



Ohio Hazardous Waste Facility Installation and Operation Permit Renewal

Division of Environmental Response and Revitalization

Permittee: Heritage Thermal Services, Inc. U.S. EPA ID: OHD980613541

Facility Name: Heritage Thermal Services, Inc.

Mailing Address: 1250 Saint George Street

City: East Liverpool State: OH Zip: 43920—3400

Facility Street Address: 1250 Saint George Street

City: East Liverpool State: OH Zip: 43920—3400

Operator Name: Heritage Thermal Services, Inc.

Mailing Address: 1250 Saint George Street

City: East Liverpool State: OH Zip: 43920—3400

Owner Name: Heritage Thermal Services, Inc.

Mailing Address: 1250 Saint George Street

City: East Liverpool State: OH Zip: 43920—3400

Authorized Activities

In reference to the application of Heritage Thermal Services, Inc. for an Ohio Hazardous Waste Facility Installation and Operation Renewal Permit under Ohio Revised Code (ORC) Chapter 3734 and the record in this matter, you are authorized to conduct at the above-named facility the following hazardous waste management activities:

- Incineration of waste
- Storage in containers and tanks
- Treatment in containers, tanks, and miscellaneous units
- Corrective Action

Permit Approval

Entered into the Journal of the Director on:

[Click here to enter a date.](#)

Date:

Craig W. Butler, Director
Ohio Environmental Protection Agency

This permit approval is based upon the record in this matter which is maintained at the offices of the Ohio Environmental Protection Agency. The Director has considered the application, accompanying information, inspection reports of the facility, a report regarding the facility's compliance or noncompliance with the terms and conditions of its permit and rules adopted by the Director under this chapter, and such other information as is relevant to the operation of the facility. The Director has determined that the facility under the existing permit has a history of compliance with ORC Chapter 3734, rules adopted under it, the existing permit, or orders entered to enforce such requirements that demonstrate sufficient reliability, expertise, and competency to operate the facility henceforth under this chapter, rules adopted under it, and the renewal permit.

MODULE A - GENERAL PERMIT CONDITIONS

A. GENERAL PERMIT CONDITIONS

A.1 Effect of Permit

ORC Sections 3734.02 (E) and (F) and 3734.05
OAC Rule 3745-50-58(G)

- (a) The Permittee is authorized to store hazardous waste in containers and tanks; and to treat hazardous waste in containers and in tanks and in miscellaneous units; and to treat hazardous waste by incineration in accordance with the terms and conditions of this Ohio hazardous waste permit (hereinafter "permit"), ORC Chapter 3734, all applicable Ohio hazardous waste rules, all applicable regulations promulgated under the Resource Conservation and Recovery Act (RCRA), as amended, and the permit application. The permit application, as submitted to Ohio EPA on September 23, 2014 and last updated on June 5, 2015, is hereby incorporated into this permit. In the instance of inconsistent language or discrepancies between the above, the language of the more stringent provision shall govern.
- (b) Any management of hazardous waste not authorized by this permit is prohibited, unless otherwise expressly authorized or specifically exempted by law. 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, or invasion of other private rights. Compliance with the terms and conditions of this permit does not obviate Permittee's obligation to comply with other applicable provisions of law governing protection of public health or the environment including but not limited to the Community Right-to-Know law under ORC Chapter 3750.

A.2 Permit Actions

OAC Rule 3745-50-58(F)

This permit may be modified or revoked as specified by Ohio law. The filing of a request by the Permittee for a permit modification, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay any permit term or condition.

A.3 Permit Effective/Expiration Date

OAC Rule 3745-50-54

The effective date of this permit is the date the permit is entered into the Director's Journal. The permit expiration date is ten years after the effective date.

A.4 Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

A.5 Duty to Comply

OAC Rule 3745-50-58(A)

The Permittee must comply with all applicable provisions of ORC Chapter 3734, all applicable Ohio hazardous waste rules, and all terms and conditions of this permit, except to the extent and for the duration such noncompliance is authorized by the laws of the State of Ohio. Any permit noncompliance, other than noncompliance authorized by the laws of the State of Ohio, constitutes a violation of ORC Chapter 3734 and is grounds for enforcement action, revocation, modification, denial of a permit renewal application or other appropriate action.

A.6 Duty to Reapply and Permit Expiration

OAC Rules 3745-50-40(D), 3745-50-58(B), 3745-50-56 and ORC Section 3734.05(H)

- (a) If the Permittee wishes to continue an activity allowed by this permit after the expiration date of this permit, the Permittee must submit a completed permit application for a hazardous waste facility installation and operation permit renewal and any necessary accompanying general plans, detailed plans, specifications, and such information as the Director may require, to the Director no later than one hundred eighty (180) days prior to the expiration date of this permit, unless a later submittal date has been authorized by the Director upon a showing of good cause.
- (b) The Permittee may continue to operate in accordance with the terms and conditions of the expired permit until a renewal permit is issued or denied if:
 - (i) The Permittee has submitted a timely and complete permit application for a renewal permit under OAC Rule 3745-50-40; and
 - (ii) Through no fault of the Permittee, a new permit has not been issued pursuant to OAC Rule 3745-50-40 on or before the expiration date of this permit.

- (c) 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 conditions of this permit regardless of the operational status of the facility. The Permittee must submit an application for permit renewal at least 180 days before the expiration date of this permit pursuant to OAC Rule 3745-50-40(D) unless: a) the permit has been modified to terminate the Corrective Action schedule of compliance and the Permittee has been released from the requirements for financial assurance for Corrective Action; or b) a later submittal date has been authorized by the Director.

A.7 Need to Halt or Reduce Activity Not a Defense
OAC Rule 3745-50-58(C)

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce a permitted activity in order to maintain compliance with the conditions of this permit.

A.8 Duty to Mitigate
OAC Rule 3745-50-58(D)

The Permittee must take all reasonable steps to minimize releases to the environment and must carry out such measures as are reasonable to prevent significant adverse impact on human health or the environment resulting from noncompliance with this permit.

A.9 Proper Operation and Maintenance
OAC Rule 3745-50-58(E)

The Permittee must at all times properly operate and maintain the facility (and related appurtenances) to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective management practices, adequate funding, adequate operator staffing and training, and where appropriate, adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the terms and conditions of this permit.

A.10 Duty to Provide Information
OAC Rule 3745-50-58(H)

The Permittee must furnish to the Director, within a reasonable time, any relevant information which the Director may request to determine whether cause exists for modifying or revoking, or to determine compliance with, this permit. The Permittee must also furnish to the Director, upon request, copies of records required to be kept by this permit.

A.11 Inspection and Entry

OAC Rules 3745-50-58(I), 3745-49-03 and 3745-50-30, and ORC Section 3734.07

- (a) The Permittee must allow the Director, or an authorized representative, upon stating the purpose and necessity of the inspection and upon proper identification, to:
 - (i) Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the terms and conditions of this permit;
 - (ii) Have access to and copy, at reasonable times, any records required to be kept under the terms and conditions of this permit;
 - (iii) Inspect and photograph at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the terms and conditions of this permit; and
 - (iv) Sample, document, or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by ORC Chapter 3734 and the rules adopted thereunder, any substances or parameter at any location.
- (b) Any record, report or other information obtained under the hazardous waste rules or Chapter 3734 of the Revised Code shall not be available to the public upon the Permittee's timely submittal of a trade secret claim and satisfactory showing to Ohio EPA that all or part of the information would divulge methods or processes entitled to protection as trade secrets pursuant to Ohio Trade Secret Law and OAC Rules 3745-49-03 and 3745-50-30.

A.12 Monitoring and Records

OAC Rule 3745-50-58(J)

- (a) Any sample and measurement taken for the purpose of monitoring must be representative of the monitored activity. Further, a sample must be a representative sample, as such term is defined and used in the Ohio hazardous waste rules. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from the appendix of OAC Rule 3745-51-20, Representative Sampling Methods, or an equivalent method approved by Ohio EPA. Laboratory methods must be those specified in Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods, EPA Publication SW-846, Third Edition (November 1986), as amended by Updates I (dated July 1992), II (dated September 1994), IIA (dated August 1993), IIB (dated January 1995), III (dated December 1996) and IIIA (dated April 1998), and additional supplements or editions thereof; Standard Methods for the Examination of Water and Wastewater: Twentieth Edition, 1999; or an equivalent method as specified in the approved waste analysis plan, or as this term is defined and used in the Ohio hazardous waste rules.

(b) Records of monitoring information must specify the:

- (i) Date(s), exact place(s), and time(s) of sampling or measurements;
- (ii) Individual(s) who performed the sampling or measurements;
- (iii) Date(s) analyses were performed;
- (iv) Individual(s) who performed the analyses;
- (v) Analytical technique(s) or method(s) used; and
- (vi) Results of such analyses.

A.13 Signatory Requirement and Certification of Records
OAC Rules 3745-50-58(K) and 3745-50-42

All applications, reports or information must be properly signed and certified in accordance with OAC Rule 3745-50-58(K).

A.14 Retention of Records and Information Repository
OAC Rules 3745-50-40(G), 3745-50-58(J), 3745-50-58(M) and 3745-50-58(N)

- (a) The Permittee must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, the certification required by OAC Rule 3745-54-73(B)(9), and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report, certification, or application.
- (b) The record retention period may be extended by request of the Director at any time and is automatically extended during the course of any unresolved enforcement action regarding the facility.
- (c) The Permittee must maintain, in accordance with the Ohio hazardous waste rules, records of all data used to complete the permit application and any amendments, supplements or modifications of such application. The Permittee must retain a complete copy of the current application for the effective life of the permit as indicated in Permit Condition A.3..
- (d) The Permittee must maintain records from all 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.
- (e) Reserved.

- (f) Corrective Action records must be maintained at least three (3) years after all Corrective Action activities have been completed.

A.15 Planned Changes

OAC Rules 3745-50-51 and 3745-50-58(L)(1)

The Permittee must give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. All such changes must be made in accordance with OAC Rule 3745-50-51.

A.16 Waste Shipments

OAC Rules 3745-52-12 and 3745-53-11, ORC Section 3734.15(C)

The Permittee must only use properly registered transporters of hazardous waste to remove hazardous waste from the facility, in accordance with all applicable laws and rules.

A.17 Anticipated Noncompliance

OAC Rule 3745-50-58(L)(2)

The Permittee must give advance notice to the Director of any planned changes in the permitted facility or operations which may result in noncompliance with the terms and conditions of this permit. Such notification does not waive the Permittee's duty to comply with this permit pursuant to Permit Condition A.5.

A.18 Transfer of Permits

OAC Rules 3745-50-52, 3745-50-58(L)(3) and 3745-54-12

- (a) The permit may be transferred to a new owner or operator only if such transfer is conducted in accordance with ORC Chapter 3734 and the rules adopted thereunder. This permit may be transferred by the Permittee to a new owner or operator only if the permit has been modified under OAC Rule 3745-50-51. Before transferring ownership or operation of the facility, the Permittee must notify the new owner or operator in writing of the requirements of ORC Chapter 3734 and the rules adopted thereunder (including all applicable Corrective Action requirements).
- (b) The Permittee's failure to notify the new owner or operator of the requirements of the applicable Ohio law or hazardous waste rules does not relieve the new owner or operator of its obligation to comply with all applicable requirements.

A.19 Compliance Reports

OAC Rules 3745-50-58(L)(5) and 3745-50-50

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule (developed in accordance with OAC Rule 3745-50-50) of this permit must be submitted to the Director no later than fourteen (14) days following each scheduled date.

A.20 Immediate Reporting of Noncompliance

OAC Rule 3745-50-58(L)(6)

(a) The Permittee must report orally to Ohio EPA's Division of Environmental Response, Investigations and Enforcement within twenty-four (24) hours from the time the Permittee becomes aware of any noncompliance with this permit, ORC Chapter 3734 or the rules adopted thereunder, which may endanger human health or the environment, including:

- (i) Information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies; and
- (ii) Any information of a release or discharge of hazardous waste or a fire or explosion from the hazardous waste facility, which could threaten the environment or human health outside the facility.

(b) The report must consist of the following information (if such information is available at the time of the oral report):

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

A.21 Follow-Up Written Report of Noncompliance

OAC Rule 3745-50-58(L)(6)(c)

- (a) A written report must also be provided to Ohio EPA's Division of Environmental Response and Revitalization, Northeast District Office within five (5) days of the time the Permittee becomes aware of the circumstances reported in Permit Condition A.20.
- (b) The written report must address the items in Permit Condition A.20 and must contain a description of such noncompliance and its cause; the period(s) of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and, if not, the anticipated time it is expected to continue; and steps taken or planned to minimize the impact on human health and the environment and to reduce, eliminate, and prevent recurrence of the noncompliance.
- (c) The Permittee need not comply with the five (5) day written report requirement if the Director, upon good cause shown by the Permittee, waives that requirement and the Permittee submits a written report within fifteen (15) days of the time the Permittee becomes aware of the circumstances.

A.22 Other Noncompliance

OAC Rules 3745-50-58(L)(10) and 3745-50-58(L)(4)

The Permittee must report to the Director all other instances of noncompliance not provided for in Permit Conditions A.19 and A.20. These reports must be submitted within thirty (30) days of the time at which the Permittee is aware of such noncompliance. Such reports must contain all information set forth within Permit Condition A.20.

A.23 Certification of Construction or Modification

OAC Rule 3745-50-58(L)(2)

Except as provided in OAC Rule 3745-50-51, the Permittee may not commence storage or treatment of hazardous waste in the modified portion of the facility until the Permittee has submitted to the Director, by certified mail or hand delivery, a letter signed by the Permittee and a registered professional engineer stating that the facility has been constructed, or modified in compliance with the permit; and

- (a) The Director has inspected the modified or newly constructed facility and finds it is in compliance with the conditions of the permit; or
- (b) The Director has either waived the inspection or has not within fifteen (15) days of the date of the submittal of the letter, notified the Permittee of his intent to inspect.

A.24 Other Information
OAC Rule 3745-50-58(L)(11)

If at any time the Permittee becomes aware that it failed to submit any relevant facts, or submitted incorrect information to the Director, the Permittee must promptly submit such facts, information or corrected information to the Director.

A.25 Confidential Information
OAC Rules 3745-49-03 and 3745-50-30

In accordance with ORC Chapter 3734 and the rules adopted thereunder, the Permittee may request confidentiality for any information required to be submitted by the terms and conditions of this permit, or any information obtained by the Director, or an authorized representative, pursuant to the authority provided under Permit Condition A.11.

A.26 Ohio Annual Permit, Disposal, and Treatment Fees
OAC Rules 3745-50-33 through 3745-50-36

The fees for the off-site disposal and/or treatment of hazardous wastes, calculated pursuant to OAC Rules 3745-50-33 and 3745-50-35, and payable to the Treasurer of the State, must be submitted to the Director on or before the fortieth day after the end of the month to which the return applies. The permittee subject with these requirements must prepare and file with the director monthly returns showing the total tonnage disposed and/or treated and the total amount of the fee to be submitted to the director.

The annual permit fee, calculated pursuant to OAC Rule 3745-50-36 and payable to the Treasurer of the State, must be submitted to the Director on or before the anniversary of the date of issuance during the term of the permit. For the purpose of the payment of the Ohio Annual Permit Fee, the date of issuance is the date the permit was entered into the Journal of the Director of Ohio EPA.

A.27 Compliance Schedule - Documents
OAC Rules 3745-50-50 and 3745-50-51

- (a) Unless specified otherwise, Permittee must submit the documents listed below to:

Ohio EPA, Director
c/o DERR, Engineering, Remediation, and Authorizations Section
P.O. Box 1049
Columbus, Ohio 43216-1049

Ohio EPA
Division of Environmental Response and Revitalization
Northeast District Office
2110 East Aurora Road
Twinsburg, Ohio 44087

- (b) The Permittee must submit to the Ohio EPA within sixty (60) days after permit journalization, in accordance with Ohio's hazardous waste rules, the following information to be incorporated in the permit application:

- (i) Updated Closure and Corrective Action Cost Estimates
OAC Rules 3745-55-42 and 3745-54-101

Section I of the permit application containing the financial assurance mechanism for closure must be updated to include a copy of the closure and corrective action cost estimates as set forth in OAC Rules 3745-55-42 and 3745-54-101.

- (ii) Updated Financial Assurance Mechanisms for Closure and Corrective Action
OAC Rules 3745-55-43 and 3745-54-101

Section I of the permit application containing the financial assurance mechanism(s) for closure and corrective action must be updated to include a copy of the current financial assurance mechanism, as set forth in OAC Rules 3745-55-43 and 3745-54-101, and as specified by the wording requirements of OAC Rule 3745-55-51. The value of the financial assurance mechanism(s) must reflect at least the current amount of the closure and corrective action cost estimates.

During the life of the permit, the Permittee may change the financial assurance mechanism as stated in OAC Rule 3745-55-43. The facility must submit the financial assurance mechanism documentation to the Director of Ohio EPA in accordance with the parameters set forth in OAC Rules 3745-55-43.

(iii) Updated Liability Requirements
OAC Rule 3745-55-47

Section I of the permit application containing the mechanism used to demonstrate third party liability coverage must be updated to include a copy of the current liability mechanism as set forth in OAC Rule 3745-55-47 and as specified by the wording requirements of OAC Rule 3745-55-51.

During the life of the permit the facility may change the mechanism used to demonstrate liability coverage as stated in OAC Rule 3745-55-47. The facility must submit the liability mechanism documentation to the Director of Ohio EPA in accordance with the parameters set forth in OAC Rule 3745-55-47.

- (c) To-Be-Constructed portions of the facility - Prior to construction of portions of the facility that are described in the Permittee's permit application as future systems and/or to-be-constructed systems, detailed plans must be submitted to the Ohio EPA for review to ensure the plans are consistent with the existing permit. If the plans are inconsistent with or not authorized by the existing permit, a permit modification in accordance with OAC Rule 3745-50-51 will be required prior to construction.
- (d) Modified or Newly Constructed portions of the facility - The Permittee must not manage hazardous waste in any modified or newly constructed portions of the facility until compliance is achieved with the Ohio hazardous waste rules and the terms and conditions of this permit. The Permittee must submit the following:
- (i) At least thirty days prior to commencing construction at the facility, the Permittee must submit to Ohio EPA all relevant detailed final design and construction plans as approved by the Building Official in accordance with OAC Rule 4101:2-1-23 (including ancillary equipment, blueprints, material of construction, etc.) covering each aspect of the proposed construction. The final design and construction plans mean final design and specifications necessary for the commencement of the construction.
 - (ii) A schedule of new construction including the estimated starting and completion dates.
 - (iii) If the final plans, as submitted, are inconsistent with the conceptual and/or preliminary plans contained in the approved permit application and with the terms and conditions of this permit, such submittal may be considered by Ohio EPA as information constituting a change to the permitted facility and thus require submission of a permit modification.

- (iv) Upon completion of construction, the Permittee must submit to Ohio EPA, when applicable, by certified mail or hand delivery, a "certificate of use and occupancy" issued by the Building Official in accordance with OAC Rule 4101:2-1-27 [for tank systems, the Permittee must provide a tank installation certification in accordance with OAC Rule 3745-55-92(B)] and a certification stating that the construction was completed in compliance with applicable rules, the terms and conditions of this permit, applicable state building codes (e.g., codes for fire, electrical service, and plumbing), and the approved permit application.
 - (v) Within sixty (60) days after completion of new construction, "as built" drawings must be submitted to Ohio EPA. If the submitted "as built" drawings appear inconsistent with the construction design plans submitted under Permit Condition A.27(d)(i), such submittal may be considered by Ohio EPA as information constituting a change to the permitted facility and thus require submission of a permit modification.
 - (vi) No hazardous waste shall be managed at the newly constructed portion(s) of the facility until Ohio EPA, in accordance with OAC Rule 3745-50-58(L), has inspected such portion(s) of the facility and finds that it is in compliance with all applicable rules, the terms and conditions of this permit, and the approved permit application.
- (e) Within sixty (60) days of permit journalization the Permittee must submit to Ohio EPA in accordance with Ohio's hazardous waste rules, in the form of an administrative Class 1 permit modification request without prior Director's approval, all the permit modification requests which it submitted after October 1, 2014 and which Ohio EPA has approved or acknowledged, so that the submitted information can be incorporated in the renewal permit and/or permit application. For each permit modification request submitted prior to the date of journalization and for which Ohio EPA approval or acknowledgement occurs after the date of permit journalization, the Permittee must submit the approved or acknowledged permit modification request to Ohio EPA within sixty (60) days of such approval or acknowledgement in accordance with Ohio's hazardous waste rules, in the form of an administrative Class 1 permit modification request without prior Director's approval so that the submitted information can be incorporated in the renewal permit and/or permit application.

This information must be submitted in accordance with OAC Rule 3745-50-51.

A.28 Information to be Maintained at the Facility
OAC Rule 3745-54-74

- (a) Unless otherwise specified by the hazardous waste rules, the Permittee must maintain at the facility, until closure is completed and certified by a qualified professional engineer, pursuant to OAC Rule 3745-55-15, and until the Director releases the Permittee from financial assurance requirements pursuant to OAC Rule 3745-55-43, the following documents (including amendments, revisions and modifications):
- (i) Waste analysis plan, developed and maintained in accordance with OAC Rule 3745-54-13 and the terms and conditions of this permit;
 - (ii) Contingency plan, developed and maintained in accordance with OAC Rule 3745-54-53 and the terms and conditions of this permit;
 - (iii) Closure plan, developed and maintained in accordance with OAC Rule 3745-55-12 and the terms and conditions of this permit;
 - (iv) Cost estimate for facility closure, developed and maintained in accordance with OAC Rule 3745-55-42 and the terms and conditions of this permit;
 - (v) Personnel training plan and the training records, developed and maintained in accordance with OAC Rule 3745-54-16 and the terms and conditions of this permit;
 - (vi) Operating record, required by OAC Rule 3745-54-73 and the terms and conditions of this permit; and
 - (vii) Inspection schedules, developed in accordance with OAC Rules 3745-54-15, 3745-55-74 and 3745-55-95 and the terms and conditions of this permit.
 - (viii) Post-closure plan, as required by OAC Rule 3745-55-18(A) and the terms and conditions of this permit.
 - (ix) Annually-adjusted cost estimate for facility closure, as required by OAC Rules 3745-55-42 and 3745-55-44 and the terms and conditions of this permit.
 - (x) All other documents required by Module A, Permit Condition A.12.
- (b) The Permittee must maintain copies of all inspection logs at the facility for a period not less than three (3) years from the date of inspection.

A.29 Waste Minimization Report

OAC Rules 3745-54-73 and 3745-54-75

- (a) The Permittee must submit a Waste Minimization Report describing the waste minimization program required by OAC Rules 3745-54-75(H), (I), and (J); 3745-54-73(B)(9); and 3745-52-20(A) at least once every five years. The provisions of OAC Rules 3745-54-75(H), (I) and (J) must be satisfied biennially. The provisions of OAC Rule 3745-54-73(B)(9) must be satisfied no less often than annually.
- (b) The Permittee must submit the Waste Minimization Report to Ohio EPA's Office of Compliance Assistance and Pollution Prevention within one hundred eighty (180) days of the effective date of this permit, and must submit updates to this report once every five years thereafter.

MODULE B - GENERAL FACILITY CONDITIONS

B. GENERAL FACILITY CONDITIONS

B.1 Design and Operation of Facility OAC Rule 3745-54-31

- (a) The Permittee must design, construct, maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, ground water or surface waters which could threaten human health or the environment.
- (b) The Permittee must not treat more than the following quantities of hazardous waste in any one calendar year from off-site sources during the life of the permit, until such time as this permit condition is modified or renewed. This is a facility wide limitation and includes all units.
 - (i) The two incinerators (1 existing, 1 not yet constructed) may treat a combined total of 176,000 tons per year of hazardous waste. Each individual incinerator may treat 88,000 tons per year.
 - (ii) The Inorganic Waste Treatment System (not yet constructed) may treat 83,000 tons per year of hazardous waste; and
 - (iii) The General Wastewater Treatment System (not yet constructed) may treat up to ten percent of the total waste received at the facility. This ten percent limitation will be subject to revision as required by any agreements between the facility and the city of East Liverpool.
- (c) The Permittee may receive off-site generated non-hazardous wastewater (NHW) for use on-site as process water. When needed, NHW may be treated through the general wastewater treatment system prior to use at the facility, in accordance with the permit application and this permit.
- (d) The Permittee may receive off-site generated waste to be used in fuel blending operations. This waste may, or may not, be blended and stored in permitted tanks prior to transport off-site to permitted facilities for treatment, in accordance with the permit application and this permit.

- (e) The Permittee may receive and store off-site generated waste that may be transported to another permitted facility for treatment and/or reclamation. This waste, referred to as third party waste, will be managed in accordance with the permit application and this permit.
- (f) The Permittee may accept mixed infectious and hazardous waste (MIHW), to be managed and treated in accordance with Section C of the permit application and this permit.
- (g) The Permittee may receive and treat, but not store, approved compressed gas waste streams to be managed in accordance with the permit application and this permit.

B.2 Required Notices
OAC Rule 3745-54-12

(a) Hazardous Waste from Off-Site Sources

When the Permittee is to receive hazardous waste from an off-site source (except where the Permittee is also the generator), the Permittee must inform the generator in writing that the Permittee has the appropriate permits, and will accept the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the operating record.

(b) Hazardous Wastes from Foreign Sources

The Permittee must notify the U.S. EPA regional administrator in writing at least four (4) weeks in advance of the date the Permittee expects to receive hazardous waste from a foreign source, as required by OAC Rule 3745-54-12(A). Notice of subsequent shipments of the same waste from the same foreign source is not required.

B.3 General Waste Analysis Plan
OAC Rule 3745-54-13

- (a) The Permittee shall prepare and approve waste profile sheets (WPS) in accordance with Section C of the approved Part B permit application. Waste codes not permitted in the approved Part A permit application shall not be stored or treated at the facility until the Permittee has received approval in accordance with the Ohio hazardous waste rules.
- (b) The Permittee shall follow the procedures described in the approved waste analysis plan in Section C of the approved Part B permit application and the terms and conditions of this permit. The Permittee shall verify the analysis of each waste stream annually as part of its quality assurance program, in accordance with Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846, or equivalent methods approved by the Director. At a minimum, the Permittee must maintain proper functional instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations. If the Permittee uses a contract laboratory to

perform analyses, then the Permittee shall inform the laboratory in writing that it must operate under the waste analysis conditions set forth in this permit, including all requirements found in the facility's quality control/quality assurance plan. All outside contracted laboratories must be audited and their quality control/quality assurance plan evaluated prior to the laboratory performing services for the Permittee. The results of the audits must be maintained as part of the facility's operating record.

- (c) The Permittee shall ensure that all phenolic wastes received for treatment at the facility will be treated by incineration.
- (d) The Permittee shall ensure that all organic wastes not covered by Condition B.3(c) will be incinerated unless other treatment methods are provided or specified in the approved Part B permit application.

B.4 Security
OAC Rule 3745-54-14

- (a) The Permittee must comply with the security provisions of OAC Rule 3745-54-14(B) and (C) and Section F of the permit application.
- (b) The Permittee shall continuously monitor the entrance gates to the facility while open either by use of facility personnel or by monitoring equipment such as cameras.

B.5 General Inspection Requirements
OAC Rules 3745-54-15 and 3745-54-73

The Permittee must inspect the facility in accordance with OAC Rule 3745-54-15 and the inspection schedule set forth in Section F of the permit application. The Permittee must remedy any deterioration or malfunction discovered by an inspection, as required by OAC Rule 3745-54-15(C). Records of inspection must be kept for a minimum of three (3) years from the date of inspection. These records must be a part of the facility's operating record as required by OAC Rule 3745-54-73.

B.6 Personnel Training
OAC Rule 3745-54-16

The Permittee must conduct personnel training, as required by OAC Rule 3745-54-16. This training program must contain at least the elements set forth in Section H of the permit application. The Permittee must maintain training documents and records as required by OAC Rule 3745-54-16(D) and (E).

B.7 General Requirements for Ignitable, Reactive, or Incompatible Wastes
OAC Rule 3745-54-17

- (a) The Permittee must comply with the requirements of OAC Rule 3745-54-17 and must follow the procedures for handling ignitable, reactive, and incompatible wastes set forth in Sections C, D, and F of the permit application.
- (b) The Permittee must provide electrical grounding for all containers and tanks, and transport vehicles during all operations involving the handling of ignitable or reactive wastes.
- (c) The Permittee must provide, and require the use of, spark proof tools during all operations involving the handling of all ignitable or reactive wastes.
- (d) The Permittee must prohibit smoking and open flames in each area where ignitable, reactive or incompatible hazardous wastes are managed and must post appropriate signs.
- (e) All wiring and electrical equipment that will be newly constructed at the facility must meet the National Fire Protection Association's standards for hazardous locations (See National Fire Protection Association, "National Electric Code" National Fire Codes, 1985 Edition, Vol. 3, Chapter 5, Special Occupancies, Articles 500-503, pp.176 through 189).

B.8 Location Standards
OAC Rule 3745-54-18

- (a) The Permittee shall construct, operate, and maintain the facility to prevent washout of any hazardous waste as required by OAC Rule 3745-54-18(B) and as specified in Section B of the approved Part B permit application.
- (b) Once every five (5) years, the facility will have a survey conducted to take measurements and record data relating to the site grade and fill. These inspections will ensure that fill material and underlying soils remain stable and that no movement occurs which may compromise the integrity of the foundation at the facility. This is in accordance with Permit Condition B.42, Inspection of Riverbank and Fill Material.

B.9 Required Equipment
OAC Rule 3745-54-32

At a minimum, the Permittee must maintain at the facility all the equipment required by OAC Rule 3745-54-32 and the equipment set forth in the contingency plan contained in Section G of the permit application.

B.10 Testing and Maintenance of Equipment
OAC Rule 3745-54-33

The Permittee must inspect, test and maintain the equipment required by Permit Condition B.9 as necessary to assure its proper operation in time of emergency, as specified in OAC Rule 3745-54-33, Sections F and G of the permit application and the terms and conditions of this permit.

B.11 Access to Communications or Alarm System
OAC Rule 3745-54-34

The Permittee must maintain access to the communications and alarm systems, as required by OAC Rule 3745-54-34, Sections F and G of the permit application and the terms and conditions of this permit.

B.12 Required Aisle Space
OAC Rule 3745-54-35

At a minimum, 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, as required by OAC Rule 3745-54-35.

- (a) The required aisle space in permitted process and storage areas at the facility is described in Section D of the permit application.
- (b) Off-site generated waste may be stored inside enclosed vehicles only in the areas of the facility specified in the permit application and in accordance with this permit.
 - (i) Aisle space will not be required to be maintained between smaller individual containers stored inside enclosed vehicles provided the procedures specified in the permit application are followed before storage and periodically while waste is in storage.
 - (ii) Individual containers will be inspected in accordance with the requirements specified for off-site generated waste stored in enclosed vehicles in accordance with Sections D and F of the permit application.
 - (iii) Conditions specified in the permit application and applicable requirements of the Ohio Fire Code must be followed while storing waste within enclosed vehicles.

B.13 Arrangements with Local Authorities
OAC Rule 3745-54-37

- (a) The Permittee must comply with the requirements of OAC Rule 3745-54-37(A) by making a diligent effort to:
 - (i) Make arrangements and familiarize all emergency response agencies which are likely to respond in an emergency with the location and layout of the facility, properties of hazardous waste managed at the facility and associated hazards, places where facility personnel normally work, entrances to and roads inside the facility, and possible evacuation routes as depicted and explained in Section G of the permit application;
 - (ii) Make arrangements with Ohio EPA emergency response teams, emergency response contractors, and equipment suppliers;
 - (iii) Make arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and types of injuries or illnesses which could result from fires, explosions, or releases at the facility; and
 - (iv) Abide by the agreement between the Permittee and the city of East Liverpool Public Safety Forces regarding the designation of the primary emergency authority, in accordance with Section G of the permit application. Make agreements with specific police and fire departments to provide support to the primary emergency authority, where more than one police and fire department may respond to an emergency.
- (b) Where authorities decline to enter into such agreements or arrangements set forth in OAC Rule 3745-54-37(A), the Permittee must document the refusal in the operating record as required by OAC Rule 3745-54-37(B).
- (c) Records of agreements and arrangements with local authorities shall be maintained as part of the facility's operating record.

B.14 Implementation of Contingency Plan
OAC Rules 3745-54-51 and 3745-54-56

- (a) The Permittee must immediately carry out the provisions of the contingency plan and follow the emergency procedures described in OAC Rule 3745-54-56, whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which threatens or could threaten human health or the environment.
- (b) In regard to spills and related toxic gas releases, the plan must describe the criteria to be used by the emergency coordinator to determine when the plan will be implemented. At a

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

(i) Any fire involving hazardous waste, with the following exceptions:

- (1) A fire on, in, or near one of the facility's feed mechanisms that can be extinguished with a hand-held fire extinguisher, if necessary, and does not require the Emergency Response Team (ERT); or
- (2) A fire involving less than 55 gallons of hazardous waste or less than one pound of untreated acute hazardous waste (p-coded waste) that can be extinguished with a hand-held fire extinguisher and does not require the ERT; or
- (3) A fire in the slag quench tank that does not require the ERT or the fire department to extinguish; or
- (4) A fire that does not activate the facility's fire detection system and does not require the ERT or the fire department to extinguish; or
- (5) Instances where the Permittee manually activates the fire suppression system in order to prevent a fire, explosion, reaction, or release of hazardous waste or hazardous constituents (e.g., preventing a fire in the bulk solid waste feed tanks) and does not require the ERT or the fire department to extinguish.

(ii) Any explosion involving hazardous waste, with the following exceptions:

- (1) Explosions within the kiln that do not result in a release of fugitive emissions or hazardous waste or hazardous waste constituents to the environment; or
- (2) Explosions in the slag quench tank that do not result in a release of fugitive emissions or hazardous waste or hazardous waste constituents to the environment.

(iii) Any uncontrolled hazardous waste reaction 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, with the following exceptions;

- (1) An uncontrolled hazardous waste reaction that can be contained by the vapor recovery system; or
- (2) An uncontrolled hazardous waste reaction that does not require the ERT or outside assistance to contain.

(iv) 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; or

(v) Any 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.

(c) The Permittee shall comply with the requirements of OAC Rule 3745-54-56(J) as it relates to recording implementation of the contingency plan.

B.15 Content of the Contingency Plan
OAC Rule 3745-54-52

The Permittee must comply with OAC Rule 3745-54-52 and the contingency plan, as set forth in Section G of the permit application.

B.16 Contingency Plan - Released Material and Emergency Response Material and By-products
OAC Rule 3745-54-56(G)

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

(b) All liquid or solid material resulting from fire, explosion, released material or emergency response material and by-products that the Permittee is required to evaluate to determine whether such material is hazardous waste in accordance with OAC Rule 3745-52-11, shall be collected and managed as a hazardous waste unless the Permittee can demonstrate that such waste is not hazardous in accordance with OAC Rule 3745-51-03(C) and (D).

B.17 Amendments to Plan
OAC Rule 3745-54-54

The Permittee shall review the contingency plan at least annually and upon the occurrence of any event listed in OAC Rule 3745-54-54. If necessary or appropriate, the Permittee shall amend the contingency plan as required by OAC Rule 3745-54-54 in accordance with OAC Rule 3745-50-51.

B.18 Copies of Plan
OAC Rule 3745-54-53

(a) The Permittee must comply with the requirements set forth in OAC Rule 3745-54-53 regarding contingency plan distribution. The Permittee must maintain at the facility a copy of the contingency plan and all revisions to the plan.

(b) The Permittee must, in accordance with OAC Rule 3745-54-53, submit a copy of the contingency plan to all local police departments, fire departments, hospitals and local emergency response teams that may be called upon to provide emergency services. The

Permittee must notify such agencies and the local authorities, in writing, within ten (10) days of the effective date of amendments of, revisions to, or modifications to the contingency plan.

- (c) If the contingency plan is revised, that constitutes a permit modification pursuant to rule 3745-50-51 of the Administrative Code.

B.19 Emergency Coordinator
OAC Rule 3745-54-55

The Permittee must comply with the requirements set forth in OAC Rule 3745-54-55 regarding the emergency coordinator.

B.20 Emergency Procedures
OAC Rule 3745-54-56

The Permittee must comply with the requirements regarding emergency procedures set forth in OAC Rule 3745-54-56, Section G of the permit application and terms and conditions of this permit.

B.21 Availability, Retention and Disposition of Records
OAC Rule 3745-54-74

All records must be furnished by the Permittee upon request to, and made available at all reasonable times for inspection by, Ohio EPA, in accordance with OAC Rule 3745-54-74.

B.22 Operating Record
OAC Rule 3745-54-73

The Permittee must comply with the requirements set forth in OAC Rule 3745-54-73 regarding an operating record, including information to be recorded and the maintenance thereof.

- (a) The Permittee is authorized to maintain portions of the operating record required by OAC Rule 3745-54-73 that are more than three years old at an off-site location with the following conditions:
- (i) All portions of the operating record maintained at off-site locations must be available for Ohio EPA review at the Permittee's facility within five (5) business days of the request, unless this is clearly not reasonable, in which case the Permittee and Ohio EPA will mutually establish the most expeditious schedule practicable; and
 - (ii) The Permittee shall determine and track which portions of the operating records will be maintained off-site and will maintain a list of off-site storage locations.

- (b) The Permittee is authorized to collect, store, and/or manage data required by the permit application or this permit in various formats (e.g., paper or electronic format) as appropriate.

B.23 Contingency Plan Records
OAC Rule 3745-54-56(J)

The Permittee must note in the operating record the time, date, and details of any incident that requires the implementation of the contingency plan. Within fifteen (15) days after any such incident the Permittee must submit to the Director a written report of the incident containing the elements set forth in OAC Rule 3745-54-56(J).

B.24 Manifest System
OAC Rules 3745-54-70, 3745-54-71, 3745-54-72 and 3745-54-76

- (a) In managing waste at the facility, the Permittee must comply with OAC Chapter 3745-52 and OAC Rules 3745-54-71, 3745-54-72 and 3745-54-76 with regard to the manifest system.
- (b) Manifest discrepancy report. If a significant discrepancy in a manifest is discovered, the Permittee must attempt to reconcile the discrepancy. If not resolved within fifteen (15) days after receiving the waste, the Permittee must submit a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest, to the Director in accordance with OAC Rule 3745-54-72.
- (c) Unmanifested waste report. If the Permittee receives unmanifested waste which is not excluded from the manifest requirements of OAC Rule 3745-51-05, then the Permittee must submit an unmanifested waste report to the Director within fifteen (15) days after receipt of the waste. The report must include the information required under OAC Rule 3745-54-76.

B.25 Biennial Report and Additional Reports
OAC Rules 3745-54-75 and 3745-54-77

The Permittee must comply with the report requirements set forth in OAC Rule 3745-54-75 and the additional report requirements set forth in OAC Rule 3745-54-77.

B.26 Closure Performance Standard
OAC Rule 3745-55-11

During facility closure, the Permittee must implement the provisions of the closure plan found in Section I of the permit application in such a manner as to achieve compliance with OAC Rule 3745-55-11.

B.27 Closure Plan

OAC Rules 3745-55-10, 3745-55-11 and 3745-55-13

The Permittee must implement those procedures detailed within Section I of the permit application, in accordance with OAC Rules 3745-55-10 through 3745-55-20.

B.28 Amendment of Closure Plan

OAC Rules 3745-55-12 and 3745-50-51

Should a change in the facility closure plan become necessary, the Permittee must amend the closure plan in accordance with OAC Rules 3745-55-12(C) and 3745-50-51.

B.29 Content of Closure Plan

OAC Rule 3745-55-12

The Permittee must maintain the closure plan at the facility which contains the elements set forth in OAC Rule 3745-55-12 and all elements required by this permit.

B.30 Notification of Closure

OAC Rule 3745-55-12

The Permittee must notify the Director in writing at least 45 days prior to the date on which the Permittee expects to begin final closure of the facility, as required by OAC Rule 3745-55-12(D).

B.31 Time Allowed For Closure

OAC Rule 3745-55-13

Within ninety (90) days after receiving the final volume of hazardous waste, the Permittee must remove from the facility, or treat or dispose of on-site, all hazardous waste in accordance with the closure plan. The Director may approve a longer closure period if the Permittee complies with all applicable requirements for requesting a modification to the permit as set forth in OAC Rule 3745-55-13(A). The Permittee must complete all closure activities within one hundred eighty (180) days after receiving the final volume of hazardous waste in accordance with OAC Rule 3745-55-13. The Director may approve a longer closure period if the Permittee complies with all applicable requirements for requesting a modification to the permit as set forth in OAC Rule 3745-55-13 (B).

B.32 Disposal or Decontamination of Equipment, Structures, and Soils

OAC Rule 3745-55-14

(a) The Permittee must decontaminate or dispose of all contaminated facility equipment, structures, and soils, as required by OAC Rule 3745-55-14, the closure plan and the terms and conditions of this permit.

- (b) The Permittee must notify the Ohio EPA Northeast District Office within seven (7) days prior to all rinseate and soil sampling.

B.33 Certification of Closure
OAC Rule 3745-55-15

The Permittee and a qualified professional engineer must certify that each hazardous waste management unit or the facility has been closed in accordance with the specifications in the closure plan and the terms and conditions of this permit, as required by OAC Rule 3745-55-15. The Permittee must furnish to the Director, upon request, documentation supporting the certification.

B.34 Survey Plat
OAC Rule 3745-55-16

The Permittee must submit a survey plat to the Director and the local zoning authority no later than the submittal of certification of closure of each hazardous waste disposal unit, in accordance with OAC Rule 3745-55-16.

B.35 Reserved.

B.36 Cost Estimate for Facility Closure
OAC Rule 3745-55-42

- (a) The Permittee's most recent closure cost estimate, prepared in accordance with OAC Rule 3745-55-42 is specified in Section I of the permit application.
- (b) The Permittee must adjust the closure cost estimate for inflation within sixty (60) days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with OAC Rule 3745-55-43.

In case the Permittee is using the financial test or corporate guarantee, the Permittee must adjust the closure cost estimate for inflation within thirty (30) days after the close of the Permittee's fiscal year and before submission of updated information to the Director, as specified in OAC Rule 3745-55-42(B).

(c) The Permittee must revise the closure cost estimate or post-closure cost estimate whenever there is a change in the facility's closure plan that increases the cost of closure, as required by OAC Rule 3745-55-42(C).

(d) The Permittee must submit to the Ohio EPA and keep at the facility the latest closure cost estimate as required by OAC Rule 3745-55-42(D) and (E).

B.37 Financial Assurance for Facility Closure
OAC Rule 3745-55-43

The Permittee must maintain continuous compliance with OAC Rule 3745-55-43 and provide documentation of financial assurance, which meets the requirements of OAC Rule 3745-55-51, in at least the amount of the cost estimates required by Permit Condition B.36.

B.38 Liability Requirements
OAC 3745-55-47

The Permittee must maintain continuous compliance with the requirements of OAC Rule 3745-55-47 and the documentation of liability by providing liability coverage which meets the requirements of OAC Rule 3745-55-51 for sudden accidental occurrences in the amount of at least \$1 million per occurrence, with an annual aggregate of at least \$2 million, exclusive of legal defense costs.

B.39 Incapacity of Owners or Operators, Guarantors, or Financial Institutions
OAC Rule 3745-55-48

The Permittee must comply with requirements set forth in OAC Rule 3745-55-48 regarding the incapacity of owners, operators, guarantors or financial institutions.

B.40 General Requirements for Land Disposal Restrictions
OAC Chapter 3745-270

The Permittee must comply with all applicable regulations regarding land disposal prohibitions and restrictions as required by OAC Chapter 3745-270.

B.41 Survey of Site Grade and Fill Material

Once every five (5) years, the Permittee must have a survey conducted to take measurements and record data relating to the site grade and fill material. These surveys will evaluate whether the fill material and underlying soils remain stable and that no movement has occurred which may compromise the integrity of the foundation at the facility. The Permittee must take corrective action as necessary to remediate any adverse conditions. The results of the completed surveys must be submitted to Ohio EPA Division of Environmental Response and Revitalization within

thirty (30) days of receipt by the Permittee. The most recent survey report may be found in Section B of the permit application.

B.42 Inspection of Riverbank

The Permittee is required to conduct routine inspections of the portion of the bank of the Ohio River that is adjacent to the facility. The results must be maintained as part of the facility's operating record. The Permittee must take corrective action as necessary to remediate any adverse conditions. Routine inspections must be conducted in accordance with Section F of the permit application and include the following:

- (a) A visual evaluation of the effects of erosion;
- (b) An inspection of the soil integrity in the area of the installed sheet pile wall through visual inspections and standard surveying techniques; and
- (c) An indication whether the visual inspections indicate movement of the soils is occurring.

B.43 Stack Height

The height of each of the exhaust stacks (1 existing, 1 not yet constructed) shall be 150 feet. The elevation at the base of the stacks must be, at a minimum, 695 feet above sea level. The outlet of the stacks shall not be greater than 850 feet above sea level unless approved according to the Ohio Hazardous Waste Rules and the Ohio EPA Division of Air Pollution Control.

B.44 Prohibition of Shipping Hazardous Waste via the Ohio River

No hazardous waste will be off-loaded at the facility by way of the Ohio River.

MODULE C – CONTAINER STORAGE AND TREATMENT

C. CONTAINER STORAGE AND MANAGEMENT

Container storage is permitted in specific areas of the facility. Additional treatment processes at the facility, or permitted as future activities, prior to incineration include: (1) polymerization of isocyanates; (2) blending of wastes; (3) consolidation of wastes; (4) splitting of wastes; (5) addition of absorbent materials; (6) size reduction; (7) steam heating; and (8) slurification of some waste streams. Container storage, mechanical processes, or processing activities may also occur within permitted storage areas, in accordance with the permit application and this permit.

Permitted container storage areas are Building A (Drum Warehouse of the Container Processing Building, Building B (External Truck Wash), Building C (Lab Pack Building), Container Holding Building, Truck Holding and Sampling Area, North and East Storage Areas, and the Bulk Solid Storage Area (BSSA). All container storage areas are constructed as containment areas, meeting secondary containment standards with reinforced concrete treated to resist chemical attack. Curbs, liquid collection systems (sumps/troughs), and sloped berms control run-on and run-off as part of the containment system.

Most container storage and processing areas are located within fully enclosed buildings. Those locations have forced air ventilation to prevent the accumulation of vapors and fumes and vapor collection points connected to a vapor recovery system. Exceptions include the Container Holding Building which is not fully enclosed, the Truck Holding and Sampling Area which is under roof/canopy, and the North and East Storage Areas and the Bulk Solid Storage Area which are open without a roof/canopy. Storage areas that are open (without roof/canopy) do not have vapor recovery systems because the areas are not enclosed. Container storage and processing areas that are located within buildings or under roof/canopy are equipped with automated fire detection and suppression systems. The North and East Storage Areas and the Bulk Solid Storage Area have portable fire suppression and emergency response equipment readily available nearby as well as cameras to monitor activities.

Adequate aisle space shall be maintained to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment. Aisle space is not required to be maintained between containers inside enclosed vehicles. Aisle space specific to each container storage area is described in Section D of the permit application. Containers are stored on pallets or other means to facilitate identification of leaking containers. Containers are inspected prior to storage and on a daily basis while in storage.

Class 1A Flammable Liquids, defined by National Fire Protection Association (NFPA) code as liquids with a flashpoint less than 73 degrees Fahrenheit and a boiling point greater than 100 degrees Fahrenheit, cannot be stored on-site. However, Class 1A Flammable Liquids may be received for management through the direct feed mechanisms available at the facility.

Drum Warehouse of the CPB (Building A) is located in northern half of the Container Processing Building. The fully enclosed building is 100' x 210' with racks used to store a variety of container types and sizes equivalent to approximately 6,000 fifty-five gallon drums. Permitted storage capacity is 313,500 gallons. Total secondary containment is 79,497 gallons. Waste is segregated according to waste type, with incompatible waste stored in designated areas with separate spill collection systems. Waste may include water-reactive wastes, reactive wastes, oxidizers, organic peroxides, flammables, corrosives, and non-reactive and/or non-hazardous wastes.

External Truck Wash (Building B) is a fully-enclosed 25' x 70' building with racks on the east and west walls. Permitted storage capacity is 15,180 gallons. Total secondary containment is 10,000 gallons. The building is permitted for a wash station for containers and equipment. Processing activities are permitted which include, but are not limited to: direct or indirect heating of waste; manually processing waste; consolidation (superpacking); and splitting. Containers will only be located on the floor during processing or staging activities. A minimum of five (5) feet of aisle space will be maintained between pallets of containerized waste while they are on the floor. All waste stored or processed in this building must be compatible. Mixed infectious and hazardous waste (MIHW) and Class 1A Flammables are not permitted to be managed in this area.

Lab Pack Building (Building C) is a fully enclosed 56' x 60' building with racks on the east and south walls and along the north ramp. Permitted storage capacity is 13,200 gallons. The building is used primarily for activities associated with the management and storage of lab pack waste. Processing activities are permitted which include, but are not limited to: staging waste prior to shipment off-site; indirect heating of waste; consolidation (superpacking); and splitting. Containers being staged and/or processed will be no more than five (5) cubic yards in size.

Container Holding Building is a fully enclosed 50' x 50' building with racks on all four interior walls. Storage is also permitted in the center of the floor. Permitted storage capacity is 47,250 gallons. Total secondary containment is 11,200 gallons. Permitted processing activities include, but are not limited to: receiving, weighing, labeling and storing waste; splitting; repacking; consolidation (superpacking); sampling inbound and outbound waste; removing pumpable materials; solidifying waste; lab pack activities; and third party waste management activities. The height of stacked containers on pallets cannot exceed the equivalent height of two (2) stacked pallets of fifty-five gallon containers. Waste stored and processed in this building may include water-reactive wastes, reactive wastes, oxidizers, organic peroxides, flammables, corrosives, and non-reactive and/or non-hazardous wastes. Mixed infectious and hazardous waste (MIHW) and Class 1A Flammables are not permitted to be managed in this area.

Truck Holding and Sampling Area is a canopied 60' x 96' area divided into six bays. Permitted storage capacity is 46,000 gallons. Total secondary containment is 22,000 gallons. This area is permitted for storage of containers and bulk solid wastes, and for sampling, staging, processing, decontamination of equipment, and other activities. Mixed infectious and hazardous waste (MIHW), highly reactive waste, and/or pyrophoric wastes are prohibited from storage in this area. Containerized waste will not be stored on the floor of this area nor in the racks located in bay six which are utilized for storage of consumer products and raw materials.

North and East Storage Areas are open areas (no roof/canopy), that do not have vapor recovery systems, and do not have automatic fire detection or suppression systems. Secondary containment is shared between the areas. The containment volume is in excess of that required to contain the contents of the largest container that may be stored in either of these areas.

Permitted storage capacity for off-site generated waste in the North Storage Area is 55,000 gallons or up to a maximum of ten trailers, roll-offs, or end-dumps with up to 5,500 gallons per vehicle. Permitted storage capacity for off-site generated waste in the East Storage Area is 22,000 gallons or up to a maximum of four trailers, roll-offs, or end-dumps with up to 5,500 gallons per vehicle. These limits are based upon the Ohio Fire Code regarding Highly Toxic and Toxic Materials, which is 2,500 cubic feet per pile (vehicle, trailer). As such, each vehicle will be limited to waste storage of approximately eight (8) feet wide by fifty-two (52) feet long by six (6) feet high or the equivalent.

These areas have three purposes: (1) as 90-day accumulation areas for on-site generated wastes including liquids; (2) as permitted storage areas for off-site generated wastes that do not contain free liquids; and (3) as areas for specific waste processing activities.

On-site generated wastes include incineration residuals such as slag and ash, used brick and debris, spent activated carbon, and discarded process water. On-site generated solid and/or liquid wastes may be stored in containers such as, but not limited to, roll-offs, end-dumps, and tanker trucks.

All individual containers of off-site generated waste (that do not contain free liquids) must be stored within enclosed vehicles. Containers of waste cannot be stored on open trailers. All off-site generated waste must be stored in accordance with the requirements in the state regulations, the permit application and this permit. All compatibility guidelines will be followed when storing wastes in these areas and the Ohio Fire Code will be followed for applicable separation distances. Incompatible wastes will not be stored within a single vehicle.

Aisle space will not be required to be maintained between containers inside enclosed vehicles provided the procedures specified in the permit application are followed before storage and periodically while waste is in storage. Aisle space between vehicles storing waste in these areas must be adequate to allow for unobstructed movement of personnel, fire protection equipment, spill control equipment, decontamination equipment, and inspection as necessary. All individual containers of off-site generated waste to be stored within enclosed vehicles in the North and East Storage Areas will follow established procedures for waste receipt and tracking.

Off-site generated waste oxidizers, organic peroxides, pyrophoric materials, mixed infectious and hazardous waste (MIHW), highly reactive wastes, highly volatile wastes, or odorous materials cannot be stored in the North and East Storage Areas. Off-site generated waste liquids in individual containers and off-site generated waste liquids in bulk tankers also cannot be stored in these areas. The North and East Storage Areas are also permitted for certain waste processing activities, as described in Section D of the permit application.

Bulk Solid Storage Area (BSSA) is an open area (no roof/canopy), does not have a vapor recovery system, and does not have automatic fire detection or suppression systems. The BSSA is constructed of concrete with curbs and a sump. Permitted storage capacity is 343,345 gallons. The BSSA is permitted for storage of containers of off-site generated waste that do not contain free liquids. Off-site generated waste liquids in individual containers and off-site generated waste liquids in bulk tankers cannot be stored in this area. The Permittee will not store off-site generated waste oxidizers, organic peroxides, pyrophoric materials, mixed infectious and hazardous waste (MIHW), highly reactive wastes, highly volatile wastes, or odorous materials cannot be stored in the BSSA.

All individual containers of off-site generated waste (that do not contain free liquids) must be stored within enclosed vehicles. Containers of waste cannot be stored on open trailers. All off-site generated waste must be stored in accordance with the requirements in the state regulations, the permit application and this permit. All compatibility guidelines will be followed when storing wastes in these areas and the Ohio Fire Code will be followed for applicable separation distances. Incompatible wastes will not be stored within a single vehicle.

Aisle space will not be required to be maintained between containers inside enclosed vehicles provided the procedures specified in the permit application are followed before storage and periodically while waste is in storage in this area. Aisle space between vehicles storing waste in the BSSA must be adequate to allow for unobstructed movement of personnel, fire protection equipment, spill control equipment, decontamination equipment, and inspection as necessary. All individual containers of off-site generated waste to be stored within enclosed vehicles in the BSSA will follow established procedures for waste receipt and tracking.

An initial inspection of each container of off-site generated waste will be conducted in accordance with Section F prior to placing containers in enclosed vehicles for storage in the BSSA. Individual containers of off-site generated waste may not be double-stacked within a trailer, with the exception of five (5) gallon pails and small stackable containers such as boxes. All waste containers inside enclosed vehicles, whether individual or stacked, must be no more than six (6) feet high.

Bulk solids in containers such as roll-offs or end-dumps will follow established procedures and may be directed to the BSSA as well.

The BSSA is also permitted for certain waste processing activities, such as removal of spent carbon from carbon boxes from the vapor recovery system, along with activities such as fire-fighting exercises (drills), storage of empty containers, and parking of facility equipment. Dewatering activities, processing activities (such as repackaging, resizing, or similar processes), demolition/cutting activities, or cleaning/decontamination activities will not occur in the BSSA.

C.1 Container Storage/ Quantity Limitation

The Permittee shall store hazardous waste in the types of containers (size and type) described in Section D of the permit application.

- (a) The Permittee is authorized to store 855,475 gallons of hazardous waste at any given time in the permitted container areas. The hazardous waste container storage volume in each of the permitted container storage areas will at no time exceed container area storage capacities as listed below:

Drum Warehouse (Building A)	313,500	gallons
External Truck Wash (Building B)	15,180	gallons
Lab Pack Building (Building C)	13,200	gallons
Container Holding Building	47,250	gallons
Truck Holding and Sampling Area	46,000	gallons
North Storage Area	55,000	gallons
East Storage Area	22,000	gallons
Bulk Solid Storage Area (BSSA)	343,345	gallons

- (b) For the purpose of compliance with the capacity limitation of this permit, each container will be considered to be storing an amount of hazardous waste equal to its capacity, regardless of the actual quantity stored in the container. The Permittee has access to its current container storage volume via a computerized tracking system and is able to demonstrate compliance with its permitted container storage capacity limitation at all times.
- (c) Permit Conditions C.1(a) and C.2 shall not apply to the Permittee's activities as a generator accumulating hazardous waste on-site in compliance with OAC Rule 3745-52-34 and 40 CFR Part 265, subparts AA, BB, and CC.

However, when accumulating waste within the permitted container storage area, in accordance with OAC Rule 3745-52-34 and 40 CFR Part 265, subparts AA, BB, and CC, the Permittee must not, for the total amount of hazardous waste stored and accumulated, exceed the maximum container storage inventory established under this permit condition.

- (d) The Permittee may receive and store waste in containers without intending to treat this waste on-site. The Permittee may transfer waste (third party waste) to another permitted facility for treatment, storage or disposal. The Permittee will handle this waste in accordance with the practices and procedures in Sections C and D of the permit application
- (e) The Permittee shall not operate as an off-site facility for treatment in containers without first submitting a permit modification. Waste managed at the facility in containers may undergo pretreatment processes such as polymerization, blending, consolidation, splitting, size reduction, steam heating, or addition of absorbent prior to treatment by incineration.

C.2 Limitations on Treatment of Hazardous Waste in Containers

- (a) The Permittee is authorized to treat hazardous waste in containers, in permitted treatment areas, in the manner described in Section D of the permit application.
- (b) Permit Condition C.2(a) shall not apply to the Permittee's activities as a generator treating hazardous waste in containers on-site in compliance with OAC Rule 3745-52-34.

C.3 Waste Identification

The Permittee must store and treat in containers only the hazardous waste codes specified in the Part A of the permit application.

C.4 Condition of Containers
OAC Rule 3745-55-71

If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee must transfer hazardous waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this permit and the hazardous waste facility chapters of the OAC.

C.5 Compatibility of Waste with Containers
OAC Rule 3745-55-72

The Permittee must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.

C.6 Management of Containers
OAC Rule 3745-55-73

- (a) The Permittee must keep all containers closed during storage, except when it is necessary to add or remove waste, and must not open, handle, or store containers in a manner which may rupture the container or cause it to leak.

- (b) Lab-pack waste generated by the facility must be handled in compliance with applicable storage requirements, Sections C and D of the permit application, and the following:
 - (i) lab-pack containers must be transferred to processing and/or storage areas by the end of each day shift;
 - (ii) lab-pack containers must have hazardous waste labels which include information such as the type of waste and the date the lab-pack was generated;
 - (iii) lab-pack containers must be covered and secured (at a minimum, plastic covers with elastic or rubber bands);
- (c) In the event lab-pack wastes are sent off-site for disposal, they must be packaged in drums containing absorbent material that is compatible with the waste and managed as described in OAC Rule 3745-57-15.
- (d) All container storage shall be conducted within the container storage units as described in Condition C.1 of this permit and Section D of the permit application.
- (e) The Permittee must place all containers on pallets when staged or stored. This is not necessary while the waste or the container is being processed.

C.7 Containment Systems
OAC Rule 3745-55-75

- (a) The Permittee must maintain the containment system in accordance with the plans and specifications contained in Section D of the permit application.
- (b) For units storing waste with free liquids, the Permittee must maintain the containment system as described in the permit application, designed with sufficient capacity to contain ten percent of the total volume of the containers or the volume of the largest container, whichever is greater. The containment system must be free of cracks and gaps and sufficiently impervious to contain leaks and spills and accumulated precipitation until the collected material is detected and removed.
- (c) For units storing waste with free liquids, the base of the containment system must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.
- (d) For units storing waste with free liquids, run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in Permit Condition C.7(b) above.

- (e) Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in a timely manner and in accordance with the procedures and practices specified in Section D of the permit application.
- (f) No hazardous wastes with free liquids may be stored in the Bulk Solid Storage Area (BSSA), in accordance with Section D of the permit application.

C.8 Reserved.

C.9 Inspection Schedules and Procedures
OAC Rules 3745-54-15 and 3745-54-73

The Permittee must inspect the container storage areas in accordance with the inspection schedule contained in Section F of the permit application and in accordance with OAC Rule 3745-54-15. The inspection schedule must be designed to detect leaking containers, deteriorating containers, and/or containment systems. The Permittee must note the results of these inspections in the inspection log along with any remedial action taken.

Areas subject to spills, such as loading or unloading areas, shall be inspected daily when in use pursuant to the inspection procedure described in Section F of the permit application. The Permittee must maintain these inspection results in the facility operating record.

- (a) An initial inspection of each container of off-site generated waste will be conducted prior to placing containers inside enclosed vehicles for storage.
- (b) A daily inspection of the exterior and interior of each vehicle storing off-site generated waste will be conducted for evidence of deterioration, leaks, or spills. Vehicle doors will be opened and a visual check of the vehicle interior and visible containers will be conducted.
- (c) After six (6) months in storage, and every thirty (30) days thereafter, each container will be removed from the enclosed vehicles. Individual containers will be inspected in accordance with the requirements specified for off-site generated waste stored in enclosed vehicles in accordance with Sections D and F of the permit application. The inspection results must be recorded in the facility operating record.
- (d) Aisle space will not be required to be maintained between containers stored inside enclosed vehicles as a result of the stringent procedures implemented before storage and periodically while waste is in storage.
- (e) Conditions specified in the permit application and applicable requirements of the Ohio Fire Code must be followed while storing waste within enclosed vehicles.

C.10 Recordkeeping

OAC Rule 3745-54-73

The Permittee must comply with all recordkeeping requirements of OAC Rule 3745-54-73 as part of the facility operating record.

C.11 Special Container Provisions for Ignitable or Reactive Waste

OAC Rules 3745-54-17 and 3745-55-76

- (a) The Permittee must not store ignitable or reactive waste except in accordance with OAC Rules 3745-54-17 and 3745-55-76.
- (b) The Permittee must not locate containers holding ignitable or reactive waste within 15 meters (50 feet) of the facility's property line.
- (c) The Permittee must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste and shall follow the storage procedures specified in Sections C, D, and F of the permit application.

C.12 Special Container Provisions for Incompatible Waste

OAC Rules 3745-54-17(B) and 3745-55-77

- (a) The Permittee must not store incompatible waste except in accordance with OAC Rules 3745-54-17(B) and 3745-55-77.
- (b) The Permittee must not place hazardous waste in an unwashed container that previously held an incompatible waste or material.
- (c) The Permittee must separate or protect (by means of a dike, berm, wall, or other device) a storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments.

C.13 Reserved.

C.14 Closure and Post-Closure

OAC Rules 3745-55-10 through 3745-55-20, and 3745-55-78

At closure of the container area, the Permittee must remove all hazardous waste and hazardous waste residues from the containment system, in accordance with the procedures in the closure plan set forth in Section I of the permit application.

If the Permittee demonstrates that not all contaminated soils can be practically removed or decontaminated in accordance with the closure plan, the Permittee shall close the unit and perform post-closure care following a plan approved by the Director of Ohio EPA.

C.15 Container Staging

As applied to this permit, staging refers to the temporary placement of off-site generated waste within the facility. Staging areas are identified and described in the permit application. Staging areas must meet secondary containment standards, have automatic fire detection and suppression systems, and have a roof or canopy whenever possible.

The Permittee will ensure the total volume of containers staged in permitted areas does not exceed the secondary containment capacities for each area. The volume of hazardous waste placed in any staging area will be accrued toward the maximum storage inventory limit established by this permit.

Containers staged for processing activities will be processed within 24 hours of acceptance at the facility, with the exception of those areas with specific staging times as described below. Processing of containers includes placement into permitted storage areas.

Direct-feed waste (waste which is not stored on-site) will begin to be processed within 24 hours of acceptance at the facility. Bulk containers of direct-feed waste may be staged, if necessary, in areas of the facility which are covered, have automatic fire detection and suppression systems, and are "C" containment areas. Locations include Truck Holding and Sampling Bays, Tanker Unloading Bays (Bays 1, 2, 3 and South Bay), and the Container Receiving Area Unloading Docks.

The facility is permitted to manage mixed infectious and hazardous waste (MIHW) in accordance with Sections C and D of the permit application and this permit. MIHW must be processed, staged and/or stored only in designated areas of the facility. If unforeseen circumstances occur that would cause the Permittee to request that MIHW remain on-site longer than the time limitations stated in the permit application, Ohio EPA may allow additional time for processing this waste, on occasion and with sufficient justification, of up to a maximum of thirty (30) days.

The Permittee is permitted to receive, stage, and treat the compressed gases and gas mixtures listed in Section C of the permit application. Compressed gas wastes must be staged in accordance with Section D of the permit application.

The Permittee must also remove all containers being staged for processing and treatment and place them into permitted storage areas within 24 hours of beginning a scheduled or unscheduled outage. However, if the designated time limits for staging will not be exceeded before the incinerator is operating, the Permittee may continue processing and staging activities in accordance with time limits specified in Section D of the permit application and this permit.

Time limits for staging waste in various areas of the facility are described in Section D of the permit application. An anticipated need by the facility to stage containers over these time limits should be brought to the attention of Ohio EPA in advance of reaching those limits. Additional time for staging waste may be considered acceptable under certain circumstances.

Areas with specific time limits for staging are described below:

(a) Truck Holding and Sampling Area –

- (i) Bays - waste may be staged in bays for up to three (3) days.
- (ii) Dock/Ramp - containers may be staged on the dock/ramp during while being loaded or unloaded, but containers must be removed at the end of each shift. Containers can be staged on the dock/ramp for up to 24 hours.

(b) Container Processing Building (CPB) – waste must be staged according to the specific processes being performed. Staging areas have different uses that include, but are not limited to, containers destined for processing through various means and staging of orphan and discrepant containers. Unless designated below, all containers in the CPB must be processed, which includes placement in permitted storage areas, within 24 hours of receipt at the facility. Up to three (3) days may be acceptable under certain circumstances.

- (i) Container Receiving Area (Unloading Docks) and Receiving Conveyor – containers of waste may be staged at this area for up to 24 hours. Bulk waste containers and container trucks may be staged in the Unloading Docks for up to 3 days (72 hours). Containers may be staged on the Receiving Conveyor for up to 24 hours.
- (ii) Splitting Station (staging area north of Splitting Station) – containers may be staged in this area up to 14 days. All split containers must be managed following compatibility rules and be inspected daily.
- (iii) Container Pump-Out Stations – containers can be staged in this area for up to 24 hours.
- (iv) Queuing Lanes (Feed Conveyor 2nd Floor) – containers staged on the Feed Conveyor 2nd Floor do not have a time limit when the incinerator is in operation. However, containers must be removed from the conveyor carriages within 24 hours of initiating shutdown procedures during an outage. Containers may be loaded on the carriages 48 hours prior to start-up after an outage. Containers in this area must be inspected once per shift.
- (v) North Wall of the CPB – containers awaiting discrepancy resolution, not related to manifest discrepancies, and containers destined for direct drum pump-out may be placed in designated locations in this area for up to five (5) days.

(c) Incinerator Feed Building -

- (i) Bulk Solid Waste Tanks (canopied unloading area in front of tanks) – may be used to stage both bulk containers and other containers. Bulk containers may be staged for up to three (3) days. Containers being staged before dumping to the dump-to-pit roll-off can be staged for up to 24 hours. Containers being staged for Bucket Hoist processing must follow the specific timeframes listed in the permit application.
- (ii) Direct Organic Tanker Unloading Station (South Bay/Bay 3) – when not in use feeding waste to the incinerator, containers may be staged up to three (3) days.
- (iii) Direct Drum Pump-Out Stations – containers can be staged for up to 24 hours.
- (iv) Bucket Hoist (Skip Hoist) – loading of Bucket Hoist hoppers or boxes may occur in any canopied “C” containment area equipped with automated fire detection and suppression systems, including the canopied area in front of the Bulk Solid Waste Tanks, in the External Truck Wash Building, in the Lab Pack Building, in the Container Holding Building, and in the Container Processing Building. If the material has the potential to emit organic vapors, it will be processed under vapor recovery. Additional restrictions regarding processing of waste, compatibilities, and aisle space apply.

Prior to processing or storage, all filled Bucket Hoist hoppers or boxes must remain in canopied “C” containment areas equipped with automated fire detection and suppression and vapor recovery if the material has the potential to emit organic vapors.

Hoppers or boxes may be staged on the Bucket Hoist Containment Platform for up to 24 hours. A person must be present at the Direct Drum Station during the time a hopper or box is staged on the Containment Platform. Hoppers or boxes must be sent to the incinerator or removed from the platform and sent back to a staging or storage area prior to the person at the Direct Drum Station leaving that position.

Hoppers or boxes must be processed or placed into storage within 48 hours of first initiating the filling of the hopper or box. The 48-hour time period begins when the individual containers are first staged in an area and includes consolidation in the hoppers/boxes. By the end of the 48 hours, the filled hoppers must be processed or stored in a permitted storage area.

- (d) Organic Tanker Unload Stations (East Bay/Bay 1, Bay 2, Bay3) – may be used to stage bulk containers of waste for up to three (3) days.
- (e) External Truck Wash (Building B) –bulk containers may be staged for up to three (3) days. Other containers may be staged in the building for up to 24 hours, in accordance with restrictions regarding compatibilities and aisle space.
- (f) Lab Pack Building (Building C) – containers, other than lab packs or loose packs, may be processed or staged in this building for up to five (5) days prior to further processing. These containers will be no more than five cubic yards in size, with aisle space maintained.
- (g) Container Holding Building – containers may be staged for Bucket Hoist hopper or box filling for up to 24 hours. While being filled, the hoppers or boxes may be staged for up to 48 hours. The 48-hour time period begins when the individual containers are first staged until the hoppers or boxes must be processed via the Bucket Hoist or placed into storage.

MODULE D - TANK STORAGE, TREATMENT AND MANAGEMENT

D. MODULE HIGHLIGHTS

The Permittee is authorized for tank storage and treatment activities associated with organic and inorganic waste treatment operations, laboratory processes, internal and external truck washes, general wastewater treatment, and fuel blending. Existing tanks have secondary containment systems, level and temperature alarms, safety cut-offs, bypass systems, pressure and vacuum relief safety devices, and inert gas blanketing systems. The operation of the current equipment may be altered without submitting a permit modification request as long as there is no equipment or piping changes. Procedures have been developed to identify, segregate, and handle pumpable waste that is ignitable, reactive, or incompatible with other waste. Waste is evaluated for potential incompatibilities prior to placing waste in tanks. Mixed infectious and hazardous waste (MIHW) must not be placed into any tank system. However, treatment residual from the incineration of MIHW may be placed in the Bulk Solid Waste Tanks for reprocessing, if necessary. Construction has not been started or is only partially completed for many of the permitted operations. Tank systems are fully described in Section D of the permit application. A brief description is provided below.

Organic Waste Treatment Operations include bulk solid waste storage tanks, organic waste tanks, pump-out tanks, and flue gas scrubber effluent equipment with associated process water storage tanks.

Four bulk solid waste storage tanks are permitted with a total capacity of 2,400 cubic yards of waste. Two tanks are installed and constructed of reinforced concrete as in-ground, open-topped tanks located within a building. Waste destined for these tanks cannot carry RCRA waste codes of D002 and D003 and cannot contain free liquids.

The facility is permitted for 52 organic waste tanks with a total capacity of 612,300 gallons. The organic waste tanks are designed to receive, blend, and store bulk liquid and sludge waste. The installed portion of the organic waste tank farm is located within a building that contains 18 tanks with a capacity of 288,000 gallons.

The facility is permitted for 9 pump-out tanks with a total capacity of 25,800 gallons. There are six installed pump-out tanks, including: PT-1 through PT-3 which receive waste from container pump-out stations; PT-4 which is used as a blending tank for wastes from PT-1 through PT-3 and PT-6 before waste is incinerated or pumped to the organic waste tanks; PT-5 which is an overflow tank; and PT-6 which is associated with the extruder.

A flue gas scrubber effluent treatment system is permitted and partially installed. When fully installed, the system will include metal precipitation tanks, a clarifier thickener, a mixer, a rapid sand filter and a filter press. Two process water holding tanks (W-6 and W-7) have been installed and store water from the incineration system such as scrubber water which typically has a low pH.

Inorganic Waste Treatment Operations are permitted but are not currently installed. The facility is permitted for the construction and operation of holding tanks, reaction vessels (reception basins), flow equalization and overflow tanks with a total capacity of 613,200 gallons. Treatment will consist of chemical reactions for metal precipitation, neutralization, oxidation, cyanide destruction, and chrome reduction.

Laboratory Tanks are permitted for a total capacity of 5,300 gallons. Wastewater generated in the laboratory is collected in the currently existing 1,000 gallon tank.

Internal Truck Wash System is permitted for 8 tanks and a total capacity of 16,900 gallons but is not currently installed. The Internal Truck Wash System is intended to be installed near the Organic Tanker Unload Stations and will be used to clean interior compartments of waste-hauling vehicles.

External Truck Wash System is permitted for 2 tanks and a total capacity of 15,300 gallons but is not currently installed. The External Truck Wash System is intended to be installed in the External Truck Wash Building and used to clean vehicle exteriors and decontaminate pieces of equipment.

General Wastewater Treatment System is permitted for a mixer/flocculator, a clarifier/thickener, a contact chamber, an in-line mixer, a filter press, flow equalization tanks, an overflow tank, and a drop box container.

Two process water storage tanks (W-4 and W-5) are currently installed and store storm water collected from other storm water tanks, active process areas (such as C-water sumps) and any liquids from clean-up activities and/or spills on-site. The water in W-4 and W-5 is used as process water in the system or sent off-site for treatment.

The backwash settling tank (W-8), the rapid sand filter (W-9), and the carbon filter (W-10) have also been installed and are currently in use. Liquids collected in W-5 are treated, if necessary, by the sand and carbon filters prior to transfer to W-4.

D.1 Tank Storage Quantity Limitation/Waste Identification

- (a) The Permittee is permitted for 134 aboveground tanks with a design capacity of 2,926,100 gallons of pumpable liquid waste, four in-ground tanks with a total design capacity of 2,400 cubic yards of non-reactive, loose solid waste, and five above-ground tanks with a design capacity of 180 cubic yards for solid treatment residue.
- (b) The Permittee shall store in tanks only the hazardous waste codes specified in the permit application. The Permittee is prohibited from any storage of waste in tanks inconsistent with the restrictions and prohibitions in Section C of the permit application. A summary of the 34 tanks currently installed is provided below.

Tank No.	Capacity (gallons)	Tank Dimensions	Secondary Containment Volume(gallons)	Description of Hazardous Waste
T-1 (1220)	20,000	12' diam x 22'5"	Yes – in place	organic and inorganic wastes
T-2 (1302)	10,000	12' diam x 10'7"	Yes – in place	organic and inorganic wastes
T-3 (1385)	2,000	6' diam x 8'10"	Yes – in place	organic and inorganic wastes
T-4 (1303)	20,000	12' diam x 22'5"	Yes – in place	organic and inorganic wastes
T-5 (1301)	20,000	12' diam x 22'5"	Yes – in place	organic and inorganic wastes
T-6 (1202)	20,000	12' diam x 22'5"	Yes – in place	organic and inorganic wastes
T-7 (1201)	20,000	12' diam x 22'5"	Yes – in place	organic and inorganic wastes
T-8 (1105)	7,000	8' diam x 16'6"	Yes – in place	organic and inorganic wastes
T-9 (1101)	7,000	8' diam x 16'6"	Yes – in place	organic and inorganic wastes
T-10 (1212)	20,000	12' diam x 20'3"	Yes – in place	organic and inorganic wastes
T-11 (1211)	20,000	12' diam x 20'3"	Yes – in place	organic and inorganic wastes
T-12 (1216)	20,000	12' diam x 20'3"	Yes – in place	organic and inorganic wastes
T-13 (1215)	20,000	12' diam x 20'3"	Yes – in place	organic and inorganic wastes
T-14 (1210)	20,000	12' diam x 20'3"	Yes – in place	organic and inorganic wastes
T-15 (1207)	20,000	12' diam x 20'3"	Yes – in place	organic and inorganic wastes
T-16 (1206)	20,000	12' diam x 20'3"	Yes – in place	organic and inorganic wastes
T-17 (1205)	20,000	12' diam x 20'3"	Yes – in place	organic and inorganic wastes
T-18 (1380)	2,000	6' diam x 8'10"	Yes – in place	organic and inorganic wastes

Tank No.	Capacity (gallons)	Tank Dimensions	Secondary Containment Volume(gallons)	Description of Hazardous Waste
PT-1 (1231)	2,500	7' diam x 8'	Yes – in place	organic and inorganic wastes
PT-2 (1232)	2,500	7' diam x 8'	Yes – in place	organic and inorganic wastes
PT-3 (1233)	2,500	7' diam x 8'	Yes – in place	organic and inorganic wastes
PT-4 (1102)	7,000	9' diam x 13'9"	Yes – in place	organic and inorganic wastes
PT-5 (0660)	300	3' diam x 5'4"	Yes – in place	organic and inorganic wastes
PT-6 (1304)	500	5' diam x 5'1"	Yes – in place	organic and inorganic wastes
L-1 (1050)	1,000	4' diam x 10'6"	Yes – in place	laboratory waste
S-1 (1501)	750 cubic yard	18' x 33'	no	bulk, loose, non-reactive solid wastes
S-2 (1502)	750 cubic yards	18' x 33'	no	bulk, loose, non-reactive solid wastes
W-4 (1400)	250,000	33' diam x 40'	Yes – in place	spill, cleanup, potentially contaminated storm water
W-5 (1500)	250,000	33' diam x 40'	Yes – in place	spill, cleanup, potentially contaminated storm water
W-6 (2000)	30,000	12' diam x 36'	Yes – in place	process water
W-7 (2100)	30,000	12' diam x 36'	Yes – in place	process water
W-8 (3100)	6,000	7' diam x 10'	Yes – in place	process water
W-9 (3000)	1,700	7' diam x 6'	Yes – in place	process water
W-10 (3300)	7,000	10' diam x 12'	Yes – in place	process water

Note: See Part A of permit application for description of which tanks are permitted for treatment and/or storage.

D.2 Limitations on Treatment of Hazardous Waste in Tanks

- (a) The Permittee shall treat in tanks only the hazardous waste codes specified in the permit application. The Permittee is prohibited from any treatment of waste in tanks inconsistent with the restrictions and prohibitions in Section C of the permit application.
- (b) The provision of Condition D.2(a) shall not apply to the Permittee's activities as a generator treating hazardous waste in tanks on-site in compliance with the provisions of OAC Rule 3745-52-34.
- (c) Untreated mixed infectious and hazardous waste (MIHW) must not be placed into any tank system. However, treatment residual (slag) from the incineration of MIHW that contains waste not combusted to ash or slag, except for metallic, glass, and ceramic items, may be placed in the bulk solid waste tanks (S-1 and S-2) for reprocessing in accordance with Sections C and D of the permit application and this permit.

D.3 Design and Installation of New Tank Systems or Components
OAC Rule 3745-55-92

- (a) The Permittee must construct any future new tank system(s) in accordance with Section D of the permit application.
- (b) Prior to operation of newly constructed tank systems, the Permittee must submit the certification of installation of the tank system in accordance with OAC rule 3745-55-92(B) to ensure that proper handling procedures were adhered to in order to prevent damage to the system during installation.

D.4 Containment and Detection of Releases
OAC Rule 3745-55-93

(a) New Tank Systems

The Permittee must construct and operate the secondary containment system in accordance with requirements of 3745-55-93(B) through (F), and Sections D and F of the permit application.

(b) Reserved.

(c) Reserved.

D.5 Operating Requirements

OAC Rule 3745-55-94

- (a) The Permittee must not place hazardous wastes or treatment reagents in the tank system if they could cause the tank, its ancillary equipment, or a containment system to rupture, leak, corrode, or otherwise fail.
- (b) The Permittee must prevent spills and overflows from the tank or containment systems using the methods described in the permit application. The Permittee must comply with the requirements of OAC Rule 3745-55-96 if a leak or spill occurs in the tank system.
- (c) The Permittee must operate and maintain all tank systems listed in Condition D.1 in accordance with the procedures, practices and design conditions identified in Section D of the permit application.

D.6 Inspection Schedules and Procedures

OAC Rule 3745-55-95

- (a) The Permittee must inspect the tank systems, in accordance with the Inspection Schedule found in Section F of the permit application and must complete the items in Permit Conditions D.6(b) and D.6(c) as part of those inspections:
- (b) The Permittee must inspect the overfill controls, in accordance with the procedure and schedule in Section F of the permit application.
- (c) The Permittee must inspect the following components of the tank system once each operating day:
 - (i) Aboveground portions of the tank system, if any, to detect corrosion or releases of waste;
 - (ii) Data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design; and
 - (iii) 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 releases of hazardous waste (e.g., wet spots, dead vegetation).
- (d) Reserved.

- (e) The Permittee must document compliance with Permit Condition D.6 in the operating record of the facility.
- (f) The Permittee must immediately remove from service any permitted tank with a remaining wall thickness, as determined from thickness testing or internal inspection, that is less than the design minimum wall thickness for the top, shell or bottom of the tank. The applicable design minimum wall thickness is the total design wall thickness minus the design corrosion allowance. The wall thickness of each active tank must be inspected and measured on an annual basis and compared to the design wall thicknesses and design corrosion allowances found in Section D of the permit application.

D.7 Response to Leaks or Spills
OAC Rule 3745-55-96

- (a) In the event of a leak or a spill from the tank system, from a secondary containment system, or if a system becomes unfit for continued use, the Permittee must remove the system from service immediately and complete the following actions:
 - (i) Immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.
 - (ii) If the release was from the tank system, the owner/operator must, within twenty-four (24) hours after detection of the leak, or, if the owner/operator demonstrates that it is not possible, at the earliest practicable time, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.

If the material released was to a secondary containment system, all released materials must be removed within twenty-four (24) hours or in as timely a manner as possible to prevent harm to human health and the environment.
 - (iii) The Permittee must immediately conduct a visual inspection of all releases to the environment and based on that inspection: (1) prevent further migration of the leak or spill to soils or surface water and (2) remove and properly dispose of any visible contamination of the soil or surface water.
- (b) Unless the requirements of Permit Conditions D.7(b)(i) through D.7(b)(vi) are satisfied, the Permittee must close its tank system in accordance with OAC Rule 3745-55-97 and its closure plan if there has been a leak or spill from the tank system, from a secondary containment system, or if a system becomes unfit for continual use.

- (i) For a release caused by a spill that has not damaged the integrity of the system, the Permittee must remove the released waste and make any necessary repairs to fully restore the integrity of the system before returning the tank system to service.
 - (ii) For a release caused by a leak from the primary tank system to the secondary containment system, the Permittee must repair the primary system prior to returning it to service.
 - (iii) For a release to the environment caused by a leak from a component of the tank system that is below ground and does not have secondary containment, the Permittee must provide this component with secondary containment that meets the requirements of OAC Rule 3745-55-93 before the component can be returned to service.
 - (iv) Reserved.
 - (v) For a release to the environment caused by a leak from the portion of the tank system component that is not readily available for visual inspection, the Permittee must provide secondary containment for the entire component that meets the requirements of OAC Rule 3745-55-93 before the component can be returned to service.
 - (vi) If the Permittee replaces a component of the tank system to eliminate the leak, that component must satisfy the requirements for new tank systems or components in OAC Rules 3745-55-92 and 3745-55-93.
- (c) For all major repairs (e.g., installation of an internal liner, repair of a ruptured tank, or repair or replacement of a secondary containment vault) to eliminate leaks or restore the integrity of the tank system, the Permittee must obtain a certification by an independent, qualified, registered professional engineer in accordance with OAC Rule 3745-50-42(D) 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. This certification must be submitted to the Director within seven days after returning the tank system to use.

D.8 Recordkeeping and Reporting

OAC Rules 3745-55-96, 3745-55-91(A), and 3745-55-92(G)

- (a) The Permittee must report to the Director, within twenty-four (24) hours of detection, when a leak or spill occurs from the tank system or secondary containment system to the environment. A leak or spill of one pound or less of hazardous waste, that is immediately contained and cleaned-up, need not be reported. Releases that are contained within a secondary containment system need not be reported.

- (b) Within thirty (30) days of detecting a release to the environment from the tank system or secondary containment system, the Permittee must report the following information to the Director:
 - (i) Likely route of migration of the release;
 - (ii) Characteristics of the surrounding soil (including soil composition, geology, hydrogeology, and climate);
 - (iii) Results of any monitoring or sampling conducted in connection with the release. If the Permittee finds it will be impossible to meet this time period, the Permittee should provide the Director with a schedule of when the results will be available. This schedule must be provided before the required 30-day submittal period expires;
 - (iv) Proximity of downgradient drinking water, surface water, and populated areas; and
 - (v) Description of response actions taken or planned.
- (c) The Permittee must 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.
- (d) The Permittee must keep on file at the facility the written assessment of the tank system's integrity.
- (e) For existing tanks without secondary containment, the Permittee must maintain at the facility a record of the results of leak tests and integrity tests conducted, in accordance with Permit Conditions D.4(c)(i) through D.4(c)(ii).

D.9 Closure and Post-Closure Care
OAC Rule 3745-55-97

- (a) At closure of the tank system(s), the Permittee must follow the procedures in the closure plan in Section I of the permit application.
- (b) If the Permittee demonstrates that not all contaminated soils can be practically removed or decontaminated, in accordance with the closure plan, then the Permittee must close the tank system(s) and perform post-closure care.

D.10 Special Tank Provisions for Ignitable or Reactive Wastes
OAC Rule 3745-55-98

- (a) The Permittee must not place ignitable or reactive waste in the tank system or in the secondary containment system, unless the procedures specified in the permit application are followed. The Permittee must document compliance with this condition and place it in the operating record.
- (b) The Permittee must comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon, as required in Tables 2-1 to 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code" (1996 or most recent edition) incorporated by reference in OAC Rule 3745-50-11.

D.11 Special Tank Provisions for Incompatible Wastes
OAC Rule 3745-55-99

- (a) The Permittee must not place incompatible wastes, or incompatible wastes and materials, in the same tank system or the same secondary containment system, unless the procedures specified in the permit application are followed. The Permittee must document compliance with this condition and place that documentation into the operating record.
- (b) The Permittee must not place hazardous waste in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless the requirements of Permit Condition D.11(a) are met.

D.12 Reserved.

MODULE E - CORRECTIVE ACTION REQUIREMENTS

E. CORRECTIVE ACTION SUMMARY

The River Services Company owned and operated a bulk storage terminal for distributing petroleum products from 1955 to 1981 at the site of the current facility.

Between 1980 and 1981 the Charter International Oil Company (Charter Oil) leased the petrochemical terminal from the River Services Company. During operations, the Charter Oil facility received solvents including acetone, toluene, xylene, and mineral spirits which were transferred from river transport ships to storage tanks and then to tanker trucks for distribution. The petrochemical terminal consisted of ten (10) above ground storage tanks surrounded by an earthen dike. A known spill history at the Charter Oil facility included:

- (1) a release of approximately 19,000 gallons of xylene in 1983;
- (2) a release of approximately 33,000 gallons of mineral spirits in 1984;
- (3) an alleged release of approximately 200,000 gallons of an unidentified substance investigated by Ohio EPA in 1984.

On September 2, 1981, the Port Authority for Columbiana County (CCPA), Ohio acquired the Charter Oil facility through eminent domain. Charter Oil continued to lease the property from the Columbiana County Port Authority until May 31, 1984.

Analytical results collected at the facility in March of 1990 indicated the presence of toluene, ethylbenzene, xylene in the ground water and soil, and also found benzene, acetone, and trimethylbenzene in the ground water.

The CCPA negotiated an Administrative Consent Agreement with Ohio EPA to address ground water contamination at the facility. The work required by this consent agreement was designed to contain, abate, and mitigate contamination through an interim measure.

This consent agreement was journalized on November 22, 1991.

The Permittee purchased the facility property from the CCPA in December of 1992. With the purchase of the property from the CCPA, the Permittee assumed responsibility for the cleanup of the Charter Oil Facility Release Area (COFRA).

PRC Environmental Management, Inc., under contract by U.S. EPA, performed a preliminary assessment and visual site inspection (PA/VSI) to identify and assess the existence and likelihood of releases from solid waste management units (SWMUs) and other areas of concern (AOC) at the facility. The PA was completed on August 8, 1993, and the VSI was conducted on August 25 and 26, 1993.

The PA/VSI identified eighteen SWMUs and one AOC at the facility, the former Charter Oil Facility Release Area (COFRA).

Since the PA/VSI activities conducted in 1993, additional waste management units (WMUs) have been identified at the facility. A list of the WMUs and AOC is provided in Permit Condition E.3.

Except for the one AOC, no other releases were documented in the PA/VSI. Additional information was evaluated and it was subsequently determined that further action is still not needed at the WMUs at this time.

Transition of corrective action authority from U.S.EPA to Ohio EPA occurred on March 23, 2005, the date of the previous state permit renewal issuance.

Subsequent to the transition of corrective action authority, the Permittee performed a focused RCRA Facility Investigation (RFI) in 2007 and 2008 to investigate the releases from the AOC, also known as the Charter Oil Facility Release Area (COFRA). During the RFI, the Permittee sampled and analyzed soil and ground water samples at the facility. The results of the investigation were documented through the submittal of a RFI Report, which was approved by Ohio EPA on April 20, 2009. Based on the findings in the RFI Report, it was determined that Corrective Measures would be necessary at the facility in order to protect human health and the environment.

Ohio EPA required the Permittee to submit either a Corrective Measure Study to evaluate potential remedies or submit a Presumptive Remedy proposing a specific remedy for the facility.

Since the Permittee had already been conducting an Interim Measure to recover contamination from the subsurface in the COFRA area, the Permittee submitted a Final Remedy Workplan on July 17, 2009. The Final Remedy Workplan included a Presumptive Remedy, which built upon the proposed continuation of their current interim measure.

Ohio EPA evaluated the proposed remedy and believed that continuation of the interim measure, along with additional operations, maintenance and monitoring requirements and restrictions, would be protective of human health and the environment.

On August 10, 2011, Ohio EPA issued a final Director's Initiated Permit Modification to require implementation of the selected corrective measures listed below:

- Ohio EPA and the Permittee negotiated and finalized an Environmental Covenant for the facility which was then recorded on October 20, 2014 restricting future use of the facility to industrial and also restricting the use of ground water.
- The Permittee shall continue to operate, monitor and maintain the skimmer Light Non-Aqueous Phase Liquid (LNAPL) remediation system. The Permittee developed and shall continue to implement an Operations and Maintenance Plan (OMP) for the operation, maintenance, monitoring and removal of the remaining free product floating on the

water table (i.e., LNAPL) in the Charter Oil Facility Release Area (COFRA), until no more than a sheen is present or until LNAPL is no longer detectable using an interface probe.

- The Permittee developed and shall continue to implement the facility-wide Integrated Ground Water Monitoring Program (IGWMP).
- The Permittee developed and shall implement the Soil Management Plan to ensure worker health and safety protection and proper soil management for onsite soil excavation activities.
- The Permittee developed and shall implement the Operations and Maintenance Plan for the maintenance of the current surface cover in the restricted area.
- The Permittee shall develop and implement an Alternative Remedy Plan should the skimmer LNAPL remediation system fail to achieve remedial goals within an acceptable timeframe. The Permittee shall develop and implement an Alternate Remedy Plan should the current LNAPL skimmer corrective measure approach fail to prevent the contaminated ground water plume from expanding or fail to effectively remove the LNAPL. If it is determined that the existing LNAPL remediation system is not performing adequately (e.g., the skimmers are no longer successfully removing the LNAPL present at the facility), then Ohio EPA may request the Permittee submit an Alternate Remedy Plan which evaluates and proposes an alternate LNAPL collection method and remediation system. The Alternate Remedy Plan will be provided to Ohio EPA for review and approval.
- The Permittee shall develop and implement an Indoor Air Monitoring Program for newly enclosed structures located within the restricted area to ensure continued worker health and safety.

With the Ohio EPA approval of the above mentioned Plans, these Plans are hereby incorporated by reference into this Permit.

On December 30, 2014, Ohio EPA issued a letter to the Permittee documenting the achievement of Remedy Construction Complete for Corrective Action.

E.1 Corrective Action at the Facility
OAC Rules 3745-50-10 & 3745-54-101

In accordance with OAC Rule 3745-50-10, waste management unit means any discernible unit at which solid wastes, hazardous waste, infectious waste (as those terms are defined in ORC Chapter 3734), construction and demolition debris (as defined in ORC Chapter 3714) industrial waste, or other waste (as those terms are defined in ORC Chapter 6111) has been placed at any time, irrespective of whether the unit was intended for the management of waste or hazardous waste.

Such units include any area at a facility at which wastes have been routinely and systematically released. For the purpose of Corrective Action, facility is defined as all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA. The terms Interim Measure (IM), RCRA Facility Investigation (RFI), Corrective Measures Study (CMS) and Corrective Measure Implementation (CMI) are defined in U.S. EPA's Corrective Action Plan (CAP) (OSWER Directive 9902.3-2A, May 1994).

The Permittee must institute Corrective Action as necessary to protect human health and the environment for all releases of hazardous wastes or hazardous constituents from any waste management units (WMUs) at the Facility, regardless of the time at which waste was placed in such units.

E.2 Corrective Action Beyond the Facility Boundary
OAC Rule 3745-54-101

The Permittee must implement Corrective Action beyond the Facility property boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of Ohio EPA that, despite the Permittee's best efforts, 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 addressed under the RFI, CMS, and CMI phases, as determined to be necessary on a case-by-case basis.

E.3 Identification of WMUs
OAC Rules 3745-50-44(D) and 3745-54-101

The 1993 PA/VSI documented releases to soil and groundwater at one AOC, the former Charter Oil Facility Release Area (COFRA). A previous Interim Measure related to contamination at the former COFRA was ongoing pursuant to a consent agreement with Ohio EPA. This AOC is now being addressed through the Corrective Action process. The previous Interim Measure related to contamination at the former COFRA was replaced by full implementation of a Final Remedy.

No corrective action is being required at the WMUs at this time.

The following WMUs and AOC have been identified at the facility:

WMU 1:	Incinerator System
WMU 2:	Organic Waste Tank Farm
WMU 3:	Organic Tanker Unload Station
WMU 4:	Truck Holding and Sampling Area
WMU 5:	Building B (External Truck Wash)
WMU 6:	Wastewater Treatment
WMU 7:	Storm Water Storage Tank Farm
WMU 8:	Process Water Tanks

WMU 9:	Laboratory Waste Storage Tank
WMU 10:	Container Processing Building
WMU 11:	Building A (Drum Warehouse of the Container Processing Building)
WMU 12:	Pump Out (PT) Tank Farm
WMU 13:	Extruder
WMU 14:	Container Receiving Area (Unloading Docks)
WMU 15:	Container Holding Building (Slag Canopy)
WMU 16:	North Storage Area
WMU 17:	Bulk Solid Waste Storage Tanks
WMU 18:	Building C (Lab Pack Building)
WMU 19:	Incinerator Feed Building (Direct Organic Tanker South)
WMU 20:	Incinerator Feed Building (Direct Drum Pump Out)
WMU 21:	Decontamination Building (not yet constructed)
WMU 22:	East Storage Area
WMU 23:	Bulk Solid Storage Area
AOC:	Former Charter Oil Facility Release Area (COFRA)

E.4 Reserved.

E.5 RCRA Facility Investigation (RFI)
OAC Rule 3745-54-101

In the event of a newly discovered unit or area of concern, the Permittee must conduct an RFI to thoroughly evaluate the nature and extent of the release of hazardous wastes and hazardous constituents from any newly identified units or areas of concern per Permit Condition E.10. The major tasks and required submittal dates are shown below. The scope of work for each of the tasks is found in U.S. EPA's CAP.

(a) RFI Workplan

The Permittee must submit a written RFI Workplan to Ohio EPA, in case of a newly discovered waste management unit, on a time frame established by Ohio EPA.

- (i) Within forty-five (45) days of receipt of any Ohio EPA comments on the RFI Workplan, the Permittee must submit either an amended or new RFI Workplan that satisfactorily addresses Ohio EPA's comments.
- (ii) Ohio EPA must approve or modify and approve, in writing, the amended or new RFI Workplan. The RFI Workplan, as approved or as modified and approved, shall be incorporated into this permit and become an enforceable condition of this permit. Subsequent changes to the approved RFI Workplan must be authorized by Ohio EPA.

(b) RFI Implementation

The Permittee must implement the RFI Workplan according to the terms and schedule in the approved RFI Workplan.

(c) RFI Final Report

Within sixty (60) days after the completion of the RFI, the Permittee must submit an RFI Final Report to Ohio EPA. The RFI Final Report must describe the procedures, methods, and results of the RFI. The Final Report must contain adequate information to support further decisions concerning Corrective Action at the Facility.

- (i) Within forty-five (45) days of receipt of any Ohio EPA comments on the RFI Final Report, the Permittee must submit either an amended or new RFI Final Report that satisfactorily addresses Ohio EPA's comments.
- (ii) Ohio EPA will approve or modify and approve, in writing, the amended or new RFI Final Report. The RFI Final Report, as approved or as modified and approved, must be incorporated into this permit and become an enforceable condition of this permit. Subsequent changes to the approved RFI Final Report must be authorized by Ohio EPA.

E.6 Interim Measure (IM)

Based on the RFI Final Report or other information documenting a release of hazardous waste or constituents to the environment, Ohio EPA may require the development and implementation of an interim measure (this may include an IM Workplan) at any time during the life of the permit to mitigate or eliminate a threat to human health or the environment. The Permittee must implement the IM upon a time frame established by Ohio EPA.

E.7 Determination of No Further Action

(a) Permit Modification

Based on the results of the completed RFI and other relevant information, the Permittee may submit an application to Ohio EPA for a permit modification under OAC Rule 3745-50-51 to terminate the Corrective Action tasks of the Schedule of Compliance. Other tasks identified in the Schedule of Compliance shall remain in effect. This permit modification application must conclusively demonstrate that there are no releases of hazardous waste or constituents from WMUs and AOCs at the Facility that pose an unacceptable risk to human health and the environment.

If, based upon review of the Permittee's request for a permit modification, the results of the completed RFI, and other information, Ohio EPA determines that releases or suspected

releases which were investigated either are nonexistent or do not pose an unacceptable risk to human health and the environment, Ohio EPA will approve the requested modification. Decisions regarding the completion of RCRA Corrective Action and no further action may be made for the entire Facility, for a portion of the Facility, or for a specific unit or release.

(b) Periodic Monitoring

A determination of no further action will not preclude Ohio EPA from requiring continued or periodic monitoring of air, soil, ground water, or surface water, if necessary to protect human health and the environment, when site-specific circumstances indicate that a potential or an actual release of hazardous waste or constituents exists.

(c) Further Investigations

A determination of no further action shall not preclude Ohio EPA from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates that a release or potential release from a WMU or AOC at the Facility may pose an unacceptable risk to human health or the environment. In such a case, Ohio EPA shall initiate a modification to the terms of the permit to rescind the determination made in accordance with Permit Condition E.7(a). Additionally, in the event Ohio EPA determines that there is insufficient information on which to base a determination, the Permittee, upon notification, is required to develop a Work Plan and upon Ohio EPA approval of that Work Plan, perform additional investigations as needed.

E.8 Corrective Measures Study (CMS)

If Ohio EPA determines, based on the results of the RFI and any other relevant information, that corrective measures are necessary, Ohio EPA will notify the Permittee in writing that the Permittee must conduct a CMS either as described below or as described in Ohio EPA's notification to the Permittee. The purpose of the CMS will be to develop and evaluate the corrective action alternative(s) and to outline one or more alternative corrective measure(s) that will satisfy the performance objectives specified in Permit Condition E.9.

(a) CMS Workplan

The Permittee must submit a written CMS Workplan to Ohio EPA within ninety (90) days from the notification by Ohio EPA of the requirement to conduct a CMS.

- (i) Within forty-five (45) days of receipt of any Ohio EPA comments, the Permittee must submit either an amended or new CMS Workplan that satisfactorily addresses Ohio EPA's comments.
- (ii) Ohio EPA will approve or modify and approve, in writing, the amended or new CMS Workplan. The CMS Workplan, as approved or as modified and approved,

must be incorporated into this permit and become an enforceable condition of this permit. Subsequent changes to the approved CMS Workplan must be authorized by Ohio EPA.

(b) CMS Workplan Implementation

The Permittee must implement the CMS Workplan according to the terms and schedule in the approved CMS Workplan.

(c) CMS Final Report

Within sixty (60) days after the completion of the CMS, the Permittee must submit a CMS Final Report to Ohio EPA. The CMS Final Report must summarize the results of the investigations for each remedy studied and must include an evaluation of each remedial alternative.

- (i) Within forty-five (45) days of receipt of any Ohio EPA comments, the Permittee must submit either an amended or new CMS Final Report that satisfactorily addresses Ohio EPA's comments.
- (ii) Ohio EPA will approve or modify and approve, in writing, the amended or new CMS Final Report. The CMS Final Report, as approved or as modified and approved, must be incorporated into this permit and become an enforceable condition of this permit. Subsequent changes to the approved CMS Final Report must be authorized by Ohio EPA.

E.9 Corrective Measures Implementation (CMI)

Based on the results of the CMS, the Permittee must implement the Corrective Measures selected by Ohio EPA. Ohio EPA will select one or more of the Corrective Measures in the CMS, and will notify the Permittee in writing of the decision. The Corrective Measure selected for implementation must: (1) be protective of human health and the environment; (2) attain media cleanup standards; (3) control the source(s) of releases so as to reduce or eliminate further releases of hazardous waste(s) (including hazardous constituent[s]); and (4) comply with all applicable standards for management of wastes.

If two or more of the Corrective Measures studied meet the threshold criteria set out above, Ohio EPA will select the Corrective Measures by considering remedy selection factors including: (1) long-term reliability and effectiveness; (2) the degree to which the Corrective Measure will reduce the toxicity, mobility or volume of contamination; (3) the Corrective Measure's short-term effectiveness; (4) the Corrective Measure's implementability; and (5) the relative cost associated with the alternative.

In authorizing the proposed corrective measures, Ohio EPA may also consider such other factors as may be presented by site-specific conditions.

The Permittee must implement corrective measures as described below.

(a) Alternate Remedy Plan

- (i) The Permittee must prepare and submit an Alternate Remedy Plan should the skimmer LNAPL remediation system fail to prevent the contaminated ground water plume from expanding or fail to effectively remove the LNAPL until no more than a sheen is present or until LNAPL is no longer detectable using an interface probe. If it is determined that the existing LNAPL remediation skimmer system is not performing adequately (i.e., the skimmers are no longer successfully removing the LNAPL present at the facility until no more than a sheen is present or until LNAPL is no longer detectable using an interface probe), then Ohio EPA may request the Permittee to submit an Alternate Remedy Plan which evaluates and proposes an alternate LNAPL collection method and remediation system.
- (ii) Within forty-five (45) days of receipt of any Ohio EPA comments on the Alternate Remedy Plan, the Permittee must submit either an amended or new plan that satisfactorily addresses Ohio EPA's comments.
- (iii) Ohio EPA will approve or modify and approve, in writing, the amended Alternate Remedy Plan or new Alternate Remedy Plan. The Alternate Remedy Plan, as approved or as modified and approved, must be incorporated into this permit and become an enforceable condition of this permit. Subsequent changes to the approved Alternate Remedy Plan must be authorized by Ohio EPA.

(b) Indoor Air Monitoring Plan

- (i) The Permittee must prepare and submit an indoor air monitoring plan to sample the indoor air if structures located within the use restricted portion of the facility are modified (e.g., newly enclosed). The indoor air monitoring plan should also include levels to which the sampling results will be compared to and any steps necessary to prevent unacceptable exposures from the vapor intrusion pathway if the sampling data indicates results above the levels identified.
- (ii) Within forty-five (45) days of receipt of any Ohio EPA comments on the indoor air monitoring plan, the Permittee must submit either an amended or new plan that satisfactorily addresses Ohio EPA's comments.
- (iii) Ohio EPA will approve or modify and approve, in writing, the amended indoor air monitoring plan or new indoor air monitoring plan. The indoor air monitoring plan, as approved or as modified and approved, must be incorporated into this

permit and become an enforceable condition of this permit. Subsequent changes to the approved indoor air monitoring plan must be authorized by Ohio EPA.

(c) Permit Modification

Ohio EPA will initiate a permit modification, as provided by OAC Rule 3745-50-51 to require implementation of the corrective measure(s) authorized. The Permittee must not implement the corrective measure until the permit is modified pursuant to OAC Rule 3745-50-51.

(d) Financial Assurance

OAC Rule 3745-54-101

The Permittee must provide financial assurance in the amount specified in Section I of the permit application as necessary for the current operations, maintenance and monitoring activities described in Permit Condition E. Corrective Action Summary.

As part of any future modification of this permit to incorporate additional corrective measure(s), the Permittee must provide financial assurance in the amount necessary to implement the corrective measure(s) as required by OAC Rule 3745-54-101(B) and (C). The Permittee must submit Cost Estimate(s) and financial assurance mechanism(s) within sixty days after receiving approval of the CMI Work Plan.

E.10 Newly Identified WMUs or Releases

OAC Rule 3745-54-101

(a) General Information

The Permittee must submit to Ohio EPA, within thirty (30) days of discovery, the following information regarding any new WMU identified at the facility by Ohio EPA or the Permittee:

- (i) The location of the unit on the site topographic map;
- (ii) Designation of the type of unit;
- (iii) General dimensions and structural description (supply any available drawings);
- (iv) When the unit was operated; and
- (v) Specification of all waste(s) that have been managed at the unit.

(b) Release Information

The Permittee must submit to Ohio EPA, within thirty (30) days of discovery, all available information pertaining to any release of hazardous waste(s) or hazardous constituent(s) from any new or existing WMU.

E.11 Corrective Action for Newly Identified WMUs and Releases
OAC Rule 3745-54-101

If Ohio EPA determines that a RFI is required for newly identified WMUs, the Permittee must submit a written RCRA Facility Investigation Workplan to Ohio EPA upon a time frame established in written notification by Ohio EPA in accordance with Permit Condition E.5. This determination will be made based on the information submitted in accordance with Permit Condition E.10.

Further investigations or corrective measures will be established by Ohio EPA. Permittee must make such submittal in accordance with time frames established by Ohio EPA.

E.12 Completion of Corrective Action
OAC Rule 3745-54-101

After completing Corrective Action as necessary to protect human health and the environment for all releases of hazardous wastes or hazardous constituents from any WMUs at the Facility, the Permittee shall submit a Corrective Measures Completion of Work (CMCW) Report. The CMCW Report shall document that Corrective Action construction is complete, cleanup objectives and standards have been met, and any releases of hazardous waste or constituents no longer pose an unacceptable risk to human health and the environment. The CMCW Report may be submitted for any part of the Facility for which corrective measures are complete, or for the entire Facility. The CMCW Report must be submitted as a request for permit modification pursuant to OAC Rule 3745-50-51.

E.13 Documents Requiring Professional Engineer Stamp
ORC Section 4733.01

Preparation of the following Corrective Action documents constitutes the "practice of engineering" as defined by ORC Section 4733.01:

- Final Interim Measures Report
- Corrective Measures Final Design
- Corrective Measures Construction Completion Report
- Corrective Measures Attainment of Groundwater Performance Standards Report
- Corrective Measures Completion of Work Report

As such, the Permittee must ensure that these documents, as submitted to Ohio EPA, are stamped by a Professional Engineer licensed to practice in the State of Ohio.

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MODULE F - POST-CLOSURE CARE - RESERVED

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MODULE G - RESERVED

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MODULE H – TREATMENT IN MISCELLANEOUS UNITS

H. TREATMENT IN MISCELLANEOUS UNITS

The Permittee is permitted for nine miscellaneous units that include: two filter presses, four shredders, two extruders, and a pusher. Section D of the permit application contains additional information regarding the miscellaneous units and systems.

The two filter presses have permitted capacities of 600 gallons per hour per unit. One filter press is associated with the Flue Gas Scrubber Effluent Treatment System and one filter press is associated with the General Wastewater Treatment System. Neither filter press is installed.

Shredders, or a device that is an engineering equal, are permitted to be installed in close proximity to each of the Bulk Solid Waste Storage Tanks. The shredders are anticipated to operate in batch mode, shredding large pieces of waste as a pretreatment process. None of the shredders are installed.

The extruders are designed to remove liquid and semi-solid material from containers at a maximum rate of 18,000 pounds per hour. The existing extruder is located on the second level of the Container Processing Building. The second extruder is not installed.

The pusher is designed to extrude (or push) bulk solid waste from 55-gallon drums at a maximum rate of 18,000 pounds per hour. The pusher is installed but not operational.

H.1 Modification of Application OAC Rule 3745-50-51

Prior to construction of miscellaneous treatment units, the Permittee will submit documentation to the Ohio EPA for review to determine consistency with the permit and the permit application.

H.2 Process Capacity/Annual Limitation

The Permittee shall not exceed a maximum process treatment capacity of 600 gallons per hour for each filter press. Each shredder is permitted to process 40,000 pounds of waste per hour. The pusher and extruders are permitted to process a maximum of 18,000 pounds per hour.

H.3 Waste Identification

The Permittee shall treat, in the permitted miscellaneous units, only the hazardous waste codes specified in Part A of the permit application for which incineration and wastewater treatment is permissible. Waste restrictions that apply to any of the miscellaneous units are described in Section C of the permit application. Mixed infectious and hazardous waste (MIHW) must not be placed into any miscellaneous unit.

H.4 Assessment/Certification of Miscellaneous Units
OAC Rule 3745-57-91 and OAC Rule 3745-50-42(D)

The Permittee must obtain and maintain written statements by qualified, registered professional engineers that attests each of the miscellaneous units were properly designed and installed. The written statement must also include the certification as required by OAC Rule 3745-50-42(D).

H.5 Containment System
OAC Rule 3745-57-91

The filter presses will be an integral part of the Flue Gas Scrubber Effluent Treatment and the General Wastewater Treatment Systems described in Section D of the approved permit application. Consequently, secondary containment for these miscellaneous treatment units will be part of the containment constructed for the systems. The existing extruder was constructed with secondary containment as detailed in the permit application. The shredders, which are associated with the Incineration System, the future extruder, and the pusher, may require secondary containment depending upon where they are installed. If secondary containment is required, it will be constructed to meet the specifications of existing secondary containment at the facility and in accordance to the following:

- (a) Secondary containment must be designed, installed and operated to prevent any migration of waste or accumulated liquid out of the system to soil, ground water, or surface water.
- (b) Secondary containment must be capable of detecting and collecting releases and accumulated liquids until the collected material is removed.
- (c) The secondary containment must meet the requirements of OAC Rule 3745-55-93.

H.6 General Operating Requirements
OAC Rule 3745-57-91

(a) Filter Press System

- (i) Hazardous waste or treatment reagents must not be placed in the filter press system if they could cause the filter press, its ancillary equipment, or the secondary containment system to rupture, leak, corrode, or otherwise fail, as required by OAC Rule 3745-55-94.
- (ii) The Permittee must use appropriate controls and practices to prevent spills or overflows from the filter press or containment system.

(iii) The filter press must be maintained and operated in accordance with the procedures and practices in Section D of the approved permit application, manufacturer's instructions, and accepted industry practice.

(iv) The Permittee must comply with the requirements of OAC Rule 3745-55-96 if a leak or spill occurs in the filter press system.

(b) Shredders

(i) Hazardous waste or treatment reagents must not be placed in the shredders if they could cause the shredders or the secondary containment system to rupture, leak, corrode, or otherwise fail, as required by OAC Rule 3745-55-94.

(ii) The shredders must be maintained and operated in accordance with the procedures and practices in Section D of the approved permit application, manufacturer's instructions, and accepted industry practice.

(iii) The waste to be shredded will be inspected to verify that it is suitable for placement in the Bulk Solid Waste Storage Tanks and assess the availability of adequate space in the tanks prior to operation of the shredders.

(c) Pusher

Prior to installation of the pusher, the Permittee must submit a Class 2 permit modification in accordance with OAC Rule 3745-50-51 that details the specific design and operation of the unit to conform with OAC Chapter 3745-57. Prior to operation of the pusher, the Permittee must comply with the requirements of Permit Condition A.23.

(d) Extruders

The general operating requirements for the extruders are described in Section D of the permit application.

H.7 Inspections
OAC Rule 3745-57-92

(a) The Permittee must inspect the miscellaneous units daily in accordance with OAC Rule 3745-55-95 and Section F of the permit application.

(b) The Permittee must document compliance with Condition H.7(a) in the facility's operating record as required by this permit and the OAC.

H.8 Response to Leaks or Spills and Disposition of Leaking or Unfit for Use Miscellaneous System
OAC Rule 3745-57-92

The hazardous waste miscellaneous units, or secondary containment system from which there has been a leak or spill, or which is unfit for use, must be removed from service immediately and the Permittee must satisfy the following requirements in accordance with OAC Rule 3745-55-96.

(a) Cessation of Use

The Permittee must immediately stop the flow of hazardous waste into the miscellaneous units and/or the secondary containment system and conduct an inspection to determine the cause of the release.

(b) Removal of Waste From the Miscellaneous Unit or Secondary Containment System

- (i) The Permittee must, within twenty-four (24) hours after detection of the leak, remove as much waste as necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the system to be performed.
- (ii) If the material released was to a secondary containment system, all released materials must be removed within twenty-four hours to prevent harm to human health and the environment.

(c) Containment of Visible Releases to the Environment

The Permittee must immediately conduct a visual inspection of the release and, based upon that inspection, prevent further migration of the leak or spill to soil or surface water and remove, and properly dispose of, any visible contamination of the soil or surface water.

(d) Notifications

Any release to the environment, except as provided in OAC Rule 3745-55-96(D)(2), must be reported to the Director of Ohio EPA within twenty-four (24) hours of detection.

- (e) The Permittee must obtain a certification by an independent, qualified professional engineer that any major repair has been satisfactorily performed and the unit is capable of handling hazardous waste without release for the intended life of the system. The certification must be submitted to the director of Ohio EPA within seven (7) days after returning the system to use.

H.9 Special Requirements

OAC Rules 3745-55-98 and 3745-55-99

(a) Ignitable or Reactive Waste

The Permittee must not place ignitable or reactive waste in the filter press. The Permittee must not process reactive waste through the shredders, pusher, or extruders. However, waste carrying the hazardous waste code for ignitability (D001) may be processed through the shredders, pusher, or extruders. The shredders, pusher, or extruder will be designed, installed, and operated in such a manner that the waste will not ignite while being processed.

(b) Incompatible Waste

- (i) The Permittee must not place incompatible waste in the same miscellaneous unit or place hazardous waste in a miscellaneous unit that previously held an incompatible waste or material unless it is done in accordance with OAC Rule 3745-55-99.
- (ii) The Permittee must document compliance with Condition H.9(b)(i) of this permit, as required by OAC Rule 3745-55-99, and place this documentation in the operating record.

H.10 Closure and Post-Closure Care

OAC Rules 3745-57-91 and 3745-57-93

At closure of the miscellaneous units, the Permittee must follow the procedures in Section I of the approved permit application in accordance with OAC Rules 3745-55-10 through 3745-55-40.

MODULE I- INCINERATION

I. INCINERATION

The facility is permitted for two commercial hazardous waste incinerators. One currently exists and one is not constructed yet. The facility's permit and permit application describe the hazardous wastes that the facility is permitted to incinerate. Waste may be received in a variety of container sizes and in bulk form, and will have various chemical compositions and physical states. The facility is also permitted for Mixed Infectious and Hazardous Waste (MIHW), which must be managed in accordance with the permit and permit application.

Receiving, sampling, processing, and tracking procedures for waste on-site are described in Sections C and D of the permit application. Staging, processing, and storage locations are also described in Section D of the permit application. A vapor recovery system controls fugitive emissions during processing and storage of waste on-site and supplies combustion air to the incineration system.

Wastes are introduced into the rotary kiln (the Primary Combustion Chamber (PCC)) via a variety of feed mechanisms. Waste cannot be fed into the Secondary Combustion Chamber (SCC). Waste feed systems and systems ancillary to the incineration system are described in Section D of the permit application. Solid waste residuals in the form of slag move slowly from the front of the kiln to the discharge end. The slag flows from the kiln into a slag quench tank located at the base of the SCC.

Flue gas, generated by the combustion of waste, passes from the PCC into the SCC. From there, flue gas passes into the heat recovery boiler which reduces the temperature of the flue gas prior to entry into the spray dryer. The spray dryer unit further cools the flue gas and also evaporates neutralized process water from the facility's Four Stage Wet Scrubber. From the spray dryer, flue gas enters the Electrostatic Precipitator (ESP) which removes the majority of the fly ash entrained in the flue gas. Flue gas then passes through the Four Stage Wet Scrubber, which removes acid gas pollutants and fine particulate matter. The flue gas, mostly water vapor and carbon dioxide, then exits the stack which has a height of 150 feet.

Analyzers are positioned at specific locations within the incineration system to monitor complete combustion of the hazardous waste and ensure compliance with permit emission limits. Critical process parameters are continuously monitored and are accessible to the facility's control room operators. A computerized control system maintains key process parameters within specific ranges. Waste feeds will be cut-off if certain process parameters fall outside of the specific allowable operating ranges.

The Director has evaluated the factors under OAC Rule 3745-50-40(I)(1) to (I)(1)(i) and concluded that the facility's compliance with the maximum achievable control technology (MACT) standards of 40 CFR Part 63 subpart EEE, in conjunction with the facility's risk-based

operating parameters, is protective of human health and the environment.

I.1 Waste Feed Cut-Off System Requirements
OAC Rule 3745-57-45

The facility's Waste Feed Cut-Off (WFCO) System is utilized to terminate waste feed to the incineration system when a triggering event occurs. Operating parameters which have been identified as risk-based or as more stringent than the corresponding requirement in the Hazardous Waste Combustor (HWC) MACT Standards are listed in Attachment 1 of this permit. If these operating parameters are not being met, the system is programmed to automatically terminate all hazardous waste feeds to the incineration system (an automatic WFCO occurs). There are also parameters listed in Attachment 1 that require a manual WFCO.

- (a) The Permittee must maintain the Waste Feed Cut-Off (WFCO) System as specified in Section D of the permit application and this permit. Hazardous wastes may be fed to the incinerator only when all instruments required by this permit and the facility's permit application are operating properly and monitoring the specified parameters in accordance with this permit and the permit application.
- (b) The incineration system must be operated and maintained to automatically terminate all hazardous waste feeds to the incinerator in accordance with the parameters specified in Attachment 1 of this permit.
- (c) Operating parameters listed in Attachment 1, which have been identified as risk-based or as more stringent than the corresponding requirement in the Hazardous Waste Combustor MACT standards, must trigger an automatic or manual waste feed cut-off.
- (d) In case of a malfunction of the automatic Waste Feed Cut-Off System, the Permittee must perform manual shut downs in accordance with their procedures. The Permittee must not restart the incinerator until the problem causing the malfunction has been located and corrected. At that time, the Permittee must conduct an inspection of all systems in accordance with Permit Condition I.4.

I.2 Identification Criteria for Permitted and Prohibited Waste
OAC Rule 3745-57-44

The Permittee may incinerate hazardous waste as specified in this permit. The Permittee may only feed the hazardous wastes as identified below at the facility subject to Permit Conditions I.3. through I.5., and I.8.

- (a) The Permittee must only incinerate hazardous wastes meeting the following criteria:
 - (i) The Permittee must not feed any hazardous waste whose current Ohio EPA hazardous waste code number does not appear in the Part A application under

the process code of T03.

- (ii) The Permittee must not feed any hazardous waste for which incineration would be inconsistent with the restrictions and prohibitions described in Section C of the permit application.
- (b) Throughout operation, the Permittee must conduct sufficient analysis in accordance with Section C of the permit application to verify that waste fed to the incinerator is within the physical and chemical composition limits specified in this permit.
- (c) Compressed gases and gas mixtures approved for treatment by incineration include gases used as propellants in aerosol cans and the compressed gases and gas mixtures as listed in Section C of the permit application and Attachment 4 of this permit.
- (d) The Permittee may accept mixed infectious and hazardous waste (MIHW), to be managed and treated in accordance with Section C of the permit application.
- (e) The Permittee may accept non-hazardous waste water for use as facility process water, in accordance with the permit application and Attachment 5 of this permit.
- (f) The Permittee must determine the composition and heat value of any auxiliary fuel used in the incineration of any hazardous waste, during start-up and shut-down procedures, and during upset conditions.
- (g) High BTU auxiliary fuel which may be hazardous, but only because it is ignitable (EPA waste code D001), may be used if waste analysis is performed and demonstrates that the waste to be burned as auxiliary fuel contains none of the hazardous constituents listed in the appendix to OAC Rule 3745-51-11.
- (h) Waste accepted for thermal treatment will have a thermal stability class ranking equal to or greater than Class 1 chemicals as found in the Thermal Stability Index developed at the University of Dayton Research Institute (UDRI).

I.3 Construction, Instrumentation, and Operating Performance Requirements
OAC Rule 3745-57-45

Unless otherwise authorized, the Permittee must only feed the wastes described in Permit Condition I.2 into the Primary Combustion Chamber (PCC, or kiln), after the waste feed permissives described in Section D have been met, and only by using the feed mechanisms described in the permit application and this permit. No waste may be fed via the SCC.

- (a) The Permittee must construct, operate, and maintain the incinerator in accordance with the design plans and specifications contained in the permit application. The Permittee must not feed hazardous wastes into any newly constructed incinerator until Permit

Condition A.23 has been complied with.

- (b) The Permittee must design, construct, and maintain the incinerator so that, when operated in accordance with the operating requirements specified in this permit, it will meet the performance standards specified in this permit.
- (c) The Permittee must install, test, operate, and maintain all instrumentation including all associated monitors, analyzers, alarms and control systems, in accordance with the design plans, performance specifications, and maintenance procedures contained in the permit application prior to and while hazardous waste is in the incineration system.
- (d) Operating parameters and limits were originally based on: (1) the trial burns conducted by the facility in 1993, 1994, and 2003; (2) manufacturer's recommendations and specifications; and (3) the results of performance tests conducted at the facility.

Operating parameters include:

- (i) negative pressure in the SCC to prevent fugitive emissions; the Permittee shall control fugitive emissions from the combustion zone of the incineration system by maintaining a constant negative pressure/draft throughout the incineration system and associated heat recovery and flue gas cleaning equipment via the induced draft fan. The incineration system has fugitive emission mechanisms associated with the Primary Combustion Chamber (PCC, or kiln).
- (ii) outlet temperature of the spray dryer/inlet temperature of the ESP, as a control for dioxin/furan formation; the outlet temperature of the spray dryer (inlet temperature of the ESP) must be between 250 degrees F and 450 degrees F at all times waste is in the incineration system and shall be monitored and recorded on a continuous basis and in accordance with Attachments 1 and 3 of this permit.
- (iii) carbon feed rate to the enhanced carbon injection system (ECIS) which collects dioxins/furans that may have formed during the incineration process; the ECIS must be operating at all times waste is in the incineration system and will be monitored and recorded in accordance with Attachments 1 and 3 of this permit. The Permittee shall continue to feed activated carbon at the two injection points in the ECIS at, or above, the rates demonstrated during the Comprehensive Performance Test/Trial Burn conducted in September 2003 (Condition 1) and December 2003 (Condition 2). The feed rate for carbon to the ECIS is an average of the feed rate demonstrated by the two mentioned tests.

The Permittee must utilize "NORIT PAC 20R" activated carbon, or equivalent, as determined by the Director. Equivalency will be determined by comparing Iodine No. (800 mg/g minimum); ash (15% maximum by weight); moisture (4% maximum by weight as packed); screen size (65-80%, U.S. Sieve series through

325 mesh).

The activated carbon feed rates, used during the performance testing of the incineration system to demonstrate control of dioxins/furans, must be maintained at all times that waste is in the incineration system.

The activated carbon feed system must be calibrated monthly to ensure feed rates to the ECIS are maintained in accordance with the requirements of this permit at the two locations described in the June 25, 1993 submittal from the facility, in paragraph two (Process Description) of the document entitled "Enhanced Carbon Injection System" and as illustrated in the associated drawing number P-06-2-31001. The calibrations must be recorded in the facility's operating record.

- (iv) annual metal feed restrictions; to ensure permit limits are not exceeded.
 - (v) the water level in the slag quench tank at the base of the SCC must be maintained automatically by a level probe and automatic valve; a visible and audible alarm must warn the operator if the water level falls below the bottom edge of the outlet in the bottom of the SCC.
 - (vi) the reheat or plume suppression system must be operated continuously while waste is in the incineration system, except during maintenance; the unit may be shut down for up to 24 hours at a time not to exceed ten times in one calendar year. The system must be monitored and recorded in accordance with Attachments 1 and 3 of this permit. Shut-down of the plume suppression system for periods greater than 24 hours or more often than ten times during the calendar year while burning hazardous waste shall only be allowed upon written authorization from the Ohio EPA.
- (e) The Permittee shall comply with the annual emission limits for twelve metals: barium, mercury, silver, thallium, nickel, selenium, antimony, arsenic, beryllium, cadmium, chromium, and lead, as listed in Attachment 2 to this permit. Feed rates shall not be exceeded and shall be monitored and recorded on a continuous basis and in accordance with this permit.
- (f) The Permittee must test the performance of the incineration system to demonstrate continued control of polychlorinated dibenzodioxins and polychlorinated dibenzofurans (dioxins/furans) using the test protocols employed during the most recently approved Hazardous Waste Combustor MACT Comprehensive Performance Test Plan, or an equivalent test plan as specifically approved by Ohio EPA. This testing is required since the 1997 comprehensive risk assessment conducted by the U.S. EPA found dioxin/furans to be a risk to human health and the environment.

- (i) Testing for dioxin/furan emission limits will be performed in conjunction with testing required by the MACT standards and in accordance with the Permittee's Title V permit.
- (ii) To evaluate the incinerator's performance, a rolling average based on five individual test events will be tracked. The initial average was calculated from data collected during the October 2002 Annual Performance Test (two conditions); the first CPT (two conditions); and a test performed six months after the completion of the CPT. All subsequent data will be added to the data grouping and the value from the oldest test period will drop out so that the average represents the five most recent test events. At the conclusion of each dioxin/furan testing event, the average calculated by dropping the oldest test value and adding the new test value will be compared to the previously demonstrated average performance level of 0.055 ng/dscm, TEQ basis, corrected to 7% oxygen achieved during the twenty-six individual stack test runs in 1993 and 1994 subsequent to installation of the ECIS.

If, at any time, the new rolling average is greater than 0.1 ng/dscm, the Permittee must notify the Director immediately. The Permittee will initiate an evaluation for the cause of the average increase and develop a report as to the possible cause with recommendations for corrective action if warranted. The Ohio EPA may consider any such test results as new information under OAC Rule 3745-50-51(A)(2). The comparison of the five test period rolling average with the 1993-1994 ECIS test period average is only to monitor incinerator performance with previously demonstrated emission levels.

- (g) Start-Up and Shut-Down; the Permittee shall comply with the requirements of OAC Rule 3745-57-45(C). In addition, the incineration system must be inspected thoroughly prior to each start-up. This inspection will ensure that the system is in proper working condition before the start-up procedure is initiated. Burners in the PCC front wall will be used to heat up the combustion zone gradually. These burners will burn auxiliary fuel, as described in Permit Condition I.2.(f), during the start-up and shut-down procedures. Once the incineration system is fully operational, waste may be introduced into the PCC.

Shut-down can be initiated automatically by a computerized system or manually by an operator. The shut-down procedure will begin with the termination of waste feed to the system. Except in the case of an emergency shut-down, the system will remain operational in order to complete the combustion of all waste in the incineration system until the end of the calculated residence time as required by the HWC MACT regulations. The burners in the front wall will be used to maintain temperatures in the combustion zone until incineration of the remaining waste is complete.

- (h) Cessation of Operation; the Permittee must comply with the requirements of OAC Rule 3745-57-45(F).

- (i) For purposes of permit enforcement, compliance with the operating requirements specified in this permit and in OAC Rule 3745-57-45 will be regarded as compliance with the required performance standards in this permit. However, evidence that compliance with these operating conditions is insufficient to ensure compliance with the performance standards may justify the modification, revocation, or reissuance of the permit pursuant to OAC Rule 3745-50-51, in accordance with OAC Rule 3745-57-43(D).

I.4 Inspection Requirements
OAC Rule 3745-57-47

The Permittee must inspect the incineration unit in accordance with the Inspection Schedule in Section F of the permit application. All inspection data must be recorded and the records must be placed in the operating log. The Permittee must complete the following as part of these inspections:

- (a) The Permittee must thoroughly visually inspect the incinerator and associated equipment (including pumps, valves, conveyors, pipes, etc.) for leaks, spills, fugitive emissions, and signs of tampering, as specified in Section F of the permit application.
- (b) The Permittee must conduct all other inspections applicable to the incineration unit as specified in Section F of the permit application.

I.5 Monitoring Requirements
OAC Rule 3745-57-47

The Permittee must maintain, calibrate, and operate monitoring equipment at all times while incinerating hazardous waste as specified in the facility's permit application and this permit.

- (a) The Permittee must record data, while incinerating hazardous waste, for all materials fed to the incineration system. The data must be recorded in the operating log in accordance with OAC Rule 3745-54-73. Data must include the feed rates for the metals listed in Attachment 2 to this permit.
- (b) Upon request of the Ohio EPA, the Permittee must sample and analyze emissions to verify the operating requirements established in this permit are being met.
- (c) As directed by the Ohio EPA, the Permittee shall test the incineration system to verify operating requirements established in this permit result in compliance with this permit and the permit application. Testing may also be required to determine whether amendment of the performance standards contained in this permit, or additions thereto, are indicated. At a minimum, the Permittee will conduct testing for the performance standards in this permit at a frequency required by the MACT Standards and as listed in the Clean Air Act Title V permit.

I.6 Incineration Residuals

Unless the Permittee can show otherwise, per OAC Rule 3745-51-03(D), residue from the incinerator is hazardous waste and the Permittee is considered the generator.

- (a) The Permittee must sample and analyze the treatment residue generated from the incineration system and all ancillary systems in accordance with the procedures outlined in Section C of the permit application.
- (b) The Permittee must manage the treatment residue generated from the incineration system in accordance with the procedures outlined in Section D of the permit application and all applicable Ohio hazardous waste regulations.

I.7 Closure

OAC Rule 3745-57-51

The Permittee must follow the procedures in the Closure Plan in Section I of the permit application and the terms and conditions of this permit.

I.8 Record Keeping

The Permittee must record and maintain, in the operating record for this facility, all monitoring and inspection data compiled under the requirements of this permit.

I.9 Re-generable Activated Carbon Adsorption Cleaning System

The Permittee must maintain the re-generable activated carbon adsorption cleaning system to ensure a removal of, at a minimum, 95% of the total organic vapors from the exhaust gas prior to being discharged from the system to the atmosphere and in accordance with the terms and conditions of this permit and Section D of the permit application.

The replacement of the carbon boxes must be recorded in the facility's operating record, in accordance with Section D of the permit application.

MODULE J through MODULE Y - RESERVED

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MODULE Z - INTEGRATED GROUND WATER MONITORING

Z. INTEGRATED GROUND WATER MONITORING

The Permittee maintains a network of ground water monitoring wells around the site for the purpose of detecting releases of hazardous constituents from the active incinerator operations and from the historic Charter Oil operations. The Permittee previously maintained two separate ground water programs. However, the two programs were combined to form an Integrated Ground Water Monitoring Program (IGWMP). The approved IGWMP is specifically designed to coordinate the requirements of the two programs: 1) on-going monitoring for the detection of new contaminant releases and 2) site-wide RCRA Corrective Action requirements which are found in Module E of this permit.

The IGWMP was originally submitted and approved by Ohio EPA in a letter dated May 31, 2012. Subsequently, APEX Companies LLC, on behalf of HTS, submitted a revised IGWMP dated May 2014 to incorporate revised ground water cleanup standards. Ohio EPA received the revised IGWMP on May 20, 2014. The revised IGWMP was reviewed and approved by Ohio EPA, in a letter dated August 8, 2014. In accordance with this permit, specifically Modules E and Z, the May 2014 approved IGWMP shall be incorporated into the permit and become an enforceable condition of the permit. The approved IGWMP is in effect for the Permittee until such time as a more recent version is reviewed and approved by Ohio EPA.

The Permittee implemented the approved IGWMP to ensure ground water contamination is not migrating off-site. The RCRA Facility Investigation (RFI) demonstrated that a Light Non-Aqueous Phase Liquid (LNAPL) free phase layer and dissolved phase ground water contamination still remain in the Area of Concern at the facility, also known as the Charter Oil Facility Release Area (COFRA).

Ground water data collected during the RFI and as part of the Permittee's previous semi-annual ground water monitoring events has demonstrated that the ground water contamination plume is stable and not migrating off-site. Therefore, as part of the Corrective Action remedy, the Permittee will continue to monitor the ground water on-site to address any potential migration of contamination to other areas of the property or off-site.

The approved IGWMP applies to the entire facility, including all regulated units listed in Modules C, D, G, and I and the corrective action units listed in Module E. Under an integrated program and in accordance with OAC rule 3745-54-101, the well system, sampling scheme (including parameters monitored, appropriate sampling and analytical methods, and frequency of monitoring), evaluation procedures, record keeping, reporting and any necessary corrective action are coordinated across the site.

The ground water monitoring wells at the facility are screened in two separate zones: 1) the silt, clay, and sand unit; and 2) the lower sand and gravel unit. Near the ground surface, the dense silt and sand to clayey-silt unit occurs and ranges in thickness from 1 to 35 feet. The unit thickens towards the Ohio River. Underlying the silt, clay and sand unit is a sand and gravel unit with a thickness ranging from 25 to 80 feet, which overlies the sandstone bedrock.

The approved IGWMP includes a list and description of ground water monitoring wells which will be sampled, the frequency at which the wells will be sampled, the constituents which will be analyzed, the test methods to be used, the ground water remediation goals, the sampling and analysis procedures, the recordkeeping and reporting requirements, and the quality assurance/quality control procedures.

The approved IGWMP groups the ground water monitoring wells into four different categories (in-the-plume, point-of-action, farther-downgradient, upgradient):

Wells located within the ground water contamination area (in-the-plume wells) will be sampled every two years unless LNAPL exists within the well which is considered to be more than a sheen in the well. The data from these wells indicates ground water contamination and, therefore, the level of constituents of concern in these wells will be monitored for changes in constituent concentration levels over time.

While these wells have not been sampled regularly in the past, they have indicated the presence of LNAPL at various times during the monthly monitoring events. However, ground water samples will not be collected if LNAPL exists in the well at the time of sampling because the data will indicate the ground water saturation level since the LNAPL layer is present.

Wells located outside the ground water contamination area (point-of-action) will be monitored to ensure that the ground water contamination is not migrating. These wells will be sampled once per year.

Wells located downgradient from the ground water contamination area (farther-downgradient) will be monitored to ensure ground water contamination is not migrating off-site. These wells will be sampled once every two years or more frequently if it is determined that ground water contamination has been detected in the point-of-action wells.

Wells located upgradient of the ground water contamination (upgradient) will be monitored to record ground water quality. These wells will be sampled every two years.

Ground water from wells in these four categories (in-the-plume, point-of-action, farther-downgradient, upgradient) will be analyzed for the following constituents:

- Volatile organic compounds: benzene, ethylbenzene, total xylenes, acetone, isopropylbenzene (cumene), 2-Butanone (MEK), methylcyclohexane, methylene chloride, trichloroethylene (TCE), 4-methyl-2-pentanone (MIBK), trans-1,2-dichloroethylene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene
- Semi-volatile organic compounds: m-dichlorobenzene, o-dichlorobenzene, naphthalene, di-n-octylphthalate, bis(2-ethylhexyl)phthalate, p-dichlorobenzene, 2,4-dimethylphenol, 2-methylnaphthalene,
- Inorganic compounds: arsenic, barium, chromium, lead, nickel

The results from each ground water sampling event will be evaluated by the Permittee and then submitted to Ohio EPA. Data from in-the-plume wells will be evaluated for any trends in the data which may demonstrate the concentrations of constituents of concern in the ground water are increasing or decreasing. Data from point-of-action wells will be compared to ground water remediation goals defined in Z.2 to ensure the LNAPL plume is not migrating.

Data from farther-downgradient wells will be evaluated for any detection of constituents of concern above the Practical Quantitation Limit (PQL). Data from upgradient wells will be used to monitor any possible constituents flowing onto the Permittee's facility.

Wells located to the side of the ground water contamination, referred to as sidegradient wells, will be maintained as part of the approved IGWMP and included in the list of wells utilized to obtain ground water elevations. Ground water elevations will be used in developing shallow contour ground water maps.

Z.1. Applicability
OAC Rule 3745-54-101

- (a) The Permittee must comply with the applicable requirements in OAC Rule 3745-54-101 and institute corrective action as necessary to protect human health and the environment for all releases of hazardous wastes or constituents from any waste management unit (WMU)/area at the facility, regardless of the time at which waste was placed in such unit/area for those listed in Module E.

The WMUs are operating units. The units were previously monitored under an approved detection ground water monitoring plan in accordance with the previous Permit Conditions. The AOC is a result of activities conducted under a previous owner, Charter Oil. The AOC,

also known as the COFRA area, was investigated as part of RCRA Corrective Action. The IGWMP creates one ground water monitoring program for the entire facility.

(b) Reserved.

(c) The owner or operator must implement corrective actions beyond the facility property boundary, where necessary, to protect human health and the environment, unless the owner or operator demonstrates to the satisfaction of the director that, despite the owner's or operator's best efforts, the owner or operator was unable to obtain the necessary permission to undertake such actions. The owner/operator 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 such corrective action must be provided.

Z.2. Ground Water Remediation Standard (GWRS)

The Permittee must ensure that the hazardous constituents or constituents detected in the ground water from a unit/area listed in Permit Condition E.3 do not exceed the following clean-up standards in the uppermost aquifer underlying the units/areas beyond the point of action during the permit period and to respond with any necessary corrective action to bring the ground water back into compliance with those standards. The GWRS has been established in this Permit due to hazardous constituents being detected in the ground water.

(a) List of Hazardous Constituents and Ground Water Clean-Up Standards

The Permittee must monitor the ground water to determine whether units/areas are in compliance with the GWRS. The hazardous constituents listed in the Appendix to OAC Rule 3745-54-98 detected in the ground water underlying a unit/area and reasonably expected to be contained in or derived from the waste contained in the unit/area to which the GWRS applies and their ground water clean-up standards are listed below:

Hazardous Constituents	Clean-Up Standards
benzene	0.005 mg/L
toluene	1 mg/L
ethylbenzene	0.7 mg/L
total xylenes	10 mg/L
acetone	12 mg/L
2-butanone (MEK)	4.9 mg/L
isopropylbenzene (cumene)	0.39 mg/L
methylcyclohexane	13 mg/L
methylene chloride	0.005 mg/L
4-methyl-2-pentanone (MIBK)	1.0 mg/L
trans-1,2-dichloroethylene	0.1 mg/L

trichloroethylene (TCE)	0.005 mg/L
1,2,4-trimethylbenzene	0.015 mg/L
1,3,5-trimethylbenzene	0.087 mg/L
o-dichlorobenzene	0.6 mg/L
p-dichlorobenzene	0.075 mg/L
m-dichlorobenzene	0.6 mg/L
2,4-dimethylphenol	0.27 mg/L
2-methylnaphthalene	0.027 mg/L
bis(2-ethylhexyl)phthalate	0.006 mg/L
di-n-octylphthalate	0.16 mg/L
naphthalene	0.0014 mg/L
arsenic	0.010 mg/L
barium	2 mg/L
chromium	0.1 mg/L
lead	0.015 mg/L
nickel	0.3 mg/L

These single chemical risk-based GWRS must take additive effects of compounds into consideration.

(b) Point of Action

The Permittee has integrated the ground water monitoring programs site-wide. The combined point of action (POA) at which the GWRS applies is indicated on a figure submitted as part of the approved IGWMP.

The Permittee must monitor the wells listed in Permit Condition Z.3(b) for the constituents listed in Permit Condition Z.2(a), with the exception of the wells utilized for the purpose of recording ground water elevations only.

The Permittee must monitor the ground water passing the point of action, the ground water between the point of action and the downgradient property boundary to determine if the clean-up standard has been exceeded at any point between the point of action and the downgradient property boundary.

(c) Permit Period

The period, during which the GWRS applies, is the permit period, to be renewed as long as constituents are detected above the GWRS at any well facility wide. During the permit period the Permittee must establish and implement a monitoring program that will detect, respond, and report as necessary to protect human health and the environment from all releases of hazardous constituents above the cleanup standards at the point of action and between the point of action and the downgradient property boundary. The Permittee shall implement

corrective action beyond the property boundary, where necessary, to protect human health and the environment pursuant to requirements in Permit Condition Z.1(c).

Z.3. Well Location, Installation, Maintenance, and Removal

- (a) The Permittee's ground water monitoring system must consist of a sufficient number of wells, installed and screened at appropriate locations and depths to yield ground water samples from the silt, clay and sand zone and the sand and gravel zone. The samples must:
- (i) Represent the quality of background water that has not been affected by leakage from the units/areas;
 - (ii) Represent the quality of ground water passing the point of action, between the point of action and the downgradient property boundary, and beyond the property boundary, where necessary, to protect human health and the environment;
 - (iii) Allow for the detection and measurement of contamination for all potential release pathways to the uppermost aquifer from the waste management units/areas based on site-specific hydrogeologic characterization when hazardous constituents have migrated from the unit/area to the uppermost aquifer; and
 - (iv) Demonstrate the effectiveness of any corrective action program. The well system should be as effective in determining compliance with the GWRS and in determining the success of the corrective action program.
- (b) The Permittee will maintain the monitoring system, which consists of ground water wells specified in the approved IGWMP and in conformance with the following list:

Well Identifier	Upgradient/ Downgradient	Purpose
PA-03	Downgradient	Point of Action
PA-04	Downgradient	Point of Action
PMW-01	Downgradient	Point of Action
PA-08	Downgradient	Point of Action
WTI-04	Downgradient	Farther downgradient from Point of Action
WTI-05	Downgradient	Farther downgradient from Point of Action
PA-02	Downgradient	Farther downgradient from Point of Action
PRW-01	Within the plume	Record levels of contamination within the plume
PRW-02	Within the plume	Record levels of contamination within the plume
PRW-03	Within the plume	Record levels of contamination within the plume
PA-07	Within the plume	Record levels of contamination within the plume

WTI-06	Within the plume	Record levels of contamination within the plume
WTI-01	Upgradient	Record ground water quality entering facility
WTI-02	Upgradient	Record ground water quality entering facility
WTI-03	Sidegradient	Record ground water elevations
P – 5	Sidegradient	Record ground water elevations
P - 6	Sidegradient	Record ground water elevations
PA – 01	Sidegradient	Record ground water elevations
PA – 05	Sidegradient	Record ground water elevations
PA - 06	Sidegradient	Record ground water elevations

- (c) Wells identified in Permit Condition Z.3(b) must be cased in a manner that maintains the integrity of the monitoring well bore hole and complies with the detailed plans and specifications presented in the approved IGWMP. The casing must be screened and packed with gravel or sand, where necessary, to enable collection of ground water samples. The annular space above the sampling depth must be sealed to prevent contamination of samples and the ground water.

The approved IGWMP must contain ground water monitoring well construction diagrams which illustrate compliance with this Permit Condition.

- (d) The Permittee must remove or replace any monitoring well in Permit Condition Z.3(b) in accordance with the Appendix to OAC Rule 3745-50-51 permit modification process. Each change must be accompanied by a revised figure as specified in Permit Condition Z.3(b) and included in the approved IGWMP.
- (e) Whenever any of the wells specified in Permit Condition Z.3(b) are replaced, the Permittee must demonstrate to Ohio EPA that the ground water quality at the replacement well meets the criteria in Permit Condition Z.3(a) within one year from the date of replacement using means appropriate to the reason for replacement.

Z.4. Sampling and Analysis Procedures

- (a) The Permittee must implement the approved IGWMP. This program must include consistent sampling and analysis procedures designed to ensure monitoring results that provide a reliable indication of ground water quality below the units/areas and in compliance with this Permit Condition.
- (b) The approved IGWMP must include sampling and analytical methods that are appropriate for ground water sampling and that accurately measure hazardous constituents in ground water samples.
- (c) Field and analytical data must be validated in accordance with the procedures specified in the approved IGWMP.

- (d) Ground water elevations must be measured using the techniques described in the approved IGWMP.
- (e) Each well that is identified in Permit Condition Z.3(b) must be checked for the presence of immiscible layers using an interface probe as described in the approved IGWMP.
- (f) Samples must be collected and handled (including well evacuation, sample withdrawal, preservation, containerization, filtration, and shipment using Chain of Custody procedures) to ensure representative samples are obtained using the techniques and equipment described in the approved IGWMP.
- (g) The Permittee must collect samples from the wells least likely to exhibit ground water contamination prior to collecting samples from wells with known or suspected ground water contamination.
- (h) Field analysis must be performed using instruments, procedures, and forms in the approved IGWMP.
- (i) Sampling equipment must be decontaminated using the techniques in the approved IGWMP.
- (j) Purge water must be disposed in accordance with the procedures described in the approved IGWMP.
- (k) Laboratory analytical methods, detection limits and sample holding time must be in accordance with techniques described in the approved IGWMP.
- (l) Quality assurance, including field, laboratory, and equipment blanks, duplicate samples, and identification of potential interferences, must be in accordance with the methods described in the approved IGWMP.
- (m) Field and analytical data must be validated in accordance with the procedures specified in the approved IGWMP and reported as specified in Permit Condition Z.8.
- (n) Chain of Custody procedures, including standardized field tracking reporting forms, and sample labels, must be in accordance with the approved IGWMP.

Z.5. Ground Water Surface Elevation

The Permittee must determine the ground water surface elevation at each well identified in the table in Permit Condition Z.3(b) each time ground water is sampled using the methods in the approved IGWMP. This information must be submitted in accordance with Permit Condition Z.8.

The Permittee must report, in writing to the Ohio EPA, Northeast District Office, the surveyed elevation of the tops of casings, the ground surface and/or aprons, and protective casing of any new or replacement monitoring wells within 30 days of the date of installation.

Z.6. Sampling Frequency

Data on each hazardous constituent specified in Permit Condition Z.2(a) will be collected from all wells listed in Permit Condition Z.3(b), with the exception of the wells utilized for the purpose of recording ground water elevations only. The sampling procedure and interval for each constituent must be described in the IGWMP and in accordance with the table below:

Well Identifier	Sampling Frequency
PA-03	Annual
PA-04	Annual
PMW-01	Annual
PA-08	Annual
WTI-04	Every two years
WTI-05	Every two years
PA-02	Every two years
PRW-01	Every two years, unless LNAPL present in well at time of sampling
PRW-02	Every two years, unless LNAPL present in well at time of sampling
PRW-03	Every two years, unless LNAPL present in well at time of sampling
PA-07	Every two years, unless LNAPL present in well at time of sampling
WTI-06	Every two years, unless LNAPL present in well at time of sampling
WTI-01	Every two years
WTI-02	Every two years

- (a) The number and kinds of samples collected to establish background must be appropriate for the form of statistical test employed, following generally accepted statistical principles.
- (b) The sample size must be as large as necessary to ensure with reasonable confidence that a contaminant release to ground water from a facility will be detected.
- (c) Background data must be updated as necessary in accordance with the approved IGWMP to provide an accurate representation of background ground water quality. New or revised background values must be established in the permit through the permit modification process in OAC Rule 3745-50-51.

Z.7. Statistical Procedures

The Permittee may evaluate the ground water monitoring results for each hazardous constituent in Permit Condition Z.2(a) by directly comparing the ground water monitoring analytical results from each sampling event to the GWRS as identified in Permit Condition Z.2(a) or the Permittee

may use the following statistical procedures in evaluating ground water monitoring results for each hazardous constituent in Permit Condition Z.2(a) in each well in Permit Condition Z.3(b), with the exception of the wells utilized for the purpose of recording ground water elevations only, to identify statistically significant evidence of contamination, the exceedance of a clean-up standard, and/or the effectiveness of corrective action:

- (a) For those constituents for which background values have not been collected and established at the time of Permit Application, the Permittee must choose and submit to Ohio EPA the appropriate statistical method within forty-five (45) days after the receipt of the last background sampling event data through the permit modification process in OAC Rule 3745-50-51.

For those constituents for which background values have been collected, the Permittee must conduct statistical procedures as presented in the approved IGWMP.

- (b) The Permittee's statistical procedures must be protective of human health and the environment, provide reasonable confidence that the migration of hazardous constituents from a unit/area into and through the aquifer will be indicated, and will determine whether such leakage of hazardous constituents into the ground water exceeds specified clean-up standards in Permit Condition Z.2(a). The statistical procedures must comply with the following performance standards:
 - (i) The statistical evaluation of ground water monitoring data must be conducted separately for each hazardous constituent specified in Permit Condition Z.2(a) in each well.
 - (ii) The statistical method must be appropriate for the distribution of the data used to establish background or clean-up standards. If the distribution for the constituents differ, then more than one statistical method may be needed. Methodology of updating background must be included in the approved IGWMP.
 - (iii) The statistical method must provide a reasonable balance between the probability of falsely identifying a non-contaminating and/or exceeding unit/area and the probability of failing to identify a contaminating and/or exceeding unit/area.
 - (iv) If a control chart approach is used, the specific type of control chart and its associated parameter values must be proposed by the Permittee and approved in the IGWMP.
 - (v) If a prediction interval procedure is used, the levels of confidence and the percentage of the population that the interval must contain, must be proposed by the Permittee and approved in the permit. These parameters must be determined after considering the number of samples in the background data

base, the data distribution, and the range of concentration values for each constituent of concern.

- (vi) The statistical method must account for data below the limit of detection with one or more statistical procedures. Any practical quantitation limit (PQL) approved in the permit that is used in the statistical method must be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the Permittee.
- (vii) If necessary, the statistical method must include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

Z.8. Operating Record and Reporting
OAC Rules 3745-54-73, 3745-54-75, and 3745-54-77

(a) Operating Record

The Permittee must enter all of the following information obtained in accordance with Permit Module Z in the operating record and submit a Final Data Report and Evaluation to Ohio EPA, in accordance with Permit Condition Z.8(b):

- (i) Ground water monitoring data collected in accordance with this permit including actual levels of constituents.
- (ii) The laboratory results from each of the well samples and their associated qualifiers including the laboratory sheets for every sampling event (including laboratory method numbers, method detection limits, laboratory practical quantitation limits (PQLs), and units of measurement);
- (iii) The date each well was sampled (tabulated);
- (iv) The date, time, and identification of all blanks and duplicates;
- (v) Any field log or laboratory report documentation of deviation from the procedures in the approved IGWMP, including documentation of parameter omissions during the sampling event;
- (vi) The date the Permittee received the results from the laboratory;
- (vii) The date the owner or operator completed their review of the analytical laboratory's verification of the accuracy and precision of the analytical data and determined its quality.

- (viii) The results of the data validation review per Permit Condition Z.8(a)(vii) including: report completeness, chain of custody, sample receipt form, signed statement of validity, technical holding time review, data qualifiers including their definitions, dilutions, blank data, spikes, spike recovery percent, surrogate recovery, and an explanation of any rejected results;
- (ix) Results of all blanks, duplicates (trip, field, equipment, and method), matrix spike analysis, and laboratory control samples;
- (x) Results of the field parameters;
- (xi) The statistical evaluation of the data (must include all computations, results of statistical tests, and date the statistical evaluation was completed);
- (xii) Ground water surface elevations taken at the time of sampling each well;
- (xiii) Data and results of the annual determination of the ground water flow rate and direction, including potentiometric surface map;
- (xiv) The results of the last three years of all inspections required under OAC Rule 3745-54-15(D) related to ground water monitoring and equipment as required under OAC Rule 3745-54-73(B)(5).
- (xv) Evaluation of the efficiency of any corrective actions performed to bring the ground water quality into compliance with the GWRS per Permit Condition Z.2.
- (xvi) A report on the effectiveness of the approved IGWMP, performed by a qualified hydrogeologist.

(b) Sampling and Annual Reporting

The Permittee must submit a Final Data Report and Evaluation for each sampling and analysis event, conducted in the spring (April, May, or June) of each year. The Report must contain, at a minimum, the information listed in Permit Condition Z.8(a). The Report must be submitted to Ohio EPA, Northeast District Office and entered into the operating record. The Permittee must maintain all documentation from the laboratories regarding analysis of ground water samples. Ohio EPA may require submittal of a copy of the full quality assurance/quality control (QA/QC) report for a particular event if circumstances warrant; but, in general, this will not be required.

The Permittee must submit an annual report to the Director by March 1st or the first business day thereafter if March 1st falls on a weekend or holiday. The annual reports must reference the titles and dates of any sampling reports required by the permit or any updates to those reports, but generally do not need to include duplicates of hard copies previously submitted.

The annual reports must include, at a minimum, the analytical results required by Permit Conditions Z.6 and Z.9, the ground water elevation data required by Permit Conditions Z.5 and Z.8(a)(xii) and (xiii), and results of statistical analyses required by Permit Conditions Z.7 and Z.9. In addition, a copy on disk of all ground water and blank data must be submitted electronically in the format for the Supplementary Annual Ground Water Monitoring Report supplied by the Director, a paper copy of well-specific information (location (latitude and longitude), depth, construction, etc.) for any new/replacement wells, and any other information specified in the instructions for the annual report not addressed in this Permit Condition must be submitted as required by OAC Rule 3745-54-75.

These two reports may be combined into one report to be submitted as soon as technically feasible after the sampling event or by March 1st of the following year at the latest. However, it is important to note that Permit Condition Z.9(c) must be followed when determining if the GWRSs have a confirmed exceedance.

(c) Other Periodic Reporting

The Permittee must comply with any other reporting requirements that become necessary under Permit Condition Z.9 in accordance with the schedules covered by that permit condition and as required by OAC Rule 3745-54-77(C).

Z.9. Integrated Ground Water Monitoring Program (IGWMP)
OAC Rules 3745-54-101

- (a) The Permittee must establish and implement a ground water monitoring program to fully characterize the contaminated ground water as required by OAC Rule 3745-50-44(B)(8)(a) and to demonstrate the effectiveness of the corrective action program. Ground water monitoring must be effective in determining compliance with the GWRS in Permit Condition Z.2 and in determining the success of any corrective action program in this condition. The ground water monitoring program must include:
 - (i) Installation and maintenance of a ground water monitoring system at the point of action as defined in Permit Condition Z.2(b), and, as necessary to protect human health and the environment, between the point of action and the downgradient property boundary and beyond the property boundary. The ground water monitoring system must comply with the requirements in Permit Condition Z.3.
 - (ii) Collection, preservation, and analysis of samples pursuant to Permit Conditions Z.4, Z.5, and Z.6. Statistical analysis must be conducted pursuant to Permit Condition Z.7

- (iii) The Permittee must conduct a sampling program as described in Z.6 for each chemical parameter and hazardous constituent specified in Permit Condition Z.2(a) from each well (background and action) specified in Permit Condition Z.3(b) during the permit period and any extensions due to corrective action implementation.

Any additional sampling shall be taken at an interval (frequency) that assures, to the greatest extent feasible, that an independent sample is obtained, by reference to the uppermost aquifer's effective porosity, hydraulic conductivity, hydraulic gradient, and the fate and transport characteristics of the potential contaminants.

- (iv) The Permittee shall determine the concentrations of the hazardous constituents specified in Permit Condition Z.2(a), throughout the permit period specified in Permit Condition Z.2(c), and report the concentrations, including all estimated values above the method detection limit and PQL, to Ohio EPA, per Permit Condition Z.8.

The Permittee shall compare the concentration of each hazardous constituent measured at each well specified in Permit Condition Z.3(b), with the exception of the wells utilized for the purpose of recording ground water elevations only, with its cleanup standard each time ground water quality is determined in accordance with the procedures specified in Permit Condition Z.7.

Wells beyond the property boundary shall be sampled where necessary to protect human health and the environment, unless the Permittee demonstrates to the Agency that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such action. 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.

- (v) The Permittee must maintain a record of ground water analytical data as measured and in a form necessary for the determination of statistical significance under Permit Conditions Z.7 and Z.8 for the permit period.
- (vi) The Permittee must determine the ground water flow rate and direction in the uppermost aquifer at least annually using procedures specified in the approved IGWMP.
- (vii) Reserved.

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- (b) The Permittee is required to establish and implement a ground water corrective action program under OAC Rule 3745-54-101 and must take corrective action, as necessary, to ensure units/areas are in compliance with the GWRS as specified in Permit Condition Z.2.
- (i) The Permittee shall collect, preserve, and analyze samples in accordance with Permit Condition Z.4.
 - (ii) The Permittee shall determine the concentrations of the hazardous constituents specified in Permit Condition Z.2.a, throughout the permit period specified in Permit Condition Z.2.c, and report the concentrations, including all estimated values above the method detection limit and PQL, to Ohio EPA, per Permit Condition Z.8.
 - (iii) The Permittee shall determine the ground water flow rate and direction in the uppermost aquifer at least annually, as outlined in the approved IGWMP, and report the ground water flow rate and direction to Ohio EPA per Permit Condition Z.8.
- (c) Following any ground water sampling event, the Permittee must compare the analytical results from the in-the-plume wells, point-of-action wells, farther-downgradient wells, and upgradient wells to the GWRS to determine if a confirmed exceedance occurred.

The Permittee must implement, as necessary, a corrective action program that prevents hazardous constituents specified in Permit Condition Z.2(a) from exceeding their respective clean-up standards specified in Permit Condition Z.2(a) at the point of action specified in Permit Condition Z.3(b), between the point of action and the downgradient property boundary, and beyond the property boundary during the permit period specified in Permit Condition Z.2(c) by removing the hazardous constituents or by treating them in place.

- (i) When the GWRS have a confirmed exceedance at the in-the-plume wells listed in Permit Condition Z.3(b), then the Permittee must evaluate the data for any trends in the data which may demonstrate that the constituents listed in Permit Condition Z.2(a) are increasing or decreasing and report that information to Ohio EPA in accordance with Permit Condition Z.8.
- (ii) When the GWRS have a confirmed exceedance at the point-of-action wells or the farther-downgradient from the point-of-action wells listed in Permit Condition Z.3(b), the Permittee must:

- (a) Notify the director in writing within seven (7) days of this finding.

- (b) Sample the farther-downgradient from the point-of-action wells listed in Permit Condition Z.3(b) within thirty (30) days of this finding, if not sampled as part of the current ground water sampling event.
- (c) Within ninety (90) days of this finding, submit a permit modification to establish and implement a corrective action program that prevents constituents in the ground water from exceeding the GWRS at the point-of-action wells or farther-downgradient from the point-of-action wells by removing the hazardous constituents or by treating them in place. If corrective action pursuant to OAC Rule 3745-54-101 and Permit Module E is already occurring, then any corrective action necessary in response will be coordinated with Permit Module E to the extent practical. The modification application will, at a minimum, include the following information:

 - (i) A detailed description of the remedial actions that will remove or treat in place any hazardous constituents that exceed their respective GWRS, as defined in Permit Condition Z.2.a, between the point-of-action wells and the downgradient facility property boundary. To the extent practicable, this remedial action shall be integrated with corrective action activities under Module E of this permit.
 - (ii) A plan for a ground water monitoring program that will demonstrate the effectiveness of the remedial action.
 - (iii) When the GWRS have a confirmed exceedance at the upgradient wells listed in Permit Condition Z.3(b), the Permittee must:

 - (a) Notify the director in writing within seven (7) days of this finding.
 - (b) The Permittee may make a demonstration that the ground water upgradient of the facility property may be impacting the monitoring wells located on the facility property.
 - (iv) The Permittee may demonstrate that a source other than the facility caused a confirmed exceedance of the GWRS or that the exceedance is an artifact caused by an error in sampling, analysis, or statistical evaluation or natural variation in the ground water. In making such a determination, the Permittee must:

 - (a) Notify the director in writing, within 7 days of determining that the facility has reached or exceeded the GWRS, of the intent to make a demonstration.

- (b) Include in the Sampling Report in Permit Condition Z.8 a report which successfully demonstrates that a source other than the facility caused the standard to be exceeded or that the apparent noncompliance with the standards resulted from error in sampling, analysis or evaluation.
- (c) Include in the Sampling Report in Permit Condition Z.8 an application for a permit modification to make any appropriate changes to the approved IGWMP for the facility.
- (d) The Permittee may make this demonstration in addition to, or in lieu of, submitting a permit modification application to modify the approved IGWMP for corrective action. However, the same period of ninety (90) days is required for both a successful "Other Source Demonstration" and the submittal of the permit modification application in accordance with Z.9. The Permittee is not relieved of the ninety (90) day requirement for a permit modification unless the "Other Source Demonstration" is deemed successful by the Agency prior to the ninety (90) day time limit.
- (e) Continue to monitor in accordance with the approved IGWMP at the facility.

(d) Reserved.

(e) Response Action

- (i) If, based on the results of the Permittee's ground water monitoring program, the GWRS detailed in Permit Condition Z.2(a) have not had a confirmed exceedance, with the exception of in-the-plume wells, then the Permittee shall continue under routine IGWMP monitoring.
- (ii) If the Permittee determines the corrective action program established by this permit no longer satisfies the requirements of OAC Rule 3745-54-101, then the Permittee must, within ninety (90) days of that determination, submit an application for a permit modification per OAC Rule 3745-50-51 to make any appropriate changes to the program.
- (iii) The ground water monitoring requirements may be reduced or eliminated in the event that the Permittee can successfully demonstrate

with Ohio EPA approval that the level of contamination has been reduced to below the GWRS and is protective of human health and the environment.

END OF PERMIT CONDITIONS

ATTACHMENT 1

WASTE FEED CUT-OFFS

ATTACHMENT 1

WASTE FEED CUT-OFFS

AUTOMATIC WASTE FEED CUT-OFFS	
PARAMETER	OPERATING LIMIT – TESTED WEEKLY
SPRAY DRYER OUTLET TEMPERATURE	MUST BE ABOVE 250°F AND BELOW 450°F

MANUAL WASTE FEED CUT-OFFS	
PARAMETER	OPERATING LIMIT – TESTED WEEKLY
ECIS	ACTIVATED CARBON FEED RATE AND LOCATION ACCORDING TO PERMIT
FEED RESTRICTIONS: METAL FEEDS	ANNUAL FEED RATES FOR TWELVE METALS, SEE ATTACHMENT 2 TO THIS PERMIT
PLUME SUPPRESSION REHEAT FAN	MUST BE OPERATING ACCORDING TO PERMIT APPLICATION
MONITORING EQUIPMENT FOR SELECT OPERATING PARAMETERS	SELECT MONITORING EQUIPMENT LISTED IN PERMIT CONDITION I.3 OPERATING PROPERLY
FACILITY POWER	GENERAL POWER FAILURE
AUXILIARY FUEL	MUST BE AVAILABLE AT ALL TIMES WASTE IS BEING FED TO THE INCINERATOR

ATTACHMENT 2

PERMIT CONDITIONS REGARDING

EMISSIONS OF METALS

AND

INCINERATOR FEED RATE OF METALS

ATTACHMENT 2
PERMIT CONDITIONS REGARDING EMISSIONS OF METALS
AND INCINERATOR FEED RATE OF METALS

A. Metals Emissions and Feed Rates

The following metals feed or emission limits apply, as described in the Conditions of this Attachment:

Metal	Annual Emission Limit	Annual Feed Rate Limit
Ba	682 lbs/yr	2.96 E+5 lbs/yr
Hg	355 lbs/yr	443 lbs/yr
Ag	954 lbs/yr	2.27 E+5 lbs/yr
Tl	6.6 lbs/yr	2870 lbs/yr
Ni	4170 lbs/yr	1.36 E+6 lbs/yr
Se	102 lbs/yr	3.4 E+4 lbs/yr
Sb	11.1 lbs/yr	82,300 lbs/yr
As	43.8 lbs/yr	3.3 E+4 lbs/yr
Be	2.50 lbs/yr	2630 lbs/yr
Cd	107 lbs/yr	1.0 E+5 lbs/yr
Cr	15.8 lbs/yr	1.56 E+6 lbs/yr
Pb	254 lbs/yr	8.7 E+5 lbs/yr

B. Compliance

The Permittee must comply with the annual metals emission rate limitations listed in this Attachment and must establish compliance with these limits by tracking the amount of metals contained in the wastes fed into the incinerator. Compliance must be tracked and demonstrated on the basis of 60-minute rolling averages, defined as the arithmetic mean of the 60 most recent 1-minute average values, unless an equivalent method is approved by the Director. For the purposes of this Condition, the "amount of metals contained in the waste" includes measured, estimated, and/or default maximum values in accordance with the Permittee's existing waste characterization program.

ATTACHMENT 3

INCINERATION SYSTEM

OPERATING PARAMETERS

ATTACHMENT 3
INCINERATION SYSTEM OPERATING PARAMETERS

System Parameter	Instrument (Tag #) and Monitoring System	Operating Limit and Monitoring Frequency	Calibration Frequency	Back-up System
Slag Quench Tank	LI-4610, Level indicator	Water level in tank. Monitored continuously.	Annually or as needed	None
Spray Dryer Outlet Temperature/ ESP Inlet Temperature	TI-6002, Redundant thermocouples	Must be above 250°F; and must be below 450°F. Recorded continuously.	Every 5 weeks	WFCO
ECIS	HS-5740 HS-7140 Manual check	Activated carbon feed rate. Recorded regularly.	Monthly	WFCO
Feed Restriction	Real Time Monitor	Metal feed rates as listed in Attachment 2. Monitored and recorded continuously.	NA	WFCO
Plume Suppression (Reheat Fan)	HS-7710, DCS	Plume suppression must be operated continuously except during maintenance.	NA	Manual reset
By-Pass or Auxiliary Fuel	Front wall gas burners, HS-3520; auxiliary fuel, HS-3120	Must be available at all times waste is being fed to the incinerator.	According to manufacturer's recommendation	WFCO

ATTACHMENT 4

PERMIT CONDITIONS REGARDING

COMPRESSED GASES

AND GAS MIXTURES

ATTACHMENT 4

PERMIT CONDITIONS REGARDING COMPRESSED GASES AND GAS MIXTURES

- A. The Permittee is permitted to accept and treat specific non-hazardous, non-flammable, and non-reactive compressed gas waste streams. The approved compressed gas list is found in Section C, Waste Characteristics and Waste Analysis Plan (WAP) of the facility's permit application.
- B. In order to add additional compressed gas/gas mixtures to their permit application, the Permittee must follow the procedure described in Section C, Waste Characteristics and Waste Analysis Plan (WAP) of the facility's permit application. This procedure includes the criteria to be used to evaluate new compressed gas/gas mixtures and make the proper modification classification determination prior to submission of the modification request to Ohio EPA.
- C. Evaluation of additional compressed gases and gas mixtures for acceptance and treatment by the Permittee must be based on the criteria listed in Section C of the permit application.
 - (i) If the compressed gas and/or gas mixture under consideration has characteristics that are similar to approved gaseous wastes already listed in Section C of the permit application, the Permittee may submit a Class 1 permit modification with Director's prior approval (Class 1A) to Ohio EPA.
 - (ii) If the compressed gas and/or gas mixture under consideration has characteristics that are dissimilar to approved gaseous wastes already listed in Section C of the permit application, the Permittee may submit a Class 2 permit modification to Ohio EPA.
 - (iii) Compressed gases and/or gas mixtures will be evaluated on a case by case basis and, if approved by Ohio EPA for acceptance and treatment by the Permittee, will be added to Section C of the permit application.
- D. The Permittee will require the generator of the approved specific gas/gas mixtures to properly characterize the waste stream prior to approval for receipt at the facility. This may be in the form of analytical data or material safety data sheets (MSDS).

- E. The Permittee is not authorized for storage of compressed gas/gas mixtures at the facility. The Permittee will schedule shipments of the waste such that only one tanker of compressed gas/gas mixture will be on-site at any time unless exceptional situations arise and the Ohio EPA is notified.
- F. Approved compressed gases and gas mixtures may only be fed to the incineration system via the approved feed mechanisms as specified in Section D of the permit application.
- G. When appropriate, all modifications to waste management units or processing equipment used to manage compressed gaseous wastes will be made following NFPA Standards for handling compressed gases and gas mixtures. For these modifications, the Permittee will submit a certification from the East Liverpool Fire Department, or another approved, authorized agency. The certification, submitted ten days prior to utilization of the modified unit, equipment, and/or SOP, will be used by Ohio EPA to ensure the correct standards were applied and/or implemented.
- H. Gaseous waste treated in the incinerator must be included in the Permittee's total feed limits.

ATTACHMENT 5

PERMIT CONDITIONS REGARDING THE UTILIZATION OF NON-HAZARDOUS WASTE WATER FOR PROCESS WATER

ATTACHMENT 5

**PERMIT CONDITIONS REGARDING THE UTILIZATION OF
NON-HAZARDOUS WASTEWATER FOR PROCESS WATER**

- A. The Permittee shall conduct a six-month demonstration period to evaluate use of off-site generated non-hazardous waste water in designated units and processes at the facility. Stack testing will be conducted during the demonstration period to determine the effect of non-hazardous wastewater use on mercury, particulate and dioxin/furan emissions. The Permittee shall notify the Ohio EPA at least fifteen (15) days prior to the beginning of the demonstration period.
- B. At the completion of the demonstration period and if the Permittee decides to proceed with the use of non-hazardous wastewater as process water at the facility, the Permittee shall install a tank cover for the Process Water Holding Tank (W-5) and vent the tank to the existing vapor recovery system.
- C. All SOPs associated with this modification should be submitted for Ohio EPA review and comment prior to beginning the demonstration period.
- D. Within 45 days after completion of the demonstration period, the Permittee shall submit to the Ohio EPA a written report which includes all results of the demonstration period. The report shall include an introduction/demonstration period description, the purpose of the demonstration period, the elements of the demonstration period (this includes the parameters of interest, monitoring frequency, analytical frequency, stack testing), results and conclusions. The Permittee must retain on-site the original data collected during the demonstration period for a period of three years and make the information available for Ohio EPA review, upon request.
- E. During the demonstration period, the Permittee will monitor and record parameters of interest in the non-hazardous wastewater received from off-site. Analysis for these parameters should be conducted on all pre-acceptance samples of non-hazardous wastewater received from off-site, on samples drawn from W-5 prior to transfer to W-4 or the existing General Wastewater Treatment System, and in accordance with all SOPs associated with this modification. This information shall be included in the report to be submitted.

The parameters to be monitored and recorded include, at a minimum:

- (1) total organic carbon (TOC),
- (2) volatile organic carbon (VOC),
- (3) total suspended solids (TSS),
- (4) brominated compounds,
- (5) iodine, and
- (6) mercury.

- F. During the demonstration period, the Permittee will monitor and record the volume and proportion of non-hazardous wastewater, on-site generated wastewater (e.g., water pumped from sumps), and municipal water accumulated in W-4 and W-5 and used throughout the facility as process water. The Permittee shall monitor and record any process water from W-4 that may be sent off-site and the reason for the transfer. The Permittee shall include this information in the written report required by Condition D. above, as well as how much municipal water is used, where it is used, and why.
- G. During the demonstration period, the Permittee will record the TOC in the slag quench tank daily and evaluate whether the use of non-hazardous wastewater has any effect on the TOC in the slag quench tank water. This information shall be included in the report to be submitted.
- H. During the demonstration period, the Permittee shall increase the sampling frequency of the treatment residue (ash) to daily. At the end of the demonstration period, the Permittee shall include in the report to be submitted, data demonstrating a limit is not necessary. Or, if data indicates a limit for TOC in the non-hazardous wastewater is necessary, the Permittee will submit the value and data to support it. If a limit is required, the Permittee shall submit a permit modification to include a TOC limit to applicable sections of the approved Part B permit application within forty-five (45) days after the report has been submitted.

- I. The Permittee shall conduct a stack test approximately sixty (60) days after the initiation of the demonstration period. A test plan shall be submitted for approval to the Ohio EPA at least forty-five (45) days prior to the stack testing event.
 - a. At a minimum, the stack test plan will include testing for dioxins/furans, mercury, and particulate matter. The stack test will be used to demonstrate that non-hazardous wastewater (containing organics) will not impact the collection of dioxins/furans from the flue gas by the enhanced carbon injection system, and to determine the effect, if any, of mercury in the non-hazardous wastewater on stack emissions.
 - b. Stack testing will be conducted in order to (1) ensure the proposed VOC limit for non-hazardous wastewater used as process/makeup water is adequate; (2) set limits for TOC if necessary; (3) determine a pre-set limit for the stack total hydrocarbon continuous emission monitor for switching from utilization of non-hazardous wastewater to municipal water, and (4) determine if limits are necessary for TSS.
 - c. Results of the stack testing shall be submitted to Ohio EPA within ninety (90) days of completion of the testing.
 - d. If at the completion of the stack testing, or at the first indication that utilization of non-hazardous wastewater is producing unanticipated and unacceptable conditions at the facility (e.g., emissions in excess of regulatory requirements) the Permittee will immediately suspend the demonstration period and the utilization of non-hazardous wastewater. The Permittee will immediately inform the Ohio EPA of the suspension and all information available regarding the suspension and compile a report of the situation to be submitted within fifteen (15) days. Upon review of the report/data, Ohio EPA may determine the Permittee can continue utilizing the non-hazardous wastewater and complete the demonstration period. Any changes that may be necessary, shall be submitted to the Ohio EPA in the form of a permit modification within forty-five (45) days to incorporate the new information.
- J. The Permittee shall submit a permit modification to Ohio EPA to revise all affected permit application pages within forty-five (45) days of submitting the written report required by Condition D. above.