



Ohio Hazardous Waste Facility Installation and Operation Permit Renewal

Division of Environmental Response and Revitalization

Permittee: Vickery Environmental, Inc. U.S. EPA ID: OHD 020 273 819
Facility Name: Vickery Environmental, Inc.
Mailing Address: 3956 State Route 412
City: Vickery State: OH Zip: 43463
Operator Name: Vickery Environmental, Inc.
Mailing Address: 3956 State Route 412
City: Vickery State: OH Zip: 43463
Facility Street Address: 3956 State Route 412
City: Vickery State: OH Zip: 43463

Authorized Activities

In reference to the application of Vickery Environmental, 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:

- Tank Treatment
- Tank Storage
- Misc. Unit Treatment
- Post-Closure
- Corrective Action

Permit Approval

Date:

Laurie A. Stevenson, 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 treat hazardous waste 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 August 24, 2021, 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 (10) 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 one hundred eighty (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 facility. All such changes must be made in accordance with OAC Rule 3745-50-51.

A.16 Waste Shipments
OAC Rules 3745-52-18 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 Office of Environmental Response 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 and Northwest 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 treatment, storage, or disposal 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 fees for the on-site or satellite disposal of hazardous wastes, calculated pursuant to OAC Rule 3745-50-34 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.

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

The Permittee must submit, within sixty (60) days after permit journalization, a permit modification request to Ohio EPA in accordance with OAC Rule 3745-50-51 to incorporate the following documents in the permit application:

Updated Closure/Post-Closure Cost Estimates
OAC Rules 3745-55-42 and 3745-55-44

Section I, Appendix 6 and 8 of the permit application containing the financial assurance mechanism for closure and post-closure care must be updated to include a copy of the closure/post-closure cost estimates as set forth in OAC Rules 3745-55-42 and 3745-55-44.

The surface impoundment post-closure cost estimate located in Section I Appendix 8 must also be updated as required by Permit Condition F.5(b) to increase the post-closure care period to a continuous 10-year period.

Updated Financial Assurance Mechanism for Closure and Post-Closure Care
OAC Rules 3745-55-43 and 3745-55-45

Section I, Appendix 9 of the permit application containing the financial assurance mechanism for closure and post-closure care must be updated to include a copy of the current financial assurance mechanism, as set forth in OAC Rules 3745-55-43 and 3745-55-45, and as specified by the wording requirements of OAC Rule 3745-55-51. The value of the financial assurance mechanism must reflect at least the current amount of the closure and post-closure care cost estimates.

During the life of the permit the Permittee may change the financial assurance mechanism as stated in OAC Rules 3745-55-43 and 3745-55-45. The Permittee 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 and 3745-55-45.

Updated Liability Requirements
OAC Rule 3745-55-47

Section I, Appendix 11 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.

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,
 - (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, and
 - (ix) Annually-adjusted cost estimate for facility closure and post-closure, as required by OAC Rules 3745-55-42 and 3745-55-44 and the terms and conditions of this permit.
- (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 Certification
OAC Rule 3745-54-73(B)

The Permittee must certify, no less often than annually, that the Permittee has a program in place to reduce the volume and toxicity of hazardous waste that the Permittee generates to the degree determined by the Permittee to be economically practicable; and the proposed method of treatment, storage, or disposal is that practicable method currently available to the Permittee which minimizes the present and future threat to human health and the environment.

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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 accept more than 630,500 tons (Basis: 126,000,000 gallons converted to tons based on a specific gravity of 1.2. This annual throughput number reflects the limitation found in the underground injection control permit.) in any one calendar year, but not to exceed 650,500 gallons per day, 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.
- (c) Operating Hours
 - (i) The Facility's "normal operating hours" are 7:00 a.m. to 11:00 p.m.
 - (ii) "Off-hours" are the hours of 11:00 p.m. to 7:00 a.m.
 - (iii) The Permittee may receive and accept waste, but not unload waste during "off-hours", as long as such receipts are recorded in the facility's operating record.
 - (iv) The Permittee may unload during "off-hours" with prior written authorization from the Northwest District.
 - (v) The Permittee may continue to unload waste during "off-hours" if unloading started during normal operating hours.
 - (vi) The Permittee may begin waste unloading during "off-hours" in those instances when, through no fault of the Permittee, the generator and/or transporter experiences some unforeseen circumstances and/or emergency which would not allow the waste to be unloaded during normal operating hours. All permit requirements must be followed for waste unloading during "off-hours" and the Permittee must provide the Northwest District with prior notification. If no one is present at the district office or at the on-site inspector office at the

time the notification is made, the notification may be made by e-mail or voicemail.

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) Before the Permittee treats, stores, or disposes of any hazardous wastes, or nonhazardous wastes if applicable under OAC Rule 3745-55-13(D), the Permittee must obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, this analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with the requirements of OAC Chapters 3745-54 to 3745-57, 3745-205, and 3745-270.

(b) The Permittee must follow the procedures described in the waste analysis plan found in Appendix I of the permit application and the terms and conditions of this permit.

(c) The Permittee must 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 must

inform the laboratory in writing that it must operate under the waste analysis conditions set forth in this permit.

B.3.1. Waste Profiles

- (a) Prior to accepting a generator's waste stream, the Permittee shall obtain waste profile information about the waste stream so that the Permittee can determine if the material can be managed in accordance with the conditions of the permit and approved Part B application. This waste profile information shall include, but not be limited to:
- (i) Generator name, US EPA identification number, profile number;
 - (ii) Common or generic name of the hazardous waste;
 - (iii) Process generating the hazardous waste or the source of the hazardous waste;
 - (iv) Physical description of the hazardous waste;
 - (v) Major chemical or physical components of the hazardous waste by percent of the component per 100 percent of the hazardous waste;
 - (vi) Documentation supporting the generator's knowledge of the waste, analytical data, or a combination of the two which adequately characterizes the waste such that it may be treated, stored, or disposed of in accordance with this permit, Chapters 3745-54 to 57, 3745-218 and 3745-270 of the Ohio Administrative Code;
 - (vii) RCRA hazardous waste description;
 - (viii) Specific handling instructions needed to manage the waste in accordance with the Permittee's permit;
 - (ix) Date and signature of the generator certifying that the information is correct.
- (b) The Permittee must not accept a waste stream if determined that:
- (i) The waste is not among those which the Permittee is authorized to accept by this permit;
 - (ii) Acceptance of the waste is contrary to specific regulation promulgated by Ohio EPA;

- (iii) Acceptance of the waste would cause harm to the environment or to operations of the facility;
 - (iv) The waste contains Toxic Substances Control Act (TSCA) regulated levels of PCBs;
 - (v) Permit Conditions in B.3.1(a) are not met.
- (c) The Permittee must receive prior approval from Ohio EPA, Northwest District Office before accepting any P-coded waste stream, in accordance with ORC 3734.141. P-coded waste streams must only be streams that follow the derived from or carry through provisions or that the Permittee can treat to render them innocuous prior to deep well injection. Review of a waste stream by Ohio EPA as part of the Waste Product Review satisfies all notification requirements of ORC 3734.141.

B.4 Security
OAC Rule 3745-54-14

The Permittee must comply with the security provisions of OAC Rule 3745-54-14(B)(2) and (C) and Section F of the permit application.

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 and Appendix 4 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 take precautions to prevent accidental ignition or reaction of waste during all operations involving ignitable or reactive wastes including, but not limited to, grounding tools, using spark proof tools, or implementing work practices that minimizes ignition or reaction hazards.
- (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 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 Reserved

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 F, Section G, and Appendix 3 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, Section F, Appendix 2, and Appendix 3 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, Section F 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.

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 will normally be working, entrances to and roads inside the facility, and possible evacuation routes as depicted and explained in Section G and Appendix 3 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) Make agreements designating primary emergency authority to a specific police and a specific fire department and make agreements with any others 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).

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

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.

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:

- (a) Any fire involving hazardous waste; or
- (b) Any explosion involving hazardous waste; or
- (c) 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; or
- (d) 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
- (e) 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.
- (f) 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.
- (g) When NO_x or other air emissions are visually observed leaving the facility property by site personnel.

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 and Appendix 3 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 must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.
- (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, must 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 must 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 must 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 any amendments of, revisions to, or modifications to the contingency plan.
- (c) If the contingency plan is revised, that constitutes a permit modification pursuant to OAC Rule 3745-50-51.

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 and Appendix 3 of the permit application and the terms and conditions of this permit.

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

All records shall 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.

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

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(I).

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 with 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 and Appendix 5 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 and Appendix 5 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), 3745-55-18(D), 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 the terms and conditions of this permit.

B.30 Notification of Closure
OAC Rule 3745-55-12

The Permittee must notify the Director in writing at least forty-five (45) days prior to the date on which he expects to begin final closure of a 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 Northwest District Office within three (3) working 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 General Post-Closure Requirements
OAC Rules 3745-55-17, 3745-55-18, 3745-55-19 and 3745-55-20

(a) Post-Closure Care Period

The Permittee must begin post-closure care for each surface impoundment closed as a landfill after completion of closure of the unit and continue for 30 years after that date. Refer to Permit Condition F.2(a) for start date of post-closure care. Post-closure care must be in accordance with OAC Rule 3745-55-17 and the post-closure plan.

(b) Post-Closure Security

The Permittee must maintain security at the facility during the post-closure care period, in accordance with the post-closure plan and OAC Rule 3745-55-17(B).

(c) Amendment to Post-Closure Plan

The Permittee must amend the post-closure plan, when necessary, in accordance with OAC Rule 3745-55-18(D).

(d) Post-Closure Notices

(i) No later than sixty (60) days after certification of closure of each hazardous waste disposal unit, the Permittee must submit to the Director and the local zoning authority records of the type, location, and quantity of hazardous waste disposed of within each cell or disposal unit, in accordance with OAC Rule 3745-55-19(A).

(ii) Within sixty (60) days of certification of closure of the first hazardous waste disposal unit and within sixty (60) days of certification of closure of the last hazardous waste disposal unit, the Permittee must do the following:

(a) Record a notation on the deed to the facility property, or on some other instrument which is normally examined during title search, which contains the information required by OAC Rule 3745-55-19(B)(1).

(b) Submit to the Director a certification that the Permittee has recorded the notation and submit a copy of the document in which the Permittee placed the notation.

- (c) The Permittee must request and obtain a permit modification prior to post-closure removal of hazardous wastes, hazardous waste residues, liners, or contaminated soils, in accordance with OAC Rule 3745-55-19(C).

(e) Certification of Completion of Post-Closure Care

No later than sixty (60) days after completion of the established post-closure care period for each hazardous waste disposal unit, the Permittee must certify that the post-closure care period was performed in accordance with the specifications in the post-closure plan and the terms and conditions of this permit, as required by OAC Rule 3745-55-20. The Permittee must furnish to the Director, upon request, documentation supporting the certification.

B.36 Cost Estimate for Facility Closure and Post Closure
OAC Rules 3745-55-42 and 3745-55-44

- (a) The Permittee's most recent closure and post closure cost estimate, prepared in accordance with OAC Rule 3745-55-42 and 3745-55-44 is specified in Section I, Appendix 6 and 8 of the permit application.
- (b) The Permittee must adjust the closure and post 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 and 3745-55-45.

In case the Permittee is using the financial test or corporate guarantee, the Permittee must adjust the closure cost estimate and post-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) and 3745-55-44(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 or post-closure plan that increases the cost of closure or post-closure, as required by OAC Rule 3745-55-42(C) or 3745-55-44(C).
- (d) The Permittee must submit to the Ohio EPA and keep at the facility the latest closure cost estimate and post-closure cost estimate as required by OAC Rule 3745-55-42(D) and (E) and 3745-55-44(D) and (E).

B.37 Financial Assurance for Facility Closure and Post Closure
OAC Rules 3745-55-43, 3745-55-45 and 3745-55-46

The Permittee must maintain continuous compliance with OAC Rule 3745-55-43, 55-45, 55-46 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 Rule 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.

The Permittee also must demonstrate compliance with OAC Rule 3745-55-47(B) by maintaining liability coverage for non-sudden accidental occurrences in the amount of at least \$3 million per occurrence, with an annual aggregate of at least \$6 million, exclusive of legal defense costs.

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 Surface Water Management Plan

The Permittee shall follow the Surface Water Management Plan as outlined in Section F of the approved application.

B.42 New Waste Management Procedures

Prior to initiating new waste management procedures for nitric acid which vary from normal operations, the Permittee must notify the Ohio EPA, Northwest District Office. If requested by Ohio EPA, a plan must be submitted by Permittee. The plan shall describe the applicability of the proposed procedure.

B.43 Nitric Acid Waste Steam Procedures

Upon receipt of nitric acid waste streams, the Permittee must follow Section 6.1.1 of the approved Waste Analysis Plan.

B.44 Nuisance Loads

The Permittee shall not create a public nuisance pursuant to Ohio Revised Code 3734.02(I).

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MODULE C – RESERVED

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MODULE D - TANK STORAGE, TREATMENT AND MANAGEMENT

D. MODULE HIGHLIGHTS

The Integrated Aqueous Waste Treatment System (IAWTS) consists of the following units: (1) the Truck Unloading Facility and ancillary basket strainers and pumps, waste receiving tanks (V-Tanks), waste head-gas caustic scrubber; (2) Waste Storage and Treatment Tank System; (3) the filters and filter buildings; (4) yard piping; and (5) the pumps and pump houses.

Truck Unloading Facility

The truck unloading facility is a 60-foot by 124-foot steel-framed building which sits on top of concrete piers and a 4-foot high concrete block wall. The wire-mesh reinforced concrete floors of the truck unloading bays are sloped, longitudinally and transversely, a total of 11 inches, to 18-inch deep waste unloading sumps. The unloading sumps are lined with a corrosion resistant liner and contain three 6-inch truck unloading pipes and a 6-inch sump drainpipe. Basket strainers are installed on each of the unloading lines in the internal unloading bays. Tanker trucks may be unloaded by gravity drainage through the basket filters to one of the four V-tanks or pumped directly to one of the six T-tanks.

The below ground portions of both the truck unloading pipes and sump drainpipes are enclosed in a 10-inch PVC shield pipe. These pipes continue underground and into a concrete vault to the V-tanks. Two vaults, located between the unloading building and the V-tanks, serve as secondary containment and a visual inspection point for the 10-inch shielded pipes. These pipes continue through the vault and drain to one of the V-tanks.

Four double walled V-tanks are set in a below ground vault which is approximately 13 feet deep, with only 6 inches protruding above ground. The V-tanks receive waste from the truck unloading facility. Shelter is provided for the vaulted tanks by a wood framed building. The vault is sectioned in half by a 5-foot 10-inch high concrete wall. Each half of the floor slopes towards a sump. Sump accumulation is pumped to tanks V-5 or V-7. Four horizontal centrifugal pumps are set on the floor of the vault. Each pump is dedicated to one of the four V-tanks and draws from the bottom of the tanks through a 4-inch pipe which discharges over the vault wall to the above ground pipe rack. The waste is pumped from the V-tanks to the T-tanks in double walled above ground pipes. The head space of the four V-tanks is vented to the scrubber through 16-inch PVC vent pipes.

A waste head-gas scrubber is located adjacent to the V-tank building. The scrubber is an air pollution control device designed to handle emissions from the V-tanks and T-tanks. The scrubber system is permitted through the Ohio EPA, Division of Air Pollution Control.

Waste Storage and Treatment Tank System

The waste storage and treatment tank system consists of six T-tanks set upon a 143-foot by 140-foot concrete reinforced containment pad. The containment pad is lined with a protective liner. The west 13 feet of the containment pad is dedicated to the T-tank Pump House which shelters one transfer pump and one recirculating pump for each T-tank. The head space of each T-tank is blanketed with an inert gas to create an oxygen-reduced condition to reduce the potential for fire. T-tank emissions are vented via above ground piping to the caustic scrubber. The entire foundation of the containment pad is supported on 50-foot, 90-ton piles driven to refusal. The total available storage volume of the containment system is 313,423 gallons.

Filters and Filter Building

Filter building No. 1 houses the admix and precoat tanks for the filtration process, transfer pumps that service the Filtered Acid Tanks (FAT), and bag filters utilized for the filtration of wastes. Filter building No. 2 contains a large, recessed plate filter press. The filter press is elevated so that a roll off box can be placed under the press to receive the filter cake. The filter press and/or bag filters remove most of the precipitates and other suspended solids from the wastes prior to deepwell injection.

Approvals for an additional filter press and a filter press building have been granted, but have not been installed. Refer to Module G for specific information regarding the requirements to install these units.

Yard Piping

Yard piping is fiberglass-reinforced plastic, polyvinylchloride (PVC), chlorinated polyvinylchloride (CPVC), and hasteloy. Yard piping from the T-tanks and the filter buildings to the injection wells is situated on above ground pipe racks throughout the facility. All above ground yard piping is double walled with leak detection systems.

Pumps and Pump Houses

The four injection wells (IW) are served by four pump houses.

Pump House No.	Injection No.	Well	FAT Tank Information
2	4		FAT #2/T-400, replacement approved, not installed
3	2		FAT #3, installed
5	5		FAT #5, installed
1	6		FAT #5/T-600, replacement approved, not installed

Each injection well has an associated FAT, not all currently installed, and transfer pumps. These pumps and tanks are contained in a concrete containment wall. All currently installed FATs are double walled tanks. The pumps are either contained or sealless magnetic pumps.

The four injection well pump house floors are sloped towards sumps. Each of the four pump houses shelters an injection pump, transfer pumps, and guard filters and a polish filter.

D.1 Tank Storage Quantity Limitation/Waste Identification

- (a) The Permittee may store a total volume of 1,085,750 gallons of hazardous waste in 17 tanks, subject to the terms of this permit and as detailed in the table below.

The Permittee shall store in tanks only the hazardous waste codes specified in the permit application and summarized below:

Tank No.	Capacity (Gallons)	Dimensions of Tank	Secondary Containment Volume (Gallons)	Description of Hazardous Waste	Hazardous Waste No.
T-1 (T036)	200000	39' x 31'	313,423	Waste- corrosive liquids	See Condition D.1.c
T-2 (T037)	200000	39' x 31'	313,423	Waste- corrosive liquids	See Condition D.1.c
T-5 (T038)	200000	39' x 31'	313,423	Waste- corrosive liquids	See Condition D.1.c
T-6 (T039)	200000	39' x 31'	313,423	Waste- corrosive liquids	See Condition D.1.c
T-9 (T040)	100000	39" x 22"	313,423	Waste- corrosive liquids	See Condition D.1.c
T-10 (T041)	100000	39" x 22"	313,423	Waste- corrosive liquids	See Condition D.1.c
T-22 (V-4)	6000	8" x 12"	Double walled tank	Waste- corrosive liquids	See Condition D.1.c
T-23 (V-5)	6000	8' x 12'	Double walled tank	Waste- corrosive liquids	See Condition D.1.c

Tank No.	Capacity (Gallons)	Dimensions of Tank	Secondary Containment Volume (Gallons)	Description of Hazardous Waste	Hazardous Waste No.
T-24 (V-6)	6000	8' x 12'	Double walled tank	Waste- corrosive liquids	See Condition D.1.c
T-25 (V-7)	6000	8' x 12'	Double walled tank	Waste- corrosive liquids	See Condition D.1.c
T-94	500	XXXX		Waste- corrosive liquids	See Condition D.1.c
T-800 (FAT-BR)	11750	XXXX		Waste- corrosive liquids	See Condition D.1.c
T-500 (FAT-5R)	11750	20' x 10'	Double walled tank	Waste- corrosive liquids	See Condition D.1.c
T-400 (FAT-2R)	11750	XXXX		Waste- corrosive liquids	See Condition D.1.c
T-300 (FAT-3R)	11750	20' x 10'	Double walled tank	Waste- corrosive liquids	See Condition D.1.c
T-600 (FAT-6R)	11750	XXXX		Waste- corrosive liquids	See Condition D.1.c
Lab Waste Tank	2500	88.5"H x 95"W		Waste- corrosive liquids	See Condition D.1.c

- (b) During any calendar year, the Permittee must not manage through tank storage hazardous waste in excess of the maximum annual quantity set forth in Permit Condition B.1(b).
- (c) The Permittee shall treat and store in tanks only the hazardous waste codes specified in the approved Part B permit application and summarized below:

D001	D002	D003	D004	D005	D006	D007	D008	D009	D010
D011	D012	D013	D014	D015	D016	D017	D018	D019	D020
D021	D022	D023	D024	D025	D026	D027	D028	D029	D030
D031	D032	D033	D034	D035	D036	D037	D038	D039	D040
D041	D042	D043	F001	F002	F003	F004	F005	F006	F007
F008	F009	F010	F011	F012	F019	F024	F025	F032	F034
F035	F037	F038	F039	K001	K002	K003	K004	K005	K006
K007	K008	K009	K010	K011	K013	K014	K015	K016	K017
K018	K019	K020	K021	K022	K023	K024	K025	K026	K027
K028	K029	K030	K031	K032	K033	K034	K035	K036	K037
K038	K039	K040	K041	K042	K043	K044	K045	K046	K047
K048	K049	K050	K051	K052	K060	K061	K062	K069	K071
K073	K083	K084	K085	K086	K087	K088	K093	K094	K095
K096	K097	K098	K099	K100	K101	K102	K103	K104	K105
K106	K107	K108	K109	K110	K111	K112	K113	K114	K115
K116	K117	K118	K123	K124	K125	K126	K131	K132	K136
K141	K142	K143	K144	K145	K147	K148	K149	K150	K151
K156	K157	K158	K159	K161	K169	K170	K171	K172	K174
K175	K176	K177	K178	K181	P001	P002	P003	P004	P005
P006	P007	P008	P009	P010	P011	P012	P013	P014	P015
P016	P017	P018	P020	P021	P022	P023	P024	P026	P027
P028	P029	P030	P031	P033	P034	P036	P037	P038	P039
P040	P041	P042	P043	P044	P045	P046	P047	P048	P049

P050	P051	P054	P056	P057	P058	P059	P060	P062	P063
P064	P065	P066	P067	P068	P069	P070	P071	P072	P073
P074	P075	P076	P077	P078	P081	P082	P084	P085	P087
P088	P089	P092	P093	P094	P095	P096	P097	P098	P099
P101	P102	P103	P104	P105	P106	P108	P109	P110	P111
P112	P113	P114	P115	P116	P118	P119	P120	P121	P122
P123	P127	P128	P185	P188	P189	P190	P191	P192	P194
P196	P197	P198	P199	P201	P202	P203	P204	P205	U001
U002	U003	U004	U005	U006	U007	U008	U009	U010	U011
U012	U014	U015	U016	U017	U018	U019	U020	U021	U022
U023	U024	U025	U026	U027	U028	U029	U030	U031	U032
U033	U034	U035	U036	U037	U038	U039	U041	U042	U043
U044	U045	U046	U047	U048	U049	U050	U051	U052	U053
U055	U056	U057	U058	U059	U060	U061	U062	U063	U064
U066	U067	U068	U069	U070	U071	U072	U073	U074	U075
U076	U077	U078	U079	U080	U081	U082	U083	U084	U085
U086	U087	U088	U089	U090	U091	U092	U093	U094	U095
U096	U097	U098	U099	U101	U102	U103	U105	U106	U107
U108	U109	U110	U111	U112	U113	U114	U115	U116	U117
U118	U119	U120	U121	U122	U123	U124	U125	U126	U127
U128	U129	U130	U131	U132	U133	U134	U135	U136	U137
U138	U140	U141	U142	U143	U144	U145	U146	U147	U148
U149	U150	U151	U152	U153	U154	U155	U156	U157	U158
U159	U160	U161	U162	U163	U164	U165	U166	U167	U168
U169	U170	U171	U172	U173	U174	U176	U177	U178	U179
U180	U181	U182	U183	U184	U185	U186	U187	U188	U189
U190	U191	U192	U193	U194	U196	U197	U200	U201	U202
U203	U204	U205	U206	U207	U208	U209	U210	U211	U213
U214	U215	U216	U217	U218	U219	U220	U221	U222	U223
U225	U226	U227	U228	U234	U235	U236	U237	U238	U239
U240	U243	U244	U246	U247	U248	U249	U271	U278	U279
U280	U328	U353	U359	U364	U367	U372	U373	U387	U389
U394	U395	U404	U409	U410	U411				

D.2 Limitations on Treatment of Hazardous Waste in Tanks

- (a) The Permittee is authorized to treat hazardous waste in the tanks specified in the table below. The Permittee is authorized to treat 650,000 gallons of hazardous waste per day, not to exceed a total throughput volume of 126,000,000 gallons of hazardous waste per year. The Permittee shall treat in tanks only the hazardous waste codes specified in the permit application and summarized below:

Tank No.	Capacity (Gallons)	Treatment Type	Dimensions of Tank	Secondary Containment Volume (Gallons)	Description of Hazardous Waste	Hazardous Waste No.
T-1 (T036)	200000	Blending	39' x 31'	313,423	Waste-corrosive liquids	See Condition D.1.c
T-2 (T037)	200000	Blending	39' x 31'	313,423	Waste-corrosive	See Condition D.1.c

Tank No.	Capacity (Gallons)	Treatment Type	Dimensions of Tank	Secondary Containment Volume (Gallons)	Description of Hazardous Waste	Hazardous Waste No.
					liquids	
T-5 (T038)	200000	Blending	39' x 31'	313,423	Waste-corrosive liquids	See Condition D.1.c
T-6 (T039)	200000	Blending	39' x 31'	313,423	Waste-corrosive liquids	See Condition D.1.c
T-9 (T040)	100000	Blending	39" x 22"	313,423	Waste-corrosive liquids	See Condition D.1.c
T-10 (T041)	100000	Blending	39" x 22"	313,423	Waste-corrosive liquids	See Condition D.1.c
T-22 (V-4)	6000	Blending	8" x 12"	Double walled tank	Waste-corrosive liquids	See Condition D.1.c
T-23 (V-5)	6000	Blending	8' x 12'	Double walled tank	Waste-corrosive liquids	See Condition D.1.c
T-24 (V-6)	6000	Blending	8' x 12'	Double walled tank	Waste-corrosive liquids	See Condition D.1.c
T-25 (V-7)	6000	Blending	8' x 12'	Double walled tank	Waste-corrosive liquids	See Condition D.1.c
T-94	500	Blending	XXXX	Double walled tank	Waste-corrosive liquids	See Condition D.1.c
T-800 (FAT-BR)	11750	Blending	XXXX	Double walled tank	Waste-corrosive liquids	See Condition D.1.c
T-500 (FAT-5R)	11750	Blending	20' x 10'	Double walled tank	Waste-corrosive liquids	See Condition D.1.c
T-400 (FAT-2R)	11750	Blending	XXXX	Double walled tank	Waste-corrosive liquids	See Condition D.1.c
T-300 (FAT-3R)	11750	Blending	20' x 10'	Double walled tank	Waste-corrosive liquids	See Condition D.1.c
T-600 (FAT-6R)	11750	Blending	XXXX	Double walled tank	Waste-corrosive liquids	See Condition D.1.c
Lab Waste Tank	2500	Blending	88.5"H x 95"W	Double walled tank	Waste-corrosive liquids	See Condition D.1.c

(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.

However, when treating waste in tanks in accordance with OAC Rule 3745-52-34, the Permittee shall not, for the total amount of hazardous waste

treated, exceed the maximum throughput capacity established under this Condition.

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

- (a) The Permittee must construct the tank system in accordance with Section D of the permit application.
- (b) Prior to operation of the newly constructed tank system, 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 Section F of the permit application.

When constructed, new tanks at the facility will be: T-94, T-800, T-400, and T-600.

(b) Existing Tank Systems with Secondary Containment

The Permittee must design, construct, and operate the secondary containment system, in accordance with the detailed design plans and descriptions contained in the permit application.

Existing tanks at the facility are: T-1, T-2, T-5, T-6, T-9, T-10, T-22, T-23, T-24, T-25, T-500, T-300, and Lab Waste Tank.

- (c) The Permittee must comply with the following conditions until such time as secondary containment that meets the requirements of OAC Rule 3745-55-93 is provided:

- (i) For non-enterable underground tanks, a leak test must be conducted annually using the procedures in the permit application.
- (ii) For other than non-enterable underground tanks, a leak test must be conducted using the procedures in the permit application.

- (iii) For ancillary equipment, a leak test must be conducted annually using the procedures in the permit application.
- (iv) If a tank system or component is found to be leaking or unfit for use as a result of the leak test or assessment, the Permittee must comply with Permit Condition D.7 of this Permit and notify the Director, in accordance with Permit Condition D.8. of this permit.

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.

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 and Appendix 2 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 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) The Permittee must document compliance with Permit Condition D.6 in the operating record of the facility.

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 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 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) 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)(1) 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) 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 and Appendix 5 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 Permittee began corrective action under the authority of U.S. EPA. A Visual Site Inspection (VSI), part of the RCRA Facility Assessment (RFA), was conducted at the facility by Jacobs Engineering Group through Metcalf & Eddy under contract with U.S. EPA on May 8 and 9, 1990. The report identified 45 Waste Management Units (WMUs) and 5 Areas of Concern (AOC). The Report of Current Conditions (RCC) was submitted to the U.S. EPA in December 1994 and revised in April 1995. The RCC documented the current conditions at the facility and identified an additional 7 WMUs and 4 AOCs, for a total of 52 WMUs and 9 AOCs. The U.S. EPA subsequently identified the TSCA closure cell as another WMU, bringing the total of WMUs to 53. In response to Ohio EPA concerns regarding the area around monitoring well L19, this area was added as an AOC, bringing the total number of AOCs to 10.

U.S. EPA issued a Federal Part B Hazardous Waste Permit which became effective, for a ten-year period, on October 24, 1994. This permit included a Corrective Action Schedule of Compliance. According to the schedule, the Permittee submitted its RFI Phase I Workplan, RFI Report and Summary. U.S. EPA determined that a total of 53 WMUs and 10 AOCs should be investigated during the RFI.

The 53 WMUs were originally grouped into 9 WMU Groups according to operational history.

Conditional approval of the RFI Workplan was provided by U.S. EPA on September 11, 1997. The Permittee submitted the final RFI Workplan on October 29, 1998. Phase I was implemented March 9, 1999, through May 12, 1999. The primary focus of Phase I was to determine if releases had occurred from WMUs and potential AOCs at the site and, if releases did occur, determine the type(s) and concentration(s) of contaminants. Results from the Phase I RFI were used to determine areas that may require additional characterization during the Phase II RFI. On August 17, 2001, Ohio EPA assumed corrective action authority at this facility.

A Phase II RFI Work Plan was originally submitted to Ohio EPA on June 25, 2004. The objective of Phase II of the RFI was to define the horizontal and vertical extent of releases/contamination. Three acid releases and 6 soil areas surrounding certain lacustrine monitor wells were later added to the corrective action investigation and were added to the Phase II RFI Work Plan. On May 1, 2007, Ohio EPA sent a conditional approval letter to VEI for the Phase II RFI Scope of Work Plan.

On August 24, 2009, Ohio EPA received a Comprehensive Phase I and II RCRA Facility Investigation (RFI) Report. The list of units subject to corrective action was narrowed down as a result of the RFI Report and the remaining units are identified below in Permit

Condition E.3. On October 18, 2010, Ohio EPA approved the RFI Report. Ohio EPA's approval of the Permittee's Comprehensive Phase I and II RFI Report required the Permittee to conduct a Corrective Measures Study (CMS).

Ohio EPA received the CMS Work Plan on January 14, 2011. The Permittee's CMS involved data collection and analysis in multiple phases. Each phase or investigation was presented as a separate addendum to the CMS Workplan. Ohio EPA approved the Work Plan June 23, 2011. The Permittee proposed streamlining the CMS by performing additional Synthetic Precipitation Leaching Procedure (SPLP) sampling, utilizing presumptive remedies and submitting one report, the CMS Final Report. Ohio EPA concurred with the streamlined approach. On May 7, 2013, Ohio EPA received a CMS Final Report that summarized the CMS investigation, evaluated various remedial alternatives and recommended remedies to address unacceptable risk to human health and the environment. Ohio EPA reviewed the document and approved it on October 28, 2013. Ohio EPA selected remedies that are outlined in Permit Condition E.9(d).

On April 6, 2016, Ohio EPA issued a draft director-initiated permit modification to the Permittee for corrective action. After a sixty-day public comment period, a response to public comments was prepared and the director-initiated permit modification was approved on May 19, 2017. The permit modification incorporated Ohio EPA-selected remedies into Module E of the Permittee's hazardous waste installation and operation permit terms and conditions to address Corrective Action.

A Corrective Measures Implementation (CMI) Work Plan was received by Ohio EPA on September 29, 2017, and was approved with modifications on February 9, 2018. The CMI Work Plan included a pre-excavation soil sampling plan for AOC A and AOC H that was performed on August 21, 2018. Data from the sampling event was reviewed by Ohio EPA and concentrations of Contaminants of Concern (COCs) in soil were found to be below the industrial risk standard. For this reason, Ohio EPA concluded no removal activities were warranted.

Stabilization of waste and clay cap installation activities for Stabilized Waste Area 1 (SWA-1) and Stabilized Waste Area 2 (SWA-2) were completed prior to corrective action but are considered a component of each remedy.

An environmental covenant limiting the use of Parcels A, B and C to industrial purposes was filed with the Sandusky County Recorder's Office on August 24, 2018. The three parcels total roughly 61.9 acres. The environmental covenant also prohibits construction of occupied structures within the footprint of Parcels B and C, which include SWA-1 and SWA-2.

A Corrective Measures Completion of Work (CMCW) Report was submitted to Ohio EPA on February 7, 2019. The report summarized how each of the 54 units requiring some form of corrective measures were addressed. Long-term inspection and maintenance

obligations of the covers on SWA-1 and SWA-2 were formalized through a Class 1A permit modification that was approved by Ohio EPA on August 8, 2019.

The Permittee must follow the work schedule in this permit beginning with Permit Condition E.6 and submit all required reports to Ohio EPA.

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 waste, hazardous waste, infectious waste (as those terms are defined in ORC Chapter 3734), constructions 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

- a) The following WMUs and AOCs were identified for investigation during the RFI:

Group	WMU/AOC number and description	Investigated during RFI	Carried through to the CMS
Waste Management Units (WMUs)			
WMU Group A <i>Rationale for grouping: all are located within perimeter of WMU #16.</i>	WMU # 1 - Pond 1	X	X
	WMU # 2 - Pond 2	X	X
	WMU # 3 - Pond 3	X	X
	WMU # 8 - Pond 9 and Wet Well	X	X
	WMU # 16 - Temporary Waste Pile Area	X	X

Group	WMU/AOC number and description	Investigated during RFI	Carried through to the CMS
Waste Management Units (WMUs)			
WMU Group B <i>Rationale for grouping: clean-closed status and proximity to Closure Cell.</i>	WMU # 4 - Pond 4	X	
	WMU # 5 - Pond 5	X	
	WMU #7 - Pond 7	X	
	WMU # 10 - Pond 11	X	
	WMU # 11 - Pond 12	X	
	WMU # 17 - Leachate Retention Pond	X	
	WMU # 53 - TSCA Closure Cell	X	
WMU Group C <i>Rationale for grouping: location and overlapping units.</i>	WMU # 6 - Ponds 6E and 6W	X	X
	WMU # 9 - Pond 10	X	X
	WMU # 19 - Former Drum Storage Area	X	X

Group	WMU/AOC number and description	Investigated during RFI	Carried through to the CMS
Waste Management Units (WMUs)			
WMU Group D <i>Rationale for grouping: similar use during operation.</i>	WMU # 12 - North Landfarm	X	X
	WMU # 13 - East Landfarm	X	
	WMU # 14 - South Landfarm	X	
WMU Group E <i>Rationale for grouping: similar use during operation.</i>	WMU # 50 - Injection Well 1A	X	
	WMU # 51 - Injection Well 1	X	
	WMU # 52 - Injection Well 3	X	
WMU Group F <i>Rationale for grouping: Similar use during operation.</i>	WMU # 31 - Filtered Acid Tank (FAT 3)	X	X
	WMU # 32 - Pumphouse 3	X	
	WMU # 33 - FAT 6	X	
	WMU # 34 - Pumphouse 6	X	
	WMU # 35 - FAT 5	X	

Group	WMU/AOC number and description	Investigated during RFI	Carried through to the CMS
Waste Management Units (WMUs)			
WMU Group F (continued) <i>Rationale for grouping: Similar use during operation.</i>	WMU # 36 - Pumphouse 5	X	
	WMU # 37 - FAT 2	X	
	WMU # 38 - Pumphouse 2	X	
	WMU # 39 - Old FAT 2	X	
	WMU # 40 - Former Pumphouse 2	X	
WMU Group G <i>Rationale for grouping: active status and are used to handle pickle liquors, acids, and brine.</i>	WMU # 21 - Truck Unloading Building	X	
	WMU # 22 - Sand Interceptors	X	
	WMU # 23 - V-Tanks	X	
	WMU # 24 - Caustic Gas Scrubber	X	
	WMU # 25 - T-Tanks	X	
	WMU # 26 - T-Tank Pumphouse	X	
	WMU # 27 - Leaf Filter Press	X	
	WMU # 29 - Filter Press Building	X	
	WMU # 30 - FAT A and B	X	

Group	WMU/AOC number and description	Investigated during RFI	Carried through to the CMS
Waste Management Units (WMUs)			
WMU Group H <i>Rationale for grouping: active injection wells.</i>	WMU # 46 - Injection Well 2	X	
	WMU # 47 - Injection Well 4	X	
	WMU # 48 - Injection Well 5	X	
	WMU # 49 - Injection Well 6	X	
WMU Group I <i>Rationale for grouping: remaining ungrouped WMUs.</i>	WMU # 15 - Oil Reclamation Facility	X	
	WMU # 18 - Former W-Tanks	X	
	WMU # 20 - Lab Waste Tank	X	
	WMU # 28 - Sluice Pit	X	
	WMU # 41 – 90-Day Storage Pad	X	X
	WMU # 42 - Maintenance Waste Oil Tank (Closed)	X	X
	WMU # 43 - Sanitary Wastewater Treatment Plant	X	

Group	WMU/AOC number and description	Investigated during RFI	Carried through to the CMS
Waste Management Units (WMUs)			
WMU Group I (continued) <i>Rationale for grouping: remaining ungrouped WMUs.</i>	WMU # 44 - Truck Unloading Facility Sewage Holding Tank	X	X
	WMU # 45 - Maintenance Building Sewage Holding Tank	X	
Areas of Concern (AOC)			
	AOC A - Emergency Drain Tanks	X	X
	AOC B - North Parking Lot-Truck Unloading Facility	X	X
	AOC C - Former Pug Mill Staging Area (Hay Mill)	X	
	AOC D - Borrow Pit #1	X	X
	AOC E - Borrow Pit #2	X	
	AOC F - Truck Sampling Area, Inspection Bay Collection Tank, and Old Truck Scale	X	X
	AOC G - Roll-off Staging Pad	X	

Group	WMU/AOC number and description	Investigated during RFI	Carried through to the CMS
Areas of Concern (AOC)			
	AOC H - Facility Aboveground Transfer Piping	X	X
	AOC I - Remaining Underground Piping	X	X
	AOC J - Area around Monitoring Well L-19	X	
Acid releases investigated during the RFI			
	2003 Nitric/Chromic Acid Release	X	
	2005 Nitric/Hydrofluoric Acid Release	X	
	2006 Hazardous Waste Acid Release	X	
Soil surrounding Lacustrine Monitor Wells investigated during the RFI			
	Area Around Lacustrine Monitor Well L17	X	
	Area Around Lacustrine Monitor Well L19	X	
	Area Around Lacustrine Monitor Well L19A	X	

Group	WMU/AOC number and description	Investigated during RFI	Carried through to the CMS
Soil surrounding Lacustrine Monitor Wells investigated during the RFI			
	AOC K - Area Around Lacustrine Monitor Well L20	X	X
	AOC L – Area Around Lacustrine Monitor Well L25	X	X
	Area Around Lacustrine Monitor Well L26	X	
Ground water from Monitor Wells and water from the Capillary Drain investigated during the RFI			
	Bedrock monitor wells and Capillary Drain	X	
	Lacustrine Monitor Wells	X	

E.4 Reserved

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

The Permittee must conduct an RFI to thoroughly evaluate the nature and extent of the release of hazardous wastes and hazardous constituents from all applicable WMUs identified in Permit Condition E.3 above and 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 within ninety (90) days after the effective date of this permit or, 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 incorporates Ohio EPA's comments.

- (ii) Ohio EPA will 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 incorporates 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, shall 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 (or the Permittee may propose) the development and implementation of an IM (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 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 shall 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 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 incorporates 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 incorporates 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 one or more of the Corrective Measures authorized by Ohio EPA. Ohio EPA will authorize 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 authorize the Corrective Measures Implementation 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.

(a) 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.

(b) CMI Work Plan

The Permittee must submit a written CMI Work Plan to Ohio EPA within one hundred thirty-five (135) days from the notification by Ohio EPA of the requirement to implement corrective measures. The CMI Work Plan must contain the Specific Remedies as outlined below.

- (i) Within forty-five (45) days of receipt of Ohio EPA's comments, the Permittee must submit either an amended or new CMI Work Plan that addresses Ohio EPA's comments.

- (ii) Ohio EPA will approve or modify and approve, in writing, the amended or new CMI Work Plan. The CMI Work 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 CMI Work Plan must be authorized by Ohio EPA.

(c) CMI Work Plan Implementation

The Permittee must implement the CMI Work Plan according to the terms and schedule in the approved CMI Work Plan.

(d) Corrective Measures Specific Remedies

Ohio EPA has determined that the combination of removal, engineering controls and maintenance, and institutional controls/environmental covenant will be effective and reliable corrective measures. The Permittee shall implement corrective measures as described below:

The human health risk assessment assumed industrial land use for the WMUs and AOCs listed in E.9(d)(i) through E.9(d)(iii). Institutional controls are required at most of the units to ensure that land use remains industrial until such time when risk values for unrestricted land use are achieved. Under this permit, the institutional controls will consist of measures that limit the future use of select units and areas in a manner that is consistent with the risk values for the site. This will be accomplished through an environmental covenant for select units that relies on the industrial exposure pathway to meet the human health risk standards. An environmental covenant, as set forth in ORC §5301.80 through §5301.92, is a written agreement between Ohio EPA and the property owner arising under an environmental response project that imposes activity and/or use limitations on specific portions of a site.

The environmental covenant(s) will run with the land and be binding upon a future property owner should the property be sold. Monitoring the property owner's adherence to the environmental covenant(s) will help to ensure continued protection of human health and the environment. A violation of the environmental covenant(s) is enforceable by Ohio EPA. The environmental covenant(s) cannot be amended or terminated without the consent of Ohio EPA.

(i) Areas Required To Only Obtain An Environmental Covenant

For the WMUs, AOCs and areas subject to corrective action that relied on an industrial exposure pathway to meet the human health risk standards, a mechanism must be in place to limit exposure through specified activity and use restrictions. An environmental covenant runs with the selected land should ownership changes occur in the future.

- (a) The Permittee filed an environmental covenant with the Sandusky County Recorder's Office on August 24, 2018, in accordance with Ohio's Environmental Covenant law, ORC Sections 5301.80 to 5301.92, for the units or areas listed below, that will declare the units are restricted to industrial use only.

Units or Areas That Require a Land Use Restriction

WMUs: 12, 13, 14, 15, 19, 20, 21, 23, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 49, 50 and 52	Industrial use
AOCs: A, B, D (just northern section), F, H, I, J (around Monitoring Well L-19)	Industrial use
Misc. Areas: 2003 Nitric/Chromic Acid Release, 2005 Nitric/Hydrofluoric Acid Release, 2006 Hazardous Waste Acid Release, Areas Around Lacustrine Monitor Wells: L17, L19, L19A, L20, L25 and L26	Industrial use

(ii) Stabilized Waste Area 1 (SWA-1)

- (a) SWA-1 is comprised of WMUs 1, 2, 3, 8 and 16.

- (b) A clay cap was placed and stabilization already performed at this area and is a component of the remedy.
 - (c) The Permittee filed an Environmental Covenant in accordance with Ohio's Environmental Covenant law, ORC Sections 5301.80 to 5301.92, with the Sandusky County Recorder's Office on August 24, 2018, declaring the site is restricted to industrial use only.
 - (i) The environmental covenant also prohibits building construction within the footprint of the unit.
 - (d) The Permittee must perform operations and maintenance (O&M) inspections of SWA-1 on a semi-annual basis (once between March through May and once between September through November) in accordance with the Corrective Measures Completion of Work (CMCW) Report dated February 6, 2019.
 - (i) Inspections of the existing clay cap and cover must assess and document, at a minimum, the following items: adequate drainage; vegetation quality and density; exposed stabilized waste; evidence of cap erosion; evidence of animal damage; evidence of ponding; evidence of surface cracks or fissures; and evidence of unauthorized trespassing or construction.
 - (ii) The Permittee must repair any deficiencies noted from the O&M inspections in a timely manner.
 - (e) A risk mitigation plan, reducing construction worker and future indoor worker exposure, must be developed and added to the permit in the event that excavation or other construction activities must be performed within the footprint of the unit. The risk mitigation plan must be submitted ninety (90) days prior to the anticipated date for activities to be performed.
- (iii) Stabilized Waste Area 2 (SWA-2)
 - (a) SWA-2 is comprised of WMUs 6 & 9.
 - (b) A clay cap was placed and stabilization already performed at

this area and is a component of the remedy.

- (c) The Permittee filed an Environmental Covenant in accordance with Ohio's Environmental Covenant law, ORC Sections 5301.80 to 5301.92, with the Sandusky County Recorder's Office on August 24, 2018, declaring the site is restricted to industrial use only.
 - (i) The environmental covenant also prohibits occupied structure construction within the footprint of the unit.
- (d) The Permittee must perform O&M inspections of SWA-2 on a semi-annual basis (once between March through May and once between September through November) in accordance with the CMCW Report dated February 6, 2019.
 - (i) Inspections of the existing clay cap and cover must assess and document, at a minimum, the following items: adequate drainage; vegetation quality and density; exposed stabilized waste; evidence of cap erosion; evidence of animal damage; evidence of ponding; evidence of surface cracks or fissures; and evidence of unauthorized trespassing or construction.
 - (ii) The Permittee must repair any deficiencies noted from the O&M inspections in a timely manner.

(e) Financial Assurance
OAC Rule 3745-54-101

Within forty-five (45) days after receiving approval of the CMI, 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).

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 an RFI is required for newly identified WMUs, the Permittee must submit a written RFI 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.

MODULE F - POST CLOSURE CARE

F. POST-CLOSURE CARE

At present, the Permittee anticipates to clean close all waste management units which are presently in operation. Post-closure care, monitoring and maintenance of these units should not be necessary. The Closure Cell post closure care period was extended to run concurrently with this permit.

F.1 Unit Identification

The Permittee must provide post closure care for the following hazardous waste management units, subject to the terms and conditions of this permit:

- (a) Surface impoundments 4, 5, and 7 "closed-as-a-landfill" (Closure Cell). The Closure Cell also contains the fixed materials removed from Ponds 11 and 12 which have been clean closed.

<i>Type of Waste Unit</i>	<i>Unit No. or Other Designation</i>	<i>Maximum Waste Inventory</i>	<i>Description of Wastes Contained</i>	<i>Hazardous Waste No.</i>	<i>Start of Post Closure Period</i>
Landfill Cell	Closure Cell	119,747 yd ³	Fixed sludge contaminated	See Note 1	December 7, 1992
		60,638 yd ³	Fixed sludge contaminated clay Pond 5	See Note 1	
		39,239 yd ³	Fixed sludge contaminated clay Pond 7	See Note 1	
		66,707 yd ³	Fixed sludge contaminated clay Pond 11	See Note 1	
		49,808 yd ³	Fixed sludge contaminated clay Pond 12	See Note 1	
		6,344 yd ³	Concrete debris Pond 4 & Oil Water Facility	See Note 1	
		40 yd ³	Steel Oil Water Facility	See Note 1	
		28,018 yd ³	Stone & clay stockpile & retention	See Note 1	
		1,024	Tires stockpile	See Note 1	
		59,532 yd ³	Geonetting stockpile	See Note 1	

NOTE 1: The Closure Cell at the Vickery facility serves the purpose of final

disposal for the materials that have been removed, as part of the approved closure plan, from Ponds 4, 5, 7, 11, and 12. Sludge, contaminated clay and debris from Ponds 4, 5, and 7 were stabilized and stockpiled. The Closure Cell was constructed in the vicinity of where Ponds 4, 5 and 7 had existed. Upon cell construction, materials removed from Ponds 4, 5 and 7 were transferred to the Closure Cell. Materials from Ponds 11 and 12 were stabilized in place before transferring them to the Closure Cell.

The stabilized materials which are placed in the Closure Cell carry various characteristic and listed hazardous waste codes regulated under RCRA. In addition, the stabilized material is a Toxic Substances Control Act (TSCA) regulated PCB waste. Disposal of TSCA regulated PCB waste in the closure cell was approved by U.S. EPA via letter dated July 22, 1988.

F.2 Post-closure Procedures and Use of Property
OAC Rule 3745-55-17

- (a) The Permittee must conduct post closure care for each hazardous waste management unit listed in Permit Condition F.1 above, to begin after completion of closure of the unit and continue for 30 years after that date. The 30-year post-closure care period may be shortened upon application and demonstration approved by Ohio EPA that the reduced period is sufficient to protect human health and the environment. The 30-year post-closure care period may be extended if the Director finds that the extended period is necessary to protect human health and the environment.
 - (i) The Closure Cell post closure care period was extended to run concurrent with the Permittee's permit renewal.
- (b) The Permittee must maintain and monitor the ground water monitoring system and comply with all other applicable requirements of OAC Rules 3745-54-90 thru 3745-54-101 during the post closure period.
- (c) The Permittee must comply with the requirements for landfills, as follows:
 - (i) Maintain the integrity and effectiveness of the final cover, including making repairs to the final cover, as necessary, to correct the effects of settling, subsidence, erosion, or other events;
 - (ii) Continue to operate the leachate collection and removal system until leachate is no longer detected;
 - (iii) Prevent run on and run off from eroding or otherwise damaging the final cover; and

- (iv) Protect and maintain surveyed benchmarks used in complying with the surveying and recordkeeping requirements of OAC Rule 3745-57-09.
- (d) The Permittee must comply with all security requirements, as specified in the permit application.
- (e) The Permittee must not allow any use of the units designated in Permit Condition F.1 which will disturb the integrity of the final cover, liners, any components of the containment system, or the function of the facility's monitoring systems during the post closure care period.
- (f) The Permittee must implement the post closure plan. All post closure care activities must be conducted in accordance with the provisions of the post closure plan.

F.3 Inspections
OAC Rule 3745-55-18(B)

The Permittee must inspect the components, structures, and equipment at the facility in accordance with the inspection schedule found in the post-closure plan.

F.4 Notices and Certification
OAC Rules 3745-55-19 and 3745-55-20

- (a) No later than sixty (60) days after certification of closure of each hazardous waste disposal unit, the Permittee must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the Director, a record of the type, location, and quantity of hazardous wastes disposed of within each cell or other disposal unit of the facility. For hazardous wastes disposed of before January 12, 1981, the Permittee must identify the type, location, and quantity of the hazardous wastes to the best of his knowledge and in accordance with any records he has kept.
- (b) Within sixty (60) days after certification of closure of the first and the last hazardous waste disposal unit, the Permittee must:
 - (i) Record, in accordance with Ohio law, a notation on the deed to the facility property (or on some other instrument that is normally examined during the title search) that will in perpetuity notify any potential purchaser of the property that:
 - (a) The land has been used to manage hazardous wastes;

- (b) Its use is restricted under OAC Rules 3745-55-10 thru 3745-55-20; and
 - (c) The survey plat and record of the type, location, and quantity of hazardous wastes disposed of within each cell or other hazardous waste disposal unit of the facility have been filed with the Director and the Riley Township Zoning Official.
- (ii) Submit a certification to the Director, signed by the Permittee, that he has recorded the notation specified in Permit Condition F.4(b)(i), including a copy of the document in which the notation has been placed.
- (c) If the Permittee wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, or contaminated soils, then the Permittee must request a modification to this permit in accordance with the applicable requirements in OAC Rules 3745-50-40 to 3745-50-66. The Permittee must demonstrate that the removal of hazardous wastes will satisfy the criteria of OAC Rule 3745-55-17(C).

By removing hazardous waste, the Permittee may become a generator of hazardous waste and must manage it in accordance with all applicable hazardous waste requirements.

If the Permittee is granted a permit modification or otherwise granted approval to conduct such removal activities, the Permittee may request that the Director approve either:

- (i) The removal of the notation on the deed to the facility property or other instrument normally examined during title search or,
 - (ii) The addition of a notation to the deed or instrument indicating the removal of the hazardous waste.
- (d) No later than sixty (60) days after completion of the established post closure care period for each hazardous waste disposal unit, the Permittee must submit to the Director, by registered mail, a certification that the post closure care period for the hazardous waste disposal unit was performed in accordance with the specifications in the approved post closure plan. The certification must be signed by the Permittee and an independent, qualified, registered professional engineer. Documentation supporting the independent, qualified, registered professional engineer's certification must be furnished to the Director upon request until the Director releases the Permittee from the financial assurance requirements for post closure care

under OAC Rule 3745-55-45.

F.5 Financial Assurance
OAC Rule 3745-55-45

- (a) The Permittee must maintain financial assurance during the post-closure period and comply with all applicable requirements of OAC Rules 3745-55-40 thru 3745-55-51 and Permit Conditions B.36 and B.37
- (b) For the Surface Impoundment Post-Closure, the post-closure cost estimate required by OAC Rule 3745-55-44 will be calculated with the term of post-closure care held at a continuous ten-year period, also known as a “rolling 10-year basis” for costs associated with the approved post-closure plan.

The Permittee shall have a detailed written estimate, in current dollars, of the cost of implementing the post-closure of the surface impoundment in accordance with the requirements of the approved post-closure plan. The surface impoundment post-closure cost estimate shall be based on the costs of the owner or operator of hiring a third party to conduct the post-closure activities. A “third party” is a party who is neither a parent nor a subsidiary of the Permittee.

Annual costs within the surface impoundment post-closure cost estimate must be multiplied by 10, for the rolling 10-year period. Periodic costs that are not annual, such as biennial or unknown estimated repair, must be averaged into the annual cost. One-time costs, such as well abandonment and post-closure care certification, must be added to the end of the estimate.

The Permittee shall submit the updated surface impoundment post-closure cost estimate to Ohio EPA annually within sixty (60) days prior to the anniversary date of the financial mechanism used to comply with OAC Rule 3745-55-45. The Permittee must revise the surface impoundment post-closure cost estimate whenever there is a change in the facility’s post-closure plan that increases the cost of the work.

- (c) For the Tank Contingent Post-Closure, the post-closure cost estimate required by OAC Rule 3745-55-44 will be calculated for a period of thirty (30) years after the date of closure certification.

F.6 Post-closure Permit Modifications
OAC Rule 3745-55-18(D)

The Permittee must request a permit modification to authorize a change in the approved post closure plan. This request must be in accordance with applicable requirements of OAC Rules 3745-50-40 to 3745-50-66, and must include a copy of the proposed amended post closure plan for approval by the Director. The Permittee must request a permit modification whenever changes in operating plans or facility design affect the approved post-closure plan, there is a change in the expected year of final closure, or other events occur during the active life of the facility that affect the approved post-closure plan. The Permittee must submit a written request for a permit modification at least sixty (60) days prior to the proposed change in facility design or operation, or no later than sixty (60) days after an unexpected event has occurred which has affected the post-closure plan.

MODULE G - MISCELLANEOUS TREATMENT

G. MODULE HIGHLIGHTS

Filtration units at the facility have been categorized as miscellaneous units. The filtration system consists of Basket Strainers, Bag Filters, Filter Press, Primary and Secondary Cartridge Filters, and By-Pass Cartridge Filters. These individual units may either be used in series or parallel. The Thief Pole Rinsing System has also been categorized as a miscellaneous unit.

Filtration operations are housed in two existing filter buildings. Filter building No. 1 contains 2 bag filters. Filter building No. 2 contains a filter press. The floors of both filter buildings are coated and are sloped towards a sump. Transfer pumps are set on the floor of both filter buildings and serve to discharge waste from the sumps to the various filters and tanks.

Each of the four pump houses shelters the Primary and Secondary Cartridge Filters and By-Pass Cartridge Filters for the associated injection well.

The unloading bay houses the Basket Strainers.

The Thief Pole Rinsing System is located just east of the sampling bay at truck unloading.

In addition, the following miscellaneous units have been approved but have not yet been installed at the facility:

- Construction, use and management of a new building to house the existing filter press and a new filter press.
- Installation of an additional filter press.

G.1. Process Capacity/Annual Limitation/Waste Identification ORC Section 3734.02(F) and OAC Rule 3745-50-43

- (a) The Permittee may filter a total volume of 650,500 gallons/day not to exceed a total volume of 126,000,000 gallons/year throughput of hazardous waste in miscellaneous units, subject to the terms and conditions of this Permit and as follows:

Miscellaneous Unit	Capacity	Containment Areas	Description of Hazardous Waste	Hazardous Waste No.
Basket Strainer	1000 Gallons	Yes - Unloading Bays	Aqueous Waste	See Condition G.1.c
Bag Filter	120 Gallons/minute	Yes - Filter Building	Aqueous Waste	See Condition G.1.c
Filter Press	70 cu. ft.	Yes - Filter Building	Aqueous Waste	See Condition G.1.c
Primary Cartridge Filter	400 Gallons/minute	Yes - Pumphouses	Aqueous Waste	See Condition G.1.c
Secondary Cartridge Filter	400 Gallons/minute	Yes - Pumphouses	Aqueous Waste	See Condition G.1.c
Bypass Cartridge Filter	125 Gallons/minute	Yes - Pumphouses	Aqueous Waste	See Condition G.1.c
Thief Pole Rinsing System	260 Gallons	Yes - Sampling Bay/Concrete area to east of Sampling Bay	Aqueous Waste	See Condition G.1.c

- (b) During any calendar year, the Permittee shall not manage through the filter system hazardous waste in excess of the maximum annual quantity set forth in Condition G.1(a) of this permit.
- (c) The Permittee shall treat in filters only the hazardous waste codes specified in the approved Part B permit application and summarized below:

D001	D002	D003	D004	D005	D006	D007	D008	D009	D010
D011	D012	D013	D014	D015	D016	D017	D018	D019	D020
D021	D022	D023	D024	D025	D026	D027	D028	D029	D030
D031	D032	D033	D034	D035	D036	D037	D038	D039	D040
D041	D042	D043	F001	F002	F003	F004	F005	F006	F007
F008	F009	F010	F011	F012	F019	F024	F025	F032	F034
F035	F037	F038	F039	K001	K002	K003	K004	K005	K006
K007	K008	K009	K010	K011	K013	K014	K015	K016	K017
K018	K019	K020	K021	K022	K023	K024	K025	K026	K027
K028	K029	K030	K031	K032	K033	K034	K035	K036	K037
K038	K039	K040	K041	K042	K043	K044	K045	K046	K047
K048	K049	K050	K051	K052	K060	K061	K062	K069	K071
K073	K083	K084	K085	K086	K087	K088	K093	K094	K095
K096	K097	K098	K099	K100	K101	K102	K103	K104	K105
K106	K107	K108	K109	K110	K111	K112	K113	K114	K115
K116	K117	K118	K123	K124	K125	K126	K131	K132	K136
K141	K142	K143	K144	K145	K147	K148	K149	K150	K151
K156	K157	K158	K159	K161	K169	K170	K171	K172	K174
K175	K176	K177	K178	K181	P001	P002	P003	P004	P005
P006	P007	P008	P009	P010	P011	P012	P013	P014	P015
P016	P017	P018	P020	P021	P022	P023	P024	P026	P027
P028	P029	P030	P031	P033	P034	P036	P037	P038	P039
P040	P041	P042	P043	P044	P045	P046	P047	P048	P049

P050	P051	P054	P056	P057	P058	P059	P060	P062	P063
P064	P065	P066	P067	P068	P069	P070	P071	P072	P073
P074	P075	P076	P077	P078	P081	P082	P084	P085	P087
P088	P089	P092	P093	P094	P095	P096	P097	P098	P099
P101	P102	P103	P104	P105	P106	P108	P109	P110	P111
P112	P113	P114	P115	P116	P118	P119	P120	P121	P122
P123	P127	P128	P185	P188	P189	P190	P191	P192	P194
P196	P197	P198	P199	P201	P202	P203	P204	P205	U001
U002	U003	U004	U005	U006	U007	U008	U009	U010	U011
U012	U014	U015	U016	U017	U018	U019	U020	U021	U022
U023	U024	U025	U026	U027	U028	U029	U030	U031	U032
U033	U034	U035	U036	U037	U038	U039	U041	U042	U043
U044	U045	U046	U047	U048	U049	U050	U051	U052	U053
U055	U056	U057	U058	U059	U060	U061	U062	U063	U064
U066	U067	U068	U069	U070	U071	U072	U073	U074	U075
U076	U077	U078	U079	U080	U081	U082	U083	U084	U085
U086	U087	U088	U089	U090	U091	U092	U093	U094	U095
U096	U097	U098	U099	U101	U102	U103	U105	U106	U107
U108	U109	U110	U111	U112	U113	U114	U115	U116	U117
U118	U119	U120	U121	U122	U123	U124	U125	U126	U127
U128	U129	U130	U131	U132	U133	U134	U135	U136	U137
U138	U140	U141	U142	U143	U144	U145	U146	U147	U148
U149	U150	U151	U152	U153	U154	U155	U156	U157	U158
U159	U160	U161	U162	U163	U164	U165	U166	U167	U168
U169	U170	U171	U172	U173	U174	U176	U177	U178	U179
U180	U181	U182	U183	U184	U185	U186	U187	U188	U189
U190	U191	U192	U193	U194	U196	U197	U200	U201	U202
U203	U204	U205	U206	U207	U208	U209	U210	U211	U213
U214	U215	U216	U217	U218	U219	U220	U221	U222	U223
U225	U226	U227	U228	U234	U235	U236	U237	U238	U239
U240	U243	U244	U246	U247	U248	U249	U271	U278	U279
U280	U328	U353	U359	U364	U367	U372	U373	U387	U389
U394	U395	U404	U409	U410	U411				

- (d) The Permittee is prohibited from treating hazardous waste that is not identified in this permit condition.
- (e) All incoming waste streams must meet the acceptance criteria set forth in the approved Waste Analysis Plan which is located in Section C and Appendix 1 of the permit application. Specifically, the Permittee is prohibited from storing or treating hazardous waste that does not meet the Facility Waste Acceptance Conditions which are located in Appendix WAP-C of the approved Waste Analysis Plan.

G.2. Design and Installation of New Filter Systems or Components

- (a) The Permittee shall construct the proposed filter system in accordance with Section D of the permit application.
- (b) Prior to operation of the newly constructed filter system, the Permittee shall submit the certification of installation of the filter 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.

G.3. Containment and Detection of Releases

- (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 during the use of the miscellaneous unit.
- (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.

G.4. Operating Requirements

- (a) The Permittee shall not place hazardous wastes or treatment reagents in the filter system if they could cause the filter, its ancillary equipment, or a containment system to rupture, leak, corrode, or otherwise fail.
- (b) The Permittee shall prevent spills and leaks from the filters or containment systems using the methods described in the permit application. The Permittee shall comply with the requirements of OAC Rule 3745-55-96 if a leak or spill occurs in the filter system.
- (c) The filters must be operated in accordance with manufacturer's instruction and accepted industry practice.
- (d) The permittee must comply with the requirements of OAC Rule 3745-55-96 if a leak or spill occurs.

G.5. Inspection Schedules and Procedures

- (a) The Permittee shall inspect the miscellaneous units in accordance with the Inspection Schedule and shall complete the items in Permit Conditions G.5(b) and G.5(c) as part of those inspections.
- (b) The Permittee shall inspect the overfill controls, in accordance with the procedure and schedule in the permit application.
- (c) The Permittee shall inspect the following components once each operating day:
 - (i) Aboveground portions of the miscellaneous unit, 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 miscellaneous unit is being operated according to its design,
 - (iii) Construction materials and the area immediately surrounding the externally accessible portion of the miscellaneous unit, including the secondary containment system, to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation), and
 - (iv) The Permittee shall document compliance with Permit Condition G.5 in the operating record of the facility.

G.6. Response to Leaks or Spills

- (a) In the event of a leak or a spill from the miscellaneous unit, from a secondary containment system, or if a system becomes unfit for continued use, the Permittee shall remove the system from service immediately and complete the following actions:
 - (i) Stop the flow of hazardous waste into the miscellaneous unit or secondary containment system and inspect the system to determine the cause of the release.
 - (ii) Remove waste and accumulated precipitation from the system within 24 hours of the detection of the leak or at an earlier practicable time to prevent further release and to allow inspection and repair of the system to be performed.

- (iii) Contain visible releases to the environment. The Permittee shall 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 visual contamination of the soil or surface water.

G.7. Recordkeeping and Reporting

- (a) The Permittee shall report to the Director, within twenty-four (24) hours of detection, when a leak or spill occurs from the 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 filter system or secondary containment system, the Permittee shall report, as specified in OAC Rule 3745-55-96(D)(3), 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 shall submit to the Director all certifications of major repairs (e.g., replacing non-routine components of the system) to correct leaks within seven days from returning the miscellaneous unit to use.
- (d) The Permittee shall obtain, and keep on file at the facility, the written statements by those persons required to certify the design and installation of the miscellaneous unit.

G.8. Special Miscellaneous Unit Provisions for Ignitable or Reactive Wastes

The Permittee shall not place ignitable or reactive waste in the miscellaneous unit or in the secondary containment system, unless the procedures specified in the permit application are followed. The Permittee shall document compliance with this condition and place it in the operating record.

G.9. Special Miscellaneous Unit Provisions for Incompatible Wastes

- (a) The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same miscellaneous unit or the same secondary containment system, unless the procedures in the permit application are followed. The Permittee shall document compliance with this condition and place that documentation into the operating record.
- (b) The Permittee shall not place hazardous waste in a miscellaneous unit that has not been decontaminated and that previously held an incompatible waste or material, unless the requirements of Permit Condition G.9.(a) are met.

G.10. Closure and Post-Closure Care

- (a) At closure of the miscellaneous units, the Permittee shall follow the procedures in the Closure Plan.
- (b) Upon replacement of the existing admix and precoat tanks, the Permittee shall close the tanks in accordance with the approved closure plan for the filter building No. 1.

MODULE H - RESERVED

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MODULE I - RESERVED

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MODULE J - GROUND WATER MONITORING

J. GROUND WATER MONITORING

This module addresses the ground water detection monitoring program associated with the Closure Cell (formerly ponds 4, 5, and 7) at the Waste Management of Ohio facility at Vickery, Ohio. This unit is monitored under the Part B Permit regulations OAC Rule 3745-54-90 through 100. Upon approval of this permit the Permittee shall continue to conduct a ground water detection monitoring program under the permitted facility rules.

The ground water detection monitoring system for the facility is comprised of two (2) separate monitoring systems. The first system is the capillary drain system which underlies the entire Closure Cell. Monitoring of this system allows the shallow overburden ground water to be sampled and analyzed. This provides an early warning detection system should the Closure Cell begin to leak. Samples taken for analysis are withdrawn from the capillary drain piping system as it enters the capillary sump.

The second of the ground water detection monitoring systems is comprised of eight (8) monitoring wells which are screened in the weathered and fractured zone of the Tymochtee Dolomite. This zone is considered to be the uppermost aquifer. The screened intervals for these wells range from 48 to 58 feet below ground surface (bgs) at well MW-24R to 51 to 61 feet bgs at wells MW-14R, 30R, 36R and 37R. The monitoring wells consist of two upgradient wells (MW-24R and MW-37R) and six downgradient wells near the compliance boundary (MW-14R, MW-15R, MW-16R, MW-20R, MW-30R and MW-36R).

All of the monitoring wells and sampling points listed in Permit Condition J.3(b) and the analytical compounds listed under Permit Condition J.9(b) are monitored currently under the detection monitoring program. Compliance monitoring has not been initiated.

J.1. Applicability

OAC Rules 3745-50-44(B), 3745-54-90, and 3745-54-91

- (a) The Permittee must comply with the applicable requirements in OAC Rules 3745-54-90 through 3745-54-100 for purposes of detecting, characterizing, and responding to releases to the uppermost aquifer for the following unit:

- **Closure Cell**

- (f) OAC Rules 3745-54-90 through 3745-54-100 apply during the active life, which includes the closure period, of the above-mentioned regulated units.

After closure of each regulated unit, OAC Rules 3745-54-90 through 3745-54-100:

- (i) Do not apply if all waste, waste residues, contaminated containment system components, and contaminated subsoils are removed or decontaminated at closure,
 - (ii) Apply during the post-closure care period under OAC Rule 3745-55-17 if the Permittee is conducting a detection monitoring program under OAC Rule 3745-54-98, or
 - (iii) Apply during the compliance period under OAC Rule 3745-54-96 if the Permittee is conducting a compliance monitoring program under OAC Rule 3745-54-99 or a corrective action program under OAC Rule 3745-54-100.
- (g) The Permittee is subject to OAC Rules 3745-54-90 through 3745-54-100 and must conduct a monitoring and response program as follows:

The Permittee must institute a detection monitoring program under OAC Rule 3745-54-98.

J.2. Reserved

J.3. Well Location, Installation, Maintenance, and Removal
OAC Rules 3745-54-95, 3745-54-97(A) to (C), and 3745-54-100(D) and (E)

- (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 Tymochtee Dolomite which is considered to be the uppermost aquifer. The samples must:
- (i) Represent the quality of background water that has not been affected by leakage from the regulated unit,
 - (ii) Represent the quality of ground water passing the point of compliance,
 - (iii) Allow for the detection and measurement of contamination when hazardous waste or hazardous constituents have migrated from the waste management area to the uppermost aquifer,; and
 - (iv) If a facility contains more than one regulated unit, separate ground water monitoring systems are not required for each regulated unit

provided that provisions for sampling the ground water in the uppermost aquifer will enable detection and measurement at the compliance point of hazardous constituents from the regulated units that have entered the ground water in the uppermost aquifer.

- (b) The monitoring system consists of the ground water wells as specified on Figure E-15 of the Closure Cell Groundwater Monitoring Plan found in the Permit Application and in conformance with the following list:

Unit Name	Upgradient/Background Wells	Downgradient/Compliance Wells	Other Sampling Points
Closure Cell	MW-24R	MW-14R	
	MW-37R	MW-15R	
		MW-16R	
		MW-20R	
		MW-30R	
		MW-36R	
Capillary Drain			East and West Drains

- (c) Wells identified in Permit Condition J.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 Section E.5.3.1 of the Permit Application. 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. Figure E-16 of the Permit Application contains ground water monitoring well construction diagrams which illustrate compliance with OAC Rule 3745-54-97(A) to (C).
- (d) The Permittee must remove or replace any monitoring well in Permit Condition J.3(b) in accordance with the Appendix to OAC Rule 3745-50-51 permit modification process. Each change must be accompanied by a revised map as specified on Figure E-15 of the Closure Cell Groundwater Monitoring Plan for Permit Condition J.3(b).
- (e) Whenever any of the wells specified in Permit Condition J.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 J.3(a) within sixty (60) days of the date of replacement using means appropriate to the reason for replacement.
- (h) The Permittee shall maintain the monitoring wells identified in Permit

Condition J.3(b), in accordance with the detailed plans and specifications in the Closure Cell Groundwater Monitoring Plan.

- (i) All wells removed or replaced in accordance with Permit Condition J.3(e) shall be plugged and abandoned in accordance with Chapter 9 of the Ohio EPA Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring (September 2016). Well plugging and abandonment methods, certification and justification shall be submitted to the Director within thirty (30) days from the date the well was removed from the monitoring program.

J.4. Sampling and Analysis Procedures
OAC Rule 3745-54-97 (D) and (E)

- (a) The Permittee must implement a ground water monitoring program per Section E.6.0 of the Permit Application. This program includes consistent sampling and analysis procedures designed to ensure monitoring results that provide a reliable indication of ground water quality below the waste management area and are in compliance with OAC Rule 3745-54-97(D).
- (b) The Permittee's ground water monitoring program per Sections E.6.0 to E.6.7 of the Permit Application includes sampling and analytical methods that are appropriate for ground water sampling and that accurately measure hazardous constituents in ground water samples in compliance with OAC Rule 3745-54-97(E).
- (c) Field and analytical data must be validated in accordance with the procedures specified in Section(s) E.7.4 and E.7.5 of the Permit Application.

J.5. Ground Water Surface Elevation
OAC Rule 3745-54-97(F)

The Permittee must determine the ground water surface elevation at each well identified in the table in Permit Condition J.3(b) each time ground water is sampled using the methods in Section E.6.4.1.1 of the Permit Application. The ground water surface elevation at each well shall be determined twice each semi-annual sampling event in accordance with the following.

- (a) Once when the truck wash well has been in operation; and
- (b) Once when the truck wash well has been turned off for a minimum of 8 hours.
- (c) Ground water potentiometric surface maps shall be constructed for each measuring event and submitted in accordance with Permit Condition

J.8(a)(xiv) and J.8(b)(ii)(b).

J.6. Sampling Frequency
OAC Rule 3745-54-97(G)

Data on each hazardous constituent specified in Permit Condition J.2(a) or J.9(a) will be collected semi-annually from background wells and wells at the compliance point(s). In addition, a sample will be collected from the capillary drains, east drain in April and west drain in October, and analyzed for constituents specified in Permit Condition J.9(a). The sampling procedure and interval for each constituent is described in Section(s) E.6.0 to E.6.7 of the Permit Application.

- (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 Section E.7 of the Permit Application 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.

J.7. Statistical Procedures
OAC Rule 3745-54-97 (H)&(I)

The Permittee must use the following statistical procedures in evaluating ground water monitoring results for each hazardous constituent in Permit Condition J.2(a) or J.9(a) in each well in Permit Condition J.3(b) to identify statistically significant evidence of contamination, the exceedance of a concentration limit, 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 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 Section E.7.0 of the Permit Application.

- (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 regulated unit into and through the aquifer will be indicated, and be able to determine whether such leakage of hazardous constituents into the ground water exceeds specified concentration limits. 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 J.2(a) or J.9(a) in each well.
 - (ii) The statistical method must be appropriate for the distribution of the data used to establish background or concentration limits. If the distribution for the constituents differs, more than one statistical method may be needed.
 - (iii) The statistical method must provide a reasonable balance between the probability of falsely identifying a non-contaminating and/or exceeding unit and the probability of failing to identify a contaminating and/or exceeding regulated unit as detailed in OAC Rule 3745-54-97(I)(2).
 - (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 permit.
 - (v) If a tolerance or prediction interval procedure is used, the levels of confidence and, for tolerance intervals, 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 facility.

- (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.

J.8. Operating Record and Reporting

OAC Rules 3745-54-73, 3745-54-75, 3745-54-77 and 3745-54-100(G)

(a) Operating Record

The Permittee must enter all of the following information obtained in accordance with Permit Module J. in the operating record:

- (i) Ground water monitoring data collected in accordance with this permit including actual levels of constituents.
- (ii) The laboratory results from each of the wells and their associated qualifiers including the laboratory sheets for the full volatile and semi-volatile analyses (must include method codes, detection limits, 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 documentation of deviation from the procedures in Section E, Closure Cell Post Closure Groundwater Monitoring Plan, including documentation of parameter omissions during the sampling event;
- (vi) The date the Permittee received the results from the laboratory;
- (vii) The date the Permittee completed a 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 J.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 %, surrogate recovery, and an explanation of any rejected results;
- (ix) Results of all blanks and duplicates (trip, field, equipment, and method);

- (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) Any change in well status (i.e., going from unaffected to affected status and vice versa);
 - (xiii) Ground water surface elevations taken at the time of sampling each well;
 - (xiv) Data and results of the semi-annual determination of the ground water flow rate and direction, including potentiometric maps;
 - (xv) 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).
- (b) Annual, Semi-Annual & Other Periodic Required Reporting
- (i) Required Annual Reporting

The Permittee must submit an annual report to the Director by March 1st of the following year. The annual reports must reference the titles and dates of any other periodic 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 report must include, at a minimum, the analytical results required by Permit Conditions J.9, J.10, or J.11, the ground water elevation data required by Permit Conditions J.5 and J.8(a)(xiii), and the results of any statistical analyses required by Permit Conditions J.9, J.10, or J.11. In addition, a copy on disk of all ground water and blank data must be submitted electronically in the format supplied by the Director, a hard 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 in accordance with OAC Rules 3745-54-75 and 97(J).
 - (ii) Required Semi-Annual Sampling Event Reporting

- (a) The Permittee must submit a Data Report and Evaluation for each sampling and analysis event conducted in accordance with J.6, J.9, J.10, and J.11. Data Reports and Evaluations must be submitted on or be August 1st for April sampling events and any applicable resamples, and February 1st for October sampling events and any applicable resamples. If any of these dates fall on a weekend or state holiday, the reports will be due no later than the following business day. The reports must be submitted to Ohio EPA Northwest District Office and entered into the operating record in accordance with OAC Rule 3745-54-73. For a period of at least three years, 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.
- (b) Data Reports required by Permit Condition F.8(b)(ii)(a) must include all the information listed in Permit Condition F.8(a) specific to the sampling event being reported.

(iii) Other Reports
OAC Rule 3745-54-77(C)

The Permittee must comply with any reporting requirements that become necessary under Permit Conditions J.9, J.10, or J.11 in accordance with the schedules covered by that permit condition and as required by OAC Rule 3745-54-77(C).

J.9. Detection Monitoring Program
OAC Rule 3745-54-98

- (a) The Permittee shall monitor upgradient background wells (MW-37R and MW-24R) and downgradient wells (MW-14R, MW-15R, MW-16R, MW-20R, MW-30R and MW-36R), as described in Permit Condition J.3(b), for the parameters and constituents listed in Permit Condition J.9(b).
- (b) The Permittee must determine concentrations of the parameters in the following table that provide a reliable indication of the presence of hazardous constituents in ground water at each monitoring well listed in Permit Condition J.3(b) semi-annually during the active life of the regulated unit plus the closure period and post-closure care period. These concentrations will be compared to the background concentrations set forth

below as per Permit Conditions J.6 and J.7.

Parameter or Constituent	Established Background Concentrations, as Prediction Limits, in micrograms per liter
Arsenic, Dissolved	10.0
Cadmium, Dissolved	4.9
Chromium, Dissolved	10.0
Lead, Dissolved	5.0
Nickel, Dissolved	40.0
Zinc, Dissolved	20.0
Total Phenols	20 ⁽¹⁾
Benzene	1 ⁽¹⁾
Chlorobenzene	1 ⁽¹⁾
Chloroethane	5 ⁽¹⁾
Chloroform	1 ⁽¹⁾
cis-1,2-Dichloroethene	1 ⁽¹⁾
1,1-Dichloroethane	1 ⁽¹⁾
1,2-Dichloroethane	1 ⁽¹⁾
1,1-Dichloroethene	1 ⁽¹⁾
Ethanol	100.0 ⁽¹⁾
Ethylbenzene	2 ⁽¹⁾
Methyl Ethyl Ketone	10 ⁽¹⁾
Methylene Chloride	2 ⁽¹⁾
Toluene	2 ⁽¹⁾
trans-1,2-Dichloroethene	1 ⁽¹⁾
Trichloroethylene	1 ⁽¹⁾

Parameter or Constituent	Established Background Concentrations, as Prediction Limits, in micrograms per liter
1,1,1-Trichloroethane	1 ⁽¹⁾
Vinyl Chloride	⁽¹⁾ 1
<p>(1) The limit is based on the Practical Quantitation Limit (PQL). A confirmed detection at or above the PQL is considered a statistically significant increase above background. Maximum permissible PQLs are listed in Table E-8 of Section E of the approved Part B Permit Application.</p>	

- (c) The Permittee's ground water monitoring program must include collection, preservation, and analysis of the above listed elements and compounds from samples collected pursuant to Permit Conditions J.4, J.5, and J.6. 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 J.7 and J.8.
- (d) Statistical analysis shall be conducted semi-annually to determine whether there is statistically significant evidence of contamination for any parameter or hazardous constituent specified in Permit Condition J.9(b).
- (e) The Permittee must determine the ground water flow rate and direction in the uppermost aquifer at least annually using the procedures specified in Section E.6.4.1.1 of the permit application.
- (f) The Permittee must determine whether there is statistically significant evidence of contamination for any chemical parameter or hazardous constituent specified in Permit Condition J.9(b) semi-annually within 90 days after completion of each sampling event (For this condition, sampling event is defined as the date the sample was obtained). In determining whether statistically significant evidence of contamination exists, the Permittee must use the methods specified in Permit Condition J.7 to compare data collected at the compliance point(s) to the background ground water quality data.
- (g) If the Permittee determines, pursuant to Permit Condition J.9(f), that statistically significant evidence of contamination for any chemical parameter or hazardous constituent specified in Permit Condition J.9(b) has been confirmed at any monitoring well at the compliance point, then the Permittee must:

- (i) Notify the Director of this finding in writing within seven (7) days of that determination. The notification must indicate what chemical parameters or hazardous constituents have shown statistically significant evidence of contamination, the corresponding analytical results, and the well(s) with the confirmed evidence;
- (ii) Immediately sample the ground water in all wells listed in Permit Condition J.3(b) and determine whether constituents identified in the Appendix to OAC Rule 3745-54-98 are present, and if so, in what concentration.
- (iii) For any compounds listed in the Appendix to OAC Rule 3745-54-98 found in the analysis pursuant to Permit Condition J.9(f)(ii), the Permittee may re-sample affected wells within one month and repeat the analysis for those compounds detected. If the results of the second analysis confirm the initial results, or if the Permittee elects not to re-sample, then these constituents form the basis for compliance monitoring.
- (iv) Within ninety (90) days of determining a statistically significant increase, submit to the Director an application for a permit modification to establish a compliance monitoring program meeting the requirements of OAC Rule 3745-54-99. The application must include the following information:
 - (a) An identification of the concentration of any Appendix to OAC Rule 3745-54-98 constituent detected in the ground water at each monitoring well at the point of compliance or between the compliance point and the downgradient facility boundary;
 - (b) Any proposed changes to the ground water monitoring system at the facility necessary to meet the requirements of compliance monitoring under OAC Rule 3745-54-99 including wells necessary to meet OAC Rule 3745-54-91(A)(3) with a visual representation of the point of compliance required by OAC Rule 3745-54-95;
 - (c) Any proposed additions or changes to the monitoring frequency, sampling and analysis procedures or methods, or statistical methods used at the facility necessary to meet the requirements of OAC Rule 3745-54-99.
 - (d) For each hazardous constituent detected at the compliance point or between the compliance point and the downgradient

property boundary, a proposed concentration limit under OAC Rule 3745-54-94(A)(1) or (A)(2), or a notice of intent to seek an alternate concentration limit for a hazardous constituent under OAC Rule 3745-54-94(B).

- (e) The compliance period as defined in OAC Rule 3745-54-96.
- (f) A statement that the Permittee will begin sampling and analyzing for the new constituents at the next regularly scheduled sampling event following the event in which they were determined to be present.
- (v) Within one hundred and eighty (180) days of determining a statistically significant increase submit to the Director:
 - (a) All data necessary to satisfactorily justify an alternate concentration limit under OAC Rule 3745-54-94(B); and
 - (b) An engineering feasibility plan (EFP) for a corrective action program necessary to meet the requirements of OAC Rule 3745-54-100.
- (vi) If the Permittee determines, pursuant to Permit Condition J.9, that there is a statistically significant difference for chemical parameters or hazardous constituents specified in Permit Condition J.9(b) at any monitoring well at the compliance point or between the compliance point and the downgradient property boundary, a demonstration may be submitted to the Agency that a source other than a regulated unit caused the contamination or that the detection is an artifact caused by an error in sampling, analysis, or statistical evaluation, or natural variation in the ground water.

The Permittee may make this demonstration in addition to, or in lieu of, submitting a permit modification application for a compliance ground water monitoring program under OAC Rule 3745-54-99. However, the Permittee is not relieved of the requirement to submit a permit modification application within ninety (90) days unless the demonstration made under this permit condition is deemed successful by the Agency prior to the ninety (90) daytime limit.

In such cases, the Permittee must:

- (a) Notify the Director in writing within seven (7) days of determining a statistically significant evidence of

contamination at the compliance point or between the compliance point and the downgradient property boundary that such a demonstration will be made;

- (b) Within ninety (90) days of determining a statistically significant increase, submit a report to the Director which successfully demonstrates that a source other than a regulated unit caused the contamination or that the increase resulted from error in sampling, analysis, or evaluation;
 - (c) Within ninety (90) days of determining a statistically significant increase, submit to the Director an application for a permit modification to make any appropriate changes to the detection monitoring program at the facility; and
 - (d) Continue to monitor in accordance with the approved detection monitoring program established under this permit.
- (h) If the Permittee determines the detection monitoring program no longer satisfies the requirements of OAC Rule 3745-54-98, the Permittee must, within ninety (90) days of the determination, submit an application for a permit modification per OAC Rule 3745-50-51 to make any appropriate changes to the program.

J.10. Reserved - Compliance Monitoring Program
OAC Rule 3745-54-99

J.11. Reserved - Corrective Action
OAC Rules 3745-50-44(B)(8) and 3745-54-100

END OF PERMIT CONDITIONS