardous waste), including cause, location, extent of injuries, if any, and an assessment of actual or potential hazards to the environment and human health outside the facility, where applicable;

- (3) period(s) in which the incident (noncompliance and/or release or discharge of hazardous waste) occurred, including exact dates and times;
- (4) whether the incident's results continue to threaten human health and the environment, which will depend on whether the noncompliance has been corrected and/or the release or discharge of hazardous waste has been adequately cleaned up; and
- (5) if the noncompliance has not been corrected, the anticipated period for which it is expected to continue, and the steps taken or planned to reduce, eliminate, and prevent the recurrence of the noncompliance.

The Director may waive the requirement to provide written notice in favor of a written report submitted within fifteen (15) calendar days of the time the permittee becomes aware of the circumstances, in accordance with Conditions I.E.14.a and I.E.14.b of this permit. 40 C.F.R. § 270.30(l)(6).

#### **I.E.15 Other Noncompliance**

All reports to the Director under this Section are in addition to all other reports that you must make by operation of law. Compliance with this Section does not relieve you of the obligation to make all other reports required by law.

You must report all instances of noncompliance not reported under Condition I.E.14 of this permit, when any other permit required reports are submitted. The reports must contain the information listed in Condition I.E.14. 40 C.F.R. § 270.30(l)(10).

#### **I.E.16 Other Information**

**I.E.16.a** Whenever you become aware that you failed to submit or otherwise omitted any relevant facts in the permit application or other submittal, or submitted incorrect information in the permit application or other submittal, you must promptly notify the Director of any incorrect information or previously omitted information, submit the correct facts or information, and explain in writing the circumstances of the incomplete or inaccurate submittal. 40 C.F.R. § 270.30(l)(11).

**I.E.16.b** All other requirements contained in 40 C.F.R. § 270.30 not specifically described in this permit are incorporated into this permit and you must comply with all those requirements.

### **I.F SIGNATORY REQUIREMENT**

You must sign and certify all applications, reports, or information this permit requires, or which are otherwise submitted to the Director, in accordance with 40 C.F.R. §§ 270.11 and 270.30(k).

**I.G REPORTS, NOTIFICATIONS AND SUBMITTALS TO THE DIRECTOR**

Except as otherwise specified in this permit, all reports, notifications, or other submittals that this permit requires to be submitted to the Director should be sent by certified mail or hand-delivered to the U.S. Environmental Protection Agency, Region 5, at the following address:

Land and Chemicals Division  
RCRA Branch, LR-8J  
U.S. EPA Region 5  
77 West Jackson Boulevard  
Chicago, Illinois 60604

**I.H CONFIDENTIAL INFORMATION**

In accordance with 40 C.F.R. Part 2, Subpart B, you may claim any information this permit requires, or is otherwise submitted to the EPA, as confidential. You must assert any such claim at the time of submittal in the manner prescribed on the application form or instructions, or, in the case of other submittals, by stamping the words "Confidential Business Information" on each page containing such information. If you made no claim at the time of submittal, EPA may make the information available to the public without further notice. If you assert a claim, the information will be treated in accordance with the procedures in 40 C.F.R. Part 2 (*See* 40 C.F.R. § 270.12). You have the burden of substantiating that the claimed information is confidential, and U.S. EPA may request further information from you regarding such claim, and may reasonably determine which such information to treat as confidential. (*See* also 41 Fed. Reg. 36902 (1976); 43 Fed. Reg. 39997 (1978); 48 Fed. Reg. 14228 (1983); and 50 Fed. Reg. 51654 (1985)).

**I.I DOCUMENTS TO BE MAINTAINED AT THE FACILITY**

You must maintain at the facility, until closure is completed and certified by an independent registered professional engineer, the following documents and all amendments, revisions, and modifications to them.

**I.I.1 Operating Record**

You must maintain in the facility's operating record the documents required by this permit, and by the applicable portions of 40 C.F.R. §§ 264.1035, 1064, 1084, 1088, 1089, 1090 and 40 C.F.R. § 264.73 (as they apply to the equipment used to comply with this permit).

### **I.I.2 Notifications**

You must maintain notifications from generators accompanying initial incoming shipments of wastes subject to 40 C.F.R. Part 268, Subpart C, that specify treatment standards, as required by 40 C.F.R. §§ 264.73, 268.7, and this permit.

### **I.I.3 Copy of Permit**

You must keep a copy of this permit on site, including all the documents listed in any attachments, and you must update it as necessary to incorporate any official permit modifications.

## **I.J ATTACHMENTS AND DOCUMENTS INCORPORATED BY REFERENCE**

**I.J.1** All attachments and documents that this permit requires to be submitted, if any, including all plans and schedules are upon the Director's approval, incorporated into this permit by reference and become an enforceable part of this permit. Since required items are essential elements of this permit, failure to submit any of the required items or submission of inadequate or insufficient information may subject you to enforcement action under Section 3008 of RCRA. This action may include fines, or permit suspension or revocation.

**I.J.2** This permit also includes the documents attached hereto, all documents cross-referenced in these documents, and the applicable regulations contained in 40 C.F.R. Parts 124, 260, 261, 262, 264, 268, 270, and the applicable provisions of RCRA, all of which are incorporated herein by reference.

**I.J.3** Any inconsistency or deviation from the approved designs, plans, and schedules constitutes a permit noncompliance. The Director may grant written requests for extensions of due dates for submittals required in this permit.

**I.J.4** If the Director determines that actions beyond those provided for, or changes to what is stated herein, are warranted, the Director may modify this permit according to procedures in Condition I.B of this permit.

**I.J.5** If any documents attached to this permit are found to conflict with any of the Conditions in this permit, the Condition will take precedence.

## **I.K COORDINATION WITH THE CLEAN AIR ACT**

You must fully comply with the RCRA requirements contained in this permit. This permit does not include the requirements imposed by the Clean Air Act.

## SECTION II – LAND DISPOSAL RESTRICTIONS

### II.A GENERAL CONDITIONS

**II.A.1** You must comply with all the applicable self-implementing requirements of 40 C.F.R. Part 268 and all applicable land disposal requirements which become effective by statute. 42 U.S.C. § 6924.

**II.A.2** A mixture of any restricted waste with non-restricted waste(s) is a restricted waste under 40 C.F.R. Part 268.

**II.A.3** Except as expressly allowed under 40 C.F.R. Part 268, you must not in any way dilute a restricted waste or the residual from treatment of a restricted waste as a substitute for adequate treatment to achieve compliance with 40 C.F.R. Part 268, Subpart D, to circumvent the effective date of a prohibition in 40 C.F.R. Part 268, Subpart C, to otherwise, avoid a prohibition in 40 C.F.R. Part 268, Subpart C, or to circumvent a land disposal prohibition imposed by Section 3004 of RCRA.

**II.A.4** You must maintain a current list of the EPA hazardous waste numbers handled by the facility that are identified in 40 C.F.R. Part 268, Subparts B and C. The list must include all waste numbers handled by the facility, and any associated treatment standards, and shall be updated through the inclusion of new treatment standards, as promulgated or amended. This list must be provided to the EPA representatives, or their designees, upon request.

### II.B TESTING AND RELATED REQUIREMENTS

**II.B.1** In accordance with 40 C.F.R. § 268.7(a), you must test any waste generated at the facility, or use knowledge of the waste, to determine if the waste is restricted from land disposal.

**II.B.2** You must comply with all applicable treatment standards provided in 40 C.F.R. Part 268, Subpart D.

**II.B.3** You must comply with all the applicable notification, certification, and recordkeeping requirements described in 40 C.F.R. § 268.7(a) and (b).

### II.C STORAGE PROHIBITIONS

**II.C.1** You must comply with all the applicable prohibitions on storage of restricted wastes specified in 40 C.F.R. Part 268, Subpart E.

**II.C.2** Except as otherwise provided in 40 C.F.R. § 268.50, you may store restricted wastes in containers solely for the purpose of the accumulation of such quantities of hazardous wastes as necessary to facilitate proper recovery, treatment, or disposal provided that each container is clearly marked to identify its contents and the date each period of accumulation begins and such information is recorded and maintained in the operating record at the facility.

**II.C.3** You may store restricted wastes for up to one year unless the U.S. EPA or its authorized agent can demonstrate that such storage was not solely for the purpose of accumulating such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal. 40 C.F.R. § 268.50(b).

**II.C.4** You may store restricted wastes beyond one year; however, you must bear the burden of proving that such storage was solely for the purpose of accumulating such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal. 40 C.F.R. § 268.50(c).

**II.C.5** You must not store any liquid hazardous waste containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 50 ppm unless the waste is stored in a storage facility that meets the requirements of 40 C.F.R. § 761.65(b). This waste must be removed from storage and treated or disposed as required by 40 C.F.R. Part 268 within one year of the date when such wastes are first put into storage. 40 C.F.R. § 268.50(f).

#### **II.D. BLENDING OF METAL WASTES**

You must not dilute metal-bearing wastes (listed at 40 C.F.R. Part 268, Appendix XI), if the diluted waste will be used as fuel in any RCRA permitted facility, unless you have demonstrated that the diluted waste complies with one or more of the criteria specified in 40 C.F.R. § 268.3(c).

### **SECTION III – OTHER FEDERAL RCRA REQUIREMENTS**

#### **III.A. ADDITIONAL HAZARDOUS WASTE NUMBERS**

In addition to the hazardous waste numbers listed in the State-issued portion of the RCRA permit, you may handle the newly listed hazardous wastes, promulgated under the HSWA, at your facility only if you have submitted a Class 1 and/or Class 2 permit modification and complied with the other requirements under 40 C.F.R. § 270.42(g). All handling of these wastes must comply with the applicable provisions of both the State-issued and the Federal-issued portion of the RCRA permit.

**SECTION IV -- AIR EMISSIONS STANDARDS (40 CFR Part 264, Subpart CC)****IV.A GENERAL**

You must comply with all applicable requirements of 40 C.F.R. § 264.1080 through 40 C.F.R. § 264.1090, regarding air emission standards for containers handling hazardous waste. All containers not exempt from 40 C.F.R. Part 264, Subpart CC must be managed using the applicable standards in that Subpart, as set forth below. The containers subject to your State RCRA permit, described below, include Level 1 containers and therefore must comply with the standards at 40 C.F.R. § 264.1086(c), Container Level 1 standards. 40 C.F.R. § 264.1086(c).

You shall not conduct waste stabilization process as defined in 40 C.F.R. § 265.1081, in containers which contain hazardous waste.

**IV. A.1** A hazardous waste management unit that the owner or operator certifies is equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation under 40 C.F.R. Parts 60, 61, or 63, is not subject to the requirements of 40 C.F.R. Subpart CC. 40 C.F.R. § 264.1080(b)(7). For this hazardous waste management unit, the owner and operator must record and maintain the following information in its operating record for as long as the hazardous waste management unit is not using air emission controls specified in 40 C.F.R. § 264.1086:

**IV.A.1.a** certification that the waste management unit is equipped with and operating air emission controls in accordance with 40 C.F.R. Parts 60, 61, or 63. 40 C.F.R. § 264.1089(j)(1); and,

**IV.A.1.b** identification of the specific requirements under 40 C.F.R. Parts 60, 61, or 63 with which the waste management unit is in compliance. 40 C.F.R. § 264.1089(j)(2).

**IV.A.2** Each container in which hazardous wastes is placed must comply with the terms and conditions of this Section IV, unless you satisfy all the requirements of, Condition IV.A.1 above for the container.

**IV.A.3** You must comply with the terms and conditions of Section IV for any container, notwithstanding any certification under Condition IV.A.1 above, in the following circumstances:

**IV.A.3.a** the regulation under 40 C.F.R. Parts 60, 61, or 63 is no longer applicable to the container.

**IV.A.3.b** the regulation under 40 C.F.R. Parts 60, 61, or 63 does not or no longer requires that air emissions from the container be controlled.

When either condition in Condition IV.A.3.a or IV.A.3.b occurs or the hazardous waste management unit is not equipped with and operating air emission controls in accordance with the requirements under the Clean Air Act regulation at 40 C.F.R. Parts 60, 61, or 63, 40 C.F.R. Subpart CC is applicable and you must immediately comply with the terms and conditions of this Section IV for such container.

#### **IV.B WASTE DETERMINATION**

You must determine the average volatile organic (VO) concentration of: (1) generated hazardous waste at the point of origination, and (2) treated hazardous waste, in accordance with the procedures specified in 40 C.F.R. § 264.1083. You must determine the maximum organic vapor pressure of a hazardous waste.

#### **IV.C CONTAINERS**

##### **IV.C.1 Requirements for Level 1 Containers Standards**

Except as specified in Conditions IV.C.2 and IV.C.5 below, you must manage hazardous waste placed in containers having a design capacity greater than 0.1 m<sup>3</sup> in accordance with the Container Level 1 standards, as stipulated under 40 C.F.R. § 264.1086(c). A level 1 container must:

**IV.C.1.a** meet the applicable U.S. Department of Transportation (DOT) regulations as specified in 40 CFR § 264.1086(f); or

**IV.C.1.b** be equipped with a cover and closure devices with an acceptable tightness and construction materials in accordance with 40 C.F.R. § 264.1086(c)(1)(ii); or,

**IV.C.1.c** be an open-top container with organic vapor suppressing barrier to prevent hazardous waste from being exposed to the atmosphere as specified in 40 C.F.R. § 264.1086(c)(1)(iii).

**IV.C.2.** Containers used to meet the requirements of 40 C.F.R. § 264.1086(c)(1)(ii) or (iii), must be equipped with covers and closure devices that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity for as long as the container is in service. Factors to be considered in selecting the materials of construction and designing the cover and closure devices must be in accordance with 40 C.F.R. § 264.1086(c)(2). Any chemical used for vapor suppression must not generate heat and/or fume and must be compatible with the hazardous waste in the container. Vapor suppression chemicals must act as an acceptable and stable barrier to the hazardous waste, thus preventing release of VO into the environment. The barrier shall not chemically react to the hazardous waste.

**IV.C.3.** All covers and closure devices must be in the closed position whenever hazardous waste is in a container except as provided in 40 C.F.R. § 264.1086(c)(3)(i) through (v).

**IV.C.4** You must inspect and repair the containers and their covers and closure devices in accordance with 40 C.F.R. § 264.1086(c)(4).

**IV.C.5.** For any container with a capacity of 0.46 m<sup>3</sup> or greater which does not meet the applicable DOT regulations as specified in § 264.1086(f), you must maintain at the facility a copy of the procedure that you used to determine that the container is not managing hazardous waste in light material service, as defined in 40 C.F.R. §265.1081. 40 C.F.R. § 264.1086(c)(5).

**IV.C.6.1.** You are prohibited to store or manage any container with a design capacity greater than 0.46 m<sup>3</sup> (122 gallons) and in light material service.

**IV.C.7.** You must process a permit modification and obtain an approval from the Director, if you plan to manage containers with a design capacity greater than 0.46 m<sup>3</sup> (122 gallons) and in light material service as defined in 40 CFR § 265.1081 in accordance with Container Level 2 standards as set forth in 40 CFR § 264.1086(d).

#### **IV.D CONTAINERS EXEMPT FROM 40 C.F.R. PART 264, SUBPART CC, CONTROL STANDARDS**

**IV.D.1.a** As set forth at 40 C.F.R. § 264.1082(c)(1), a container is exempt from the standards specified in 40 C.F.R. Part 264, Subpart CC, provided that all hazardous waste entering the container has an average VO concentration at the point of waste origination of less than 500 parts per million by weight (ppmw). The average VO concentration must be determined using direct measurement or approved method under 40 C.F.R. §§ 264.1082(d) and 264.1083(a).

**IV.D.1.b** For each container, you must review and update the determination that all hazardous waste entering the container has an average VO concentration at the point of waste origination of less than 500 ppmw at least once every 12 months following the date of the initial determination for the hazardous waste streams entering the container. 40 C.F.R. § 264.1082(c)(1). For each container you must prepare and maintain the records described in 40 C.F.R § 264.1089(f). These records must be maintained as part of the operating record.

**IV.D.1.c** You shall perform a new waste determination whenever changes to the source generating the waste stream are reasonably likely to cause the average VO concentration of the hazardous waste managed in the containers to increase to a level that is equal or greater than 500 ppmw. 40 C.F.R. § 264.1083(a)(ii).

**IV.E RECORDKEEPING AND REPORTING REQUIREMENTS**

The Permittee shall comply with all applicable record keeping and reporting requirements described in 40 C.F.R. §§ 264.1089 and 264.1090.