

**Kentucky Energy and Environment Cabinet
Department for Environmental Protection
Division of Waste Management**



HAZARDOUS WASTE MANAGEMENT FACILITY PERMIT

**Rohm and Haas Chemicals LLC - Louisville Plant
4300 Campground Road, Louisville KY 40216**

The Division of Waste Management hereby grants the above-named facility a Permit to engage in activity specified below. This Permit has been issued under the provision of KRS Chapter 224 and regulations promulgated pursuant thereto and are subject to all Permit Conditions and operating limitations contained herein. Issuance of this Permit does not relieve the Permittee from the responsibility of obtaining any other Permits, licenses, or approvals required by this Cabinet and/or other federal, state, and local agencies.

No deviation from the plans and specifications submitted with your Application or the Permit Conditions specified herein is allowed, unless authorized in writing from the Division of Waste Management. Violation of the terms and Permit Conditions specified herein shall render this Permit null and void. All rights of inspection by representatives of the Division of Waste Management are reserved. Conformance with all applicable Waste Management Regulations is the responsibility of the Permittee. Receipt of the Permit fee and financial assurance specified below is hereby acknowledged.

Permit Type:	Operating	EPA I.D. Number:	KYD-006-390-017
Hazardous Waste Management Units:	Storage and Treatment	Agency Interest:	2205
Closure Cost Estimate:	\$ 2,867,053	County:	Jefferson
Post-Closure Amount:	N/A	Permit Fee:	\$ 51,640
Sudden Liability Insurance:	\$ 1,000,000 per occurrence/ \$ 2,000,000 annual aggregate	Effective Date:	XX XX 2021
Non-Sudden Liability Insurance:	\$ 3,000,000 per occurrence/ \$6,000,000 annual aggregate	Expiration Date:	XX XX 2021

**Tammi Hudson P.E., Director
Division of Waste Management
Issued on XX XX, 2021**

**Kentucky Energy and Environment Cabinet
 Department for Environmental Protection
 Division of Waste Management**

This Permit has been modified, altered, reviewed, and/or changed as indicated in the table below – Summary of Permitting Actions.

SUMMARY OF PERMITTING ACTIONS					
Action Number^{1.}	Type of Actions^{2.}	Public Notice Date^{3.}	Issuance Date^{4.}	Effective Date^{5.}	Comments^{6.}
0	Permit Renewal				
^{1.} Action number is the same as Permit Modification number. ^{2.} Type of Permit Modification issued by the Cabinet. The different types of Permit Modifications are: Class 1, Class 2 and Class 3. ^{3.} Not all Permit Modification is required by 40 CFR Part 124 - Subpart A to be public noticed. ^{4.} Date issued is not required to be the same as the effective date of the modification. ^{5.} The effective date of a modification depends on the type of the modification class. ^{6.} Brief description of the Permit Modification.					

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Rohm and Haas Chemicals LLC – Louisville Plant; KYD-006-390-017

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PART I LEGAL AUTHORITY

PART I LEGAL AUTHORITY

The terms and conditions of this Permit are applicable to Rohm and Haas Chemicals LLC – Louisville Plant under Title 401 KAR Chapters 39 and 40, of the Hazardous Waste Management Regulations of the Kentucky Administrative Regulations (KARs).

The Code of Federal Regulations (CFRs) cited in this Permit shall be as established in 401 KAR Chapter 39.

Pursuant to the Environmental Protection Law, as amended [KRS Chapter 224] and attendant regulations promulgated thereunder by the Kentucky Energy and Environment Cabinet, in the Kentucky Administrative Regulations (KARs) Title 401, this Permit is issued to Rohm and Haas Chemicals LLC – Louisville Plant, hereinafter referred to as the “Permittee”, located at 4300 Camp Ground Road, Louisville, Kentucky 40216.

Permittee and Owner/Operator: Rohm and Haas Chemicals LLC, 4300 Campground Road, Louisville, KY 40216.
Facility Contact(s): Phillip O. Dale, Site Leader and Elaine Mink, Environmental Specialist, 502-449-5291
Latitude/Longitude: 38° 12' 50" N, 85° 50' 46"W

The Permittee must comply with all terms and conditions of this Permit. This Permit consists of the Permit Conditions set forth in:

- ❖ **Part I:** Legal Authority;
- ❖ **Part II:** Standard Permit Conditions;
- ❖ **Part III:** Specific Permit Conditions;
- ❖ **Part IV:** Corrective Action;
- ❖ **Part V:** Waste Minimization;
- ❖ **Part VI:** Land Disposal Restrictions;
- ❖ **Part VII:** Organic Air Emissions Standards;
- ❖ **Part VIII:** Referenced Attachments; and
- ❖ The applicable waste management regulations.

Hazardous Waste Management Regulations of the Kentucky Administrative Regulations (KAR) may have exceptions to the equivalent Code of Federal Regulations (CFR). In the instance of inconsistent language or discrepancies between **401 KAR Chapter 39** and its equivalent CFR, **401 KAR Chapter 39** shall take precedence. Applicable regulations are those which are in effect on the date of issuance and also upon modification, revocation or reissuance of this Permit. **[40 CFR Part 270.32]**

The Permit Application (Part A and Part B Permit Application) as submitted to the Division of Waste Management on April 10, 2020, is hereby incorporated into this Permit as Attachments. (See *Table I.1*)

This Permit is based on the assumption that the information in the Permit Application is accurate and that the facility will be constructed, maintained, equipped and operated as specified in the Permit Application and this Permit. In the instance of inconsistent language or discrepancies between the above, the language of the more stringent provision shall govern. Any inaccuracies found in this information could lead to the termination or modification of

this Permit and potential enforcement action (**40 CFR Part 270.43** and **401 KAR 40:040 Section 1: Modification, Suspension and Revocation of a Permit** (effective 12/2/83)). The Permittee shall inform the Cabinet of any deviation from, or changes in the information in the Application, which would affect the Permittee's ability to comply with the applicable regulations or Permit Conditions. [**40 CFR Part 270.30**]

This Permit is effective XX XX 2021 and shall remain in effect until the specified expiration date XX XX 2031, unless revoked and reissued, or terminated (see **40 CFR Part 270.41**, **40 CFR Part 270.43**, **40 CFR Part 124.5(a)** and **401 KAR 40:040 Section 1: Penalties**).

This Permit or a copy thereof shall be kept at the work site of the Permitted activity. In the event that there is no building or reasonable repository for such a copy at the work site, then the Permit or a copy thereof shall be kept at an alternate location agreed to by the Division.

TABLE I.1 CROSS REFERENCE OF PERMIT ATTACHMENTS	
Permit Attachment¹.	Permittee's Permit Application².
Attachment A Part A Permit Application	Part A – Hazardous Waste Permit Part A Form, Kentucky Part A Application Addendum
Attachment B Facility Description	Part B – Facility Description
Attachment C Waste Analysis Plan	Part C – Waste Characteristics
Attachment D Process Information	Part D – Process Information
Attachment E Groundwater Monitoring & Corrective Action	Part E – Corrective Action for Waste Management Units and Groundwater Monitoring
Attachment F Procedures to Prevent Hazards	Part F – Procedures to Prevent Hazards
Attachment G Contingency Plan	Part G – Contingency Plan
Attachment H Personnel Training	Part H – Personnel Training
Attachment I Closure Plans, Post-Closure Plans & Financial Requirements	Part I – Closure Plans, Post Closure Plans, and Financial Requirements
Attachment J Other Federal Laws	Part J – Other Federal Laws
Attachment K Waste Minimization Plan	Part K – Waste Minimization
Attachment L Signature Certification	Part L- Signatures

TABLE I.1 CROSS REFERENCE OF PERMIT ATTACHMENTS	
Permit Attachment¹.	Permittee's Permit Application².
Attachment M Organic Air Emission Standards	Part M – Organic Air Emission Standards for Process Vents
Attachment N Organic Air Emission Standards	Part N – Organic Air Emission Standards for Equipment Leaks
Attachment O Organic Air Emission Standards	Part O – Organic Air Emission Standards for Tanks, Surface Impoundments, and Containers
¹ Selected sections, parts, and/or attachments submitted as part of the Permittee's Permit Application have been incorporated into the Permit as attachments. However, this does not indicate that the Permit Application may be used as a substitute for the attachments prepared by the Division. ² Part A and Part B Permit Application are prepared and submitted by Phillip O. Dale, Site Leader, Rohm and Haas Chemicals LLC to the Division on April, 10, 2020 and determined complete on February, XX, 2021.	

TABLE I.2 CROSS REFERENCE OF CFRs AS ESTABLISHED IN 401 KAR CHAPTER 39		
State Regulation	Federal Regulation	State Regulation Section Description
39:060 Sec. 2	40 CFR Part 260	Hazardous Waste Management Systems
39:060 Sec. 3	40 CFR Part 261	Identification and Listing of Hazardous Wastes
39:060 Sec. 4	40 CFR Part 268	Land Disposal Restrictions
39:060 Sec. 5	40 CFR Part 124 and 270	Hazardous Waste Permit Program and Procedures
39:080 Sec. 1	40 CFR Part 262	Standards for Generators of Hazardous Waste
39:080 Sec. 2	40 CFR Part 263	Standards for Transporters of Hazardous Waste
39:080 Sec. 3	40 CFR Part 273	Standards for Universal Waste
39:080 Sec. 4	40 CFR Part 279	Standards for Used Oil
39:090 Sec. 1	40 CFR Part 264	Standards for Owners or Operators for Treatment, Storage, and Disposal Facilities
39:090 Sec. 2	40 CFR Part 265	Standards for Owners or Operators for Interim Status Treatment, Storage, and Disposal Facilities
39:090 Sec. 3	40 CFR Part 266	Standards for Specific Types of Hazardous Waste Facilities
39:090 Sec. 4	40 CFR Part 267	Standardized Permits
39:090 Sec. 5	40 CFR Part 264	Flood Plains

PART II STANDARD PERMIT CONDITIONS

**PART II
STANDARD PERMIT CONDITIONS**

The terms and conditions of this Permit are applicable to Rohm and Haas Chemicals LLC – Louisville Plant under Title 401 KAR Chapters 39 and 40, of the Hazardous Waste Management Regulations of the Kentucky Administrative Regulations (KARs).

The Code of Federal Regulations (CFRs) cited in this Permit shall be as established in 401 KAR Chapter 39.

II.A EFFECT OF PERMIT

Compliance with the terms of this Permit constitutes compliance for purposes of enforcement with **KRS Chapter 224.46-520**.

This Permit is issued pursuant to **KRS 224.46**.

Issuance of this Permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or 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 Sections 3008(a), 3008(h), 3013, or 7003 of RCRA of 1976; Sections 106(a), 104, or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq., commonly known as CERCLA); the equivalent state statutes, or any other law governing protection of public health or the environment for any imminent and substantial endangerment to human health, welfare or the environment. [**40 CFR Part 270.4**]

II.B PERMIT ACTIONS

II.B.1 Permit Modification, Revocation and Reissuance, and Termination

This Permit may be modified, revoked and reissued, or terminated for cause as specified in **40 CFR Part 270.40** through **270.43**, **40 CFR Part 124.5(a)**, **401 KAR 40:040 Section 1: Modification, Suspension and Revocation of a Permit**, **40 CFR Part 270.30**, and **40 CFR Part 270.10**, **401 KAR 39:060 Section 5 Hazardous Waste Permit Program and Procedures**, and **401 KAR 39:060 Section 6 Exceptions and Additions**.

The filing of a request for a Permit modification, revocation and reissuance, or termination or the notification of planned changes or anticipated non-compliance on the part of the Permittee does not stay the applicability or enforceability of any Permit Conditions [**40 CFR Part 270.30**]. If at any time for any of the reasons specified in **40 CFR Part 270.41**, the Cabinet determines that modification of this Permit is necessary, the Cabinet may initiate a modification according to **40 CFR Part 124 - Subpart A** or require the Permittee to request a Permit Modification as outlined in **40 CFR Part 270.42**.

II.B.2 Permit Renewal

II.B.2.1 This Permit may be renewed as specified in Permit Condition II.E.2. Review of any Application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations. [401 KAR 39:060 Section 5 , 401 KAR 39:060 Section 6 , 40 CFR Part 270.4 and 40 CFR Part 270.30]

II.B.2.2 The Permittee shall submit three (3) hard copies and one (1) electronic copy plus a cover letter accompanying the Application and fee payable to the Kentucky State Treasurer to the Division by hand delivery or verifiable delivery at the following address:

ATTN: Hazardous Waste Branch, Manager
Division of Waste Management
300 Sower Blvd., 2nd Floor
Frankfort, KY 40601

II.B.2.3 The Permittee shall submit one (1) hard copy and one (1) electronic copy of the Application plus a cover letter accompanying the renewal to the U.S. Environmental Protection Agency Region 4 (EPA Region 4) by verifiable delivery at the following address:

ATTN: Chief, RCRA Programs and Cleanup Branch
Land, Chemicals, and Redevelopment Division
U.S. E.P.A. - Region 4
61 Forsyth St, SW - 10th floor
Atlanta, GA 30303

II.B.2.4 The Permittee shall notify the Division proof of delivery of the Application and/or revisions to EPA Region 4 within seven (7) days of the receipt date.

II.B.3 Permit Expiration

Pursuant to **40 CFR Part 270.50**, this Permit shall be effective for a fixed term not to exceed ten (10) years. The Director shall not grant permission for the Application to be submitted later than the expiration date of the existing Permit. This Permit and all Permit Conditions herein will remain in effect beyond the Permit's expiration date, if:

II.B.3.1 The Permittee has submitted a timely and complete Application in accordance with **40 CFR Part 270.10(h)**, **40 CFR Part 270.13** through **270.28**; and,

II.B.3.2 Through no fault of the Permittee, the Division has not issued a new Permit, as set forth in **40 CFR Part 270.51**.

II.B.4 Permit Modifications

This Permit may be modified for both routine and significant changes as specified in the following: [40 CFR Part 124.5, 40 CFR Part 270.41]

II.B.4.1 Routine Changes

A routine change or modification to the Permit is any change that qualifies as a Class 1 or Class 2 Permit Modification under **40 CFR Part 270.42**.

The Permittee shall not implement any Class 1 Permit Modification that requires approval or Class 2 Permit Modification without written approval from the Manager.

Class 1 Permit Modifications for which prior approval is not required under **40 CFR Part 270.42** may be implemented without prior notice or approval by the Division if notice of the modification is submitted to the Division within seven (7) calendar days after the change is put into effect.

II.B.4.2 Significant Changes

A significant change or modification to the Permit is:

II.B.4.2.1 Any change that qualifies as a Class 3 Permit Modification under **40 CFR Part 270.42**; or

II.B.4.2.2 Any change not explicitly identified in **40 CFR Part 270.42**; or

II.B.4.2.3 Any amendments resulting in less stringent terms or conditions in the Permit.

II.B.4.3 Modification and Corrective Action

The Permittee shall modify the Permit to incorporate the corrective action plans, if necessary, developed as specified in Permit Condition IV.1.3, throughout this Permit, and financial assurance for corrective action as required under regulations **40 CFR Part 270 - Subpart D** and **40 CFR Part 264.101**.

II.B.4.4 Modifications: General Submittals Requirements

II.B.4.4.1 Submit to the Director the exact change(s) and reason for the changes intended for this Permit and if the changes include modifications to the information provided or to terms and conditions in this Permit.

II.B.4.4.2 Identify the Class modification type;

II.B.4.4.3 Explain why the modification is needed;

II.B.4.4.4 Provide the applicable information required by **40 CFR Part 264** and **270**.

II.B.4.4.5 The Permittee must send a notice of the modification request to all persons on the facility mailing list maintained by the Director and to the appropriate units of State and local government as specified in **40 CFR Part 270.42**.

II.B.4.4.6 Provide to the Manager evidence of the mailing and publication as applicable and required under **40 CFR Part 270.42** and **40 CFR Part 124 - Subpart A**.

II.B.4.4.7 Submit and comply with any other information required under **40 CFR Part 260** through **270** and **KRS 224.46**.

II.B.4.5 Modification Submittals

The Permittee shall submit three (3) hard copies and one (1) electronic copy plus a cover letter of any Permit Modification request and fee payable to the Kentucky State Treasurer to the Division by hand delivery or verifiable delivery at the address provided in *Permit Condition II.B.2.2*.

II.B.4.5.1 The Permittee shall submit one (1) hard copy and one electronic copy of any Permit Modification Application plus a cover letter accompanying the modification to the U.S. EPA Region 4 at the address provided in *Permit Condition II.B.2.3*.

II.B.4.5.2 The Permittee shall submit to the Division proof of delivery of the submittal to EPA Region 4 within seven (7) days of receiving notification of the EPA receipt date.

II.B.5 Modifications of this Permit do not constitute a reissuance of this Permit.

II.C SEVERABILITY

The provisions of this Permit are severable. 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 or diminished. [**40 CFR Part 124 - Subpart A**]

II.D DEFINITIONS

For the purposes of this Permit, terms used herein shall have the same meaning as those established in **401 KAR Chapter 39:005** and **40**, unless this Permit specifically provides otherwise; where terms are not otherwise defined, the meaning associated with such terms shall be as defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term. The terms "Cabinet", "Division", "Director" and "Manager" can be used interchangeably.

II.D.1 "Area of Concern" (AOC)

Any area having a probable or known release of a hazardous waste(s) or hazardous constituent(s) which is not from a Solid Waste Management Unit and is determined by the Manager to pose a current or potential threat to human health or the environment. Such Areas of Concern may require investigations and remedial actions in order to ensure adequate protection of human health and the environment.

II.D.2 "Contamination"

The presence of any hazardous waste constituent in a concentration which exceeds the background

concentration of that constituent in the immediate vicinity of the facility.

II.D.3 "Corrective Action"

May include all corrective measures necessary to protect human health and the environment from all releases of hazardous waste or hazardous waste constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in the unit.

II.D.4 "Director"

Refers to the Director of the Division of Waste Management. The terms "Cabinet", "Division", and "Manager" can be used interchangeably.

II.D.5 "Extent of Contamination"

Horizontal and vertical area in which the concentration of hazardous constituents in the environmental media being investigated are above the detection limit or background concentrations indicative of the region, whichever is appropriate as determined by the Manager.

II.D.6 "Leak Detection and Repair Program" (LDAR Program)

The processes and procedures set forth in Facility Description: Equipment Leak Standards; Compliance Plan: Subpart BB Air Emissions Standards; and Compliance Plan: Subpart CC Air Emissions Standards, of the Approved Permit Application.

II.E DUTIES AND REQUIREMENTS

II.E.1 Duty to Comply

The Permittee must comply with all Permit Conditions of this Permit except to the extent and for the duration that such non-compliance is authorized by an Emergency Permit. Any Permit non-compliance, other than non-compliance authorized by an Emergency Permit, constitutes a violation of **KRS Chapter 224** and is grounds for enforcement action, Permit termination, revocation and reissuance, modification, or denial of a Permit Renewal Application. [**40 CFR Part 270.30**]

II.E.2 Duty to Reapply

If the Permittee intends to continue an activity allowed or required by this Permit after the expiration date of this Permit, the Permittee shall submit a complete Application for a new Permit at least one hundred eighty (180) days prior to Permit expiration [**40 CFR Part 270.10 and 40 CFR Part 270.30**]. The Permittee must comply with the public notice requirements of **40 CFR Part 124.10**.

The Permittee must apply for a new Permit in accordance with the regulations and *Permit Conditions II.B.2*.

II.E.3 Obligation for Corrective Action

The Permittee is required to continue this Permit for any period necessary to comply with the corrective action requirements of this Permit. The Corrective Action obligations contained in this Permit will continue regardless of whether the facility continues to operate or ceases operation and closes. The Permittee is obligated to complete facility-wide Corrective Action under the terms and conditions of this Permit regardless of the operational status of the facility. [40 CFR Part 264.101, 40 CFR Part 270.1 and 40 CFR Part 270.51]

II.E.4 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 to maintain compliance with the terms and conditions of this Permit. [40 CFR Part 270.30]

II.E.5 Duty to Mitigate

In the event of noncompliance with this 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. [40 CFR Part 270.30]

II.E.6 Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of and control (and related appurtenances) that 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 backup or auxiliary facilities or similar systems when necessary to achieve compliance with the terms and conditions of the Permit. [40 CFR Part 270.30]

II.E.7 Duty to Provide Information

The Permittee shall furnish the Manager, within a reasonable time, any information requested 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 the Manager upon request copies of the records kept as a requirement of this Permit. [40 CFR Part 270.30]

II.E.8 Inspection and Entry

The Permittee shall allow an authorized representative of the Division, upon the presentation of credentials and other documents, as may be required by law, [40 CFR Part 270.30]

II.E.8.1 To enter at reasonable times the Permittee's premises where the regulated facility or activity is located or conducted; or where records must be kept under the Permit Conditions of this Permit;

II.E.8.2 To have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

- II.E.8.3 To inspect and photograph at reasonable times, any facilities, equipment, (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- II.E.8.4 Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location. Split samples and copies of analysis will be provided to the Permittee upon request.

II.E.9 Monitoring and Records

II.E.9.1 Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain representative samples of the wastes and/or contaminated media to be analyzed must be the appropriate method from **40 CFR Part 261 Appendix I**, or an equivalent method if specified in the application, or otherwise approved by the Manager. Laboratory methods must be those specified in the most recent edition of *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods* (SW-846, current edition) or a method approved by the Cabinet in accordance with **40 CFR Part 270.30** and **40 CFR Part 260 - Subpart C**.

II.E.9.2 In accordance with **40 CFR Part 270.30**, the Permittee shall retain the following records at the facility, or at another location as approved by the Manager; records of all monitoring information required under the terms and conditions of this Permit, including:

- II.E.9.2.1 All calibration and maintenance records;
- II.E.9.2.2 Records of all original strip chart recordings for continuous monitoring instrumentation;
- II.E.9.2.3 Copies of all reports and records required by this Permit and all data used to prepare them;
- II.E.9.2.4 Records of all data used to complete the Application for this Permit; and
- II.E.9.2.5 Certification required by **40 CFR Part 264.73**.

The Permittee shall retain these items for a period of at least three (3) years from the date of the sample, measurement, report, record, certification, or Application, or until corrective measures on the regulated unit(s) are completed, whichever date is later.

This period may be extended if requested by the Director at any time and is automatically extended during the course of any unresolved enforcement action regarding this facility.

Permit Condition II.E.9 also applies to all records which must be maintained for the solid waste management units at the facility.

The Permittee shall maintain records from all surface water sampling, seep sampling, soil

sampling, sediment sampling, ground-water, monitoring wells and associated ground-water surface elevations, for the active life of the facility, and, for disposal facilities, for the Post-Closure Care period as well.

II.E.9.3 Pursuant to **40 CFR Part 270.30**, records of monitoring information shall specify:

II.E.9.3.1 The date, exact place, and time of sampling or measurements;

II.E.9.3.2 The individual(s) who performed the sampling or measurements;

II.E.9.3.3 The date(s) analyses were performed;

II.E.9.3.4 The individual(s) who performed the analyses;

II.E.9.3.5 The analytical techniques or methods used; Analytical technique(s) or method(s) is defined as encompassing both the sampling technique (method) and method of chemical analysis used. This information must be provided in the Waste Analysis Plan; and

II.E.9.3.6 The results of such analyses, including the detection limits and Quality Assurance/Quality Control (QA/QC) documentation.

II.E.9.4 If paper copies are not retained, backup electronic copies of all data must be prepared on a weekly basis. The backup system shall be independent of (1) the systems used to collect the data and (2) the systems used to store the primary copy. All data stored in electronic format must be available for review at the facility at all times by regulatory personnel.

II.E.9.5 Monitoring results shall be reported at intervals specified elsewhere in the Permit in accordance with **40 CFR Part 270.30**.

II.E.10 Reporting Planned Changes

The Permittee shall give notice to the Manager as soon as possible of any planned physical alterations or additions which may impact any Hazardous Waste Management Units (HWMUs), Solid Waste Management Units (SWMUs), Areas of Concern (AOCs), or the areas contaminated by them. [**40 CFR Part 270.30**]

II.E.11 Reporting Anticipated Non-Compliance

The Permittee shall provide to the Manager, advance written notice of any planned changes in the Permitted facility or activity that may result in non-compliance with Permit requirements. [**40 CFR Part 270.30**]

II.E.12 Certification of Construction or Modification

For a new facility, the permittee may not treat, store, or dispose of hazardous waste; and for a facility being modified, the permittee may not treat, store, or dispose of hazardous waste in the modified portion of the facility except as provided in **40 CFR Part 270.42**, until:

II.E.12.1 The Permittee has submitted to the Manager by certified mail or hand delivery a letter signed by the Permittee and an independent Professional Engineer registered in the Commonwealth of Kentucky stating that the facility has been constructed or modified in compliance with the Permit [40 CFR Part 270.30]; and

II.E.12.1.1 The Division has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the Permit; or [40 CFR Part 270.30]

II.E.12.1.2 The Cabinet either has waived the inspection or has not, within fifteen (15) days of receipt of the above, notified the Permittee of its intent to inspect. [40 CFR Part 270.30]

II.E.12.2 The certification must include at a minimum:

II.E.12.2.1 As-built drawings;

II.E.12.2.2 Descriptions and delineation of any changes to proposed drawings;

II.E.12.2.3 All required professional certifications;

II.E.12.2.4 All Quality Assurance/Quality Control (QA/QC) documentation; and

II.E.12.2.5 All required physical testing results.

II.E.12.b.6 In case of deviations from design specifications which may occur during construction; these must be noted in the engineer's statement accompanied with an evaluation of the impact of the deviation on facility or specific unit performance. If the Division determines that the deviations are indeed minor and will not adversely impact the Permittee's ability to comply with the conditions of this Permit, Division may modify the Permit accordingly.

II.E.12.2.7 Any additional requirements the Division deems necessary.

II.E.13 Transfer of Permit

This Permit may be transferred to a new owner or operator only if it is modified or revoked pursuant to **40 CFR Part 270.40 CFR Part 270.41** or a Class 1 Permit Modification is made pursuant to **40 CFR Part 270.42** that identifies the new Permittee and incorporates such other requirements as may be necessary under **KRS Chapter 224** and **40 CFR Part 260** through **270**. Until the new owner or operator has demonstrated compliance with **40 CFR Part 264 - Subpart H** the old owner/operator shall continue to maintain financial assurance until released by the Manager in writing. Before transferring ownership or operation of the facility during its operating life, the Permittee shall notify the new owner/operator in writing of the requirements of **40 CFR Part 260** through **270** as well as **401 KAR Chapter 39** and **401 KAR Chapter 40** and this Permit [40 CFR Part 264.12] including all applicable Corrective Actions requirements. This Permit is not transferrable to any person except after prior written approval of the Director. [40 CFR

Part 270.30]

II.E.14 Compliance Schedule

- II.E.14.1** Reports of compliance or non-compliance with, or any progress reports on interim and final requirements contained in any type of compliance schedule of this Permit shall be submitted no later than fourteen (14) days following each scheduled date as required by **40 CFR Part 270.30**. Submissions shall be made in hard and electronic copies.
- II.E.14.2** The Permittee shall, at a minimum, provide one (1) week advance notification to the appropriate Cabinet's field personnel, corrective action section staff or permit review section staff for any sampling event required by this Permit or its effects.

II.E.15 Two-Hour Reporting

The Permittee shall report to the Manager any non-compliance, including releases, which may endanger human health or the environment. Any information shall be provided orally within two (2) hours from the time the Permittee becomes aware of the circumstances (the Kentucky 24-hour reporting number is 502-564-2380 or 1-(800) 928-2380). The information in Permit Conditions II.E.15.1 and II.E.15.2 shall be reported orally within two (2) hours: **[401 KAR 39:060 Section 6]**

- II.E.15.1** Information concerning release of any hazardous waste or hazardous constituents that may cause an endangerment to public drinking water supplies, including both surface water and groundwater used for public drinking water supply; and
- II.E.15.2** Any information of a release or discharge of hazardous waste constituents, or of a fire or explosion at the facility that could threaten the environment or human health outside the facility.
- II.E.15.3** The Permittee shall also provide a written submission to the Director within five (5) days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the non-compliance and its cause; the periods of non-compliance (including exact dates and times); whether the non-compliance has been corrected; and if the non-compliance has not been corrected, the anticipated time it is expected to continue; and steps planned or taken to reduce, eliminate, and prevent reoccurrence of the non-compliance. **[40 CFR Part 270.30]**. This report shall also include the following:
 - II.E.15.3.1** The description of the occurrence and its cause;
 - II.E.15.3.2** Name, address, and telephone number of the owner or operator and the reporter;
 - II.E.15.3.3** Name, address, telephone number, and EPA identification number of the facility;
 - II.E.15.3.4** Date, time, and type of incident;
 - II.E.15.3.5** Name, and quantity of material(s) involved;
 - II.E.15.3.6** The extent of injuries, if any;

II.E.15.3.7 An assessment of actual or potential hazard to the environment and human health outside the facility, where this is applicable; and

II.E.15.3.8 Estimated quantity and disposition of recovered material that resulted from the incident.

II.E.16 Other Non-Compliance

The Permittee shall report all instances of noncompliance not reported under Permit Conditions II.E.11 and II.E.15 at the time monitoring reports are submitted. The reports shall contain the information listed in Permit Condition II.E.15.3 of this Permit. [40 CFR Part 270.30]

II.E.17 Other Information

Whenever the Permittee becomes aware that he/she failed to submit any relevant facts, or submitted incorrect information in the application or in any report to the Manager, the Permittee shall promptly submit such facts or information. In addition, upon request, the Permittee shall furnish to the Manager any information related to compliance with the Permit. [40 CFR Part 270.30]

Noncompliance with terms and conditions of the Permit that result in letters of warning, notice of violation letters from the Cabinet, an agreed order, or criminal enforcement of environmental laws by the Commonwealth of Kentucky shall be used to document the reliability, expertise, integrity and competence of the Permittee, and would be considered by the Cabinet in making modifications to the Permit during its time in effect and in making future changes to the Permit, pursuant to **40 CFR Part 264 - Subpart D** and **40 CFR Part 270.32**; and when issuing a new Permit as set forth in **40 CFR Part 270.50**.

II.F SIGNATORY REQUIREMENTS

All Applications, reports and/or information required by this Permit, or otherwise submitted to the Manager, shall be signed and certified in accordance with **40 CFR Part 270.11** and **40 CFR Part 270.30**.

II.G REPORTS, NOTIFICATION AND SUBMISSIONS TO THE DIVISION

All reports, notifications, or other submittals that this Permit requires are to be mailed to the Manager. Two (2) hard copies and one (1) electronic copy in a standard text-searchable format (e.g., portable document format) acceptable to the Cabinet shall be provided to the address stated in *Permit Condition II.B.2.2*.

II.H CHANGES TO PERMIT

II.H.1 Additions or Alterations

The Cabinet may modify the Permit when there is material and substantial alterations or additions to the Permitted facility, or activity; which occurred after Permit issuance, which justify the application of conditions that are different or absent in this Permit. [40 CFR Part 270.41]

II.H.2 New Information

II.H.2.1 The Cabinet may modify the Permit when the Cabinet receives new information.

II.H.2.2 Permits may be modified during their terms for this cause, if the information was not available at the time of Permit issuance and justify the application of different conditions. [40 CFR Part 270.41]

II.H.3 New Statutes, Standards, or Administrative Regulations

The Cabinet may modify this Permit when the standards or administrative regulations on which this Permit is based have been changed by "statute", amended standards, administrative regulations, or by judicial decision after the Permit was issued. [40 CFR Part 270.41]

This Permit is subject to any further statutory or regulatory changes whose purpose is to protect the health and welfare of the Commonwealth citizen and the environment (see 40 CFR Part 270.41, except as provided in 40 CFR Part 270.4).

II.H.4 Amendment of Part A Application

The Permittee shall submit a revised Part A Application if the Part A information changes in conjunction with any request for modification of this Permit. In addition, a revised Part A shall be submitted to the Cabinet ninety (90) days prior to change in ownership or operational control to the facility pursuant to 40 CFR Part 270.41, and shall be signed and certified by the new owner or operator.

II.I CONFIDENTIAL INFORMATION

Any person who submits information to the cabinet pursuant to 401 KAR Chapters 39 and 40, may assert a claim of business confidentiality or trade secret covering part or all of that information by following the procedures established in KRS 224.10-212 and 400 KAR 1:060. [401 KAR 39:060 Section 6(9)]

II.J DOCUMENTS TO BE MAINTAINED AT FACILITY

The Permittee shall maintain at the facility, until closure is completed and certified by an independent Professional Engineer registered in the Commonwealth of Kentucky, and verified by the Cabinet, the following documents and amendments, revisions, and modifications to these documents:

II.J.1 Permit

This Permit and any correspondence related to this Permit.

II.J.2 Waste Analysis Plan

As required by 40 CFR Part 264.13.

II.J.3 Inspection Schedules

As required by **40 CFR Part 264.15**, for a period of three (3) years or longer if specified otherwise in the Permit.

II.J.4 Personnel Training Documents and Records

As required by **40 CFR Part 264.16**.

II.J.5 Contingency Plan

Current contingency plan as required by **40 CFR Part 264.53**.

II.J.6 Operating Record

As required by **40 CFR Part 264.73**.

II.J.7 Closure Plan & Post Closure Plan

As required by **40 CFR Part 264.112, 264.118, and 264.119**.

II.J.8 Annually-Adjusted Cost Estimate for Facility Closure and Post Closure Plan

As required by **40 CFR Part 264.142 and 264.144**.

II.J.9 Hazardous Waste Unit Requirements

Documents as required by **40 CFR Part 264 – Subpart J** (Tanks Systems), **40 CFR Part 264 – Subpart AA, BB and CC** (Organic Air Emission Standards), and), **40 CFR Part 266 - Subpart H** (Boilers and Industrial Furnaces).

II.J.10 Annual Reports

As required by **401 KAR 39:060 Section 5(18)**.

II.J.11 Manifests

Copies of all manifests for shipments of hazardous waste originating from this facility, kept as required by **40 CFR Part 264.71**.

II.J.12 Notifications from Generators

Notifications from generators subject to **40 CFR Part 268** that specify treatment standards. [**40 CFR Part 264.73, 40 CFR Part 262.40**]

II.J.13 Waste Minimization

Waste minimization certifications must be part of the Operating Record. [40 CFR Part 264.73]

II.J.14 Closed Vent System and Control

Records regarding closed-vent systems and control devices and/or equipment leaks as required by **40 CFR Part 264 - Subpart AA**

II.J.15 Groundwater Monitoring

Results and reports as required by **40 CFR Part 264 - Subpart F**.

II.J.16 All Other Documents

Assessment, report, installation, and repair certifications as required by this Permit.

II.K PERMIT CONDITIONS AND ATTACHMENTS

All attachments and documents required by this Permit—including all plans and schedules—, upon approval by the Director, is 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 the Permittee to enforcement action under **401 KAR 40:040**, **KRS 224.99-010** and/or **Section 3008** of RCRA which may include fines, suspension, or revocation of the Permit. Any noncompliance with approved plans and schedules shall be termed noncompliance with this Permit.

II.K.1 Precedence of Permit over Attachments

If any of the Attachments to this Permit are found to conflict with any of the conditions in Part I through VIII of this Permit, the Condition of this Permit shall take precedence.

II.K.2 Precedence of Appendix over Application

If any Section of the Application is found to be in conflict with any Appendix to this Permit, the Appendix to this Permit shall take precedence.

PART III SPECIFIC PERMIT CONDITIONS

**PART III
SPECIFIC PERMIT CONDITIONS**

The terms and conditions of this Permit are applicable to Rohm and Haas Chemicals LLC – Louisville Plant under Title 401 KAR Chapters 39 and 40, of the Hazardous Waste Management Regulations of the Kentucky Administrative Regulations (KARs).

The Code of Federal Regulations (CFRs) cited in this Permit shall be as established in 401 KAR Chapter 39.

III.A FACILITY DESCRIPTION

III.A.1 This Permit is issued for storage and treatment of hazardous waste at Rohm and Haas Chemicals LLC – Louisville Plant (hereinafter referred to as the “Permittee”). [40 CFR Part 264.1]

The Rohm and Haas manufacturing site is located in Jefferson County, Louisville, Kentucky. The site is in west Louisville in the “Rubbertown” area. The street and mailing address is:

Rohm and Haas
4300 Camp Ground Road
Louisville, Kentucky 40216

Latitude 38° 12' 50" and Longitude -85° 50'46"; see Appendix B for figures showing legal boundaries and permitted unit locations.

Rohm and Haas property encompasses two land parcels totaling approximately 132 acres. The parcels lie on both the east and west sides of Camp Ground Road. The west parcel (approximately 120 acres) is where the main manufacturing facility is located. The Ohio River borders the west parcel to the west. Chemours property borders the Rohm and Haas property to the north and American Synthetic Rubber Corporation, Arkema, and another DuPont operation is located to the south.

The east parcel, which encompasses approximately 12 acres, is located on the east side of Camp Ground Road, and includes the former fly ash/white water pond area, located at the terminus of Schmitt Road. A residential area bounds this parcel to the west; Southern Materials Landfill borders this parcel to the east and north. The closed Kramer’s Lane Landfill is located to the south. The former fly ash/white water ponds were shut down in 2000 and pond closure was completed in 2001.

Rohm and Haas currently manufactures acrylic polymers in the form of plastics additives and impact modifiers (KVK, KV2, KVPA, and KVP2), solid and solution grade resins (KAC), refined MMA (KB) and steam (Utilities).

The facility’s major raw material, crude MMA, is received by barge and railcar. It is distilled in the KB Unit into a refined monomer that is reacted to form polymer products or is shipped to customers. The bottoms from this distillation process, called Third Stage Bottoms (TSB), are burned for energy recovery in Boiler

100. This boiler also uses natural gas as a fuel and produces steam for use onsite. Some steam is also sold to neighbor manufacturing plants.

Other raw materials used by the facility include monomers (ethyl acrylate, butyl acrylate, methyl methacrylate) and solvents and alcohols (methyl ethyl ketone, butanol, xylene and toluene). Spent non-halogenated solvents such as toluene, xylene, methyl ethyl ketone, etc., are generated from the cleaning of tanks and pipes used in manufacturing acrylic polymer materials. A major spent solvent waste stream from the KAC process is also burned for energy recovery in Boiler 100. The facility also uses various acids, bases, salts, inhibitors, peroxides, mercaptans, surfactants, and maintenance chemicals. See Attachment B – Facility Description of the application for a more detailed list.

Sewer sludges are generated from the cleanout of wastewater sewers and oil/water separators located throughout the facility. Wastes are also generated from cleaning up spills of raw materials or products and from discarding raw materials or products for various reasons. Containers are used to manage the majority of these wastes under generator requirements (i.e. they are mostly not managed in the permitted units).

Rohm and Haas does not accept wastes generated off-site.

III.A.2 The Permittee shall only conduct treatment and storage in the following hazardous waste management units:

III.A.2.1 The Permittee shall only store, for a period of longer than 90 days, in three (3) aboveground, permitted storage tanks, Tank 64140, Tank 64141, and Tank 64250. (See *Table III.1*)

III.A.2.2 The Permittee shall only treat hazardous waste in one (1) boiler known as Boiler No.100. (See *Table III.1*)

TABLE III.1 TREATMENT AND STORAGE PERMITTED AREAS/UNITS			
Unit Type	Number of Units	Maximum Capacity	Unit Specific Requirement
Tank Storage No. 64140	1	31,900 gallons	Permit Condition III.L
Tank Storage No. 64141	1	31,900 gallons	Permit Condition III.L
Tank Storage No. 64250	1	12,000 gallons	Permit Condition III.L
Boiler Industrial Furnace (BIF) Boiler No. 100	1	14,171 lbs/hour	Permit Condition III.P
Total Permitted Units ¹	4		
¹ . Total number of individual units permitted at the facility.			

III.A.3 The Permittee shall not store or treat an amount that exceeds the maximum allowable storage and

treatment capacity listed in *Table III.1*.

III.A.4 The hazardous wastes which may be treated and/or stored at this facility are listed below in *Table III.2* and *Table III.3*, and are from the manufacture of acrylic polymers plastic additives and impact modifiers, solid and solution grade resins, refined methyl methacrylate (MMA), and steam production. Each of these hazardous wastes shall be stored and/or treated as specified within this Permit. If at any point in time, the Permittee discovered that the facility is not properly equipped to manage any of the permitted EPA waste code(s), the Division shall be notified immediately.

TABLE III.2 PERMITTED EPA WASTE CODES FOR STORAGE, TREATMENT OR DISPOSAL	
EPA Code	Waste Description
Characteristic Waste	
D001	Characteristic of Ignitability
D002	Characteristic of Corrosivity
D007	Toxicity Characteristic - Chromium
D018	Toxicity Characteristic - Benzene
D035	Toxicity Characteristic - Methyl Ethyl Ketone (MEK)
Hazardous Waste From Nonspecific Sources	
F003	Spent non-halogenated solvents: Xylene, Acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol
F005	Spent non-halogenated solvents: Toluene, MEK, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol
Discarded Commercial Chemical Products, Off-Specification Species, Container Residuals, and Spill Residues There of-Acute Hazardous Waste-	
U113	Ethyl Acrylate
U118	Ethyl Methacrylate
U162	Methyl Methacrylate (MMA)
U159	Methyl Ethyl Ketone (MEK)
U220	Toluene (Benzene, Methyl)
U239	Xylene (Benzene, Dimethyl-)

TABLE III.3 FACILITY SPECIFIC WASTE STREAMS FOR STORAGE, TREATMENT OR DISPOSAL		
Waste Stream	Waste Description	Waste Codes
Ignitable Methyl Methacrylate Still Bottoms (Third Stage Bottoms)	Waste from Crude Methyl Methacrylate Distillation – contains MMA, by-products and polymers; S02, T80	D001, D007
Non-halogenated Spent Solvents	Waste Solvents From the Production of Coatings and Resins – solvents used in products and toluene used to clean equipment; S02, T80	D001, D018, D035, F003, F005
Ignitable Waste Solutions	Off-Grade Polymer Product and Spent Solvent- acrylic and/or styrene polymer and solvent solution such as: butanol, MEK, toluene, xylene, and mineral spirits; S02, T80	D001, D018, D035
Waste Monomers	Ethyl Acrylate, Ethyl Methacrylate, Methyl Methacrylate, Butyl Acrylate; S02, T80	D001, D002, D003, U113, U118, U162
Methyl Ethyl Ketone	Unused Raw Methyl Ethyl Ketone (2-butanone); S02, T80	D001, U159
Toluene	Unused Raw Toluene (methyl-benzene); S02, T80	D001, D018, U220
Xylene	Unused Raw Xylene (dimethyl-benzene); S02, T80	D001, D018, U239
Ethyl Acrylate	Unused Raw Ethyl Acrylate; S02, T80	D001, U113
Ethyl Methacrylate	Unused Raw Ethyl Methacrylate; S02, T80	D001, U118
Methyl Methacrylate	Unused Raw Methyl Methacrylate; S02, T80	D001, U162

III.B GENERAL FACILITY STANDARDS

III.B.1 Off-Site Waste

The Permittee shall not receive, store, treat, or dispose of waste from a foreign source or an off-site source. Off-site means waste from a source other than Rohm and Haas Chemicals LLC – Louisville Plant; including other Rohm and Haas facilities. [40 CFR Part 264.12]

III.B.2 General Waste Analysis

III.B.2.1 The Permittee shall comply with all the requirements set forth under **40 CFR Part 264.13**. The Permittee shall verify the analysis of each waste stream frequently and also sample and analyze whenever a change occurs in the waste-generating process as part of its Quality Assurance/Quality Control (QA/QC) program, in accordance with *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846*, or equivalent methods approved by the Director and Attachment C of this Permit. At a minimum, the Permittee shall maintain proper functional instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations.

III.B.2.2 The Permittee shall ensure that all samples collected for the purposes of waste characterization and environmental monitoring are representative samples and collected, transported, analyzed,

stored, and disposed of by trained and qualified individuals in accordance with Waste Analysis Plan, including its QA/QC Plan in Attachment C of this Permit. The Waste Analysis Plan and QA/QC Plan shall, at a minimum, include the written procedures outlined in *"Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846"*, or equivalent methods approved by the Director and Attachment C of this Permit and any facility or contractor's written standard operating procedures (SOPs) which are equivalent or more stringent than SW-846.

III.B.2.3 If the Permittee uses a contract laboratory to perform analyses, then the Permittee shall inform the laboratory in writing that it must operate under *Permit Condition III.B.2* set forth in this Permit.

III.B.2.4 The Permittee shall maintain in the Operating Record all records and results of all waste analyses performed as required by **40 CFR Part 264.73** and Permit Condition III.B.2. Such records and results shall be entered into the Operating Record as they become available and shall be maintained until closure of the facility.

III.B.3 Security

The Permittee shall comply with all requirements set forth under **40 CFR Part 264.14** and shall follow the security measures outlined in Attachment F of the Permit.

III.B.3.1 The Permittee shall maintain the 6-foot high locked chain-link fence around the facility and gates in good operating condition at all times. The main gate and other access gates at the facility shall be closed, chained, and locked when the facility personnel are not on site.

III.B.3.2 The Permittee shall maintain security that monitors and controls entry to the site twenty four (24) hours per day. Other forms of security include road barriers that restrict site entry on off shifts and weekends.

III.B.3.3 The entrances to the hazardous waste storage and treatment areas shall remain locked unless personnel are present.

III.B.3.4 The automatic lighting system surrounding the perimeter of the facility shall be maintained in working order. The facility shall be lit from dusk until dawn.

III.B.3.5 The Permittee shall maintain warning signs at each entrance to the permitted areas, on the perimeter fencing, and on each face of the hazardous waste structure. The warning signs are to be legible from a distance of at least twenty-five (25) feet and read *"DANGER OFF LIMITS TO UNAUTHORIZED PERSONNEL"* or its equivalent. Additional signs that prohibit smoking shall be posted. These signs shall be visible from each of the building entrances.

III.B.4 General Inspection Requirements

The Permittee shall comply with all requirements set forth under **40 CFR Part 264.15**, except **40 CFR Part 264.15(b)(5)**.

III.B.4.1 Inspection Remedies

The Permittee shall remedy any structural deterioration, unauthorized discharges, safety violations, equipment malfunction, or security compromises discovered by an inspection in accordance with **40 CFR Part 264.15**.

III.B.4.2 Inspection Records

The Permittee shall keep records of inspections as part of the Operating Record in accordance with **40 CFR Part 264.15**.

III.B.5 Personnel Training

The Permittee shall conduct personnel training as required by **40 CFR Part 264.16**. Attachment H, Personnel Training, shall be the guidance to the actual training. Completion of the training course outlined in Attachment H is required for all facility personnel involved in the management and handling of hazardous wastes.

III.B.5.1 The Permittee shall maintain training documents and records as required by **40 CFR Part 264.16**.

III.B.5.2 All new employees hired in positions that involve hazardous waste management shall successfully complete the training within six (6) months of their employment or assignment to a facility, or to new position at a facility and must not work in unsupervised positions until they have successfully completed the training described in *Permit Condition III.B.5*. [**40 CFR Part 264.16**]

III.B.5.3 All employees involved in hazardous waste management must take part in an annual review of the initial training. [**40 CFR Part 264.16**]

III.B.5.4 The Permittee shall prepare and maintain detailed job descriptions with all information required by **40 CFR Part 264.16**, for the emergency coordinator(s) and all personnel involved in the management and handling of hazardous waste in the facility.

III.B.5.5 Only the Permittee's employees who are fully trained in the Facility's operations and procedures are allowed to handle the hazardous waste operations at the Facility, unless directly under the supervision of a fully trained employee.

III.B.6 Personnel Protection

III.B.6.1 A summary of the applicable toxicity/health hazard, fire and explosion hazard potential, radiation exposure potential, protective equipment recommendations and first-aid procedures to be followed for the various waste materials shall be prepared by the Permittee and kept on file at the facility.

III.B.6.2 The information required by *Permit Condition III.B.6.1*, shall be made readily available to facility personnel (and contractors if applicable) to determine the appropriate personnel protective equipment to be worn when handling the hazardous waste.

III.B.7 Requirements for Ignitable, Reactive or Incompatible Wastes

The Permittee shall comply with all requirements set forth under **40 CFR Part 264.17** and follow the procedures for handling ignitable, reactive, and incompatible wastes set forth in Attachment F of this Permit. The Permittee must prevent accidental ignition or reaction of ignitable and/or reactive wastes.

- III.B.7.1** The Permittee shall not place hazardous waste in an unwashed container or tank which previously held incompatible wastes or material. [**40 CFR Part 264.177** and **40 CFR Part 264.199**]
- III.B.7.2** The Permittee shall utilize the procedure under the Attachment C and Attachment D to ensure that ignitable, reactive or incompatible wastes are not stored improperly. The Reactivity Group Designation and Waste Compatibility Matrix are shown in Attachment C.
- III.B.7.3** The Permittee must provide electrical grounding for all containers, tanks, and transport vehicles during all operations involving the handling of ignitable or reactive wastes.
- III.B.7.4** The Permittee shall provide and require the use of spark proof tools during all operations involving the handling of all ignitable or reactive wastes.
- III.B.7.5** The Permittee shall prohibit smoking and open flames in each area where ignitable, reactive or incompatible hazardous wastes are managed and must post appropriate warning signs.
- III.B.7.6** The Permittee shall document compliance with *Permit Condition III.B.7* and place this documentation in the Operating Record.

III.B.8 Location Standards

The Permittee shall comply with all the applicable locations standards set forth under **40 CFR Part 264.18**.

III.C PREPAREDNESS AND PREVENTION

III.C.1 Design and Operation of Facility

The Permittee shall construct, maintain, equip and operate the facility in a manner to minimize the possibility of a 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, as required by **40 CFR Part 264.31**.

III.C.2 Required Equipment

- III.C.2.1** The Permittee shall comply with all requirements and at a minimum, the Permittee shall keep all equipment at the facility as set forth under **40 CFR Part 264.32** and specified in the Contingency Plan, Attachment G.
- III.C.2.2** The Permittee shall maintain all emergency equipment at the locations, which are listed in

Attachment G of this Permit.

III.C.3 Testing and Maintenance of Equipment

The Permittee shall comply with all requirements set forth under **40 CFR Part 264.33**. Permittee shall test and maintain all equipment specified in *Permit Condition III.C.1* and *Permit Condition III.C.2* to ensure proper operation in time of emergency. In addition to the inspection schedule given in Attachment F, all emergency equipment described in the Contingency Plan shall be checked at least once a month for quality and proper functional assurance.

III.C.4 Access to Communication or Alarm System

The Permittee shall comply with all requirements set forth under **40 CFR Part 264.34**.

III.C.4.1 Waste Handling

The Permittee shall ensure that all personnel shall have immediate access to an internal alarm system or emergency communications device, either directly or through visual or voice contact with another employee whenever hazardous waste is being poured, mixed, spread, or otherwise handled.

III.C.4.2 Single Person

The Permittee shall ensure that any employee, when working alone without the immediate presence of another employee, shall have immediate access to a device, such as a telephone at the area of operations, or a hand-held two-way radio, capable of summoning external emergency assistance.

III.C.5 Required Aisle Space

The Permittee must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless it can be demonstrated to the Division that aisle space is not needed for any of these purposes. [**40 CFR Part 264.35**]

III.C.6 Arrangements with Local Authorities

The Permittee shall comply with all requirements set forth under **40 CFR Part 264.37** and Permit Condition III.D.3.

The Permittee shall document in the Operating Record any refusal by any of the state or local authorities to enter into such arrangements.

III.D CONTINGENCY PLAN AND EMERGENCY RESPONSE

III.D.1 Implementation of Contingency Plan

The Permittee shall immediately carry out the provisions of the Contingency Plan, Attachment G, and follow the emergency procedures described in **40 CFR Part 264.56**, whenever there is a fire, explosion, or release of hazardous waste or constituents that could threaten human health or the environment. The Permittee shall comply with all requirements set forth under **40 CFR Part 264.51**.

At a minimum, the plan must be implemented in the following situations:

III.D.1.1 Any fire involving hazardous waste;

III.D.1.2 Any explosion involving hazardous waste;

III.D.1.3 Any uncontrolled hazardous waste reaction or hazardous waste release that produces or has the potential to produce hazardous conditions, including noxious, poisonous, flammable and/or explosive gases, fumes, or vapors; harmful dust; or explosive conditions;

III.D.1.4 Any fire or explosion that has an increased potential to threaten human health or the environment due to its proximity to a hazardous waste management unit; or

III.D.1.5 Any hazardous waste release, outside of a secondary containment system that causes or has the potential to cause off-site soil and/or surface water contamination.

III.D.2 All Released Material from Emergency Response and Product of the Contingency Plan Implementation

III.D.2.1 Immediately after an emergency, the Permittee must provide for storing, treating, or disposing of recovered waste, contaminated soil or surface water, and/or any other material that results from a release, fire, or explosion at the facility.

III.D.2.2 The Permittee is required to evaluate all liquid or solid material resulting from fire, explosion, released material or emergency response material and by-products to determine whether such material is hazardous waste in accordance with **40 CFR Part 260** through **270**. If such material is determined to be hazardous waste, it must be handled accordingly.

III.D.3 Copies of the Contingency Plan

As set forth in **40 CFR Part 264.53**, a copy of the contingency plan and all revisions to the plan must be maintained at the facility and submitted to all local police Divisions, fire Divisions, hospitals, as well as State and local emergency response teams that may be called upon to provide emergency services.

III.D.4 Amendment of Contingency Plan

The Permittee shall review at least annually and amend the plan immediately, if necessary, as required by **40 CFR Part 264.54**, and whenever:

III.D.4.1 This Permit is revised;

- III.D.4.2 The Contingency Plan fails during an emergency;
- III.D.4.3 The Permittee modifies the facility, in either its design, construction, operation, maintenance, or other circumstances, in a manner that increases the potential for fires, explosions, or releases of hazardous waste constituents, and/or changes the response necessary in an emergency;
- III.D.4.4 The Permittee modifies the list of emergency coordinators; and/or
- III.D.4.5 The Permittee modifies the list of emergency equipment.

The Permittee shall provide copies of any amended Contingency Plan to the Local Authorities specified in *Permit* Condition III.D.3. Any amendment shall be subject to the requirements of **40 CFR Part 270.41, 270.42 and 270.50**.

III.D.5 Emergency Coordinator

A trained emergency coordinator shall be available at all times in case of an emergency, as required by **40 CFR Part 264.55**. The Permittee shall comply with all requirements set forth under **40 CFR Part 264.55**.

- III.D.5.1 Whenever there is an imminent or actual emergency situation, the emergency coordinator (or designee when the emergency coordinator is not available) must immediately:
 - III.D.5.1.1 Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel, as required by **40 CFR Part 264.56**; and
 - III.D.5.1.2 Notify appropriate State or local agencies with designated response roles if their help is needed, as required by **40 CFR Part 264.56**.
- III.D.5.2 Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and area of extent of any released materials. Emergency Coordinator may do this by observation or review of facility records or manifests, and/or by chemical analysis.
 - III.D.5.2.1 Concurrently, the Emergency Coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).
 - III.D.5.2.2 If the Emergency Coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he/she must report his findings as follows: **[KRS 224.01-400 (6)]**
 - III.D.5.2.2.1 If Emergency Coordinator's assessment indicates that evacuation of local areas may be advisable, he/she must

immediately notify appropriate local authorities. [KRS 224.01-400]. Emergency Coordinator must be available to help appropriate officials decide whether local areas should be evacuated; and

III.D.5.2.2.2 Emergency Coordinator must immediately notify the Kentucky Emergency Response Team at (502) 564-2380 or using their 24-hour toll free number (800) 928-2380 and/or the National Response Center (using their 24-hour toll free number (800) 424-8802). The report must include details specified in Permit Condition II.E.15.

III.D.5.2.2.3 During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released waste, and removing or isolating containers.

III.D.5.2.2.4 If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

III.D.5.3 Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, spill, fire, or explosion at the facility.

The Emergency Coordinator must ensure that, in the affected area(s) of the facility:

III.D.5.3.1 No waste that may be incompatible with the released material is treated, stored, or disposed of until decontamination and cleanup procedures are completed; and

III.D.5.3.2 All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

III.D.5.4 The Permittee shall notify the DWM Louisville Regional Office or Manager, and appropriate State and local authorities, that the facility is in compliance with conditions in Part II through Part VIII of this Permit before operations are resumed in the affected area(s) of the facility.

III.D.6 Emergency Procedure

The procedure stated in Permit Condition III.D.5 and Attachment G must be implemented whenever there is an imminent or actual emergency situation including any release of hazardous waste, fire, or explosion which occurs in the hazardous waste management area or units. The Permittee shall comply with all requirements set forth under **40 CFR Part 264.56**.

III.D.7 Notation in the Operating Record

The Permittee must note in the Operating Record the time, date, and details of any incident and/or event that requires implementing the Contingency Plan. The Permittee shall also record on the Operating Record of the facility the amount, storage, treatment and disposal arrangements of all material resulting from fire, explosion, released material or emergency response material and by-products.

III.D.8 Notification to the Cabinet

The Permittee must comply with notification procedures in Permit Condition II.E.15 and Permit Condition III.D.5 as set forth in **40 CFR Part 264.56**, and as outlined in the Attachment G.

III.E MANIFEST SYSTEM

[RESERVED]

III.F RECORDKEEPING AND REPORTING

In addition to the recordkeeping and reporting requirements specified elsewhere in this Permit, the Permittee shall comply with the following:

III.F.1 Operating Record

The Permittee shall comply with all requirements set forth under **40 CFR Part 264.73**. The Permittee shall maintain records of all hazardous wastes stored and/or treated at the facility in accordance with the recordkeeping procedures set forth in **40 CFR Part 264.73**.

- III.F.1.1 A description and the quantity of each hazardous waste generated and the method(s) and date(s) of its treatment, storage, and/or disposal at the facility.
- III.F.1.2 The location of each hazardous waste within the facility and the quantity.
- III.F.1.3 Records and results of waste characterization and waste analysis performed.
- III.F.1.4 Summary reports and details of all incidents.
- III.F.1.5 Records and results of inspections.
- III.F.1.6 Monitoring, testing or analytical data, and corrective action.
- III.F.1.8 Copies of waste minimization documents required in *Permit Condition V.A*.
- III.F.1.10 All closure and all Post-Closure cost estimates.
- III.F.1.11 Copy of the waste notice, and the certification and demonstration, if applicable, required by the Generator Paperwork Requirements or the owner or operator under **40 CFR Part 268.7**

III.F.1.12 Manifest system related documents.

III.F.2 Availability, Retention, and Disposition of Records

The Permittee shall comply with all requirements set forth under **40 CFR Part 264.74**.

III.F.3 Annual Report

The Permittee shall comply with the annual reporting requirements set forth under **401 KAR 39:060 Section 5(18)**.

III.F.4 Additional Reports

The Permittee shall comply with all requirements set forth under **40 CFR Part 264.77**.

III.G CLOSURE REQUIREMENTS

III.G.1 Closure Performance Standards

The Permittee shall close the facility and/or unit(s) in compliance with all requirements as set forth under **40 CFR Part 264 - Subpart G, 40 CFR Part 264.178**, and **40 CFR Part 264.197**, and in accordance with the Closure Plan included in Attachment I of this Permit.

III.G.2 Closure Plan and Amendment of Closure Plan

The Permittee shall comply with all requirements and close the facility as set forth under **40 CFR Part 264.112**. The Permittee shall carry out closure as described in the Closure Plan (Attachment I). The Permittee shall amend the Closure Plan whenever necessary in accordance with **40 CFR Part 264.112**.

III.G.3 Notification of Closure

The Permittee shall notify the Manager in writing at least forty-five (45) days prior to the date on which the Permittee expects to begin closure. [**40 CFR Part 264.112**]

III.G.4 Time Allowed for Closure

The Permittee shall comply with **40 CFR Part 264.113**. Within ninety (90) days after receiving the final volume of hazardous waste, the Permittee must remove from the facility all hazardous wastes in accordance with the approved Closure Plan (Attachment I). All closure activities shall be completed as described in the attached Closure Plan; and within 180 days after receiving the final volume of waste, all equipment and the facility will be decontaminated and washing residues removed.

III.G.5 Decontamination or Disposal of Equipment, Structures, Soils and Others

III.G.5.1 The Permittee shall decontaminate and/or dispose of all contaminated facility equipment, structures, and soils as required by **40 CFR Part 264.114**, the Closure Plan (Attachment I) as

well as the terms and conditions of this Permit.

III.G.5.2 The Permittee must notify the Manager and the Louisville Regional Office within ten (10) working days prior to the beginning of rinsate and/or soil sampling activities.

III.G.6 Certification of Closure

Within sixty (60) days of completion of closure of the unit(s), the Permittee shall submit a Closure Certification and Closure Report that includes, at a minimum, the following information:

III.G.6.1 Certification from an independent Professional Engineer registered in the Commonwealth of Kentucky that each hazardous waste management unit or the facility has been closed in accordance with the specifications in the approved Closure Plan as well as the terms and conditions of this Permit, as required by **40 CFR Part 264.115**.

III.G.6.2 Facility processes and waste management.

III.G.6.3 Analysis results, observations, and conclusions.

III.G.6.4 A discussion of the closure process implementation followed for each unit. Include a description of:

III.G.6.4.1 The procedures followed for decontamination of the hazardous waste management unit (including disposition of residues);

III.G.6.4.2 The equipment used for decontamination of the hazardous waste management unit;

III.G.6.4.3 The sampling procedures used (wipe sampling, wastewater, rinsate, concrete chip sampling etc.), equipment used for sampling, drawing of sample locations and cross reference results, analytical procedures and methods used per sampling type, analytical equipment used as well as Chain of Custody;

III.G.6.4.4 The remedial procedures used (if applicable) and equipment used for remediation (if applicable);

III.G.6.4.5 The quality assurance program used;

III.G.6.4.6 Calculations and spreadsheets;

III.G.6.4.7 The procedures and equipment used to prevent hazards and protect field personnel during closure as well as Site Work Zone Management Controls;

III.G.6.4.8 Field notebook notes;

III.G.6.4.9 Drawings and photographs;

III.G.6.4.10 List and description of any deviations and or alterations from the approved Closure Plan;

III.G.6.4.11 Copies of manifest and bill of landing; and

III.G.6.4.12 Recycling and Disposal Certifications.

III.G.7 Survey Plat

The Permittee shall submit a survey plat no later than the submission of certification of closure of each hazardous waste disposal unit, in accordance with **40 CFR Part 264.116**.

III.H POST CLOSURE REQUIREMENTS

[RESERVED]

III.I FINANCIAL REQUIREMENTS

The Permittee shall comply with all the applicable Financial Assurance requirements in **401 KAR 39:090 Section 7**.

III.I.1 Cost Estimate for Facility Closure & Corrective Action

The owner or operator must have a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in **40 CFR Part 264.142**.

At the time of issuance of this Permit, the Closure Cost Estimate is \$2,867,053 (2019) and Corrective Action Cost Estimate is \$1,292,000 (2019).

III.I.1.1 Most Recent Cost Estimate

The Permittee's most recent closure cost estimate, prepared in accordance with **40 CFR Part 264.142** is specified in Attachment I of this Permit.

III.I.1.2 Cost Estimate Annual Adjustment

The Permittee must adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used, as specified in **40 CFR Part 264.142**.

III.I.1.3 Cost Estimate Modification

The Permittee must revise the closure cost estimates whenever there is a change in the facility's Closure Plan, as required by **40 CFR Part 264.112** and **40 CFR Part 264.142**.

III.I.1.4 Closure Cost Estimate Recording

The Permittee must keep at the facility the latest closure cost estimate as required by **40 CFR Part 264.142**.

III.I.2 Financial Assurance and Liability Requirements

III.I.2.1 The Permittee shall comply with all applicable requirements as set forth under **40 CFR Part 264 – Subpart H**.

III.I.2.1.1 The Permittee shall demonstrate continuous compliance with the requirements under **40 CFR Part 264.143**, by providing documentation of financial assurance for at least the amount of the current cost estimate. In addition to **40 CFR Part 264.143(e)(1)**, each insurance policy providing primary coverage shall be issued by an insurer that is authorized to transact insurance in Kentucky, except if **KRS 304.11-030** establishes otherwise. [**401 KAR 39:090 Section 1(2)**]

III.I.2.1.2 The Permittee shall demonstrate continuous compliance with the requirements of **40 CFR Part 264.147** and the documentation requirements of **40 CFR Part 264 – Subpart H** including the requirements to have and maintain liability coverage for sudden and accidental occurrences in the amount of at least one million dollars (\$1,000,000) per occurrence with an annual aggregate of at least two million dollars (\$2,000,000), exclusive of legal defense costs.

III.I.2.1.3 The Permittee shall demonstrate continuous compliance with the requirements of **40 CFR Part 264.147** and the documentation requirements of **40 CFR Part 264 – Subpart H** including the requirements to have and maintain liability coverage for non-sudden accidental occurrences in the amount of at least three million dollars (\$3,000,000) per occurrence with an annual aggregate of at least six million dollars (\$6,000,000), exclusive of legal defense costs.

III.I.2.1.4 The Permittee must demonstrate compliance with the financial assurance requirements in **40 CFR Part 264 - Subpart H**, in effect during the life of this Permit. In addition to **40 CFR Part 264.147(a)(1)(ii)** and **40 CFR Part 264.147(b)(1)(ii)**, each insurance policy providing primary coverage shall be issued by an insurer that is authorized to transact insurance in Kentucky, except if **KRS 304.11-030** establishes otherwise. [**401 KAR 39:090 Section 1(2)**]

III.I.3 Cost Estimate for Facility Post-Closure [RESERVED]

III.I.4 Financial Assurance for Facility Post-Closure Care [RESERVED]

III.I.5 Incapacity of Owners or Operators, Guarantors, or Financial Institutions

The Permittee shall comply with **40 CFR Part 264.148** whenever necessary.

III.J CONSTRUCTION COMPLIANCE SCHEDULE FOR PROPOSED UNITS [RESERVED]

III.K CONTAINER REQUIREMENTS

[RESERVED]

III.L TANK SYSTEM REQUIREMENTS

III.L.1 The Permittee may operate the units and processes described in Permit Condition III.L.2, which are subject to the terms and conditions of this Permit. Operation of any process or unit not mentioned in Permit Condition III.L or III.P, operation of any process in a unit or area other than that for which the process is listed, or exceedance of any capacity listed therein, for the storage, treatment or disposal of hazardous waste is prohibited.

III.L.2 Hazardous Waste Storage Tanks

Condition No.	Permitted Tank System	Type of Waste	Working Vol. ¹ /Gross Vol. (gals)	Secondary Containment Required (gals)	Description
III.L.2.1	Tank 64140 ("South Tank")	Methyl Methacrylate Third Stage Bottoms from the KB Distillation Process	27,900 / 31,900	Coated concrete containment basin (62,091)	Stainless steel, flat bottom, dished roof, cylindrical tank supported by I-beams that is used to hold liquid waste prior to burning in the BIF Unit. Tank location and design information can be seen in Attachment B - Facility Description.
III.L.2.2	Tank 64141 ("North Tank")	Methyl Methacrylate Third Stage Bottoms from the KB Distillation Process	27,900 / 31,900	Coated concrete containment basin (62,091)	Stainless steel, flat bottom, dished roof, cylindrical tank supported by I-beams that is used to hold liquid waste prior to burning in the BIF Unit. Tank location and design information can be seen in Attachment B - Facility Description.
III.L.2.3	Tank 64250 ("Day Tank")	Liquid hazardous waste from the KAC Process, non-halogenated solvents, ignitable waste solutions, and waste monomers	9,000 / 12,000	Coated concrete containment basin (15,035)	Stainless steel, cylindrical tank with dished roof and bottom, supported by steel legs that is used to hold liquid waste prior to burning in the BIF Unit. Tank location and design information can be seen in Attachment B - Facility Description.

1. High Alarm Automatic Cutoff

III.L.3 Storage in Tanks

III.L.3.1 The Permittee may store a total maximum volume of 64,800 gallons of hazardous waste at any time in a total of 3 tanks in accordance with the terms and conditions of this Permit, and the information provided in Attachment D. [40 CFR Part 264 - Subpart J]

III.L.3.1.1 Each tank shall not store material exceeding the working volume specified in Condition III.L.2. [40 CFR Part 264 - Subpart J]

III.L.3.2 The Permittee shall only store those hazardous wastes specified in *Permit Condition III.A.4* in the tanks identified in *Permit Condition III.L.2*.

III.L.3.3 The Permittee shall store only those hazardous waste which are compatible with the construction material of the tank(s), in accordance with the terms and conditions of this Permit, the information provided in Attachment D, pursuant to **40 CFR Part 264 - Subpart J**, and specifications in Permit Condition III.L.2.

III.L.3.4 The Permittee shall only store hazardous waste in a tank or tank farm, whichever is applicable,

with a secondary containment system that is designed or operated to contain 100 percent of the capacity of the largest tank within its boundary and the precipitation from a 25 year/24 hour storm event.

III.L.3.5 The Permittee shall construct, operate, maintain, and inspect the tanks specified in *Permit Condition III.L.2* and as specified in Attachment D of this Permit.

III.L.3.6 Hazardous waste loading onto and unloading from the tanks in the tank farm shall only be conducted within the area of the secondary containment system identified in *Permit Condition III.L.2*.

III.L.4 Treatment in Tanks

III.L.4.1 The Permittee shall ensure that the structural integrity of tanks and processes of treatment are in accordance with Attachment D of the Permit and **40 CFR Part 264 - Subpart J**.

III.L.4.2 The Permittee shall not substitute dilution of chemicals for treatment, except as allowed by **40 CFR Part 268**.

III.L.4.3 The Permittee is prohibited from treating hazardous waste that is not identified in *Permit Condition III.A.4*.

III.L.4.4 The Permittee shall manage all treatment residues in accordance with all applicable provisions of **40 CFR Part 260** through **270**.

III.L.4.5 The Permittee shall treat only those hazardous wastes which are compatible with the construction material of the tank(s), in accordance with the terms and conditions of this Permit, the information provided in Attachment D, pursuant to **40 CFR Part 264 - Subpart J**, and specifications in *Permit Condition III.L.2*.

III.L.4.6 For waste monomers, the Permittee shall ensure that all chemical reactions have sufficiently occurred or have been inhibited to prevent subsequent uncontrolled reactions before storing or treating the material in a hazardous waste storage tank.

III.L.5 Design of Tanks

The Permittee shall design, construct, and maintain all tanks as required by **40 CFR Part 264.192** through **264.194**, and as specified in the engineering design drawings in Attachment D. The shell thickness shall not be allowed to be less than the minimum as specified in Attachment D. A tank shell must be replaced, repaired or decommissioned if the minimum shell thickness is found to be less than that stated in Attachment D.

III.L.6 Design and Installation of New Tank Systems or Components

The Permittee shall comply with all the applicable requirements in **40 CFR Part 264.192**.

III.L.6.1 The Permittee must obtain and submit to the Division a written assessment, reviewed and certified by an independent Professional Engineer registered in the Commonwealth of Kentucky

attesting that the tank system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. The assessment must show that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection to ensure that it will not collapse, rupture, or fail. This assessment must include, at a minimum, the applicable information in **40 CFR Part 264.192(a)(1)** through **(a)(5)**.

- III.L.6.2** Prior to placing a new tank system or component (i.e., tank, secondary containment, etc.) in use, the Permittee shall have an independent Professional Engineer registered in the Commonwealth of Kentucky inspect the tank system to assess any inadequate construction, or damage which may occurred during installation of the tank system or components, as required by **40 CFR Part 264.192**.
- III.L.6.3** The Permittee shall remedy all discrepancies (e.g. structural damage or inadequate construction/installation) prior to placing the tank system in use as specified in **40 CFR Part 264.192**.
- III.L.6.4** The Permittee shall test all new tanks and ancillary equipment for tightness prior to placing these systems in use as required by **40 CFR Part 264.192**. If a tank system is found not to be tight, all repairs necessary to remedy the leak(s) in the system must be performed prior to the tank being placed in use.
- III.L.6.5** Ancillary equipment must be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction, as required by **40 CFR Part 264.192**.

III.L.7 Operating Requirements

- III.L.7.1** The Permittee shall comply with all the requirements set forth under **40 CFR Part 264.194**, and according to Attachment D of this Permit. The Permittee shall not place hazardous wastes or treatment reagents in the tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.
- III.L.7.2** The Permittee shall prevent spills, releases and/or overfilling of tanks as required by **40 CFR Part 264.194**, by the methods specified in Attachment D and the terms and conditions of this Permit.
- III.L.7.3** The Permittee shall manage the tanks according to the conditions and the design standards specified in Attachment D of this Permit, as specified in **40 CFR Part 264.194** and **264.196**.
- III.L.7.4** The Permittee shall manage the secondary containment systems for the tank systems in accordance with Attachment D of this Permit, and **40 CFR Part 264.193**. The Permittee shall maintain an impervious coating which is free of cracks, gaps, or other deterioration on all containment system surfaces which may be exposed to hazardous wastes or hazardous constituents (or releases of hazardous constituents).

- III.L.7.5 The Permittee shall maintain firefighting capabilities in accordance with **40 CFR Part 264.32**.
- III.L.7.6 The Permittee shall clearly mark each tank containing land disposal restricted waste with a description of its contents, the quantity of each hazardous waste, and the date each period of accumulation begins, or record such information for each tank system in the facility Operating Record. [**40 CFR Part 268.50**]
- III.L.7.7 Prior to adding to the contents of any tank, the tank inventory control logs must be reviewed to ensure that the tank is operating according to design specifications. Incompatible waste must be stored as specified in Permit Condition III.L.12.
- III.L.7.8 Loading and unloading of transportation vehicles to or from the tanks must be conducted at locations where secondary containment is capable of minimizing the release of spilled material to the environment.
- III.L.7.9 Upon completion of the waste transfer, the valves must be closed and all hoses be disconnected over a portable container to collect drippings. The storage tank must be gauged and the tank's valve locked.
- III.L.7.10 Smoking must be prohibited and "No Smoking" signs must be placed in clear view in the storage tank areas. Open flames and heat sources must be prohibited in the storage tank areas, unless these areas are cleared of all ignitable wastes, residues, and vapors.

III.L.8 Response to Leaks or Spills

In the event of a leak or a spill from the tank system or from a secondary containment system, or if a system becomes unfit for continued use, the Permittee must remove the system from service immediately and must satisfy the requirements in **40 CFR Part 264.196**.

For all major repairs to eliminate leaks or restore the integrity of the tank system, the Permittee must obtain a certification from an independent qualified Professional Engineer registered in the Commonwealth of Kentucky that the repaired system is capable of handling hazardous wastes without release for the intended life of the system before returning the system to service. Examples of major repairs are: installation of an internal liner, repair of a ruptured tank, or repair or replacement of a secondary containment vault.

III.L.9 Inspections

- III.L.9.1 The Permittee shall inspect each tank system, including but not limited to ancillary equipment and secondary containment as well as the area surrounding each tank as specified in Attachment D and Attachment F and in accordance with the requirements of **40 CFR Part 264.195**.
- III.L.9.2 The Permittee shall follow an Inspection Schedule in accordance with **40 CFR Part 264.195** and as specified in Attachment F of this Permit.
- III.L.9.3 In addition to the above referenced Inspection Schedule, the Permittee shall record all inspections in the inspection log format included in Attachment F of this Permit. The format of

this log may be altered to provide for more frequent monitoring, sampling, or maintenance activities by the Permittee provided the Division is notified of the alteration.

- III.L.9.4 At a minimum the Permittee shall inspect the following components of the tank system at least once each day:
 - III.L.9.4.1 Above ground portions of the tank system to detect corrosion or releases of waste; [40 CFR Part 264.195]
 - III.L.9.4.2 Data gathered from monitoring and leak detection equipment to ensure that the tank system is operating according to its design specifications; and [40 CFR Part 264.195]
 - III.L.9.4.3 Construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs of release of hazardous waste (e.g., wet spots, dead vegetation, etc.). [40 CFR Part 264.195]
- III.L.9.5 The Permittee shall remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action shall be taken immediately.
- III.L.9.6 On an annual basis or as recommended in the tank inspection report, all the tanks must be emptied and inspected for signs of deterioration and corrosion.
- III.L.9.7 The Permittee shall test the tanks on an interval determined by: Attachment F – Procedures to Prevent Hazards, according to a recommendation by a Professional Engineer, or according to a recommendation by an industry standard inspector. The interval between tests shall be from the most recently completed test on each unique tank or unique group of tanks. The test shall include an assessment of tank shell and bottom thickness, and the tank interior shall be inspected for scaling, pitting and corrosion of wall surfaces, welded joints and connections between tank walls and fittings. Within sixty (60) days of testing, a test report certified by a qualified independent Professional Engineer registered in Commonwealth of Kentucky or industry standard inspector shall be submitted to the Manager.
- III.L.9.8 If any testing indicates that the tank shell or bottom thickness is less than the minimum allowed under the test method, the Permittee shall initiate procedures to replace, repair or close the tank.
- III.L.9.9 The Permittee shall inspect the overfill controls, in accordance with the schedule in Attachment F, Procedures to Prevent Hazards. [40 CFR Part 264.195]
- III.L.9.10 The Permittee shall inspect cathodic protection systems, in accordance with the following schedule: [40 CFR Part 264.195]

III.L.9.10.1 The proper operation of the cathodic protection system must be confirmed within six (6) months from initial installation and annually thereafter and

III.L.9.10.2 All sources of impressed current must be inspected and tested every other month.

III.L.10 Recordkeeping and Reporting

III.L.10.1 The Permittee shall report to the Manager, within 24 hours of detection, when a leak or spill occurs from the tank system or secondary containment system to the environment. **[40 CFR Part 264.196]**. A leak or spill of one pound or less of hazardous waste that is immediately contained and cleaned-up need not be reported. **[40 CFR Part 264.196]**. Releases that are contained within a secondary containment system need not be reported.

III.L.10.2 Within thirty (30) days of detecting a release to the environment from the tank system or secondary containment system, the Permittee shall report the following information to the Manager: **[40 CFR Part 264.196]**

III.L.10.2.1 Likely route of migration of the release;

III.L.10.2.2 Characteristics of the surrounding soil (including soil composition, geology, hydrogeology, and climate);

III.L.10.2.3 Results of any monitoring or sampling conducted in connection with the release.

III.L.10.2.4 If the Permittee finds it will be impossible to meet this time period, the Permittee should provide the Manager with a schedule of when the results will be available.

III.L.10.2.5 This schedule must be provided before the required thirty (30) day submittal period expires;

III.L.10.2.6 Proximity of downgradient drinking water, surface water, and populated areas; and

III.L.10.2.7 Description of response actions taken or planned.

III.L.10.3 The Permittee shall submit to the Manager all certifications of major repairs to correct leaks within seven (7) days after returning the tank system to use. **[40 CFR Part 264.196]**

III.L.10.4 The Permittee shall obtain, and keep on file at the facility, the written statements by those persons required to certify the design and installation of the tank system. **[40 CFR Part 264.192]**

III.L.10.5 The Permittee shall keep on file at the facility the written assessment of the tank system's integrity. **[40 CFR Part 264.191]**

III.L.10.6 The Permittee must document compliance with Permit Condition III.L.5 in the Operating Record of the facility.

III.L.10.7 For each permitted tank, the Permittee must document in the Facility Log the following information on a daily basis:

III.L.10.7.1 The quantity of each waste that was added or removed;

III.L.10.7.2 The EPA hazardous waste number of the waste material transferred;

III.L.10.7.3 Any additional information or comments concerning waste compatibility and/or the processing of the waste necessary for safe operation of the tank;

III.L.10.7.4 The tank volume after the waste transfer, how it was gauged, and a verification that overfilling control equipment is properly working; and,

III.L.10.7.5 Proper operation of the level control devices/equipment.

III.L.10.8 For each permitted tank treatment activities, the Permittee shall enter records of all hazardous waste numbers and descriptions, quantities, method(s) of treatment, and date(s) of treatment, into the Operating Record for each batch of waste treated.

III.L.11 Special Requirements for Ignitable or Reactive Wastes

III.L.11.1 The Permittee shall not place ignitable or reactive waste in a tank unless the procedures described in **40 CFR Part 264.198** are followed. Compliance with these requirements shall be documented through Attachment C, and Attachment D of this Permit.

III.L.11.2 The Permittee shall maintain buffer zones around the tanks as required by **40 CFR Part 264.198**.

III.L.12 Special Requirements for Incompatible Wastes

III.L.12.1 The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same tank system, unless **40 CFR 264.17(b)** is complied with. [**40 CFR Part 264.199**]

III.L.12.2 The Permittee shall not place hazardous waste in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless **40 CFR 264.17(b)** is complied with. [**40 CFR Part 264.199**]

III.L.13 Special Requirements for Restricted Wastes

The storage or treatment of hazardous waste in any of the tanks identified in *Permit Conditions III.L.2* is restricted from land disposal under **40 CFR Part 268** unless the requirements of **40 CFR Part 268** are met.

III.L.14 Closure and Post-Closure Care

III.L.14.1 At closure of the tank system(s), the Permittee shall follow requirements in *Permit Condition III.G*, the procedures in the Closure Plan, Attachment I and as specified in **40 CFR Part 264.197**.

III.L.14.2 If the Permittee demonstrates that not all contaminated soils can be practically removed or

decontaminated, in accordance with the Closure Plan, then the Permittee shall close the tank system(s) and perform Post-Closure Care in accordance with the closure and post-closure care requirements that apply to landfills (**40 CFR Part 264.310**). In addition, for the purposes of closure, post-closure, and financial responsibility, such a tank system is then considered to be a landfill, and the Permittee must meet all of the requirements for landfills specified in **40 CFR Part 264, Subpart G and H. [40 CFR Part 264.197(b)]**

III.L.15 Air Emission Standards

The Permittee shall manage all hazardous waste placed in a tank(s) system in accordance with all the applicable requirements set forth in **40 CFR Part 264.200** and Part VII of this Permit, Organic Air Emissions Requirements.

- III.M MISCELLANEOUS UNIT REQUIREMENTS [RESERVED]
- III.N LANDFILL REQUIREMENTS [RESERVED]
- III.O INCINERATOR REQUIREMENTS [RESERVED]
- III.P BOILER INDUSTRIAL FURNACE (BIF) REQUIREMENTS
- III.P.1 Boiler No. 100

Location: This BIF unit is located on the facility's parcel west of Camp Ground Road at 38°12'49.66"N, 85°50'41.11"W (See Figure B-1 of Appendix B).

The facility operates an "existing" industrial boiler which was installed in 1991. The boiler has not been substantially modified since its installation, other than maintenance and like-for-like equipment replacements. The boiler is started up with natural gas until normal operating temperature is reached. At that point, waste fuels can be introduced. Liquid waste feed rate is monitored by mass flow meters in the feed system. The boiler incorporates a flue gas economizer which recovers waste gas heat by recirculating it to the inlet forced draft fan and reducing nitrogen oxide emissions. BIF emissions are discharged to a 212 foot stack which is not equipped with any air pollution control (AC) device. The BIF unit is described in Attachment D, Section D-8 and Appendix D-6 of the approved permit application.

The BIF unit burns certain liquid wastes generated by the facility which have an inherent fuel energy value. The BIF unit is a forced draft ABB Combustion Engineering type 35-A14 packaged water tube boiler designed to provide 180,000 lb/hr of superheated steam at approximately 400 psig. The BIF unit is equipped with a Coen DAF 42 low-NOx burner which consists of a natural gas ring burner and two liquid feed systems. One liquid feed consists of one main gun located in the center of the burner and the second feed system consists of two side guns located on either side of the main gun. All three guns can be fed with liquid hazardous waste. Air or steam can be used as the atomizing media.

The BIF Unit operated with a computer control system to meter fuel flow based on steam header pressure feedback. Excess air is regulated by an oxygen trim system which adjusts the amount of combustion air provided by the forced draft fan based on the amount of oxygen in the flue gas leaving the boiler. The boiler

can be operated with or without natural gas and can operate entirely on liquid hazardous waste if all permitted operating conditions are met. More information can be found in Attachment D – Process Information, Section D-8c(3)(b) of the Trial Burn Plan, and a schematic of Boiler No. 100 is shown in Attachment D, Figure D-8.1.

III.P.2 Use of the BIF Unit

- III.P.2.1 The Permittee shall operate the units and processes described in Permit Condition III.P.1, in accordance with the terms and conditions of this Permit. Operation of any process or unit not mentioned in Permit Condition III.P.1, operation of any process in a unit or area other than that for which the process is listed, or exceedance of any capacity listed therein, for the storage, treatment or disposal of hazardous waste is prohibited.
- III.P.2.2 The Permittee shall only treat hazardous waste specified in Permit Condition III.A.4, Table III.3, in the BIF in accordance with the terms and conditions of this Permit, the information provided in Permit Condition VIII.D, Attachment D, and as required by [40 CFR Part 266.102]
- III.P.2.3 The permittee is prohibited from treating the following waste materials: Hazardous Waste Nos. F020, F021, F022, F023, F026, F027, polychlorinated biphenyl (PCB) waste, infectious waste, radioactive waste, explosives, and EPA Thermal Stability Class 1 Compounds. [40 CFR 266.103(a)(3), 40 CFR 266.102(d)(4)(iv)]
- III.P.2.4 Pumpable liquid hazardous waste fuels shall only be introduced in the BIF Unit via the air or steam atomized main gun or side gun feed system located at the head of the boiler. Waste in any other physical form or location shall not be fed into the BIF Unit. [40 CFR Part 266.102(e)]

III.P.3 Compliance with 40 CFR Part 63, Subpart EEE

The Permittee has elected to comply with the BIF operating requirements of this section, III.P, in accordance to 40 CFR 266.100(b) and 40 CFR 270.66 in lieu of electing the MACT requirements of 40 CFR Part 63, Subpart EEE.

III.P.4 Management Prior to Burning

- III.P.4.1 The Permittee shall comply with the generator standards of 40 CFR 262 for hazardous wastes that are burned in the BIF Unit. [40 CFR 266.101]
- III.P.4.1 The Permittee shall comply with the transporters standards of 40 CFR 263 for hazardous wastes that are shipped off-site. [40 CFR 266.101]
- III.P.4.1 The Permittee shall comply with the applicable storage and treatment standards of 40 CFR 264, 265, 267, and 270 for hazardous wastes that are burned in the BIF Unit. [40 CFR 266.101]

III.P.5 Waste Analysis

Throughout normal operation the Permittee must conduct sampling and analysis as necessary to ensure that

the waste feed, other fuels, and feedstock fired into the boiler are within the physical and chemical composition limits specified below and in Attachment C – Waste Analysis Plan:

- III.P.5.1** Waste analysis to demonstrate compliance with the constituent feed rate limitations for ash, total chloride, and metals (Conditions III.P.7.3, III.P.7.4, and III.P.7.5) shall be conducted according to Attachment C – Waste Analysis Plan.
- III.P.5.2** The constituent concentration used for compliance determinations for routinely generated waste streams (MMA still bottoms and non-halogenated spent solvents) shall be the Upper Tolerance Limit (UTL) derived in accordance with Appendix C-2 of Attachment C – Waste Analysis Plan.
- III.P.5.3** If different waste streams are blended, analysis of the blended mixture prior to burning shall be performed to establish constituent concentrations for compliance determinations. Alternatively, these concentrations may be calculated in accordance with Attachment C – Waste Analysis Plan.
- III.P.5.4** The constituent concentration used for compliance demonstrations for periodically generated wastes (waste monomers, ignitable waste solutions, and miscellaneous hazardous waste) shall be determined by analyzing each batch according to Attachment C - Waste Analysis Plan or according to III.P.5.2 for waste generated on a frequent basis.
- III.P.5.5** Sampling and analysis shall be repeated for waste streams subsequently generated from any process if there has been a process change. Sampling and analysis shall establish a new UTL concentration for compliance demonstration as described in Attachment C – Waste Analysis Plan.
- III.P.5.6** A record of shall be maintained in the Permittee’s Operating Record which shows all UTL concentrations use for compliance determinations, a comparison of each UTL to the maximum feed concentration of III.P.6 for each constituent, the confidence level used to calculate the UTL, and a notation of any data excluded as outliers from the UTL calculation.
- III.P.5.7** Compliance with the mass flow rates for metals, ash, and chlorides in Condition III.P.7 shall be demonstrated by:
 - III.P.5.7.1** Documenting each constituent concentration is below the concentration calculated from the mass flow rate limits of III.P.7 and the maximum hazardous waste feed rate of III.P.7.1.1, or
 - III.P.5.7.2** Documenting a hazardous waste feed rate below the value of III.P.7.1.1 so that each constituent mass flow rate complies with III.P.7 using the actual constituent concentration determined according to III.P.5.2 or III.P.5.4. The lower waste feed rate shall be recorded and entered into the automatic waste feed cutoff control system.

[40 CFR Part 266.102(b)]

III.P.6 Performance and Emissions Standards

The Permittee shall construct and maintain the industrial boiler system so that, when operated in accordance

with the feed limitations and operating requirements specified in this permit, it will meet the following performance standards and emission limitations:

III.P.6.1 Principal Organic Hazardous Constituents Destruction and Removal Efficiency

The Permittee's BIF burning hazardous waste must achieve a destruction and removal efficiency (DRE) of 99.99% for each POHCs for each waste feed. The designated POHC is toluene.

The equation for DRE shall be as follow:

$$DRE = \left[1 - \frac{W_{out}}{W_{in}}\right] \times 100\%$$

Where, W_{in} = mass feed rate of one principal organic hazardous constituent (POHC) in the waste stream feeding the BIF

W_{out} = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere.

[40 CFR Part 266.102 (e)(2)(i) and 40 CFR Part 266.104(a)]

III.P.6.2 Particulate Matter Standards

The Permittee shall not emit particulate matter (PM) in excess of 180 milligrams per dry standard cubic meter (0.08 grains per dry standard cubic foot) after correction to a stack gas concentration of seven percent by volume of oxygen according to the following formula:

$$P_c = \left[\frac{14}{21-Y}\right] \times P_m$$

Where, P_c = the corrected concentration of particulate matter;

P_m = the measured concentration of particulate matter;

Y = measured oxygen concentration in the stack gas on a dry gas basis.

[40 CFR Part 266.105]

III.P.6.3 Metal Emissions Standards

The Permittee shall control stack emissions of toxic metal from the boiler unit to achieve the metals emissions standards of 40 CFR 266.106 and the exceptions established in 401 KAR 39:090 Section 3 and ensure that toxic metals are not emitted to the atmosphere at levels which threaten human health or the environment. Metals emissions shall not exceed the

following limitations:

<u>Metal Species</u>	<u>Grams per hour</u>
Antimony	5.00e+02(risk-based)
Arsenic	7.06e+00
Barium	1.00e+04
Beryllium	5.76e+00
Cadmium	2.01e+01
Chromium (hexavalent)	1.18e+01
Chromium (total)	1.02e+02
Lead	2.00e+03
Mercury	5.76e+00
Silver	1.35e+02
Thallium	1.40E+01

[40 CFR Part 266.106]

III.P.6.4 Hydrogen Chloride and Chlorine Gas Standard

The Permittee shall control stack emissions of hydrogen chloride and chlorine gas from the boiler unit to achieve the emissions standards of 40 CFR 266.107 and ensure that toxic metals are not emitted to the atmosphere at levels which threaten human health or the environment. The Permittee shall not emit hydrogen chloride and chlorine gas exceeding:

	<u>Grams per hour</u>
Chlorine (Cl ₂)	9,000
Hydrogen Chloride	200,000

[40 CFR 266.107]

III.P.6.5 Carbon Monoxide Standards

The Permittee shall not emit carbon monoxide in excess of 100 ppmv on an hourly rolling average basis (i.e., over any 60 minute period), continuously corrected to seven percent oxygen, dry gas basis. [40 CFR Part 266.104]

III.P.6.6 Permit Compliance

The Permittee shall comply with the emission standards provided by **40 CFR 266.104 – 40 CFR 266.107**. Compliance with the feed limitations and operating requirements of III.P.7 shall be regarded as compliance with the emission standards of **40 CFR 266.104 – 40 CFR 266.107** and with risk-based emission limitations identified in this permit. However, any evidence indicating that compliance with such permit conditions is insufficient to ensure compliance with **40 CFR 266.104 – 40 CFR 266.107** and with risk-based emission limitations shall constitute justification for modification, revocation, or reissuance of the permit pursuant to 40 CFR 270.41. [40 CFR 266.102 (c)]

III.P.7 Feed Limitations and Operating Requirements

The Permittee shall only operate the BIF Unit in accordance with this permit and the operating requirements specified below and contained in Attachment D – Process Information. The following requirements are established to ensure compliance with the performance standards and emission limitations of Condition III.P.6. These conditions shall be met at all times when there is hazardous waste in the BIF Unit: **[40 CFR Part 266.102(e)]**

III.P.7.1 Requirements to Ensure Compliance with Organic Emissions Standards – DRE Standards

- III.P.7.1.1** The maximum total hazardous waste feed rate, monitored on a rolling hourly basis as specified in Condition III.P.9 shall be 14,171 pounds per hour or the most recently approved rate.
- III.P.7.1.2** The minimum combustion chamber temperature in the boiler unit, monitored on a rolling hourly basis as specified in Condition III.P.9, shall not be less than 1,191° F at the primary (south) thermocouple or 1,246° F at the backup (north) thermocouple or the most recently approved temperatures. At least one thermocouple shall be used as the automatic waste feed cutoff device while feeding hazardous waste.
- III.P.7.1.3** The maximum combustion gas velocity, monitored as total air flow to the combustion air forced draft fan, on an hourly rolling average basis as specified in Condition III.P.9 of this permit, shall not exceed 192,500 pounds per hour or the most recently approved rate.
- III.P.7.1.4** The maximum steam production rate of the BIF Unit monitored on a rolling hourly average basis as specified in Condition III.P.9 of this permit, shall not exceed 149,500 pounds per hour based on calculated flow rate and shall not exceed 221,400 pounds per hour based on measured flow rate or the most recently approved rate.
- III.P.7.1.5** The minimum steam production, monitored on an hourly rolling average basis as specified in III.P.9, shall be 22,500 pounds per hour or the most recently approved rate.
- III.P.7.1.6** The maximum Carbon monoxide (CO) emitted to the atmosphere, monitored on a rolling hourly average basis as specified in Condition III.P.9 of this permit, shall not exceed 100 parts per million volume (ppmv) corrected to seven percent oxygen, dry gas basis.
- III.P.7.1.7** The maximum benzene concentration permitted to be fed to BIF unit is 0.1% by weight.

[40 CFR 266.102(e)(2)]

III.P.7.2 During start-up and shutdown, the Permittee shall not feed hazardous waste into the boiler unless the boiler is operating within the operating conditions specified in Permit Condition III.P. **[40 CFR**

266.102(e)]

III.P.7.3 The maximum total ash feed rate from all feed streams entering the industrial boiler shall not exceed 7,198 grams per hour based on the hazardous waste flow rate limitation of III.P.7.1.1 and the species concentration as monitored as specified Attachment C – Waste Analysis Plan. **[40 CFR 266.102(e)(3)]**

III.P.7.4 The maximum total metal feed rates from all feed streams entering the BIF Unit shall not exceed the following values based on the hazardous waste flow rate limitation of III.P.7.1.1 and the species concentration as monitored as specified Attachment C – Waste Analysis Plan **[40 CFR 266.102(e)(4) and 40 CFR 266.102(e)(6)]:**

	<u>Grams per hour</u>	<u>Pounds per hour</u>
Antimony	5.00e+02	1.10e+00 (risk-based)
Arsenic	7.06e+00	1.56e-02
Barium	1.00e+04	2.21e+01 (risk-based)
Beryllium	5.76e+00	1.27e-02
Cadmium	2.01e+01	4.43e-02
Chromium (total)	1.02e+02	2.25e-01
Lead	2.00e+03	4.41e+00
Mercury	5.76e+00	1.27e-02 (risk-based)
Silver	1.35e+02	2.98e-01 (risk-based)
Thallium	1.40E+01	3.09e-02 (risk-based)

III.P.7.5 The maximum total chloride (Cl⁻) feed rate from all feed streams (organic and inorganic) entering the BIF Unit, monitored as specified in Attachment C – Waste Analysis Plan, shall not exceed 12,380 grams chloride (Cl⁻) per hour (27.3 pounds per hour) **[40 CFR 266.102(e)(5) and 40 CFR 266.102(e)(6)]**.

III.P.7.6 The Permittee shall control fugitive emissions by keeping the combustion zone totally sealed against fugitive emissions or maintaining a combustion zone pressure lower than atmospheric pressure. Inspection to verify that the combustion zone is sealed shall be conducted in accordance with Attachment F – Procedures to Prevent Hazards and records of the inspection shall be maintained as required by Condition III.F of this permit. **[40 CFR 266.102(e)(7)]**

III.P.7.7 The Permittee must cease burning hazardous waste when changes in waste feed rates, boiler design, or operating conditions deviate from limits designated in Permit Condition III.P. **[40 CFR 266.102(e)(7)]**

III.P.8 Automatic Waste Feed Cutoff

The incinerator must be operated with a functioning system to automatically cut off waste feed to the incinerator when operating conditions deviate from the limits established in III.P.7.1 except for the condition III.P.7.1.5, minimum steam production. For III.P.7.1.5, hazardous waste feed shall be stopped manually within fifteen (15) minutes from when the steam production rate falls below the specified amount.

III.P.8.1 The operating parameters identified in III.P.7.1 must continue to be monitored during the waste feed cutoff while hazardous waste residues remain in the combustion chamber, and hazardous waste feed shall not be restarted until the levels of those parameters comply with the permit limits.

III.P.8.2 The Permittee shall record the date, time, and cause of all automatic waste feed cutoff events.

III.P.8.3 The Permittee shall record the date, time, and cause of all failures of an automatic waste feed cutoff events. All corrective actions taken to repair the system shall be recorded.

III.P.8.4 Hazardous waste feed shall be immediately cutoff if any continuous monitoring or recording system malfunctions or fails, preventing the monitoring or recording needed for compliance with the limits established in III.P.7 and III.P.11.

III.P.8.4 Manual waste feed cutoff shall be initiated immediately upon failure of a monitoring device or an automated cutoff device. Manual cutoff shall be as soon as possible, but shall not be longer than fifteen (15) minutes following the failure.

III.P.8.4.1 If manual termination of hazardous waste feed occurs more than twenty (20) times per calendar year, the permittee shall submit a written report within fifteen (15) days of the twentieth event. The report shall list the date and time, duration, cause and corrective action for each event.

III.P.8.4.2 Based on review of the information required by III.P.8.4.1, the Permittee and Director shall evaluate the need for a permit modification to require:

- i. Completely stopping hazardous waste feed and using auxiliary fuel prior to daily calibration of the continuous monitoring system.
- ii. A requirement to install and use redundant monitors, or
- iii. A requirement for redundant continuous monitoring systems.

III.P.8.5 Automatic Waste Feed Cutoff System Testing

III.P.8.5.1 The automatic waste feed cutoff system shall be tested to verify operability. Testing shall be conducted according to Appendix F – Procedures to Prevent Hazards and Appendix D – Process Information. A record of each test shall be maintained according to III.F and III.P.11.

III.P.8.5.2 At least once every seven days when burning hazardous waste, the sensors and electronics for each parameter of III.P.7.1 shall be tested without physically closing the waste feed valve.

III.P.8.5.3 At least once every thirty days when burning hazardous waste, the automatic

waste feed cutoff system for at least one parameter of III.P.7.1 shall be tested and include physically closing each waste feed valve. A different parameter of III.P.7.1 shall be tested every 30 days on a rotating basis.

[40 CFR 266.102(e)(7)]

III.P.9 Monitoring and Inspections

III.P.9.1 The Permittee must monitor, as a minimum, the following while burning hazardous waste:

III.P.9.1.1 Operating conditions specified in Permit Condition III.P.7.1 on a continuous basis,

III.P.9.1.2 The feed rate for ash, total chloride, and metals identified in Condition III.P.7 of this permit shall be monitored by analyzing the concentration of the substance (ash, total chloride, and metals) in each feed stream and the flow of the feed stream in accordance with condition III.P.5 of this permit and the Waste Analysis Plan – Attachment C. To monitor the feed rate of these substances, the flow rate of each feed stream shall be monitored continuously,

III.P.9.1.3 Carbon Monoxide (CO) on a continuous basis at a point in the boiler downstream of the combustion zone and prior to release to the atmosphere.

III.P.9.2 The Permittee shall maintain, calibrate, and operate continuous monitors and is prohibited from feeding hazardous waste to the BIF Unit if any continuous monitor is not operated according to the specification for continuous monitors shown in Attachments F and D.

III.P.9.3 A continuous monitor shall sample the regulated parameter without interruption and evaluate the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

III.P.9.4 An hourly rolling average is the arithmetic mean of the 60 most recent 1-minute average values recorded by the continuous monitoring system.

III.P.9.5 The Permittee must visually inspect the boiler and associated equipment (pumps, valves, conveyors, pipes, etc.) at least daily, for leaks, spills, fugitive emissions, and signs of tampering.

III.P.9.6 The emergency waste feed cutoff system and associated alarms must be tested at least weekly to verify operability according to III.P.8.5.

III.P.9.7 Required monitoring and inspection data must be recorded and the records must be placed in the facility's operating record according to III.F and maintained according to III.P.11.

III.P.9.8 Records of required calibration, maintenance, inspection, and performance activities for each monitor shall be placed in the operating record and maintained according to III.P.11. The record shall include: the date of the activity, equipment part number and description, type of activity, results of the test, any corrective action taken to return equipment to manufacture's specification.

III.P.9.8.1 The Permittee shall maintain a copy of the manufacturer's literature and specifications for maintenance, operation, and calibration for all the monitoring equipment listed in Attachments F and D of this permit.

[40 CFR 266.102(e)(8)]

III.P.10 Changing Conditions

If the Director determines that changes in surrounding land usage, emission rates, combustion conditions, toxicity values, or other conditions, could cause emissions from the BIF Unit to endanger human health or the environment, the permit may be modified to impose additional restrictions or the Director may require a new trial burn and risk assessment to be completed. **[KRS 224.46-530(1)(g)]**

If the permittee performs a trial burn pursuant to their Title V permit, they must report results to the Director in order to demonstrate continued compliance with the feed limits and emission standards established for particulate matter, metals, hydrogen chloride and chlorine, and other standards of this permit. **[40 CFR 266.100]**

A trial burn shall be completed once every 10 years from the time of the last trial burn and certification of results to the Director. **[40 CFR 266.103]**

III.P.11 Record Keeping

The Permittee must maintain in the operating record of the facility all information and data required by **III.P. BIF Requirements** for five years. **[40 CFR 266.102(e)(10)]**

III.P.12 Closure

At closure the Permittee must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from the boiler and boiler site. **[40 CFR 266.102(e)(11)]**

III.Q SPECIAL PERMIT CONDITIONS

III.Q.1 Allowable Loading Period

III.Q.1.1 For outgoing manifested shipment of hazardous waste that will be transported off-site to a destination facility:

III.Q.1.1.1 The waste shall not remain at the facility longer than 24 hours after the waste has been loaded onto a transportation vehicle and ready to be transported off-site.

III.Q.1.1.2 In the event that the loaded transportation vehicle mentioned in *Permit Condition III.Q.1.1.1* is unable to leave the facility within 24 hours, the transportation vehicle must not remain at the facility longer than 72 hours.

III.Q.3 Engineering Plans

The Permittee shall operate and maintain the facility in accordance with the most current, reviewed and approved engineering plans, Attachment D of this Permit. Any modifications to those plans made in accordance with this Permit and **40 CFR Part 270.42**.

III.Q.4 Agreed Orders

[RESERVED]

III.R Groundwater Monitoring Requirements

III.R.1 Groundwater Monitoring System

The Permittee shall maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of **40 CFR Part 264.97**. Groundwater monitoring shall be conducted during closure according to an approved Closure Plan required by **40 CFR Part 264.112**.

III.R.2 Detection Monitoring Program

[RESERVED]

III.R.3 Corrective Action Monitoring Program

III.R.3.1 Well Location and Construction: The Permittee shall install and maintain a groundwater monitoring system to comply with the requirements of **40 CFR Part 264.95**, and **40 CFR Part 264.97**.

III.R.3.1.1 The point of compliance, as defined in **40 CFR Part 264.95** is specified as consisting of the downgradient wells.

The Permittee shall maintain the groundwater monitoring wells listed in Table III.R.3.1 at the locations specified in Part E of the application.

TABLE III.R.3.1 MONITORING WELLS	
Background Well	Point of Compliance Wells
MW-1RS	MW-14
	MW-17
	MW-27
	MW-3RS
	MW-3RD
	MW-4RS

III.R.3.1.2 The Permittee shall maintain the groundwater monitoring wells listed in Table III.R.3.2 at the locations specified in Part E of the application.

TABLE III.R.3.2 CORRECTIVE ACTION GROUNDWATER MONITORING		
Group Name	Wells in Group	Type of Well
Corrective Measures Implementation (CMI) Program	MW-1RS, MW-3RS, MW-3RD, MW-4RS, MW-6, MW-10D, MW-11(S/D), MW-12RS, MW-12RA, MW-12RB, MW-13D, MW-15(S/D), MW-16(S/D), MW-21, and MW-27	Assessment Wells
Corrective Measures Implementation (CMI) Program	MW-5(S/D), MW-7(S/D), MW-9(S/D), MW-10S, MW-13S, MW-14(S/D), and MW-17(S/D)	Additional Assessment Wells

III.R.3.1.3 Groundwater Protection Standard: The Permittee shall ensure that the Groundwater Protection Standard (GWPS), as required under **40 CFR Part 264.92**, is being met or that remedial actions are being taken to reduce contaminant levels to meet standards. The GWPS shall consist of the hazardous constituents and their corresponding concentration limits listed in Table III.R.3.3 of this Permit, as established under **40 CFR Part 264.93** and **401 KAR 39:090 Section 1(1)**.

III.R.3.1.4 Well Location, Installation, and construction: The Permittee shall design, install and/or maintain a groundwater monitoring system to comply with applicable requirements of **40 CFR Part 264 - Subpart F** and as specified below.

III.R.3.1.4.1 Point of Compliance Well System: The appropriately designated monitoring wells listed in Table III.R.3.1 will be used to monitor groundwater quality at the POC. These monitoring wells constitute the POC monitoring well system.

III.R.3.1.4.2 Background Monitoring Wells: The appropriately designated monitoring wells listed in Table III.R.3.1 will be used to monitor background groundwater quality. These monitoring wells constitute the background monitoring well system.

III.R.3.1.4.3 Plume Assessment Wells: The appropriately designated monitoring wells listed in Table III.R.3.2 shall be used to monitor the contaminant plume movement and to assess the effectiveness of the corrective action program.

III.R.3.1.4.4 Additional Wells: The Permittee shall install additional wells as necessary to maintain compliance with **40 CFR Part 264 - Subpart F** requirements. A proposal for the design, location and installation of any additional well(s) shall be submitted to the Department for approval at least 45 days prior to planned installation. Written approval must be obtained prior to installation

of any monitoring well.

III.R.3.1.4.5 Well Design, Installation and Maintenance: The Permittee shall ensure that all wells are designed, installed, and maintained such that groundwater samples are representative of the true water quality. Additionally, the wells shall be designed, installed and monitored in such a manner to prevent interconnection between different hydrologic units. Failure of any well(s) to meet the standards described herein shall not interfere with the groundwater monitoring or corrective action programs.

III.R.3.1.4.6 Well Construction Details: The Permittee shall report the surveyed elevation of monitoring well(s) to the nearest 0.01 foot within forty-five (45) days of installation along with as-built drawings and lithologic logs. The Permittee shall also report the total well depth, screened interval, elevation of the top of casing, ground surface and protective casing.

III.R.3.1.4.7 Total Well Depth: Where total depth measurements are possible (the retrofit FLUTe lined wells MW-5S, 5D; MW-7S, 7D; MW-9S, 9D; MW-14S, 14D; MW-17S, 17D have dedicated tubing and cannot measure depth to bottom), the Permittee shall measure total well depth during each sampling event and redevelop any monitoring well when sediment has entered the well and accumulated to a depth of one foot; or, the accumulated sediment blocks twenty percent of the screen length, whichever is less. The Permittee shall redevelop any well exhibiting a significant decrease in yield, or a significant increase in recovery time.

III.R.3.1.4.8 Well Abandonment: The Permittee shall properly abandon any well(s) not meeting the standard of Permit Condition III.R.3.1.4. A proposal for specific well abandonment procedures shall be submitted to the Division for approval at least thirty (30) days from the last sampling date or thirty (30) days from the date it is determined that the well no longer suitable for its intended use. Monitoring well abandonment shall occur in such a manner so as to prevent the migration of surface water or contaminant to the subsurface and to prevent migration of contaminant among water bearing zones.

III.R.3.2 Sampling and Analysis Procedures: The Permittee shall use the following techniques and procedures when obtaining samples from the groundwater monitoring wells described in Permit Condition III.R.3.1.2 of this permit to provide a reliable indication of the quality of the groundwater as required by **40 CFR Part 264.97**.

III.R.3.2.1 Sampling shall follow the procedures described in Part E of the application, and

the Permit Conditions III.R.3.

- III.R.3.2.2** Protective disposable gloves shall be utilized during all groundwater-sampling activities. A clean pair of gloves shall be worn at each sample site.
- III.R.3.2.3** Water level measurements shall be taken in the monitoring wells, specified in Permit Condition III.R.3.1.2, prior to any bailing or collection of samples.
- III.R.3.2.4** Water level measurements shall be made from the designated reference point at each well. The reference point shall be maintained in accordance with Part E of the application.
- III.R.3.2.5** Wells shall be purged at rates specified in Part E of the application until all field parameters stabilize indicating that fresh formation water is being evacuated. Results for the field tests shall be recorded on the groundwater sampling record and the sample properly disposed.
- III.R.3.2.6** The Permittee shall take samples in accordance with the procedures detailed in Part E of the application. Samples shall be taken at an interval that assures, to the greatest extent technically feasible, that an independent sample is obtained.
- III.R.3.2.7** Sample containers shall be constructed of a material compatible and non-reactive with the material it is to contain and meet the appropriate general performance standards as detailed in Part E of the application.
- III.R.3.2.8** If a preservative is added to a sample, it shall be noted on the sample label and the sampling record.
- III.R.3.2.9** The Permittee shall develop a field blank by filling the appropriate sample containers from the field supply of ASTM Type I organic free water (or equivalent). This field supply water shall be the same water used for cleaning and decontamination of all equipment used for purging and sampling. Field blanks shall be taken and analyzed for each sampling event at a minimum of one (1) in every twenty (20) samples per monitoring event. The Permittee may use a trip blank in lieu of a field blank following the same procedures except for filling the appropriate sample containers in the laboratory instead of in the field upon approval of the Division.
- III.R.3.2.10** The Permittee shall develop an equipment (rinsate) blank in the field immediately following cleaning and decontamination procedures on any non-dedicated equipment used for purging, sampling, or sample filtrations by passing field supply ASTM Type I organic free water (or equivalent) through the non-dedicated equipment in the same procedure as a groundwater sample. Equipment blanks shall be taken and analyzed any time non-dedicated sampling equipment is used or when new equipment is being dedicated to a well at a minimum of one (1) in every ten (10) samples per monitoring event.

- III.R.3.2.11 A sampling record shall be completed for each sample site during all groundwater monitoring events.
- III.R.3.2.12 Samples shall be tracked and controlled using the chain of custody procedures specified in Part E of the application.
- III.R.3.2.13 Samples shall be preserved and shipped in accordance with the procedures specified in Part E of the application.
- III.R.3.2.13 Samples shall be analyzed according to the procedures specified in Table III.R.3.3 of this permit and Part E of the application.

TABLE III.R.3.3 SAMPLING METHOD			
Hazardous Constituent	CAS ID	SW-846, (Edition VIII (2020)) Sample Method	Groundwater Protection Standard
Arsenic (total)	7440-38-2	Low-flow sampling (Puls and Barcelona 1996)	10 µg/l (EPA MCL)
Chloroform	67-66-3	Low-flow sampling (Puls and Barcelona 1996)	80 µg/l (EPA MCL)
Trichloroethylene (TCE)	79-01-6	Low-flow sampling (Puls and Barcelona 1996)	5.0 µg/l (EPA MCL)
Benzo(b)fluoranthene	205-99-2	Low-flow sampling (Puls and Barcelona 1996)	0.25 µg/l (EPA RSL)
Bis(2-chloroethyl) ether, (2-chloroethyl ether)	111-44-4	Low-flow sampling (Puls and Barcelona 1996)	0.014 µg/l (EPA RSL)
Bis(2-ethylhexyl)phthalate	117-81-7	Low-flow sampling (Puls and Barcelona 1996)	6.0 µg/l (EPA MCL)
Indeno(1,2,3-C,D)pyrene	193-39-5	Low-flow sampling (Puls and Barcelona 1996)	0.25 µg/l (EPA MCL)

III.R.3.3 Monitoring Program and Data Evaluation

- III.R.3.3.1 The Permittee shall complete the RCRA Corrective Action Monitoring Program as described in the 7 June 2017 CMI Report approved by KDWM on 31 October 2017 and Attachment E. The network of monitoring wells listed in Permit Condition III.R.3.1.2 (Table III.R.3.2) are scheduled to be sampled every other year (until 2023) as described in the approved CMI Report. The Permittee shall make groundwater quality determinations every other year until 2023 for wells described

in Permit Condition III.R.3.1.1 in accordance with **40 CFR Part 264.100** and Part E of the application. The sampling frequency and network of monitoring wells for the RCRA Corrective Action Monitoring Program will be evaluated after the 2023 groundwater monitoring event. Continued groundwater monitoring will likely be required in some form beyond 2023, as stated in the CMI Report approval letter issued by KDWM on 31 October 2017.

III.R.3.3.2 The Permittee shall in accordance with **40 CFR Part 264.100**, determine the groundwater flow rate and direction in the uppermost aquifer at the time that groundwater quality is determined under Permit Condition III.R.3.3.1 and Part E of the application.

III.R.3.4 Statistical Analysis of Data: Pursuant to **40 CFR Part 264.97**, an appropriate statistical procedure must be proposed prior to the termination of groundwater corrective action. The proposed statistical method must compare compliance point data to the concentration limits in the GWPS. Until such time that an appropriate statistical method has been approved by the Division, the effectiveness of the corrective action program shall be evaluated after each sampling event as described by Permit Condition III.R.3.3.1 using graphical analysis of time verses concentration trends in strategic monitoring wells. These trend analyses shall be submitted in the corrective action groundwater monitoring reports required by Permit Condition III.R.3.6.

III.R.3.5 Groundwater Corrective Action Program **[RESERVED]**

III.R.3.6 Recordkeeping, Reporting and Response

III.R.3.6.1 The Permittee shall enter all groundwater monitoring, testing, and analytical data obtained pursuant to Permit Condition III.R.3.3 in the operating record, as required by **40 CFR Part 264.73**.

III.R.3.6.2 The Permittee shall submit all groundwater monitoring, testing, and analytical data obtained pursuant to Permit Condition III.R.3.3 and Permit Condition III.R.3.2.6 to the Manager within sixty (60) days after completion of each sampling event.

III.R.3.8 Permit Modification

III.R.3.8.1 If the Permittee determines that the corrective action monitoring program required by this permit no longer satisfies the requirements of the regulations, the Permittee must, in accordance with **40 CFR Part 264.100** and within ninety (90) days, submit an application for a permit modification to make any appropriate changes to the program which will satisfy the regulations.

III.R.3.8.2 The Permittee shall be subject to applicable modification fees pursuant to **KRS 224.46-018**.

III.R.3.9 Duty of Permittee: The Permittee must assure that monitoring and corrective action measures necessary to achieve compliance with the groundwater protection standard under **40 CFR Part**

264.92 are taken during the term of this permit.

III.S CONTAINMENT BUILDING REQUIREMENTS

[RESERVED]

PART IV CORRECTIVE ACTION

**PART IV
CORRECTIVE ACTION
FOR SOLID WASTE MANAGEMENT UNITS & AREAS OF CONCERN**

The terms and conditions of this Permit are applicable to Rohm and Haas Chemicals LLC – Louisville Plant under Title 401 KAR Chapters 39 and 40, of the Hazardous Waste Management Regulations of the Kentucky Administrative Regulations (KARs).

The Code of Federal Regulations (CFRs) cited in this Permit shall be as established in 401 KAR Chapter 39.

IV.A APPLICABILITY

The conditions of this part apply to:

IV.A.1 The Solid Waste Management Units (SWMUs) and areas of concern (AOCs) identified in Appendix 1.

IV.A.2 Any additional SWMUs or AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means; as used in this part of the permit, the terms "discover", "discovery", or "discovered" refer to the date on which the Permittee either (1) visually observes evidence of a new SWMU or AOC, (2) visually observes evidence of a previously unidentified release of hazardous constituents to the environment, or (3) receives information which suggests the presence of a new release of hazardous waste or hazardous constituents to the environment.

IV.A.3 Contamination beyond the facility boundary, if applicable. The Permittee shall implement corrective actions beyond the facility boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of the Manager, that despite the Permittee's best effort, as determined by the Manager, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for completion of such off-site corrective action will be required.

IV.B NOTIFICATION AND ASSESSMENT REQUIREMENTS FOR NEWLY IDENTIFIED SWMUS AND AOCs

IV.B.1 The Permittee shall notify the Manager, in writing, within fifteen (15) calendar days of discovery, of any additional AOCs and/or SWMUs as discovered under Permit Condition IV.A.2. The notification shall include, at a minimum, the location of the SWMU or AOC and all available information pertaining to the nature of the release (e.g., media affected, hazardous constituents released, magnitude of release, etc.). If the Manager determines that further investigation of an AOC is required, the permittee shall be required to prepare a plan for such investigations as outlined in Permit Condition IV.D or Permit Condition IV.E.

IV.B.2 The Permittee shall prepare and submit to the Manager, within ninety (90) calendar days of notification, an

Assessment Report (AR) for each SWMU or AOC identified under Permit Condition IV.B.1. At a minimum, the AR shall provide the following information:

IV.B.2.1 Location of unit(s) on a topographic map of appropriate scale such as required under **40 CFR Part 270.14(b)**.

IV.B.2.2 Designation of type and function of unit(s).

IV.B.2.3 General dimensions, capacities and structural description of unit(s) (supply any available plans/drawings).

IV.B.2.4 Dates that the unit(s) was operated.

IV.B.2.5 Specification of all wastes that have been managed at/in the unit(s) to the extent available. Include any available data for constituents found in **40 CFR Part 261 Appendix VIII**.

IV.B.2.6 All available information pertaining to any release of hazardous waste or hazardous constituents from such unit(s) (to include groundwater data, soil analyses, air, and/or surface water data).

IV.B.2.7 The unique sequential identification for the SWMU or AOC.

IV.B.3 Based on the results of the AR, the Manager, shall determine the need for further investigations at the SWMUs covered in the AR. If the Manager determines that such investigations are needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Permit Condition IV.D or IV.E.

IV.C NOTIFICATION REQUIREMENTS FOR NEWLY DISCOVERED RELEASES AT PREVIOUSLY IDENTIFIED SWMUS AND AOCs

IV.C.1 The Permittee shall notify the Manager in writing of any newly discovered release(s) of hazardous waste or hazardous constituents discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, within fifteen (15) calendar days of discovery. Such newly discovered releases may be from SWMUs or AOCs identified in Permit Condition IV.A.1 or for which further investigation under Permit Condition IV.B was not required.

IV.C.2 If the Manager determines that further investigation of the SWMUs or AOCs is needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Permit Condition IV.D or IV.E.

IV.D CONFIRMATORY SAMPLING (CS)

IV.D.1 The Permittee shall prepare and submit a Confirmatory Sampling Work Plan to the Manager, within forty-five (45) calendar days of notification by the Manager that a Confirmatory Sampling Work Plan is required for any newly discovered release at an existing SWMU or AOC or for a newly-identified SWMU or AOC. The CS Work Plan shall include schedules of implementation and completion of specific actions necessary to determine whether or not a release has occurred. It shall also address applicable requirements and affected media.

- IV.D.2** The Permittee shall prepare and submit a Confirmatory Sampling Work Plan for each SWMU or AOC requiring a CS Work Plan as indicated in Appendix 1. The CS Work Plan shall be submitted within forty-five (45) calendar days of the effective date of the permit. The CS Work Plan shall include schedules of implementation and completion of specific actions necessary to determine whether or not a release has occurred. It shall also address applicable requirements and affected media.
- IV.D.3** The CS Work Plan must be approved by the Manager, in writing, prior to implementation. The Manager shall specify the start date of the CS Work Plan schedule in the letter approving the CS Work Plan. If a start date is not specified, work shall begin within 60 days of approval. If the Manager disapproves the CS Work Plan, the Manager shall either (1) notify the Permittee in writing of the CS Work Plan's deficiencies and specify a due date for submission of a revised CS Work Plan, (2) revise the CS Work Plan and notify the Permittee of the revisions, or (3) conditionally approve the CS Work Plan and notify the Permittee of the conditions.
- IV.D.4** The Permittee shall implement the confirmatory sampling in accordance with the approved CS Work Plan.
- IV.D.5** The Permittee shall prepare and submit to the Manager in accordance with the schedule in the approved CS Work Plan, a Confirmatory Sampling (CS) Report. The CS Report shall include all data, including raw data, and a summary and analysis of the data that supports the above determination.
- IV.D.6** Based on the results of the CS Report, the Manager shall determine the need for further investigations at the SWMUs or AOCs covered in the CS Report. If the Manager determines that such investigations are needed, the Permittee shall be required to prepare a plan for such investigations as outlined in *Permit Condition IV.E*. The Manager will notify the permittee of any no further action decision.

IV.E RCRA FACILITY INVESTIGATION (RFI)

IV.E.1 RFI Work Plan(s)

- IV.E.1.1** The Permittee shall prepare and submit to the Manager, within ninety (90) calendar days upon notification from the Division that a RCRA Facility Investigation (RFI) Work Plan(s) is required for those units identified in Permit Condition IV.B.3, IV.C.2 and IV.D.5. This Work Plan shall be developed to meet the requirements of Permit Condition IV.E.1.3.
- IV.E.1.2** The Permittee shall prepare and submit to the Manager, a RFI Work Plan within ninety (90) calendar days of notification by the Manager that a unit requires a RFI. This Work Plan shall be developed to meet the requirements of Permit Condition IV.E.1.3.
- IV.E.1.3** The RFI Work Plan(s) shall meet the requirements of Appendix 2. The RFI Work Plan(s) shall include schedules of implementation and completion of specific actions necessary to determine the nature and extent of releases and the potential pathways of contaminant releases to the air, land, surface water, and groundwater. The Permittee must provide sufficient justification and/or documentation that a release is not probable if a unit or a media/pathway associated with a unit (groundwater, surface water, soil, subsurface gas, or air) is not included in the RFI Work Plan(s). Such deletions of a unit, media or pathway from the RFI(s) are subject to the approval of the Manager. The Permittee shall provide sufficient written justification for any omissions or

deviations from the minimum requirements of Appendix 2. Such omissions or deviations are subject to the approval of the Manager. In addition, the scope of the RFI Work Plan(s) shall include all investigations necessary to ensure compliance with **40 CFR Part 264.101**.

IV.E.1.4 The RFI Work Plan(s) must be approved by the Manager, in writing, prior to implementation. The Manager shall specify the start date of the RFI Work Plan schedule in the letter approving the RFI Work Plan(s). If the Manager disapproves the RFI Work Plan(s), the Manager shall either (1) notify the Permittee in writing of the RFI Work Plan's deficiencies and specify a due date for submission of a revised RFI Work Plan, or (2) revise the RFI Work Plan and notify the Permittee of the revisions and the start date of the schedule within the approved RFI Work Plan, or (3) conditionally approve the RFI Work Plan and notify the Permittee of the conditions.

IV.E.2 RFI Implementation

The Permittee shall implement the RFI(s) in accordance with the approved RFI Work Plan(s). The Permittee shall notify the Manager, at least two weeks prior to any sampling activity.

IV.E.3 RFI Reports

IV.E.3.1 If the time required to conduct the RFI(s) is greater than one hundred eighty (180) calendar days, the Permittee shall provide the Manager, with quarterly RFI Progress Reports (90 day intervals) beginning ninety (90) calendar days from the start date specified by the Manager in the RFI Work Plan approval letter. The Progress Reports shall contain the following information at a minimum:

- i. A description of the portion of the RFI completed;
- ii. Summaries of findings;
- iii. Summaries of any deviations from the approved RFI Work Plan during the reporting period;
- iv. Summaries of any significant contacts with local community public interest groups or State government;
- v. Summaries of any problems or potential problems encountered during the reporting period;
- vi. Actions taken to rectify problems;
- vii. Changes in relevant personnel;
- viii. Projected work for the next reporting period; and

IV.E.3.2 The Permittee shall prepare and submit to the Manager, a RCRA Facility Investigation Report(s) for the investigations conducted pursuant to the RFI Work Plan(s) submitted under Permit Condition IV.E.1. The RFI Report(s) shall be submitted to Manager for review in accordance with the schedule in the approved RFI Work Plan(s). The RFI Report(s) shall include an analysis and summary of all required investigations of SWMUs and AOCs and their results. The summary shall describe the type and extent of contamination at the facility, including sources and migration pathways, identify all hazardous constituents present in all media, and describe actual or potential receptors. The RFI Report(s) shall also describe the extent of contamination (qualitative/quantitative) in relation to background levels indicative of the area. The objective of this task shall be to ensure that the investigation data are sufficient in quality (e.g., quality assurance procedures have been followed) and quantity to describe the nature and extent of contamination, potential threat to human health and/or the environment, and to support a Corrective Measures Study, if necessary.

IV.E.3.3 The RFI Report(s) shall include a proposal for a groundwater monitoring and reporting schedule for those SWMUs and/or AOCs at which groundwater contamination has been detected. Monitoring will be continued until a remedy selection is made by the Division.

IV.E.3.4 The Manager will review the Final RFI Report(s) and notify the Permittee of the need for further investigative action and/or the need for a Corrective Measures Study to meet the requirements of Permit Condition IV.B and **40 CFR Part 264.101**. The Manager will notify the Permittee of any no further action decision. Any further investigative action required by the Manager shall be prepared and submitted in accordance with a schedule specified by the Manager and approved in accordance with Permit Condition IV.E.1.3.

IV.F INTERIM MEASURES (IM)

IV.F.1 IM Work Plan

IV.F.1.1 Upon notification by the Manager, the Permittee shall prepare and submit an Interim Measures (IM) Work Plan for any SWMU or AOC which the Manager determines is necessary. Interim Measures shall be designed to minimize or prevent the further migration of contaminants and limit human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented. The IM Work Plan shall be submitted within the specified time identified by the Manager in such notification.

IV.F.1.2 The IM Work Plan shall ensure that the interim measures are designed to mitigate any current or potential threat(s) to human health or the environment and is consistent with and integrated into any long-term solution at the facility. The IM Work Plan shall include: the interim measures objectives, procedures for implementation (including any designs, plans, or specifications), and schedules for implementation.

IV.F.1.3 The IM Work Plan must be approved by the Manager, in writing, prior to implementation. The Manager shall specify the start date of the IM Work Plan schedule in the letter approving the IM Work Plan. If the Manager disapproves the IM Work Plan, the Manager shall either (1) notify the Permittee in writing of the IM Work Plan's deficiencies and specify a due date for submission of a revised IM Work Plan, or (2) revise the IM Work Plan and notify the Permittee of the revisions and the start date of the schedule within the approved IM Work Plan, or (3) conditionally approve the IM Work Plan and notify the Permittee of the conditions.

IV.F.2 IM Implementation

IV.F.2.1 The Permittee shall implement the interim measures in accordance with the approved IM Work Plan.

IV.F.2.2 The Permittee shall give notice to the Manager as soon as possible of any planned changes, reductions or additions to the IM Work Plan.

IV.F.2.3 Final approval of corrective action required under **40 CFR Part 264.101**, which is achieved

through interim measures shall be in accordance with a permit modification required by **40 CFR Part 270.41** and Permit Condition IV.H.

IV.F.3 IM Reports

IV.F.3.1 If the time required for completion of interim measures is greater than one year, the Permittee shall provide the Manager with progress reports at intervals specified in the approved Work Plan. The Progress Reports shall contain the following information at a minimum:

IV.F.3.1.1 A description of the portion of the interim measures completed;

IV.F.3.1.2 Summaries of findings;

IV.F.3.1.3 Summaries of all deviations from the IM Work Plan during the reporting period;

IV.F.3.1.4 Summaries of all problems encountered during the reporting period; and

IV.F.3.1.5 Projected work for the next reporting period;

IV.F.3.2 The Permittee shall prepare and submit to the Manager, within ninety (90) calendar days of completion of interim measures conducted under Permit Condition IV.F.1, an Interim Measures (IM) Report. The IM Report shall contain the following information at a minimum:

IV.F.3.2.1 A description of interim measures implemented;

IV.F.3.2.2 Summaries of results;

IV.F.3.2.3 Summaries of all problems encountered;

IV.F.3.2.4 Summaries of accomplishments and/or effectiveness of interim measures; and

IV.F.3.2.5 Copies of all relevant laboratory/monitoring data, in accordance with Permit Condition II.E.9.

IV.G CORRECTIVE MEASURES STUDY

IV.G.1 Corrective Measures Study (CMS) Work Plan

IV.G.1.1 The Permittee shall prepare and submit a CMS Work Plan for those units requiring a CMS within ninety (90) calendar days of notification by the Manager that a CMS is required. This CMS Work Plan shall be developed to meet the requirements of Permit Condition IV.G.1.2. The CMS may be performed concurrent with the RFI if the Division determines that sufficient investigative details are available to allow concurrent action.

IV.G.1.2 The CMS Work Plan shall meet the requirements of the Corrective Measure Study Work Plan Outline, Appendix 3. The CMS Work Plan shall include schedules of implementation and

completion of specific actions necessary to complete a CMS. The Permittee must provide sufficient justification and/or documentation for any unit deleted from the CMS Work Plan. Such deletion of a unit is subject to the approval of the Manager. The CMS shall be conducted in accordance with the approved CMS Work Plan. The Permittee shall provide sufficient written justification for any omissions or deviations from the minimum requirements of Appendix 3. Such omissions or deviations are subject to the approval of the Manager. The scope of the CMS Work Plan shall include all investigations necessary to ensure compliance with **40 CFR Part 264.101**. The Permittee shall implement corrective actions beyond the facility boundary, if necessary, as set forth in Permit Condition IV.A.3.

IV.G.1.3 The Manager shall either approve or disapprove, in writing, the CMS Work Plan. If the Manager disapproves the CMS Work Plan, the Manager shall either (1) notify the Permittee in writing of the CMS Work Plan's deficiencies and specify a due date for submittal of a revised CMS Work Plan, or (2) revise the CMS Work Plan and notify the Permittee of the revisions, or (3) conditionally approve the CMS Work Plan and notify the Permittee of the conditions and [**40 CFR Part 270.32**].

IV.G.1.4 The CMS Work Plan and CMS Report may be combined, upon approval of the Manager.

IV.G.2 Corrective Measures Study Implementation

The Permittee shall begin to implement the Corrective Measures Study according to the schedules specified in the approved CMS Work Plan.

IV.G.3 CMS Report

IV.G.3.1 The Permittee shall prepare and submit to the Manager a CMS Report for the study conducted pursuant to the approved CMS Work Plan. The CMS Report shall be submitted to the Manager per the schedule approved in the CMS Work Plan. Any revised CMS Reports shall be submitted to the Division within thirty (30) days of receipt of the Divisions comments. The CMS Report shall summarize any bench-scale or pilot tests conducted. The CMS Report must include an evaluation of each remedial alternative. The CMS Report shall present all information gathered under the approved CMS Work Plan. The CMS Report must contain adequate information to support the Manager's decision on the recommended remedy, described under Permit Condition IV.G.

IV.G.3.2 If the Manager determines that the CMS Report does not fully satisfy the information requirements specified under Permit Condition IV.G.3.1, the Manager may disapprove the CMS Report. If the Manager disapproves the CMS Report, the Manager shall notify the Permittee in writing of deficiencies in the CMS Report and specify a due date for submittal of a revised CMS Report. The Manager will notify the Permittee of any no further action decision.

IV.G.3.3 As specified under Permit Condition IV.G.3.2, based on preliminary results and the CMS Report, the Manager may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

IV.H CORRECTIVE MEASURES IMPLEMENTATION (CMI)

IV.H.1 CMI Work Plan

Within thirty (30) days of the effective date of the Permit modification for the remedy selection, unless otherwise agreed by the Manager, the Permittee shall prepare and submit a Corrective Measures Implementation (CMI) Work Plan for the SWMUs or AOCs requiring corrective measures implementation. At a minimum, this Work Plan shall include the following:

- IV.H.1.1** A description of the conceptual design, technical features (e.g. Plans and Specifications) and a Construction Plan for the selected remedy(ies) to achieve media cleanup standards protective of human health and the environment, controlling the source(s) of release, and complying with standards for the management of wastes and any remedial residues.
- IV.H.1.2** Public Participation
- IV.H.1.3** A proposed schedule that takes into account all phases of the CMI. The schedule should also include the submittal of documents to support the CMI (e.g. Operation and Maintenance Plan, Construction Completion Report, etc.) as described in Permit Conditions IV.I.2 and IV.I.4.
- IV.H.1.4** Requirements for removal and decontamination of units, equipment, devices or structures that will be used to implement the remedy(ies).

IV.H.2. Operation and Maintenance Plan

If required under the CMI WP, an Operation and Maintenance Plan (O&MP) shall be submitted to the Manager in accordance with the schedule required by Permit Condition IV.I.1.2. The O&MP, at a minimum, shall include the following:

- IV.H.2.1** A system description, startup procedures, operation and maintenance procedures and schedule of inspection and maintenance;
- IV.H.2.2** Waste management practices, sampling and analysis required for operation and contingency procedures;
- IV.H.2.3** A description of the Corrective Measure(s) completion criteria and the method to be used to show when the criteria are met; and
- IV.H.2.4** For remedies with Land Use Controls, the Operation and Maintenance Plan should include the requirements of Permit Condition IV.I.5.

IV.H.3. Manager Approval

All Plans required for the CMI phase, required by Permit Condition IV.I must be approved, in writing, by the Manager prior to implementation, in accordance with Permit Condition IV.K.1

IV.H.4. Construction Completion Report

If required under the CMI WP, a Construction Completion Report (CCR) shall be submitted to the Manager, in accordance with the schedule required by Permit Condition IV.I.1.2 that demonstrates the completion of the remedy construction in accordance with approved plans and specifications. The CCR shall be submitted when all operational tests have been completed. Any necessary documentation required by the Division shall be included in this report.

IV.H.5. Remedy with Land Use Controls

Any final remedy that incorporates land use controls shall be in accordance with **KRS 224 Subchapter 80**. The SWMUs and AOCs for which land use controls are selected as an integral part of the final remedy are listed in Appendix 1 - SWMUs and AOCs. When corrective measures incorporate land use controls as part of the selected remedy, the following information should be provided:

IV.H.5.1 The name, address and phone number of the person to contact about the SWMU or AOC;

IV.H.5.2 Any necessary security provisions consistent with to prevent unauthorized entry and/or use of the waste unit;

IV.H.5.3 A description of measures to protect the integrity of any installed engineering control(s) and associated features considered as part of the selected remedy, for the period that has to be maintained;

IV.H.5.4 Planned maintenance and monitoring activities, and frequencies to ensure the security provisions are maintained;

IV.H.5.4.1. An inspection checklist describing the land use control elements to be inspected, the frequency of inspection, and the potential problems that could be encountered. The checklist shall contain an area where the inspector may enter his/her name, the date of inspection, and the date upon which any problems encountered are remediated;

IV.H.5.5 Procedure(s) to follow when a determination is made that the land use control(s) are not effective and require modification;

IV.H.5.6 The mechanism by which a notification will be recorded on the deed for the facility property, or some other instrument which is normally examined during title search, that will in perpetuity notify any potential future purchaser of the property, that the property had been used for waste management and disposal activities and that restrictions exist precluding a residential use of the land. The need for a deed restriction may be reevaluated upon the transfer of ownership or control; and

IV.H.5.7 The mechanism by which other pertinent agencies (State or Federal) will be given notice of restrictions placed on the use of the property that is affecting or may affect in the future, areas under the control of other State or Federal agencies.

IV.H.6 CMI Progress Reports

If the time frame required to complete corrective measures implementation is greater than one hundred and eighty (180) days, the Permittee shall provide the Division with semi-annual Corrective Measures Implementation Progress Reports (180 day intervals) beginning from the date the CMI Work Plan is approved by the Division, until the Remedy Completion Report is approved by the Division. The time frame stated is effective unless otherwise agreed to by the Division. The CMI Progress Reports shall contain at least the following information:

- IV.H.6.1** A description of the portion of the CMI Work Plan completed (e.g. sampling events, operations, volumes removed/treated, wastes generated, etc);
- IV.H.6.2** A summary of system performance/compliance and progress toward achieving cleanup goals;
- IV.H.6.3** A summary of any deviations from the approved CMI Work Plan during the reporting period;
- IV.H.6.4** Summaries of all contacts with local community and public interest groups or State and Federal Government;
- IV.H.6.5** A summary of any problems or potential problems encountered during the reporting period;
- IV.H.6.6** A summary of actions taken to rectify the problems;
- IV.H.6.7** Any changes in relevant personnel; and
- IV.H.6.8** Projected work for the next reporting period.

IV.H.7 Remedy Completion Report

- IV.H.7.1** Within ninety (90) days of completion of the CMI, unless otherwise agreed by the Division, the Permittee shall submit a CMI Report, including certification of completion of the corrective measures activities. The CMI Report shall summarize the activities and results from the entire period of Corrective Measures Implementation. The CMI Report shall also demonstrate compliance with all media cleanup goals and meet the corrective measures completion criteria in accordance with Permit Condition IV.I.2.3. Approval by the Division of the final CMI Report constitutes remedy completion.
- IV.H.7.2** For corrective measures involving the cleanup of groundwater, the Permittee must demonstrate that the concentrations of the constituents of concern remain at or below cleanup levels for three (3) consecutive years after the corrective measures have been terminated. The time frame stated is effective unless otherwise agreed to by the Manager.

IV.I REMEDY APPROVAL AND PERMIT MODIFICATION

- IV.I.1** The Manager shall select a remedy from the remedial alternatives evaluated in the CMS. The selection will be based at a minimum on protection of human health and the environment, as per specific site conditions,

existing regulations, and guidance. The selected remedy may include any interim measures implemented to date.

IV.I.2 Statement of Basis

IV.I.2.1 Submittal of a Statement of Basis maybe required upon approval of the CMS Report or other Manager decision [i.e. NFA]. If required, the Permittee shall prepare a draft Statement of Basis that provides a summary and justification of the selected remedy. The Statement of Basis should be written following EPA guidance “*Guidance on RCRA Corrective Action Decision Documents: The Statement of Basis, Final Decision and Response to Comments*,” February 1991, EPA/540/G-91/011, (or most recent version) or other Manager approved guidance, and should include information on the proposed remedy, facility background, exposure pathways, cleanup goals, the scope of the corrective action, the remedial alternatives considered, an evaluation of those alternatives, and public participation.

IV.I.2.2 A draft Statement of Basis shall be submitted to the Manager within thirty (30) days unless otherwise specified by the Manager. The Manager shall notify the Permittee of deficiencies and specify a due date for submittal of a revised Statement of Basis or revise and finalize the Statement of Basis.

IV.I.3 Pursuant to **40 CFR Part 270.41**, a permit modification will be initiated by the Manager, after recommendation of a remedy under Permit Condition IV.H.1. This modification will serve to incorporate a final remedy into this permit.

IV.I.4 Within one hundred and twenty (120) calendar days after this permit has been modified, the Permittee shall demonstrate financial assurance for completing the approved remedy.

IV.J MODIFICATION OF THE CORRECTIVE ACTION SCHEDULE OF COMPLIANCE

IV.J.1 Modifications to the corrective action schedule of compliance will not constitute a reissuance of the Permit. The Manager may grant extensions at his/her sole discretion, subject to adequate justification by the Permittee.

IV.J.2 The Schedule of Compliance is attached to and incorporated in this permit as Appendix 4. If at any time, the Manager determines that modification of the corrective action schedule is necessary, the Manager may initiate a modification to the schedule.

IV.K IMMINENT HAZARDS

IV.K.1 The Permittee shall report to the Manager, any imminent or existing hazard to public health or the environment from any release of hazardous waste or hazardous constituents from SWMUs and or Areas of Concern consistent with requirements specified in Permit Condition II.E.15.

IV.L WORK PLAN AND REPORT REQUIREMENTS

- IV.L.1** All work plans and schedules shall be subject to approval by the Manager, prior to implementation to assure that such work plans and schedules are consistent with the requirements of this Permit and with applicable regulations and guidance. The Permittee shall revise all submittals and schedules as specified by the Manager. The Permittee shall implement all work plans and schedules as approved by the Manager.
- IV.L.2** All work plans and reports shall be submitted in accordance with the approved schedule. Extensions of the due date for submittals may be granted by the Division based on the Permittee's demonstration that sufficient justification for the extension exists.
- IV.L.3** If the Permittee at any time determines that the AR information required under Permit Condition IV.B, or the CS Work Plan under Permit Condition IV.D, or RFI Work Plan(s) required under Permit Condition IV.E no longer satisfy the requirements of **40 CFR Part 264.101** or this permit for prior or continuing releases of hazardous waste or hazardous constituents from solid waste management units and/or areas of concern, the Permittee shall submit an amended RFI Work Plan(s) and/or AR to the Director within ninety (90) calendar days of such determination.
- IV.L.4** All reports shall be signed and certified in accordance with **40 CFR Part 270.11**.
- IV.L.5** At least one (1) copy of all reports and work plans shall be provided by the Permittee to the Division of Waste Management at the address specified in Permit Condition II.B.2.2 and to EPA Region IV as specified in Permit Condition II.B.2.3.

IV.M APPROVAL/DISAPPROVAL OF SUBMITTALS

- IV.M.1** The Manager will review the work plans, reports, schedules, and other documents ("submittals") which require the Manager's approval in accordance with the conditions of this permit. The Manager will notify the Permittee in writing of any submittal that is disapproved, and the basis therefore. In the event the Permittee disagrees, in whole or in part, with the Manager's decision of a submittal or disapproval of any revised submittal required by the permit, the Permittee has the right to seek a hearing under **KRS 224.10-420(2)**.

PART V WASTE MINIMIZATION

**PART V
WASTE MINIMIZATION**

The terms and conditions of this Permit are applicable to Rohm and Haas Chemicals LLC – Louisville Plant under Title 401 KAR Chapters 39 and 40, of the Hazardous Waste Management Regulations of the Kentucky Administrative Regulations (KARs).

The Code of Federal Regulations (CFRs) cited in this Permit shall be as established in 401 KAR Chapter 39.

V.A GENERAL RESTRICTIONS

V.A.1 In the event that the Permittee treats, stores, or disposes of hazardous wastes onsite where such wastes were generated, then the Permittee must comply with **40 CFR Part 264.73** and the Permittee must certify, no less often than annually, that:

V.A.1.1 The Permittee has a program in place to reduce the volume and toxicity of hazardous waste generated to the degree determined by the Permittee to be economically practicable; and

V.A.1.2 The proposed method of treatment, storage, or disposal is the most practicable method available to the Permittee which minimizes the present and future threat to human health and the environment.

V.B RECORDKEEPING REQUIREMENTS

If Permit Condition V.A is applicable, then the Permittee shall maintain copies of this certification in the facility Operating Record as required by **40 CFR Part 264.73**.

V.C WASTE MINIMIZATION OBJECTIVES

The Waste Minimization program required under Permit Condition V.A above should address the following objectives and elements:

V.C.1 Top Management Support

The Permittee shall maintain and update the following documents:

V.C.1.1 A policy dated and signed, by management, describing management support for waste minimization and for implementation of a waste minimization plan.

V.C.1.2 A description of employee awareness and training programs designed to involve employees in waste minimization planning and implementation to the maximum extent feasible.

V.C.1.3 A description specifying how a waste minimization plan has been incorporated into management

practices so as to ensure ongoing efforts with respect to product design, capital planning, production operations, and maintenance.

V.C.2 Characterization of Waste Generation

The Permittee shall identify and document types, amounts, and hazardous constituents of waste streams, with the source and date of generation.

V.C.3 Periodic Waste Minimization Assessments

V.C.3.1 The Permittee shall identify and document all points in a process where materials can be prevented from becoming a waste, or can be recycled.

V.C.3.2 The Permittee shall identify the potential for waste reduction and recycling techniques applicable to each waste generated at the facility, with a cost estimate for capital investment and implementation.

V.C.3.3 The Permittee shall update and maintain a description of technically and economically practical waste reduction, recycling options to be implemented at the facility, and a planned schedule for implementation.

V.C.3.4 The Permittee shall prepare and maintain an adequate assessment for specific performance goals, preferably quantitative, for the source reduction of waste by stream. Whenever possible, goals should be stated as weight of waste generated per standard unit of production, as defined by the generator.

V.C.4 Cost Allocation System

The Permittee, on an annual basis, shall update a Cost Allocation System specific to the operation of the facility with respect to waste reduction.

The following shall be addressed in preparation of the document:

V.C.4.1 Identification of waste management costs for each waste, factoring in liability, transportation, recordkeeping, personnel, pollution control, treatment, disposal, and compliance and oversight costs to the extent feasible.

V.C.4.2 Description of how each area(s) at the facility is held accountable for the wastes they generate.

V.C.4.3 The comparison of waste management costs with costs of potential reduction and recycling techniques applicable to each waste at the facility.

V.C.5 Technology Transfer

The Permittee shall update and maintain at the facility a description of efforts to seek and exchange technical information on waste minimization from other parts of the company, other firms, trade

associations, technical assistance programs, and professional consultants.

V.C.6 Program Evaluation

The Permittee, on an annual basis, shall evaluate the waste minimization program. The evaluation, at a minimum shall contain the following:

- V.C.6.1** Description of types and amounts of hazardous waste reduced or recycled.
- V.C.6.2** Analysis and quantification of progress made relative to each performance goal established and each reduction technique to be implemented.
- V.C.6.3** Amendments to waste minimization plan and explanation.
- V.C.6.4** Explanation and documentation of reduction efforts completed or in progress before development of the waste minimization plan.
- V.C.6.5** Explanation and documentation regarding impediments to hazardous waste reduction specific to the individual facility.

PART VI LAND DISPOSAL RESTRICTIONS

**PART VI
LAND DISPOSAL RESTRICTIONS**

The terms and conditions of this Permit are applicable to Rohm and Haas Chemicals LLC – Louisville Plant under Title 401 KAR Chapters 39 and 40, of the Hazardous Waste Management Regulations of the Kentucky Administrative Regulations (KARs).

The Code of Federal Regulations (CFRs) cited in this Permit shall be as established in 401 KAR Chapter 39.

VI.A GENERAL RESTRICTIONS

VI.A.1 40 CFR Part 268 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage or disposal unit. The Permittee shall maintain compliance with the requirements of **40 CFR Part 268**. Where the Permittee has applied for an extension, waiver, or variance under **40 CFR Part 268**, the Permittee shall comply with all restrictions on land disposal under this Part once the effective date for the waste has been reached pending final approval of such Application.

VI.B LAND DISPOSAL PROHIBITIONS AND TREATMENT STANDARDS

VI.B.1 A restricted waste identified in **40 CFR Part 268** may not be placed in a land disposal unit without further treatment unless the requirements of **40 CFR Part 268.50** are met.

VI.B.2 The storage of hazardous wastes restricted from land disposal under **40 CFR Part 268** is prohibited unless the requirements of **40 CFR Part 268** are met.

PART VII ORGANIC AIR EMISSION REQUIREMENTS

**PART VII
ORGANIC AIR EMISSION REQUIREMENTS**

The terms and conditions of this Permit are applicable to Rohm and Haas Chemicals LLC – Louisville Plant under Title 401 KAR Chapters 39 and 40, of the Hazardous Waste Management Regulations of the Kentucky Administrative Regulations (KARs).

The Code of Federal Regulations (CFRs) cited in this Permit shall be as established in 401 KAR Chapter 39.

The purpose of Organic Air Emission Standards (**40 CFR Part 264 - Subpart AA, BB and CC**) is to control air emissions from hazardous waste treatment, storage, and disposal facilities or units, as well as associated ancillary equipment and systems.

VII.A AIR EMISSION STANDARDS FOR PROCESS VENTS

VII.A.1 40 CFR Part 264 – Subpart AA

The Permittee does not currently operate and is not currently authorized under this Permit to operate any process vents, closed-vent systems, or control devices at the Facility that are subject to 40 CFR Part 264 – Subpart AA.

VII.B AIR EMISSION STANDARDS FOR EQUIPMENT LEAKS

VII.B.1 40 CFR Part 264 - Subpart BB contains air emission standards for equipment leaks and applies to all equipment that contains or contacts hazardous wastes with organic concentrations of at least ten (10) percent by weight.

The Permittee has equipment components that are subject to **Subpart BB** requirements. The equipment systems are listed in Table VII.2 below and components are identified in VIII.N (Appendix N, Table APP-N-1-1).

Table VII.2				
Hazardous Waste Management Unit and Location	Hazardous Waste Stream (EPA Waste Code)	Physical State*	Percent (%) by Weight Total Organics	Method of Compliance* (Permit Condition)
Tank No. 64140 System	Ignitable MMA Stillbottoms; D001, (D007 possible)	VIII.N (Attachment N)	90-100	VIII.N (Attachment N)
Tank No. 64141 System	Ignitable MMA Stillbottoms; D001, (D007 possible)	VIII.N (Attachment N)	90-100	VIII.N (Attachment N)
Tank No. 64250 System	Non-Halogenated Spent Solvents, Ignitable Hazardous Waste, Waste Resin Solution, Waste Monomer; D001,	VIII.N (Attachment N)	90-100	VIII.N (Attachment N)

Table VII.2				
Hazardous Waste Management Unit and Location	Hazardous Waste Stream (EPA Waste Code)	Physical State*	Percent (%) by Weight Total Organics	Method of Compliance* (Permit Condition)
	D002, D018, D035, F003, F005			
90-Day Tank No. 14525 System	Ignitable MMA Stillbottoms D001, D007	VIII.N (Attachment N)	90-100	VIII.N (Attachment N)
Pipeline from process to 90-Day Tank No. 14525	Non-Halogenated Spent Solvents, Ignitable Hazardous Waste, Waste Resin Solution, Waste Monomer; D001, D002, D018, D035, F003, F005	VIII.N (Attachment N)	90-100	VIII.N (Attachment N)
Pipeline from process to Tank Nos. 64140 and 64141	Ignitable MMA Stillbottoms; D001, (D007 possible)	VIII.N (Attachment N)	90-100	VIII.N (Attachment N)
Pipeline from Boiler No. 100 to Tank Nos. 64140 and 64141	Ignitable MMA Stillbottoms; D001, (D007 possible)	VIII.N (Attachment N)	90-100	VIII.N (Attachment N)
Pipeline from process to Tanker Loading	Non-Halogenated Spent Solvents, Ignitable Hazardous Waste, Waste Resin Solution, Waste Monomer; D001, D002, D018, D035, F003, F005	VIII.N (Attachment N)	90-100	VIII.N (Attachment N)
Pipeline from 90-Day Tank No. 14525 to Tank No. 64250	Non-Halogenated Spent Solvents, Ignitable Hazardous Waste, Waste Resin Solution, Waste Monomer; D001, D002, D018, D035, F003, F005	VIII.N (Attachment N)	90-100	VIII.N (Attachment N)
Pipeline from 90-Day Tank No. 14525 to Tanker Loading	Non-Halogenated Spent Solvents, Ignitable Hazardous Waste, Waste Resin Solution, Waste Monomer; D001, D002, D018, D035, F003, F005	VIII.N (Attachment N)	90-100	VIII.N (Attachment N)
Pipeline from Tank Nos. 64140 and 64141 to Boiler No. 100	Ignitable MMA Stillbottoms D001, D007	VIII.N (Attachment N)	90-100	VIII.N (Attachment N)
Pipeline from Tank No. 64250 to Boiler No. 100	Non-Halogenated Spent Solvents, Ignitable Hazardous Waste, Waste Resin Solution, Waste Monomer; D001, D002, D018, D035, F003, F005	VIII.N (Attachment N)	90-100	VIII.N (Attachment N)
Pipeline from Tank Nos. 64140 and 64141	Ignitable MMA Stillbottoms; D001, (D007 possible)	VIII.N (Attachment N)	90-100	VIII.N (Attachment N)

Table VII.2				
Hazardous Waste Management Unit and Location	Hazardous Waste Stream (EPA Waste Code)	Physical State*	Percent (%) by Weight Total Organics	Method of Compliance* (Permit Condition)
to Railcar Loading/Unloading Areas				
Pipeline from Tank Nos. 64250 to Tanker Loading/Unloading Areas	Non-Halogenated Spent Solvents, Ignitable Hazardous Waste, Waste Resin Solution, Waste Monomer; D001, D002, D018, D035, F003, F005	VIII.N (Attachment N)	90-100	VIII.N (Attachment N)
See VIII.D (App. D-2 Tank Design Drawings and App. D-4 Tank Piping and Instrumentation Drawings) for facility drawing showing the locations of the affected equipment.				
*Components are identified in Permit Condition VIII.N (Appendix N, Table APP-N-1-1).				

VII.B.2 Notification of Modifications, Additions, or New Units

Prior to installing or operating any new unit or equipment subject to **40 CFR Part 264 – Subpart BB**, or modifying any existing unit, equipment, procedure, or process such that the unit(s) or equipment will become subject to **40 CFR Part 264 – Subpart BB**, the Permittee shall apply for a permit modification in accordance with Permit Condition II.B.1 and Permit Condition II.B.4.

VII.B.3 Marking and Tagging

- VII.B.3.1** The Permittee shall maintain the most current equipment identification list and up-to-date Piping and Instrumentation Diagram (P&ID) in the Facility's operating record. VIII.N, Attachment N of this Permit includes the equipment identification list and VIII.D, Attachment D of this permit includes P&IDs.
- VII.B.3.2** The Permittee shall ensure that all Subpart BB equipment is uniquely marked and tagged for the specific purposes of tracking, monitoring, inspecting, and repairing each piece of equipment in accordance with **40 CFR Part 264.1050(d)**. The marking must be of a permanent nature, weatherproof, and regularly maintained to ensure it is clearly visible at all times of operation.
- VII.B.3.3** The unique marking of the equipment shall correspond to, and be identified on, the current equipment identification list and up-to-date P&ID maintained at the Facility and used to conduct all inspections and monitoring.
- VII.B.3.4** Tags used to identify leaks and potential leaks must comply with all the applicable requirements of **40 CFR Part 264.1064(c)**, including, but not limited to the following requirements:
- VII.B.3.4.1** The tags must include the equipment identification number;

VII.B.3.4.2 The tags must be red or some other readily visible bright color; and

VII.B.3.4.3 The tags must be made of or coated in a material that is not degraded by the hazardous waste stream, or weather, including UV light.

VII.B.4 Excluded Equipment [40 CFR Part 264.1050(e) and (f)]

VII.B.4.1 Equipment that is in vacuum service is excluded from the requirements of **40 CFR Part 264.1052** through **1060** and corresponding conditions of this Permit if it is identified as required by **40 CFR Part 264.1064(g)(5)** and in Table VII.3 below.

VII.B.4.2 Equipment that contains or contacts hazardous waste with an organic concentration of at least ten (10) percent by weight for less than 300 hours per calendar year is excluded from the requirements of **40 CFR Part 264.1052** through **1060** and the corresponding conditions of this Permit if it is identified as required by **40 CFR Part 264.1064(g)(6)** and in Table VII.3 below.

VII.B.4.3 The equipment identified in Table VII.3 below is excluded from the requirements of **40 CFR Part 264.1052** through **1060**, as indicated.

TABLE VII.3 RCRA SUBPART BB EXEMPTED HAZARDOUS WASTE MANAGEMENT UNITS	
Unit and Description	Exclusion Claimed
Equipment components associated with the pipelines to and from Tank Nos. 64140 and 64141 to and from the railcar loading / unloading area.	VII.B.4.2 (40 CFR Part 264.1050(f); Equipment contacting hazardous waste with at least 10% (wt.) organic concentration for less than 300 hours per calendar year)
Equipment components associated with the pipelines to and from Tank No. 64250 to and from the tanker loading / unloading area.	VII.B.4.2 (40 CFR Part 264.1050(f); Equipment contacting hazardous waste with at least 10% (wt.) organic concentration for less than 300 hours per calendar year)
See VIII.D (App. D-2 Tank Design Drawings and App. D-4 Tank Piping and Instrumentation Drawings) for facility drawing showing the locations of the affected equipment.	
Components are identified in Permit Condition VIII.N (Appendix N, Table APP-N-1-1).	

VII.B.4.4 Should conditions change such that the Permittee is no longer able to claim the exclusion identified in Table VII.3 the Permittee shall immediately notify the Division per Permit Conditions II.E.7, II.E.10 and II.E.11 of this Permit, and should comply with the requirements of **40 CFR Part 264 – Subpart BB**.

VII.B.5 Equipment Standards

All equipment subject to **40 CFR Part 264 – Subpart BB** shall comply with the appropriate equipment standard of **40 CFR Part 264 – Subpart BB**, the conditions of this Permit, and the requirements of the Leak Detection and Repair (LDAR) Program.

Only valves in light liquid service can be designated difficult or unsafe to monitor pursuant to **40 CFR Part**

264.1057(g) or (h). The Permittee shall not designate any other components subject to the **40 CFR Part 264 – Subpart BB** regulations as difficult or unsafe to monitor.

VII.B.5.1 Pumps in Light Liquid Service [40 CFR Part 264.1052]

- VII.B.5.1.1** The Permittee shall comply with the requirements in **40 CFR Part 264.1052(a), (b) and (c)** for monitoring, visual inspection to detect leak as well as leak repair.
- VII.B.5.1.2** Each pump that is equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from **40 CFR Part 264.1052(a)**, provided each pump meets the requirements in **40 CFR Part 264.1052(d)(1)** through **(d)(6)**.
- VII.B.5.1.3** Any pump that is designated, as described in **40 CFR Part 264.1064(g)(2)**, for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from **40 CFR Part 264.1052(a), (c) and (d)** if the pump meets the requirements in **40 CFR Part 264.1052(e)(1)** through **(e)(3)**.
- VII.B.5.1.4** If any pump is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with the requirements of **40 CFR Part 264.1060**, it is exempt from **40 CFR Part 264.1052(a)** through **(e)**.

VII.B.5.2 Compressors [40 CFR Part 264.1053]

[Reserved]

VII.B.5.3 Pressure Relief Devices in Gas/Vapor Service [40 CFR Part 264.1054]

- VII.B.5.3.1** Each pressure relief devices shall comply with the requirements in **40 CFR Part 264.1054(a) and (b)**.
- VII.B.5.3.2** Any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in **40 CFR Part 264.1060** is exempt from the requirements of **40 CFR Part 264.1054(a) and (b)**.

VII.B.5.4 Sampling Connection Systems [40 CFR Part 264.1055]

- VII.B.5.4.1** Each sampling connection system shall comply with the requirements in **40 CFR Part 264.1055(a) and (b)**.
- VII.B.5.4.2** *In-situ* sampling systems and sampling systems without purges are exempt from the requirements of **40 CFR Part 264.1055(a) and (b)**.

VII.B.5.5 Open-ended Valves or Lines [40 CFR Part 264.1056]

- VII.B.5.5.1** Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.

- VII.B.5.5.2 The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring hazardous waste stream flow through the open-ended valve or line.
- VII.B.5.5.3 Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the hazardous waste stream end is closed before the second valve is closed.
- VII.B.5.5.4 When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with *Permit Condition VII.B.5.5.1* and *Permit Condition VII.B.5.5.2* at all other times.

VII.B.5.6 Valves in Gas/Vapor service or in Light Liquid Service [40 CFR Part 264.1057]

- VII.B.5.6.1 The Permittee shall comply with the requirements in **40 CFR Part 264.1057(a)** through **(e)** for leak monitoring and repair.
- VII.B.5.6.2 Any valve that is designated, as described in **40 CFR Part 264.1064(g)(2)**, for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of **40 CFR Part 264.1057(a)** if the valve follows the requirements in **40 CFR Part 264.1057(f)(1)** through **(3)**.
- VII.B.5.6.3 Any valve that is designated, as described in **40 CFR Part 264.1064(h)(1)**, as an unsafe-to-monitor valve is exempt from the requirements of **40 CFR Part 264.1057(a)** if the Permittee follows the requirements in **40 CFR Part 264.1057(g)(1)** and **(2)**.
- VII.B.5.6.4 Any valve that is designated, as described in **40 CFR Part 264.1064(h)(2)**, as a difficult-to-monitor valve is exempt from the requirements of **40 CFR Part 264.1057(a)** if the Permittee follows the requirements in **40 CFR Part 264.1057(h)(1)** through **(3)**.

VII.B.5.7 Pumps and Valve in Heavy Liquid Service, Pressure Relief Devices in Light Liquid or Heavy Liquid service, and Flanges and Other Connectors [40 CFR Part 264.1058]

- VII.B.5.7.1 The Permittee shall comply with the requirements in **40 CFR Part 264.1058(a)** through **(d)** for leak monitoring and repair.
- VII.B.5.7.2 Any connector that is inaccessible or is ceramic or ceramic-lined (e.g., porcelain, glass, or glass-lined) is exempt from the monitoring requirements of **40 CFR Part 264.1058(a)** and from the recordkeeping requirements of **40 CFR Part 264.1064**.

VII.B.5.8 Delay of Repair

Delays of repair shall be in accordance with the requirements of **40 CFR Part 264.1059**. A written description of the circumstances associated with the delay of repair addressing the requirements of **40 CFR Part 264.1059**, and Permit Condition VII.B.7 of this Permit shall be maintained in the Facility's operating record.

VII.B.5.9 Closed-vent Systems and Control Devices [40 CFR Part 264.1060] [Reserved]

VII.B.5.10 Alternative Standards for Valves in Gas/Vapor service or in Light Liquid Service: Percentage of Valves Allowed to Leak [40 CFR Part 264.1061]

VII.B.5.10.1 Permittee that is subject to the requirements of **40 CFR Part 264.1057** that elects to have all valves within a hazardous waste management unit comply with an alternative standard that allows no greater than two (2) percent of the valves to leak shall comply with the requirements in **40 CFR Part 264.1061(b)**.

VII.B.5.10.2 Performance tests shall be conducted in accordance with **40 CFR Part 264.1061(c)**.

VII.B.5.11 Alternative Standards for Valves in Gas/Vapor Service or in Light Liquid Service: Skip Period Lead Detection and Repair [40 CFR Part 264.1062]

VII.B.5.11.1 Permittee that is subject to the requirements of **40 CFR Part 264.1057** that elects for all valves within a hazardous waste management unit to comply with one of the alternative work practices specified in **40 CFR Part 264.1062(b)(2)** and **(b)(3)**, shall comply with the requirements in **40 CFR Part 264.1062(b)(1)** and **(b)(4)**.

VII.B.6 Test Methods and Procedures [40 CFR Part 264.1063]

VII.B.6.1 The Permittee shall comply with the test methods and procedures of **40 CFR Part 264.1063**, the LDAR Program, for all equipment subject to **40 CFR Part 264 – Subpart BB**.

VII.B.6.2 All testing, monitoring and confirmatory sampling must be conducted during times of operation by persons trained in the proper implementation of the test methods and procedures required by **40 CFR Part 264.1063**, including, but not limited to, Method 21.

VII.B.7 Recordkeeping Requirements [40 CFR Part 264.1064]

VII.B.7.1 Records demonstrating compliance with **40 CFR Part 264 – Subpart BB**, including any third party's records, shall be maintained, accessible at the Facility or other appropriate location approved by the Division, for a period of not less than three (3) years. All records necessary for demonstrating compliance shall include, at a minimum, the required recordkeeping information in **40 CFR Part 264.1064** and this Permit.

VII.B.7.2 These records shall include, but are not limited to:

- VII.B.7.2.1** The current list of regulated equipment and its physical location at the Facility, as illustrated on a Facility map and P&ID;
- VII.B.7.2.2** A running log of time, by calendar year, each piece of equipment is used to manage with organic concentrations of at least ten (10) percent by weight;
- VII.B.7.2.3** All associated operating information, specifications, and standards for each unique piece of equipment;
- VII.B.7.2.4** All maintenance, inspection, leak detection, repair, and delay of repair records associated with each unique piece of equipment; and
- VII.B.7.2.5** Training documentation for persons conducting inspections or monitoring.

VII.B.7.3 Records justifying valves in light liquid service designated as difficult or unsafe to monitor shall comply with **40 CFR Part 264.1057(g)** and **(h)**, be kept at the Facility or other appropriate location approved by the Division, be available for inspection at reasonable times, and demonstrate compliance with the requirements of **40 CFR Part 264.1064(h)**.

VII.B.8 Reporting Requirements [40 CFR Part 264.1065]

- VII.B.8.1** In accordance with **40 CFR Part 264.1065**, the Permittee shall prepare and submit a report semiannually to the Division at the address provided in Permit Condition II.B.2.2, documenting all information required by **40 CFR Part 264.1065** for each month during that semiannual reporting period.
- VII.B.8.2** All information required by **40 CFR Part 264.1065** shall be submitted in the semiannual report. The semiannual report shall be submitted by January 31st and July 31st of each calendar year. A copy of the semiannual report shall be maintained in the Facility's operating record.
- VII.B.8.3** If, during the semiannual reporting period, leaks from valves or pumps are repaired as required in **40 CFR Part 264.1057(d)**, **264.1052 (c)** and **(d)(6)**, and **264.1053 (g)**, respectively, and the control device does not exceed or operate outside of the design specifications as defined in **40 CFR part 264.1064(e)** for more than 24 hours, a report to the Division is not required.

VII.B.9 Equipment Maintenance and Installation of Temporary Equipment

For the purposes of **40 CFR Part 264 – Subpart BB**, the term “Temporary Equipment” shall be defined as any equipment that has not been specifically designed and engineered as part of the original system, or equipment which was not included in the information submitted as part of the Approved Permit Application, which the Permittee has placed in service on a non-permanent basis while performing repair and/or maintenance activities on permanent equipment.

- VII.B.9.1** Temporary equipment installed during maintenance or repair activities, including preventative maintenance activities, shall be noted in the daily inspection log in the Facility's operating record. The notation shall include the date the maintenance or repair began, the date the maintenance or repair is expected to be completed, the equipment identification numbers

replaced during the maintenance or repair activity, and a brief statement describing the installation and use of the temporary equipment.

VII.B.9.2 All temporary equipment shall be designed and equipped to: ensure it will fulfill its intended functions without failure or release; perform equivalently to the equipment it is temporarily replacing to prevent performance upsets, releases of hazardous waste, fire or explosion; not jeopardize the safety of personnel, surrounding equipment or the environment; be compatible with the waste; and withstand environmental conditions at the Facility.

VII.B.9.3 Temporary equipment shall be utilized on a temporary basis and shall not be used as a permanent part of the hazardous waste management unit or system, and shall not be considered a completed repair. Temporary equipment shall not remain in use longer than the timeframe allowed in the leak repair standard for the original equipment type, unless the standards of **40 CFR Part 264.1059**, have been met.

VII.B.9.4 Preventative maintenance activities shall be treated as a potential leak for purposes of the standards, monitoring and recordkeeping requirements of **40 CFR Part 264 – Subpart BB**.

VII.C AIR EMISSION STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, CONTAINERS AND MISCELLANEOUS UNITS

VII.C.1 40 CFR Part 264 – Subpart CC contains air emissions standards for hazardous waste surface impoundments, tanks, miscellaneous units, and containers that contact hazardous waste containing an average volatile organic concentration greater than 500 parts per million (ppm) by weight at the point of waste origination, as determined by the procedures outlined in **40 CFR Part 264.1083**, except as excluded by **40 CFR Part 264.1080(b)** or specifically exempted by **40 CFR Part 264.1082(c)**. In addition to the hazardous waste management units mentioned above, the requirements of **40 CFR Part 264 – Subpart CC** also apply to their covers, closure devices, and control devices.

The Permittee has four (4) tanks and three (3) container storage areas that are subject to **Subpart CC** requirements and are listed in Table VII.4 below.

Table VII.4					
Hazardous Waste Management Unit	Brief Unit Description	Brief Waste Description (EPA Waste Code)	Unit Type	Location	Control Device and/or Control Level
Tank No. 64140	“South Tank” holding up to 27,900 gallons (working vol.) of hazardous waste	Ignitable MMA Stillbottoms (D001, D007)	40 C.F.R. Part 264 – Subpart J Tank System	VIII.B (Figure B-1)	Level 1, Fixed roof free of cracks, holes, gaps
Tank No. 64141	“North Tank” holding up to 27,900 gallons (working vol.) of hazardous waste	Ignitable MMA Stillbottoms (D001, D007)	40 C.F.R. Part 264 – Subpart J Tank System	VIII.B (Figure B-1)	Level 1, Fixed roof free of cracks, holes, gaps
Tank No. 64250	“Day Tank” holding up to 9,000 gallons (working vol.) of	Non-Halogenated Solvents, Ignitable Hazardous Waste,	40 C.F.R. Part 264 – Subpart J Tank System	VIII.B (Figure B-1)	Level 1, Fixed roof free of cracks, holes, gaps

Table VII.4					
Hazardous Waste Management Unit	Brief Unit Description	Brief Waste Description (EPA Waste Code)	Unit Type	Location	Control Device and/or Control Level
	liquid hazardous waste from the KAC Process	Ignitable Waste Resin Solutions, and Waste Monomers (D001, D002, D018 D035, F003, F005, D035)			
Tank No. 14525	"90-Day Tank" holding up to 5,500 gallons of hazardous waste	Ignitable Hazardous Waste, Ignitable Non-Hazardous Waste, Ignitable Waste Resin Solutions, and Waste Monomers (D001, D002, D018, D035, F003, F005)	90-day, hazardous waste storage tank, not subject to 40 C.F.R. Part 264 – Subpart J Tank System	VIII.B (Figure B-1)	Level 1, Fixed roof free of cracks, holes, gaps
Container Storage Area	90-day, Hazardous Waste Container Storage Area	VIII.O, Appendix O (Table App-O-1-2)	90-day, Hazardous Waste Container Storage, not subject to 40 C.F.R. Part 264 – Subpart I Container Storage	VIII.B (Figure B-1)	Level 1, meeting applicable US DOT regulations under the Container Level 1 standards, or are equipped with a cover and closure device which form a continuous barrier over container openings
Rail Car Loading/Unloading Area	90-day, Hazardous Waste Container Storage Area	VIII.O, Appendix O (Table App-O-1-2)	90-day, Hazardous Waste Container Storage, not subject to 40 C.F.R. Part 264 – Subpart I Container Storage	VIII.B (Figure B-1)	Level 2, meeting applicable US DOT regulations under the Container Level 2 standards, or have been demonstrated in the preceding 12 months to be vapor-tight using 40 CFR Part 60, App. A, Method 27
Tanker Loading/Unloading Area	90-day, Hazardous Waste Container Storage Area	VIII.O, Appendix O (Table App-O-1-2)	90-day, Hazardous Waste Container Storage, not subject to 40 C.F.R. Part 264 – Subpart I Container Storage	VIII.B (Figure B-1)	Level 2, meeting applicable US DOT regulations under the Container Level 2 standards, or have been demonstrated in the preceding 12 months to be vapor-tight using 40 CFR Part 60, App. A, Method 27
See VIII.D (App. D-2 Tank Design Drawings and App. D-4 Tank Piping and Instrumentation Drawings) for facility drawing showing the locations of the affected equipment.					
Components are identified in VIII.O (Appendix N, Tables APP-O-1-1 APP-O-1-2).					

VII.C.2 Notification of Modifications, Additions, or New Units

Prior to installing or operating a tank, container, surface impoundment, miscellaneous unit, closed vent system, or control device subject to **40 CFR Part 264 – Subpart CC**, or modifying any existing unit, equipment, procedure, or process such that the unit(s) or equipment will become subject to **40 CFR Part 264 – Subpart CC**, the Permittee shall apply for a permit modification in accordance with Permit

Condition II.B.1 and Permit Condition II.B.4.

VII.C.3 Excluded Units [40 CFR Part 264.1080(b)]

VII.C.3.1 Pursuant to **40 CFR Part 264.1080(b)(2)**, containers with a design capacity of less than or equal to 0.1 m³ are excluded from the requirements of **40 CFR Part 264 – Subpart CC**.

VII.C.3.2 The Permittee currently does not have any hazardous waste management units which are excluded from the 40 C.F.R. Part 264 – Subpart CC standards.

VII.C.4 Exempted Units [40 CFR Part 264.1082(c)]

Pursuant to **40 CFR Part 264.1082(c)(2)(viii)**, **containers of hazardous waste that have had the organic content of the waste reduced by treatment in a permitted BIF Unit** are exempted from the standards specified in **40 CFR Part 264.1084** through **1087**.

VII.C.5 Waste Determination Procedures [40 CFR Part 264.1083]

VII.C.5.1 The Permittee must follow the waste determination procedures of **40 CFR Part 264.1083** and Attachment C, Waste Analysis Plan, of the Approved Permit Application.

VII.C.5.2 The Permittee must conduct an annual re-characterization of the hazardous waste managed at the Facility at least once every twelve (12) months pursuant to Attachment C, Waste Characteristics, of the Approved Permit Application.

VII.C.6 Standards: General [40 CFR Part 264.1082]

Each unit subject to **40 CFR Part 264 – Subpart CC** shall comply with the appropriate standard applicable to the hazardous waste management unit.

VII.C.7 Standards: Tanks [40 CFR Part 264.1084]

VII.C.7.1 The Permittee shall control air pollutant emissions from Tanks 64140, 64141, 64250, and 14525 in accordance with the Tank Level 1 controls specified in **40 CFR Part 264.1084(c)**.

VII.C.7.2 The Permittee shall transfer hazardous waste to a tank subject to **40 CFR Part 264.1084** in accordance with the requirements in **40 CFR 264.1084(j)(1)** and **(j)(2)**.

VII.C.7.3 The Permittee shall repair each defect detected during an inspection in accordance with the requirements in **40 CFR Part 264.1084(k)(1)** and **(k)(2)**.

VII.C.7.4 Following the initial inspection and monitoring of the cover as required by the applicable requirements in **40 CFR 264 – Subpart CC**, subsequent inspection and monitoring may be performed at intervals longer than 1 year under the following special conditions specified in **40 CFR Part 264.1084(l)(1)** and **(l)(2)**.

VII.C.8 Standards: Surface Impoundments [40 CFR Part 264.1085]

[Reserved]

VII.C.9 Standards: Containers [40 CFR Part 264.1086]

VII.C.9.1 For a container having a design capacity greater than 0.1 m³ and less than or equal to 0.46 m³, the Permittee shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in **40 CFR Part 264.1086(c)**.

VII.C.9.1.1 To comply with **40 CFR Part 264.1086(c)(1)(i)**, containers shall be used that meet the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation in accordance with **40 CFR Part 264.1086(f)(1)** through **(f)(4)**.

VII.C.9.1 For a container having a design capacity greater than 0.46 m³ that is not in light material service, the Permittee shall control air pollutant emissions from the container in accordance with the Container Level 1 standards specified in **40 CFR Part 264.1086(c)**.

VII.C.9.1.1 To comply with **40 CFR Part 264.1086(c)(1)(i)**, containers shall be used that meet the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation in accordance with **40 CFR Part 264.1086(f)(1)** through **(f)(4)**.

VII.C.9.1 For a container having a design capacity greater than 0.46 m³ that is in light material service, the Permittee shall control air pollutant emissions from the container in accordance with the Container Level 2 standards specified in **40 CFR Part 264.1086(d)**.

VII.C.9.1.1 To comply with **40 CFR Part 264.1086(d)(1)(i)**, containers shall be used that meet the applicable U.S. Department of Transportation (DOT) regulations on packaging hazardous materials for transportation in accordance with **40 CFR Part 264.1086(f)(1)** through **(f)(4)**.

VII.C.9.1.2 To determine compliance with the no detectable organic emissions requirement of **40 CFR Part 264.1086(d)(1)(ii)**, the procedure specified in **40 CFR Part 264.1083(d)** shall be used and in accordance with **40 CFR Part 264.1086(g)(1)** and **(g)(2)**.

VII.C.9.2 The Permittee shall follow the procedure specified in **40 CFR Part 264.1086(h)** in determining a container to be vapor-tight.

VII.C.10 Standards: Closed-vent systems and control devices [40 CFR Part 264.1087]

[Reserved]

VII.C.11 Inspection and Monitoring Requirements [40 CFR Part 264.1088]

VII.C.11.1 The Permittee shall comply with the inspection and monitoring requirements of **40 CFR Part 264.1088**, this Permit, and Attachment F, Procedures to Prevent Hazards, of the Approved Permit Application.

VII.C.11.2 All inspections and monitoring must be conducted at times when the hazardous waste management unit or equipment is in operation, and by qualified persons with the appropriate training.

VII.C.12 Recordkeeping Requirements [40 CFR Part 264.1089]

VII.C.12.1 Records demonstrating compliance with **40 CFR Part 264 – Subpart CC**, including any third party's records, shall be maintained, accessible at the Facility or other appropriate location approved by the Division, for a period of not less than three (3) years. All records necessary for demonstrating compliance shall include, at a minimum, the required recordkeeping information in **40 CFR Part 264.1089** and this Permit.

VII.C.12.2 These records shall include but are not limited to the:

VII.C.12.2.1 Current list of regulated hazardous waste management units and their unique identification number, covers, closure and control devices and their physical location at the Facility as illustrated on a P&ID and/or Facility Map;

VII.C.12.2.2 All associated operating information, specifications, and standards for each hazardous waste management unit;

VII.C.12.2.3 Annual waste determinations;

VII.C.12.2.4 All maintenance, inspection, leak detection and repair records associated with each hazardous waste management unit; and

VII.C.12.2.5 Training documentation for persons conducting inspections or monitoring.

VII.C.12.3 Records justifying covers designated as unsafe to inspect or monitor shall comply with **40 CFR Part 264.1084(l)** or **264.1085(g)**, be kept at the Facility or other appropriate location approved by the Division, be available for inspection at reasonable times, and demonstrate compliance with the requirements of **40 CFR Part 264.1089(g)**.

VII.C.13 Reporting Requirements [40 CFR Part 264.1090]

VII.C.13.1 In accordance with **40 CFR Part 264.1090(a)** and **(b)**, the Permittee shall prepare and submit a report within fifteen (15) calendar days to the Division documenting each occurrence of noncompliance.

VII.C.13.2 In accordance with **40 CFR Part 264.1090(c)**, the Permittee shall submit a report semiannually to the Division documenting, for control devices operating in accordance with **40 CFR Part 264.1087**, each instance where the control device could not be returned to compliance within twenty-four (24) hours and the actions taken to correct the noncompliance.

VII.C.13.3 A report to the Division in accordance with Permit Condition VII.C.13.2 is not required for a 6-month period during which all control devices subject to **40 CFR Part 264 - Subpart CC** are operated by the Permittee such that:

VII.C.13.3.1 During no period of 24 hours or longer did a control device operate continuously in noncompliance with the applicable operating values defined in **40 CFR Part 264.1035(c)(4)**; and

VII.C.13.3.2 No flare was operated with visible emissions for 5 minutes or longer in a two-hour period, as defined in **40 CFR Part 264.1033(d)**.

VII.C.13.4 The semiannual report shall be submitted by January 31st and July 31st of each calendar year to the Division at the address specified in Permit Condition II.B.2.2.

PART VIII REFERENCED ATTACHMENTS & APPENDICES

PART VIII
REFERENCED ATTACHMENTS AND APPENDICES
(Available In Volume 2 & 3 of the Hazardous Waste Management Permit)

The terms and conditions of this Permit are applicable to Rohm and Haas Chemicals LLC – Louisville Plant under Title 401 KAR Chapters 39 and 40, of the Hazardous Waste Management Regulations of the Kentucky Administrative Regulations (KARs).

The Code of Federal Regulations (CFRs) cited in this Permit shall be as established in 401 KAR Chapter 39.

Attachments A through L are located in the approved RCRA Part B Permit application, most recently revised on April 10, 2020.

VIII.A	Attachment A:	Part A Permit Application
VIII.B	Attachment B:	Facility Description
VIII.C	Attachment C:	Waste Characteristics
VIII.D	Attachment D:	Process Information
VIII.E	Attachment E:	Groundwater Monitoring and Corrective Action
VIII.F	Attachment F:	Procedures to Prevent Hazards
VIII.G	Attachment G:	Contingency Plan
VIII.H	Attachment H:	Personnel Training
VIII.I	Attachment I:	Closure Plans, Post-Closure Plans, and Financial Requirements
VIII.J	Attachment J:	Other Federal Laws
VIII.K	Attachment K:	Waste Minimization Plan
VIII.L	Attachment L:	Signature Certification
VIII.M	Attachment M:	Air Emission Standards for Process Vents (Subpart AA)
VIII.N	Attachment N:	Air Emission Standards for Process Vents (Subpart BB)
VIII.O	Attachment O:	Air Emission Standards for Process Vents (Subpart CC)

VIII.AA Appendix 1:	SWMUs and AOCs	
VIII.BB Appendix 2:	RCRA Facility Investigation (RFI) – Work Plan Outline	[Reserved]
VIII.CC Appendix 3:	Corrective Measure Study (CMS) Outline	[Reserved]
VIII.DD Appendix 4:	Corrective Action Schedule of Compliance	[Reserved]
VIII.EE Appendix 5:	Land Use Control Management Plan (LUCMP)	
VIII.FF Appendix 6:	Screening Levels	
VIII.GG Appendix 7:	Long Term Monitoring Plan	

APPENDIX 1 SWMU AND AOC STATUS SUMMARY TABLE

SWMU or AOC No.	SWMU or AOC Name	Unit Comment	Dates of Operation	Date of Letter Confirming No Further Action	Engineering or Institutional Controls
1	Former South Sludge Disposal Area	Disposal Area	Late 1960s - 1981	6/6/2019	
2	Former Compositing Ponds (2)	Disposal Area	1961 – 1987	2/19/2013	
3	Former North Sludge Disposal Area	Disposal Area	1967		Site Management Plan, Engineering Control
4	Chemical Sewers	Wastewater Transfer Unit	1961 - Present	3/28/2012	
5	Chemical Sewers Oil /Water Separator	Treatment Unit	1987 - Present	3/28/2012	
6	Chemical Sewers Surge Tank	Treatment Unit	1987 - Present	3/28/2012	
7	Former Tank No. 58304 Sludge Disposal Area	Disposal Area	1977	3/28/2012	
8	Former Liquid Waste Fuel Storage Tank No. 58304	Storage Tank	Early 1970s - 1986	3/28/2012	
9	Lift Pump Station	Wastewater Transfer Unit	1963 - Present	4/14/2011	
10	Buried Railroad Tank Car	Disposal Unit	1979 - Present	3/28/2012	
11	Former Acrylamide Burial Site	Disposal Unit	1972 - Present	3/28/2012	
12	Crushed Acrylamide Sheet Burial Site	Disposal Unit	1974 - 1981	3/28/2012	
13	Former Lead Waste Container Accumulation Area	Disposal Unit	Mid 1970s - 1986	3/28/2012	
14	Former Waste Fuel Storage Tanks	Storage Unit	1970s - 1982	3/28/2012	

APPENDIX 1 SWMU AND AOC STATUS SUMMARY TABLE

SWMU or AOC No.	SWMU or AOC Name	Unit Comment	Dates of Operation	Date of Letter Confirming No Further Action	Engineering or Institutional Controls
15	Former Hazardous Waste Container Storage Pad	Storage Unit	1982 – Unknown (Upgraded and renamed as SWMU 16 prior to 2002)	3/28/2012	
16	Former Hazardous Waste Container Storage Pad	Storage Unit	1982 – 2019	3/28/2012	Closed per RCRA closure plan, 2019
17	KB Oil /Water Separator	Treatment Unit	1966 - Present	2/19/2013	
18	KAC Oil /Water Separator	Treatment Unit	1971 - Present	4/14/2011	
19	Boiler Area Oil /Water Separator	Treatment Unit	1960s – Unknown ¹	4/14/2011	
20	KI Oil /Water Separator 2	Treatment Unit	1970 - Unknown ¹	4/14/2011	
21	KM Oil /Water Separator	Treatment Unit	1966 - Unknown ¹	4/14/2011	
22	KV-3 Oil /Water Separator	Treatment Unit	1985 - Unknown ¹	3/28/2012	
23	KU / KV Areas Whitewater Treatment System	Treatment Unit	1967 - Present	3/28/2012	
24 – 25	KB and KAC Satellite Accumulation Areas	Satellite Accumulation Area	1987 - Present	3/28/2012	
26	Laboratory Satellite Accumulation Area	Satellite Accumulation Area	1980 - Present	3/28/2012	
27	Power Plant Satellite Accumulation Area	Satellite Accumulation Area	1962 - Present	3/28/2012	
28	KU Satellite Accumulation Area	Satellite Accumulation Area	1982 - Unknown ¹	3/28/2012	
29	KV-3 Satellite Accumulation Area	Satellite Accumulation Area	1986 - Unknown ¹	3/28/2012	

APPENDIX 1 SWMU AND AOC STATUS SUMMARY TABLE

SWMU or AOC No.	SWMU or AOC Name	Unit Comment	Dates of Operation	Date of Letter Confirming No Further Action	Engineering or Institutional Controls
30	KM Satellite Accumulation Area	Satellite Accumulation Area	1968 - Present	3/28/2012	
31	Liquid Waste Accumulation Tank 14660	Storage Tank	1976 - Unknown ¹	3/28/2012	
36	Miscellaneous Boiler Feed Tank	Storage/Accumulation Unit	1988 - Unknown ¹	3/28/2012	
37	Former Burial Basins (2)	Disposal Unit	Mid 1970s – 1980	2/19/2013	
38	Former KAC Sludge Basins (2)	Treatment / Disposal Unit	Mid 1970s – 1980	4/14/2011	
39	Former South Fly Ash Pond	Disposal Unit	1954 - 1956	3/28/2012	
40	Former North Fly Ash Pond	Disposal Unit	1940s – late 1960s	3/28/2012	
41	Fly Ash /Whitewater Pond	Disposal Unit (Closed and Capped)	1969 - Unknown ¹		Site Management Plan Engineering and Institutional Controls
42	Boiler Area Tank Trailer Pad	Storage Unit	1984 – Present	3/28/2012	
43	Boiler Area Railcar Pads	Waste Fuel Transfer Unit	1960 – Present	3/28/2012	
44	Former Ion Exchange Resin Disposal Area	Disposal Area	One-time event in mid-1970s	3/28/2012	
45	Railcar Product Loading Area	Product Transfer/Storage Unit	1964 – Present	4/14/2011	
46	Coal Pile/Waste Oil Disposal Area	Storage Unit/Disposal Unit	1960 – 1970	2/19/2013	
47	Lab Samples Disposal Area	Disposal Unit	1971–Mid 1990s	3/28/2012	

APPENDIX 1 SWMU AND AOC STATUS SUMMARY TABLE

SWMU or AOC No.	SWMU or AOC Name	Unit Comment	Dates of Operation	Date of Letter Confirming No Further Action	Engineering or Institutional Controls
48	Former Carbide Site Disposal Area	Storage Unit	Early 1950s	3/28/2012	
49	Former KU / KV Waste Drum Container Storage Area	Storage Unit	1973 - 1986	3/28/2012	
50	Former Leaking Underground Fuel Storage Tank Area	Storage Unit	1965 - 1985		Site Management Plan Engineering and Institutional Controls
51	Former Catalyst Disposal Area	Disposal Unit	1966–Mid 1970s	3/28/2012	
52	Steam Boiler Dust Collectors (3)	Treatment Unit	Mid 1960s - Unknown ¹	3/28/2012	
53	Polymer Burning Facility	Treatment Unit	Mid 1960s - Unknown ¹	3/28/2012	
54 – 57	KV-3, KV-2, KU, and KAC Area Venturi Scrubber Systems	Treatment Units	1960s - Unknown ¹	3/28/2012	
58	KM Area Venturi Scrubber System	Treatment Unit (Status Unknown, Equipment Sold)	1960s - Unknown	3/28/2012	
59	KB Area Venturi Scrubber System	Treatment Unit	1960's - Unknown ¹	3/28/2012	
60	KI Packed Tower Scrubber System	Treatment Unit (Status Unknown, Equipment Sold)	1989 - Unknown	3/28/2012	
61	KAC Twin Cyclones	Treatment Unit	Mid 1960s - Present	3/28/2012	
62	KAC Baghouse for Twin Cyclones	Treatment Unit	Mid 1960s - Present	3/28/2012	
63	KAC Two-Cyclones Baghouse System	Treatment Unit	Mid 1960s - Present	3/28/2012	

APPENDIX 1 SWMU AND AOC STATUS SUMMARY TABLE

SWMU or AOC No.	SWMU or AOC Name	Unit Comment	Dates of Operation	Date of Letter Confirming No Further Action	Engineering or Institutional Controls
64	KM Roto-Clone Collector	Treatment Unit (Status Unknown, Equipment Sold)	Mid 1960s - Unknown	3/28/2012	
65	KI Bag Filters (2)	Treatment Unit	1989 - Unknown ¹	3/28/2012	
66	KV-2 Flow Aid System Dust Collectors	Treatment Unit	Mid 1960s - Present	3/28/2012	
67	KV-1 Housekeeping Dust Collector	Treatment Unit	Mid 1960s - 2013	3/28/2012	
68	KV-2 Housekeeping Dust Collector	Treatment Unit	Mid 1960s - Present	3/28/2012	
69	KV-3 Housekeeping Dust Collector	Treatment Unit	1985 – 2010	3/28/2012	
70	KVPA Housekeeping Dust Collector	Treatment Unit	1994 - Present	3/28/2012	
71	KM Housekeeping Dust Collector	Treatment Unit (Status Unknown, Equipment Sold)	Mid 1960s - Unknown	3/28/2012	
72	KI Housekeeping Dust Collector	Treatment Unit (Status Unknown, Equipment Sold)	1989 - Unknown	3/28/2012	
73 – 74	Maintenance Shop / Bldg. 67 and Bldg. 60 (Formerly KV-1) Parts Washers	Parts Cleaning	1970s - Present	3/28/2012	
75 – 78	KAC / KB, KV-2, KV-3, and KU Parts Washers	Parts Cleaning	1970s - Unknown ¹	3/28/2012	

APPENDIX 1 SWMU AND AOC STATUS SUMMARY TABLE

SWMU or AOC No.	SWMU or AOC Name	Unit Comment	Dates of Operation	Date of Letter Confirming No Further Action	Engineering or Institutional Controls
79	KI Satellite Accumulation Area	Satellite Accumulation Area	1989 - Unknown ¹	3/28/2012	
80	Waste Boilers (Coal Fired)	Treatment Unit	1940s – Late 1990s	3/28/2012	
A	7,250 Gallons MMA Spill at KB Unit Rail Loading Area	Spill	January 23, 1987	3/28/2012	
B	969 Gallons MMA Spill at KB Unit Truck Loading Area	Spill	August 19, 1987	3/28/2012	
C	150 Gallons Solvent Spill at KAC Unit	Spill	July 17, 1986	3/28/2012	
D	3,000 lbs Solvent Tank Spill at KAC Unit	Spill	June 5, 1986	3/28/2012	
E	1,000 lbs MMA Spill at KB Unit	Spill	April 15, 1996	3/28/2012	
F	300 Gallons Ethyl Acrylate Spill at Storage Tank Area	Spill	November 15, 1985	3/28/2012	
G	Stained Soils Near KV-2 Flow Aid Tank	Release	Unknown – Discovered December 8, 2004	2/19/2013	
H	Waste Material Beneath Arkema Parking Lot	Disposal	Unknown – Discovered July 23, 2004		Environmental Covenant
I	Buried Wooden Pipe	Transfer Pipe	Unknown – Discovered June 23, 2009	2/19/2013	

APPENDIX 1 SWMU AND AOC STATUS SUMMARY TABLE

SWMU or AOC No.	SWMU or AOC Name	Unit Comment	Dates of Operation	Date of Letter Confirming No Further Action	Engineering or Institutional Controls
J	Laydown Yard / EPA Features 4b and 17a	Storage / Container Area	1951 - Present		Site Management Plan, Engineering and Institutional Controls
K	Aerial Photo Features 5e, 7e, and 9e (Location G)	Historic Storage	Unknown ²		Site Management Plan, Engineering and Institutional Controls
L	Aerial Photo Feature 12r (Location P)	Historic Activity – Storage/Stains	Unknown ²		Site Management Plan, Engineering and Institutional Controls
M	Aerial Photo Feature 15b (Location S)	Historic Activity – Pit	Unknown ²		Site Management Plan, Engineering and Institutional Controls
N	Aerial Photo Features in the Vicinity of SWMUs 15 / 16	Historic Activity	Unknown ²	6/6/2019	
O	Former Building 59	Historic Activity – Storage	Unknown –Discovered May 2011		Site Management Plan, Engineering and Institutional Controls
P	Site-Wide Groundwater	Site-Wide Monitoring Network	Not Applicable		Site Management Plan, Engineering and Institutional Controls
32	Liquid Waste Accumulation Tank No. 14525	Active	Unknown - Present	Listed as NFA on June 27, 1994 RFA	

APPENDIX 1 SWMU AND AOC STATUS SUMMARY TABLE

SWMU or AOC No.	SWMU or AOC Name	Unit Comment	Dates of Operation	Date of Letter Confirming No Further Action	Engineering or Institutional Controls
33	Boiler Feed Tank No. 64140	Active	Unknown – Present	Listed as NFA on June 27, 1994 RFA	
34	Boiler Feed Tank No. 64141	Active	Unknown – Present	Listed as NFA on June 27, 1994 RFA	
35	Boiler Feed Tank No. 64250	Active	Unknown – Present	Listed as NFA on June 27, 1994 RFA	
81	Gas-Fired Waste Boiler ³	Active	Unknown – Present		

¹ Operations at these units were terminated prior to October 2012

² Operations at these units were terminated prior to February 2005.

³ No documentation discovered

APPENDIX 2	RCRA FACILITY INVESTIGATION (RFI) – WORK PLAN OUTLINE	[RESERVED]
APPENDIX 3	CORRECTIVE MEASURE STUDY (CMS) OUTLINE	[RESERVED]
APPENDIX 4	CORRECTIVE ACTION SCHEDULE OF COMPLIANCE	[RESERVED]
APPENDIX 5	LAND USE CONTROL MANAGEMENT PLAN (LUCMP)	
APPENDIX 6	SCREENING LEVELS	
APPENDIX 7	LONG TERM MONITORING PLAN	