Subject: Hazardous Waste Permit Modification - Class 1A Approval and Exemption

Dear Ms. Boone:

On April 14, 2016, Ohio EPA received a request for a Class 1A (Class 1 requiring prior approval) hazardous waste permit modification from INEOS Nitriles USA LLC dated April 14, 2016. The modification requested the following change to the permit:

Modification of the treatment and disposal fee due date from the anniversary date of the permit renewal (July 1) to December 20 of each year, with the exception that the final disposal fee for the last year of the permit renewal (2025) be June 30, 2025.

Pursuant to Ohio Revised Code (ORC) Section 3734.02(G) and Ohio Administrative Code (OAC) Rule 3745-50-31, the Director, by order, may exempt any person generating, storing, treating, disposing of, or transporting hazardous waste, in such quantities or under such circumstances that, in the determination of the Director, are unlikely to adversely affect the public health or safety or the environment from any requirement to obtain a permit or comply with other requirements of ORC Chapter 3734. Such an exemption shall be consistent with and equivalent to rules promulgated under the Resource Conservation and Recovery Act of 1976, 90 Stat. 2806, 42 U.S.C. § 6921 et seq., as amended.

In accordance with ORC Section 3734.02(G) and OAC Rule 3745-50-31, the Permittee is requesting an exemption from the requirement of OAC Rule 3745-50-34(C) as it applies to due date for the submittal of fees associated with on-site disposal of hazardous waste and to modify permit condition A.26 of their Ohio Hazardous Waste Facility Installation and Operation Permit.
Granting the exemption is unlikely to adversely affect the public health or safety or the environment. Therefore, the permittee is hereby granted an exemption, pursuant to ORC Section 3734.02(G), from the requirement of OAC Rule 3745-50-34(C) as it applies to due date for the submittal of on-site disposal of hazardous waste fees. The permittee shall submit the treatment and disposal fee on or before December 20th of each year starting from 2015 to 2024, with the exception that the final disposal fee for 2025 is due on June 30, 2025. The exemption will expire when the current permit expires or is revoked by the Director.

With this letter, Ohio EPA approves the above referenced Class 1A modification submitted pursuant to OAC Rule 3745-50-51, and accordingly has updated the facility’s permit application and/or permit. The updated application/permit can be retrieved from the Agency’s eDocument Search web site: http://edocpub.epa.ohio.gov/publicportal/edochome.aspx. Using the search function, search under the document type of “Permit” and then refine the search using the facility’s RCRA ID number (Secondary ID) which is noted in the RE: block above.

You are hereby notified that this action of the Director is final and may be appealed to the Environmental Review Appeals Commission (Commission) pursuant to Ohio Revised Code Section 3745.04. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. The appeal must be filed with the Commission within thirty (30) days after notice of the Director’s action. The appeal must be accompanied by a filing fee of $70.00 made payable to “Treasurer, State of Ohio.” The Commission, in its discretion, may reduce the fee if by affidavit it is demonstrated that payment of the full amount of the fee would cause extreme hardship. Notice of the filing of the appeal shall be filed with the Director within three (3) days of filing with the Commission. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General’s Office, Environmental Enforcement Section. An appeal may be filed with the Commission at the following address:

Environmental Review Appeals Commission
77 South High Street, 17th Floor
Columbus, Ohio 43215

If you have any questions concerning this letter, please contact Gary Deutschman of Northwest District Office at (419) 373-3056.

Sincerely,

Craig W. Butler
Director
Permittee: INEOS USA LLC
Mailing Address: INEOS USA LLC
P.O. Box 628
Lima, Ohio 45802

Owner: INEOS USA LLC
2600 South Shore Boulevard
League City, Texas 77573

Operator: INEOS USA LLC
P.O. Box 628
Lima, Ohio 45802

Location: INEOS USA LLC
1900 Fort Amanda Road
Lima, Ohio 45804

AUTHORIZED ACTIVITIES

In reference to the application of INEOS USA LLC 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:

- S01: Container Storage
- S02: Tank Storage
- T01: Tank Treatment
- T04: Miscellaneous Treatment-Filter Press
- Corrective Action
- Closure/Post-Closure

PERMIT APPROVAL

Craig W. Butler, Director
Ohio Environmental Protection Agency

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

Entered into the Journal of the Director this 1st day of July, 2015.

By __________________________ of the Ohio Environmental Protection Agency.
MODULE A - GENERAL PERMIT CONDITIONS

A. GENERAL PERMIT CONDITIONS

A.1 Effect of Permit
ORC Sections 3734.02 (E) and (F) and 3734.05
OAC Rule 3745-50-58(G)

(a) The Permittee is authorized to store hazardous waste in containers and tanks and to treat hazardous waste in tanks and a filter press 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 June 18, 2012 and last updated on May 20, 2015, is hereby incorporated into this permit. In the instance of inconsistent language or discrepancies between the above, the language of the more stringent provision shall govern.

(b) Any management of hazardous waste not authorized by this permit is prohibited, unless otherwise expressly authorized or specifically exempted by law. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, or invasion of other private rights. Compliance with the terms and conditions of this permit does not obviate Permittee's obligation to comply with other applicable provisions of law governing protection of public health or the environment including but not limited to the Community Right to Know law under ORC Chapter 3750.

A.2 Permit Actions
OAC Rule 3745-50-58(F)

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

A.3 Permit Effective/Expiration Date
OAC Rule 3745-50-54

The effective date of this permit is the date the permit is entered into the Director's Journal. The permit expiration date is ten years after the date of journalization of this permit.
A.4 Severability

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

A.5 Duty to Comply

OAC Rule 3745-50-58(A)

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

A.6 Duty to Reapply and Permit Expiration

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

(a) If the Permittee wishes to continue an activity allowed by this permit after the expiration date of this permit, the Permittee must submit a completed permit application for a hazardous waste facility installation and operation permit renewal and any necessary accompanying general plans, detailed plans, specifications, and such information as the Director may require, to the Director no later than one hundred eighty (180) days prior to the expiration date of this permit, unless a later submittal date has been authorized by the Director upon a showing of good cause.

(b) The Permittee may continue to operate in accordance with the terms and conditions of the expired permit until a renewal permit is issued or denied if:

(i) the Permittee has submitted a timely and complete permit application for a renewal permit under OAC Rule 3745-50-40; and

(ii) through no fault of the Permittee, a new permit has not been issued pursuant to OAC Rule 3745-50-40 on or before the expiration date of this permit.

(c) The Corrective Action obligations contained in this permit will continue regardless of whether the facility continues to operate or ceases operation and closes. The Permittee is obligated to complete facility-wide Corrective Action under the conditions of this permit regardless of the operational status
of the facility. The Permittee must submit an application for permit renewal at least 180 days before the expiration date of this permit pursuant to OAC Rule 3745-50-40(D) unless a) the permit has been modified to terminate the Corrective Action schedule of compliance and the Permittee has been released from the requirements for financial assurance for Corrective Action; or b) a later submittal date has been authorized by the Director.

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

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

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

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

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

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

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

The Permittee must furnish to the Director, within a reasonable time, any relevant information which the Director may request to determine whether cause exists for modifying or revoking, or to determine compliance with, this permit. The Permittee must also furnish to the Director, upon request, copies of records required to be kept by this permit.
A.11 Inspection and Entry
OAC Rules 3745-50-58(I), 3745-49-03 and 3745-50-30, and ORC Section 3734.07

(a) The Permittee must allow the Director, or an authorized representative, upon stating the purpose and necessity of the inspection and upon proper identification, to:

(i) enter, at reasonable times, upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the terms and conditions of this permit;

(ii) have access to and copy, at reasonable times, any records required to be kept under the terms and conditions of this permit;

(iii) inspect, photograph, and videotape/record, 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 Appendix I of OAC Rule 3745-51-20, Laboratory Methods. Laboratory methods must be those specified in Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods, EPA Publication SW-846, Third Edition, as amended by Updates I, II, IIA, IIB, III and IIIA, 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. Once any enforcement action is resolved, the Permittee must maintain relevant documents for a period of one year beyond the date of final resolution or three years from the original date of sample, measurement, report or record, whichever is greater.

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

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

A.17 Anticipated Noncompliance
OAC Rule 3745-50-58(L)(2)

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

A.18 Transfer of Permits
OAC Rules 3745-50-52, 3745-50-58(L)(3) and 3745-54-12

(a) The permit may be transferred to a new owner or operator only if such transfer is conducted in accordance with ORC Chapter 3734 and the rules adopted thereunder. This permit may be transferred by the Permittee to a new owner or operator only if the permit has been modified under OAC Rule 3745-50-51. Before transferring ownership or operation of the facility, the Permittee must notify the new owner or operator in writing of the requirements of ORC Chapter 3734 and the rules adopted thereunder (including all applicable Corrective Action requirements).

(b) The Permittee's failure to notify the new owner or operator of the requirements of the applicable Ohio law or hazardous waste rules does not
relieve the new owner or operator of its obligation to comply with all applicable requirements.

A.19 Compliance Reports
OAC Rules 3745-50-58(L)(5) and 3745-50-50

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

A.20 Immediate Reporting of Noncompliance
OAC Rule 3745-50-58(L)(6)

(a) The Permittee must report orally to Ohio EPA’s Division of Environmental Response and Revitalization 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 the Division of Materials and Waste Management 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 Reserved

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 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 December 20th each year starting from 2015 to 2024, with the exception that the final disposal fee for 2025 is due on June 30, 2025.

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

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

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

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

And

Ohio EPA, Northwest District Office
Division of Materials and Waste Management
347 North Dunbridge Road
Bowling Green, Ohio 43402

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

(i) Updated Closure/Post-Closure Cost Estimate
OAC Rules 3745-55-42 and 3745-55-44

Section I 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 closure/post-closure cost estimate as set forth in OAC Rules 3745-55-42 and 3745-55-44. Since the Permittee has been adjusting the closure/post-closure cost estimate for inflation in accordance with OAC Rule 3745-55-42(B) and 3745-55-44(B) for the duration of the previous 10 year permit period, and because the closure plan was amended as part of the permit renewal, the Permittee must provide a detailed written estimate, in current dollars, of the cost of closing the facility and post-closure care in accordance with OAC Rule 3745-55-42(A) and OAC Rule 3745-55-44(A).

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

Section I 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/post-closure cost estimate.

During the life of the permit, the facility may change the financial assurance mechanism as stated in OAC Rules 3745-55-43 and 3745-55-45. The facility must submit the financial assurance mechanism documentation to the Director of Ohio EPA in accordance with the parameters set forth in OAC Rules 3745-55-43 and 3745-55-45.

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

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

During the life of the permit, the facility may change the mechanism used to demonstrate liability coverage as stated in OAC Rule 3745-55-47. The facility must submit the liability mechanism documentation to the Director of Ohio EPA in accordance with the parameters set forth in OAC Rule 3745-55-47.
The Permittee must submit to Ohio EPA sixty (60) days prior to treatment or storage of hazardous waste in permitted tank T01-8, in accordance with Ohio's hazardous waste rules, the following information to be incorporated in the permit application:

(i) Prior to treatment or storage of hazardous waste in permitted tank T01-8, the Permittee must obtain and submit to the director a written assessment, reviewed and certified by a qualified professional engineer, in accordance with paragraph (D) of rule 3745-50-42 of the Ohio Administrative Code, attesting that the tank system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. The assessment must show that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the wastes to be stored or treated, and corrosion protection to ensure that it will not collapse, rupture, or fail. This assessment, which will be used by the director to review and approve or disapprove the acceptability of the tank system design, must include the information described in OAC Rule 3745-55-92 and OAC Rule 3745-55-93.

(ii) Prior to operation of permitted tank T01-8 for the treatment or storage of hazardous waste, the Permittee must submit a certification of installation of the tank system in accordance with OAC Rule 3745-55-92(B) to ensure the tank is fit for use.

(iii) The Permittee must not operate tank T01-8 for the treatment or storage of hazardous waste until the Director has either inspected or waived the inspection of tank T01-8 in accordance with OAC Rule 3745-50-58(L)(2).

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

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

(a) Unless otherwise specified by the hazardous waste rules, the Permittee must maintain at the facility, until closure is completed and certified by an independent, registered 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, as required by OAC Rule 3745-54-73 and the terms and conditions of this permit; and

(vii) inspection schedules, developed in accordance with OAC Rules 3745-54-15, 3745-55-74 and 3745-55-95 and the terms and conditions of this permit.

(viii) post-closure plan, as required by OAC Rule 3745-55-18(A) and the terms and conditions of this permit.

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

(x) all other documents required by 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 Report
OAC Rules 3745-54-73 and 3745-54-75

(a) The Permittee must submit a Waste Minimization Report describing the waste minimization program required by OAC Rules 3745-54-75(H), (I), and (J); 3745-54-73(B)(9); and 3745-52-20(A) at least once every five years. The provisions of OAC Rules 3745-54-75(H), (I) and (J) must be satisfied biennially. The provisions of OAC Rule 3745-54-73(B)(9) must be satisfied
no less often than annually.

(b) The Permittee must submit the Waste Minimization Report to Ohio EPA's Office of Compliance Assistance and Pollution Prevention within one hundred eighty (180) days of the effective date of this permit, and must submit updates to this report once every five years thereafter.
MODULE B - GENERAL FACILITY CONDITIONS

B.  GENERAL FACILITY CONDITIONS

B.1  Design and Operation of Facility

OAC Rule 3745-54-31

(a) The Permittee must design, construct, maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, ground water or surface waters which could threaten human health or the environment.

(b) Reserved.

B.2  Required Notices

OAC Rule 3745-54-12

The Permittee may not receive hazardous waste from off-site.

B.3  General Waste Analysis Plan

OAC Rule 3745-54-13

(a) Before an owner or operator treats, stores, or disposes of any hazardous wastes, or nonhazardous wastes if applicable under OAC Rule 3745-55-13(D), he 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 Chapters 3745-54 to 3745-57, 3745-205, and 3745-270 of the Administrative Code.

(b) The Permittee must follow the procedures described in the waste analysis plan found in Section C 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.4 Security
OAC Rule 3745-54-14

The Permittee must comply with the security provisions of OAC Rule 3745-54-14(B)(1) or (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 years from the date of inspection. These records must be a part of the facility's operating record as required by OAC Rule 3745-54-73.

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

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

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

(a) The Permittee must comply with the requirements of OAC Rule 3745-54-17 and must follow the procedures for handling ignitable, reactive, and incompatible wastes set forth in Sections G and D of the permit application.

(b) The Permittee must provide electrical grounding for all containers and tanks, and transport vehicles during all operations involving the handling of ignitable or reactive wastes.
(c) The Permittee must provide, and require the use of, spark proof tools during all operations involving the handling of all ignitable or reactive wastes.

(d) The Permittee must prohibit smoking and open flames in each area where ignitable, reactive or incompatible hazardous wastes are managed and must post appropriate signs.

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 G of the permit application.

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

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

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

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

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

At a minimum, the Permittee must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, as required by OAC Rule 3745-54-35.
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 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.

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

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

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

(a) Immediately after an emergency, the emergency coordinator 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) The Permittee must, in accordance with OAC Rule 3745-54-53, submit a copy of the contingency plan to the Ohio Environmental Protection Agency's Division of Environmental Response and Revitalization.
B.19 Emergency Coordinator  
OAC Rule 3745-54-55  

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

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

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

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

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

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

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

B.27 **Closure Plan**  
OAC Rules 3745-55-10, 3745-55-11 and 3745-55-13  

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

B.28 **Amendment of Closure Plan**  
OAC Rules 3745-55-12 and 3745-50-51  

Should a change in the facility closure plan become necessary, the Permittee must amend the closure plan in accordance with OAC Rule 3745-55-12 (C).
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 45 days prior to the date on which he expects to begin final closure of the facility, as required by OAC Rule 3745-55-12(D).

B.31 Time Allowed For Closure
OAC Rule 3745-55-13

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

B.32 Disposal or Decontamination of Equipment, Structures, and Soils
OAC Rule 3745-55-14

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

(b) The Permittee must notify the Ohio EPA Northwest District Office within five (5) working days prior to all rinseate and soil sampling.
B.33 Certification of Closure  
OAC Rule 3745-55-15

The Permittee and an independent, registered 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 landfill after completion of closure of the unit and continue for 30 years after that date. 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 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 60 days of certification of closure of the first hazardous waste disposal unit and within 60 days of certification of closure of the last hazardous waste disposal unit, the Permittee must do the following:

1. 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).

2. 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 notification.

3. 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 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 of the permit application.

(b) The Permittee must adjust the closure and post-closure cost estimate for inflation within 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.

(c) The Permittee must revise the closure cost estimate and post-closure cost estimate whenever there is a change in the facility's closure plan and post-closure plan that increases the cost of closure and post-closure care, as required by OAC Rule 3745-55-42(C) and 3745-55-44(C).

(d) The Permittee must submit to Ohio EPA and keep at the facility the latest closure cost estimate and post-closure cost estimate as required by OAC Rules 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 and 3745-55-45

The Permittee must maintain continuous compliance with OAC Rules 3745-55-43, 3745-55-45, and 3745-55-46 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 nonsudden 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.
MODULE C - CONTAINER STORAGE & MANAGEMENT

C. CONTAINER STORAGE AND MANAGEMENT

The container storage building located in the barrel yard and the deepwell storage building are centrally located at the Permittee's facility. The facility plot plan contained in Appendix B2-1 of the permit application shows the locations of the container storage building and the deepwell storage building. Both buildings consist of a concrete base and enclosed steel building structure and are stand alone buildings.

The container storage building located in the barrel yard is approximately 40 feet long by 40 feet wide and the entire building is considered the container storage area. The building is designed to store 27,500 gallons of hazardous waste. Hazardous waste is typically stored in 55 gallon drums and a thirty cubic yard roll-off box. Secondary containment for this container storage area consists of a concrete base and sump which have a combined total capacity of 6,530 gallons.

The deepwell building is approximately 150 feet long by 50 feet wide but the container storage area (filter cake room) is located only in the northeast corner of the building and is approximately 30 feet long by 25 feet wide. This area is designed to store 6,875 gallons of hazardous waste in one roll off box. Secondary containment for this area is provided by the deepwell storage building system which has a total capacity of 20,055 gallons.

C.1 Container Storage/ Quantity Limitation

(a) The Permittee is authorized to store 27,500 gallons of hazardous waste at any given time in the permitted container storage building located in the barrel yard. The Permittee must not exceed a maximum container storage inventory of 500 fifty-five gallon drums in the container storage building. The volume of the largest container must not exceed 6,059 gallons (one thirty cubic yard roll-off box).

The Permittee is authorized to store 6,875 gallons of hazardous waste at any given time in the permitted container storage area (filter cake room) located in the deepwell building. The Permittee must not exceed a maximum container storage inventory of 6,875 gallons in the filter cake room.

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

(b) For the purpose of compliance with the capacity limitation of this permit, each container will be considered to be storing an amount of hazardous waste
equal to its capacity, regardless of the actual quantity stored in the container.

(c) Permit Conditions C.1(a) and C.2 shall not apply to the Permittee's activities as a generator accumulating hazardous waste on-site in compliance with OAC Rule 3745-52-34 and 40 CFR Part 265, subparts AA, BB, and CC.

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

(d) The Permittee shall not store hazardous waste for a period which exceeds one year, except that upon good cause shown, the Ohio EPA may extend such time period. Each container stored must be clearly marked to identify its contents, including hazardous waste stream identification, and must also be marked with the words “Hazardous Waste” and the date each period of storage begins.

C.2 Reserved

C.3 Waste Identification

(a) The Permittee must store in containers only the hazardous waste codes specified below:

D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D038, F039, K011, K013, K014, P003, P005, P030, P063, P069, P098, P101, P106, P120, U001, U002, U003, U007, U008, U009, U019, U044, U054, U056, U057, U080, U112, U122, U123, U124, U125, U129, U140, U147, U149, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239

(b) During any calendar year, the Permittee must not manage, through container storage, any individual hazardous waste in quantities in excess of the maximum annual quantities specified in the Attachment to Item 9 of the Part A located in the approved permit application.

C.4 Condition of Containers

OAC Rule 3745-55-71

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

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

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

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

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

(b) In the event lab-pack wastes are generated they must be handled in compliance with applicable storage requirements.

(c) In the event lab-pack wastes are generated they must be packaged in drums containing absorbent material that is compatible with the waste.

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

(a) The Permittee must maintain the containment systems in accordance with the plans and specifications contained in Section D of the permit application.

(b) The Permittee must maintain the containment systems as described in the permit application, designed with sufficient capacity to contain ten percent of the total volume of the containers or the volume of the largest container, whichever is greater. The containment systems must be free of cracks and gaps and sufficiently impervious to contain leaks and spills and accumulated precipitation until the collected material is detected and removed. The Permittee must ensure that the coatings utilized in lining the secondary containment systems are compatible with each waste stored in containers situated at the permitted container storage areas. For those hazardous wastes that are deemed incompatible with the liner material, the Permittee must install a separate secondary containment structure, located within the existing structure, possessing the appropriate liner in order to withstand any degrading effects imposed through initial and/or prolonged contact (e.g., 24 hours) with released waste materials.
(c) The base of the containment system must be sloped or the containment system must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.

(d) Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity in addition to that required in Permit Condition C.7(b) above.

(e) Spilled or leaked waste and accumulated precipitation must be removed from the sump or collection area in a timely manner. The time period is not to exceed twenty-four (24) hours from the time spilled and/or leaked waste is discovered.

C.8 Prohibition of Container Storage
ORC Section 3734.02(F)

The Permittee must not store any container of hazardous waste received from any off-site source.

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

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

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

C.10 Recordkeeping
OAC Rule 3745-54-73

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

C.11 Special Container Provisions for Ignitable or Reactive Waste
OAC Rules 3745-54-17 and 3745-55-76

(a) The Permittee must not store ignitable or reactive waste except
accordance with OAC Rules 3745-54-17 and 3745-55-76.

(b) The Permittee must not locate containers holding ignitable or reactive waste within 15 meters (50 feet) of the facility's property line.

(c) The Permittee must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste and shall follow the storage procedures specified in Section D of the permit application.

C.12 Special Container Provisions for Incompatible Waste
OAC Rules 3745-54-17(B) and 3745-55-77

(a) The Permittee must not store incompatible waste except in accordance with OAC Rules 3745-54-17(B) and 3745-55-77.

(b) The Permittee must not place hazardous waste in an unwashed container that previously held an incompatible waste or material.

(c) The Permittee must separate or protect (by means of a dike, berm, wall, or other device) a storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments.

C.13 Reserved

C.14 Closure and Post-Closure
OAC Rules 3745-55-10 through 3745-55-20, and 3745-55-78

(a) At closure of the container storage areas, the Permittee shall remove all hazardous waste and hazardous waste residues from the containment systems, in accordance with the procedures in the closure plan set forth in Section I of the permit application.

(b) If the Permittee demonstrates that not all contaminated soils can be practically removed or decontaminated, in accordance with the Section I of the permit application, the Permittee shall close the unit and perform post-closure care following a plan approved by the Director.
D. **MODULE HIGHLIGHTS**

The tank system at the facility consists of seven (7) storage tanks and seven (7) treatment tanks to accommodate the hazardous waste prior to deep well injection under the Underground Injection Control (UIC) permits. The system has been designed and installed to meet the requirements of the 1984 amendments to RCRA.

D.1 **Tank Storage Quantity Limitation/Waste Identification**

(a) The Permittee may store a total volume of 2,128,040 gallons of hazardous waste in 14 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:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>S02-1</td>
<td>11,800 gallons</td>
<td>12 ft. (diam) x 14 ft.</td>
<td>Deepwell building containment capacity 20,055 gallons*</td>
<td>Discharge water and recirculated waste water</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D036, F039, K011, K013, K014, P003, P005, P030, P033, P069, P101, P106, U001, U002, U003, U007, U008, U009, U019, U044, U053, U056, U057, U080, U112, U122, U123, U124, U125, U129, U140, U147, U149, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239</td>
</tr>
<tr>
<td>S02-4</td>
<td>960,000 gallons</td>
<td>60 ft. (diam) x 48 ft.</td>
<td>Double walled and double bottomed tank</td>
<td>Waste water on an emergency basis</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D038, F039, K011, K013, K014, P003, P005, P030, P033, P069, P098, P101, P106, P120, U001, U002, U003, U007, U008, U009, U019, U044, U053, U056, U057, U080, U112, U122, U123, U124, U125, U129, U140, U147, U149, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------</td>
<td>-------------------</td>
<td>--------------------------------------</td>
<td>---------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>S02-5</td>
<td>960,000 gallons</td>
<td>60 ft. (diam) x 48 ft.</td>
<td>Double walled and double bottomed tank</td>
<td>Waste water on an emergency basis</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D016, D019, D035, D036, F039, K011, K013, K014, P003, P005, P030, P063, P069, P098, P101, P106, P120, U001, U002, U003, U007, U008, U009, U019, U044, U053, U056, U057, U080, U112, U122, U123, U124, U125, U129, U140, U147, U148, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239</td>
</tr>
<tr>
<td>S02-6</td>
<td>6,000 gallons</td>
<td>8 ft. (diam) x 16 ft.</td>
<td>Deepwell building containment capacity 20,055 gallons*</td>
<td>Sludge from the clarifier</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D016, D019, D035, D036, F039, K011, K013, K014, P003, P005, P030, P063, P069, P098, P101, P106, P120, U001, U002, U003, U007, U008, U009, U019, U044, U053, U056, U057, U080, U112, U122, U123, U124, U125, U129, U140, U147, U148, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239</td>
</tr>
<tr>
<td>S02-18</td>
<td>1,200 gallons</td>
<td>4 ft. 6 in. (diam) x 10 ft.</td>
<td>Concrete vault</td>
<td>Waste water from maintenance activities in the Acrylonitrile area</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D016, D019, D035, D036, F039, K011, K013, K014, P003, P005, P030, P063, P069, P098, P101, P106, P120, U001, U002, U003, U007, U008, U009, U019, U044, U053, U056, U057, U080, U112, U122, U123, U124, U125, U129, U140, U147, U148, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239</td>
</tr>
<tr>
<td>S02-19</td>
<td>1,200 gallons</td>
<td>4 ft. 6 in. (diam) x 10 ft.</td>
<td>Concrete vault</td>
<td>Waste water from maintenance activities from the CAPU area</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D036, F039, K011, K013, K014, P003, P005, P030, P063, P069, P098, P101, P106, P120, U001, U002, U003, U007, U008, U009, U019, U044, U053, U056, U057, U080, U112, U122, U123, U124, U125, U129, U140, U147, U148, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239</td>
</tr>
<tr>
<td>----------</td>
<td>--------------------</td>
<td>---------------------</td>
<td>---------------------------------------</td>
<td>---------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>S02-20 Deepwell Backwash Surge Tank</td>
<td>9,300 gallons</td>
<td>12 ft. (diam) x 11 ft.</td>
<td>Deepwell building containment capacity 20,055 gallons*</td>
<td>Waste water from the deepwell filter backwash cycle</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D038, F039, K011, K013, K014, P003, P005, P030, P063, P069, P098, P101, P108, P120, U001, U002, U003, U007, U008, U009, U019, U044, U053, U056, U057, U080, U112, U122, U123, U124, U125, U129, U140, U147, U149, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239</td>
</tr>
</tbody>
</table>

*The secondary containment system for these units is the Deepwell Treatment Building. The Deepwell Treatment Building is constructed with adequate secondary containment for the entire Deepwell Treatment Tank System. Secondary containment is not required for these units on an individual basis. Refer to Section D in the permit application for additional information.

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 shall treat in tanks only the hazardous waste codes specified in the permit application and summarized below:

<table>
<thead>
<tr>
<th>Tank No.</th>
<th>Capacity (Gallons)</th>
<th>Treatment Type</th>
<th>Dimensions of Tank</th>
<th>Secondary Containment Volume (Gallons)</th>
<th>Description of Hazardous Waste</th>
<th>Hazardous Waste No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>T01-1 Filter Feed Tank</td>
<td>22,000 gallons</td>
<td>Removal of solids prior to UIC disposal</td>
<td>12 ft. (diam) x 28 ft.</td>
<td>Double walled tank</td>
<td>Waste water from clarifier</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D038, F039, K011, K013, K014, P003, P005, P030, P063, P069, P098, P101, P108, P120, U001, U002, U003, U007, U008, U009, U019, U044, U053, U056, U057, U080, U112, U122, U123, U124, U125, U129, U140, U147, U149, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239</td>
</tr>
<tr>
<td>T01-2 Reject Water Tank</td>
<td>8,400 gallons</td>
<td>Removal of solids prior to UIC disposal</td>
<td>12 ft. (diam) x 10 ft.</td>
<td>Deepwell building containment capacity 20,055 gallons*</td>
<td>Waste water from filter press and deepwell filters backwash</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D038, F039, K011, K013, K014, P003, P005, P030, P063, P069, P098, P101, P108, P120, U001, U002, U003, U007, U008, U009, U019, U044, U053, U056, U057, U080, U112, U122, U123, U124, U125, U129, U140, U147, U149, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239</td>
</tr>
<tr>
<td>Tank No.</td>
<td>Capacity (Gallons)</td>
<td>Treatment Type</td>
<td>Dimensions of Tank</td>
<td>Secondary Containment Volume (Gallons)</td>
<td>Description of Hazardous Waste</td>
<td>Hazardous Waste No.</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------</td>
<td>----------------</td>
<td>-------------------</td>
<td>-----------------------------------------</td>
<td>-------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>T01-4</td>
<td>3,470 gallons Deepbed Filter</td>
<td>Removal of solids prior to UIC disposal</td>
<td>9 ft. (diam) x 7 ft. 6 in.</td>
<td>Deepwell building containment capacity 20,055 gallons*</td>
<td>Waste water from filter feed tank and deep well clarifier</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D031, D038, F039, K011, K013, K014, P003, P005, P030, P063, P069, P098, P101, P106, P120, U001, U002, U003, U007, U008, U009, U019, U044, U053, U056, U057, U090, U112, U122, U123, U124, U125, U129, U140, U147, U149, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239</td>
</tr>
<tr>
<td>T01-5</td>
<td>3,470 gallons Deepbed Filter</td>
<td>Removal of solids prior to UIC disposal</td>
<td>9 ft. (diam) x 7 ft. 6 in.</td>
<td>Deepwell building containment capacity 20,055 gallons*</td>
<td>Waste water from filter feed tank and deep well clarifier</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D038, F039, K011, K013, K014, P003, P005, P030, P063, P069, P098, P101, P106, P120, U001, U002, U003, U007, U008, U009, U019, U044, U053, U056, U057, U090, U112, U122, U123, U124, U125, U129, U140, U147, U149, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239</td>
</tr>
<tr>
<td>T01-8</td>
<td>1,200 gallons Filter Press Mix Tank</td>
<td>Removal of solids prior to UIC disposal</td>
<td>7 ft. 3 in. (diam) x 5 ft. 2 in.</td>
<td>Deepwell building containment capacity 20,055 gallons*</td>
<td>Process waste water and diatomaceous earth mixed prior to the filter press</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D038, F039, K011, K013, K014, P003, P005, P030, P063, P069, P098, P101, P106, P120, U001, U002, U003, U007, U008, U009, U019, U044, U053, U056, U057, U090, U112, U122, U123, U124, U125, U129, U140, U147, U149, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239</td>
</tr>
<tr>
<td>T01-10</td>
<td>132,000 gallons Deep Well Clarifier</td>
<td>Removal of solids prior to UIC disposal</td>
<td>36 ft. (diam) x 12 ft.</td>
<td>Double walled and double bottomed tank</td>
<td>Waste waters from reject water tank, backwash surge tank, deepwell surge tanks, FAS, CAPU process, and Acrylo process</td>
<td>D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D038, F039, K011, K013, K014, P003, P005, P030, P063, P069, P098, P101, P106, P120, U001, U002, U003, U007, U008, U009, U019, U044, U053, U056, U057, U090, U112, U122, U123, U124, U125, U129, U140, U147, U149, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239</td>
</tr>
</tbody>
</table>
The secondary containment system for these units is the Deepwell Treatment Building. The Deepwell Treatment Building is constructed with adequate secondary containment for the entire Deepwell Treatment Tank System. Secondary containment is not required for these units on an individual basis. Refer to Section D in the permit application for additional information.

(b) The Permittee must not exceed the treatment capacity for each treatment process listed below.

<table>
<thead>
<tr>
<th>Tank Number</th>
<th>Description</th>
<th>Process Capacity (gallons/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>T01-1</td>
<td>Deepwell filter feed tank</td>
<td>842,400</td>
</tr>
<tr>
<td>T01-2</td>
<td>Deepwell reject water tank</td>
<td>90,900</td>
</tr>
<tr>
<td>T01-4, 5</td>
<td>Deepwell deepbed filters</td>
<td>1,206,000</td>
</tr>
<tr>
<td>T01-8</td>
<td>Filter press mix tank</td>
<td>5,000</td>
</tr>
<tr>
<td>T01-10</td>
<td>Deepwell clarifier</td>
<td>740,000</td>
</tr>
<tr>
<td>T01-13</td>
<td>Catalyst waste water tank</td>
<td>40,000</td>
</tr>
</tbody>
</table>

(c) 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 Reserved

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 OAC Rule 3745-55-93(B) through
The Permittee shall keep on file at the facility, written statements by those persons required to certify the design of the tank systems and supervise the installation of the tank systems in accordance with the requirements of OAC Rule 3745-55-92, that attest that the tank systems were properly designed and installed. These written statements must also include the certification as required by OAC Rule 3745-50-42(D).

New tanks at the facility are S02-1, S02-4, S02-5, S02-6, S02-18, S02-19, S02-20, T01-1, T01-2, T01-4, T01-5, T01-8, T01-10, and T01-13.

(b) **Existing Tank Systems with Secondary Containment**

There are no existing tanks at the facility.

**D.5 Operating Requirements**

OAC Rule 3745-55-94

(a) The Permittee must not place hazardous wastes or treatment reagents in the tank system if they could cause the tank, its ancillary equipment, or a containment system to rupture, leak, corrode, or otherwise fail.

(b) The Permittee must prevent spills and overflows from the tank or containment systems using the methods described in the permit application. The Permittee must comply with the requirements of OAC Rule 3745-55-96 if a leak or spill occurs in the tank system.

(c) The deepwell deepbed filters (T01-4 and T01-5) and the catalyst waste water tank (T01-13) must be operated in accordance with good industry practice and the Permittee's operating manuals for this equipment.

**D.6 Inspection Schedules and Procedures**

OAC Rule 3745-55-95

(a) The Permittee must inspect the tank systems, in accordance with the Inspection Schedule found in Section F of the permit application and must complete the items in Permit Conditions D.6(b) and D.6(c) as part of those inspections:

(b) The Permittee must inspect the overfill controls, in accordance with the procedure and schedule in 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)(iii) 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 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 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 must 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.

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

(a) At closure of the tank system(s), the Permittee must follow the procedures in the closure plan in Section I of the permit application.

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

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

(a) The Permittee must not place ignitable or reactive waste in the tank system or in the secondary containment system, unless the procedures specified in the permit application are followed. The Permittee must document compliance with this condition and place it in the operating record.

(b) The Permittee must comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon, as required in Tables 2-1 to 2-6 of the National Fire Protection Association's

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.
E. CORRECTIVE ACTION SUMMARY

On September 22, 1987 a RCRA Facility Assessment (RFA) for the facility was completed by U.S. EPA. Based on the RFA the U.S. EPA required the Permittee to conduct a RCRA Facility Investigation (RFI) for the following units:

- Firewater Pond No. 2 (SWMU #2)
- Process Pond No. 2 (SWMU #3)
- V-2 Pond (SWMU #32)
- Outfall Pond (SWMU #38)
- Old Catalyst Wastewater Settler (SWMU #98)
- Drum Marshalling Area (SWMU #99)
- CERCLA Landfill (SWMU #102)
- Barex Wastewater Spill Area (AOC “A”)
- Dewatering Surge Tank (SWMU #15)

The RFI Workplan was approved by U.S. EPA on September 30, 1994 and subsequently the RFI Report was approved by U.S. EPA on December 5, 1996. The findings of the RFI report required the Permittee to submit a Corrective Measures Study (CMS) which was also approved by U.S. EPA on June 3, 1997. Based on the results of the CMS, U.S. EPA modified the Permittee's federal permit on September 30, 1998 and selected a remedy for implementation. Ohio EPA, in accordance with the permit, required the Permittee to implement institutional controls. Using the results from the RFI and CMS, U.S. EPA selected a Corrective Measure. 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 constituents(s)); and (4) comply with all applicable standards for management of wastes. Since contaminant levels at all 8 WMUs (SWMUs) and the one AOC were below the target levels for an industrial land use scenario, U.S. EPA determined that remedial measures would not be required as part of the remedy for the site. However, institutional controls were required to ensure that the land use remains industrial.

On December 15, 2005, the Permittee entered into an Environmental Covenant for Parcels 1, 2, 4 and 5. The Firewater Pond No. 2 (SWMU #2) and Process Pond No. 2 (SWMU #3) are located on Parcel 1 (which is owned by PCS). The PCS Nitrogen facility is on Parcel 2. Parcel 3 has been combined and is now within the limits of Parcel 2. The INEOS facility is located on Parcels 4 and 5. This Environmental Covenant fulfills the Permittee's requirement to restrict the use of the property to industrial use.
Four other units identified in the 1987 RFA are also considered "regulated units" as that term is defined in 40 CFR 264.90 (a)(2) and OAC Rule 3745-54-90. These units were closed in accordance with OAC Rules 3745-66-12 and 3745-55-12 and Condition B.26 of this permit. Ohio EPA issued a closure certification letter to the Permittee on November 22, 2004. The units are as follows:

Celite Pond (SWMU #34)
V-1 Pond (SWMU #35)
Burn Pond (SWMU #36)
Deepwell Pond (SWMU #39)

These four mixed waste ponds have been closed under the Mixed Waste Pond Closure Plan. The disposal cells for the Mixed Waste Pond Closure Project were designed and constructed in accordance with RCRA Section 3004 (o). Cell #1 was constructed at the former site of V-1 Pond in 1996. This cell was filled to capacity with stabilized sludges from the four mixed waste ponds in 1997 and was capped in 2000. Cell #2 was constructed on the combined sites of the Burn Pond and Deepwell Pond. Cell #2 was constructed for the permanent disposal of the remaining stabilized sludges and contaminated soil from the mixed waste ponds as well as contaminated soil and debris from SWMU 102 and AN-1 area waste piles. This cell was capped in 2000.

The two AN-1 Waste Piles and underlying soils were closed according to the closure plan approved on December 20, 2002. The waste pile closure was certified in August 2003.

Ohio EPA issued a closure certification letter on November 22, 2004 for the Mixed Waste Pond Closure. These units are closed as landfills and are being managed under post closure.

The following is a timeline of closure projects and associated actions that have occurred at the INEOS facility:

**Mixed Waste Pond Closure Project**
- September 1993 – Mixed Waste Pond Closure Plan Approved
- November 2002 – Certification of Mixed Waste Pond Closure
- November 2004 – Final Closure Documents on Mixed Waste Pond Closure
- December 20, 2004 – PCR moving Closure to post-closure

**AN 1 Waste Pile Closure**
- December 2002 – AN 1 Waste Pile Closure Plan Approved
- August 2003 – AN 1 Waste Pile Closure Certification

**Thermal Oxidizer Closure**
- July 2002 – Partial Closure Notification for Thermal Oxidizers
August 2002 — Thermal Oxidizer Closure Certification
February 2003 — PCR removing Thermal Oxidizers from permit

**Spent Caustic Tank Closure**
April 2007 — Partial Closure Notification for Spent Caustic Tank
January 2008 — Spent Caustic Tank Closure Certification
April 2008 — PCR removing Spent Caustic Tank from permit

**Institutional Controls**
May 2006 — Environmental Covenant recorded for the property

**E.1 Corrective Action at the Facility**
OAC Rules 3745-50-10 and 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), construction and demolition debris (as defined in ORC Chapter 3714), industrial waste, or other waste (as those terms are defined in ORC Chapter 6111), has been placed at any time, irrespective of whether the unit was intended for the management of waste or hazardous waste. Such units include any area at a facility at which wastes have been routinely and systematically released. For the purpose of Corrective Action, facility is defined as all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA. The terms Interim Measure (IM), RCRA Facility Investigation (RFI), Corrective Measures Study (CMS) and Corrective Measure Implementation (CMI) are defined in U.S. EPA's Corrective Action Plan (CAP) (OSWER Directive 9902.3-2A, May 1994).

The Permittee must institute Corrective Action as necessary to protect human health and the environment for all releases of hazardous waste(s) or hazardous constituent(s) 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.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.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**

In the event of a newly discovered waste management unit, the Permittee must submit a written RFI Workplan to Ohio EPA on a time frame established by Ohio EPA.

(i) Within 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 shall 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 60 days after the completion of the RFI, the Permittee shall submit an RFI Final Report to Ohio EPA. The RFI Final Report shall 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 60 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 Measures

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 interim measure (IM) (this may include an Interim Measure 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 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 a threat 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 a threat 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 90 days from the notification by Ohio EPA of the requirement to conduct a CMS.

(i) Within 60 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, shall 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.
Within 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 60 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 shall 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) **Financial Assurance**  
OAC Rule 3745-54-101

Within 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 shall submit to Ohio EPA, within 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) Specifications of all waste(s) that have been managed at the unit.

(b) **Release Information**

The Permittee must submit to Ohio EPA, within 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 shall 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.

The Permittee must make such submittals in accordance with time frames established
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. MODULE HIGHLIGHTS

This section is applicable to units with waste in-place closures.

The Permittee formerly operated four surface impoundments (V-1, Celite, Deepwell and Burn Ponds, referred to collectively as "Mixed Waste Ponds") that were used to manage mixed hazardous wastes (K011, K013, K014, U003, U009, P063, D002, D003) produced as a result of the acrylonitrile manufacturing process. In addition to the chemical constituents, the units also managed depleted uranium that was a component of the catalyst used to manufacture acrylonitrile. These surface impoundments were taken out of service in 1988 and have undergone RCRA closure. Wastes in the units were solidified and stabilized. Stabilized waste from the former Celite unit was placed in the former V-1 unit. The Deepwell and the Burn Pond were combined to make a consolidated unit. The resulting two units undergoing landfill closure are 1) V-1 and 2) Deepwell and Burn Ponds. The Celite Pond has been clean closed. Closure construction activities (landfills) have been completed. Ohio EPA issued a closure certification letter to the Permittee on November 2, 2004. The two units that are closed as landfills are subject to post-closure care requirements for 30 years. The post-closure care includes maintenance of the landfill caps, leachate management, storm water management, security, financial assurance and groundwater monitoring.

These formerly operated surface impoundments (V-1, Celite, Deepwell and Burn Ponds) along with two other units, were SWMUs also investigated under corrective action.

F.1 Unit Identification
OAC Rule 3745-55-17

The Permittee must provide post-closure care for the following hazardous waste management units, subject to the terms and conditions of this permit:
<table>
<thead>
<tr>
<th>Type of Waste Unit</th>
<th>Unit No. or Other Designation</th>
<th>Maximum Waste Inventory</th>
<th>Description of Wastes Contained</th>
<th>Hazardous Waste No.</th>
<th>Year Post-closure began</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landfill</td>
<td>V- Pond Cell #1</td>
<td>49,800 yd³ (cubic yards)</td>
<td>bottom stream from wastewater stripper in acrylonitrile process, bottom stream from acetonitrile column in acrylonitrile process, bottoms from acetonitrile purification column in acrylonitrile process, waste caustic, reactive (sulfide) waste, off-spec acetonitrile, residues from acrylonitrile spills</td>
<td>K011, K013, K014, U003, U009, P063, D002, D003</td>
<td>2004</td>
</tr>
<tr>
<td></td>
<td>Deepwell and Burn Pond Cell #2</td>
<td>117,300 yd³</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

F.2 Post-Closure Procedures and Use of Property

OAC Rules 3745-55-17

(a) The Permittee must conduct post-closure care for each hazardous waste management unit listed in Permit Condition F.1., 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.

(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 through 99 and 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 cap, 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 as approved by the Director of Ohio EPA on September 20, 1993. Amendments to the post-closure plan were approved on March 14, 1994, and August 11, 1999. 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 60 days after certification of closure of each permitted 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 60 days of certification of closure of each hazardous waste disposal unit, the Permittee must:

(i) Record, in accordance with Ohio law, a notation on the deed to the facility property, 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 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 local zoning authority or the authority with jurisdiction over local land use.

(ii) Submit a certification to the director, signed by the Permittee, that the Permittee 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 or any subsequent owner or operator of the land upon which the hazardous waste unit is located, wishes to remove hazardous wastes and hazardous waste residues, the liner, if any, or contaminated soils, then he must request a modification to this permit in accordance with the applicable requirements in OAC Rules 3745-50-40 through 3745-50-66. The Permittee or any subsequent owner or operator of the land 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:

a) The removal of the notation on the deed to the facility property or other instrument normally examined during title search or;

b) The addition of a notation to the deed or instrument indicating the removal of the hazardous waste.

(d) No later than 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 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, 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

The Permittee must maintain financial assurance during the post-closure period and comply with all applicable requirements of OAC Rules 3745-55-40 through 3745-55-51.

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 3745-50-235 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 60 days prior to the proposed change in facility design or operation, or no later than 60 days after an unexpected event has occurred which has affected the post-closure plan.
MODULE G – TREATMENT IN MISCELLANEOUS UNIT

G. TREATMENT IN MISCELLANEOUS UNITS

The deepwell filter press (T04-9a) treats the waste streams from the deepwell clarifier (T01-10) and sludge tank (S02-6). Filtrate goes to the deepwell reject water tank (T01-2) while solids are placed into a roll-off bin. The filter press system treats the contents by stabilizing materials and by liquid decanting. The filter press was constructed in 1988 and is located in the Deepwell Treatment Building. The filter press has a 30 cubic foot capacity. Secondary containment for the filter press is provided by the Deepwell Treatment Building liner, trench, and sump system which have a total capacity of 20,055 gallons.

G.1 Reserved

G.2 Process Capacity/Annual Limitation
ORC Section 3734.02(F) and OAC Rule 3745-50-43

The Permittee must not exceed a maximum process treatment capacity of 15,000 gallons per day for the hazardous waste filter press.

G.3 Waste Identification
OAC Rule 3745-50-43

The Permittee must treat in the hazardous waste filter press only the hazardous waste codes specified in the permit application and summarized below:

D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D038, F039, K011, K013, K014, P003, P005, P030, P063, P069, P098, P101, P106, P120, U001, U002, U003, U007, U008, U009, U019, U044, U053, U056, U057, U080, U112, U122, U123, U124, U125, U129, U140, U147, U149, U151, U152, U154, U159, U161, U169, U188, U191, U196, U211, U213, U219, U220, U239

G.4 Assessment/Certification of Miscellaneous Unit
OAC Rules 3745-57-91 and 3745-50-42(D)

The Permittee must keep on file at the facility written statements by those persons required to certify the design of the filter press system and supervise the installation of the filter press system in accordance with the requirements of OAC Rule 3745-57-91 that attest that the filter press system was properly designed and installed.

These written statements must also include the certification as required by OAC Rule 3745-50-42(D).
G.5 Containment System
OAC Rule 3745-57-91

(a) Secondary containment must be designed, installed, and operated to prevent any migration of waste or accumulated liquid out of the system to soil, groundwater, or surface water during the use of the filter press.

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

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

(b) The Permittee must use appropriate controls and practices to prevent spills or overflows from the filter press or containment system.

(c) The filter press must be maintained and operated in accordance with manufacturer's instructions and accepted industry practice.

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

G.7 Inspections
OAC Rule 3745-57-92

(a) The Permittee must inspect the hazardous waste filter press system daily in accordance with OAC Rule 3745-55-95 and the approved inspection plan.

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

G.8 Response to Leaks or Spills and Disposition of Leaking or Unfit for Use Miscellaneous System
OAC Rules 3745-57-91 and 3745-57-92

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

(a) **Cessation of Use**

The Permittee must immediately stop the flow of hazardous waste into the filter press system or secondary containment system and inspect the system to determine the cause of the release.

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

(i) If the release was from the filter press system, the Permittee must, within twenty-four hours after detection of the leak, remove as much waste as necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the filter press system to be performed.

(ii) If the material released was to a secondary containment system, all released materials must be removed within twenty-four hours to prevent harm to human health and the environment.

(c) **Containment of Visible Releases to the Environment**

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

(d) **Notifications**

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

(e) **Certification**

The Permittee must obtain a certification by an independent, qualified professional engineer that any major repair has been satisfactorily performed and the unit is capable of handling hazardous waste without release for the intended life of the system. The certification must be submitted to the director of Ohio EPA within seven days after returning the filter press system to use.
G.9 Special Requirements
OAC Rules 3745-55-98 and 3745-55-99

(a) Ignitable or Reactive Waste

(i) The Permittee must not place ignitable or reactive waste in the filter press unless the procedures in OAC Rule 3745-55-98 are followed.

(ii) The Permittee must document compliance with Condition G.9(a)(i) of the permit, as required by OAC Rule 3745-55-98, and place this documentation in the operating record.

(iii) The Permittee must comply with the requirements for maintenance of protective distances between the waste management areas and any public ways, streets, alleys, or adjoining property lines that can be built upon.

(b) Incompatible Waste

(i) The Permittee must not place incompatible waste in the same filter press system or place hazardous waste in a filter press system that previously held an incompatible waste or material unless it is done in accordance with OAC Rule 3745-55-99.

(ii) The Permittee must document compliance with Condition G.9(b)(i) of this permit, as required by OAC Rule 3745-55-99, and place this documentation in the operating record.

G.10 Closure and Post-Closure Care
OAC Rule 3745-57-91 and 3745-57-93

At closure of the filter press system, the Permittee must follow the procedures in Section I of the approved permit application in accordance with OAC Rules 3745-55-10 through 3745-55-40.
MODULE H - RESERVED
MODULE I - RESERVED
MODULE J - GROUND WATER MONITORING

J. GROUND WATER MONITORING

This module addresses the ground water detection monitoring program associated with the two land disposal cells (Land Disposal Cell 1 & Land Disposal Cell 2) at INEOS USA LLC. The Permittee formerly operated four surface impoundments (V-1, Celite, Deepwell and Burn Ponds) which are referred to collectively as the "Mixed Waste Ponds". These surface impoundments were taken out of service in 1988. Waste in the Mixed Waste Ponds was solidified and stabilized.

Land Disposal Cell 1 was constructed on the former V-1 Pond. Stabilized waste was removed from the Celite Pond and combined with stabilized waste in the V-1 Pond. After removal of the stabilized waste, the former Celite Pond was clean closed.

Land Disposal Cell 2 was constructed on the former Deepwell and Burn Ponds. Stabilized waste from the Deepwell and Burn Ponds was combined to make this land disposal cell.

Land Disposal Cells 1 and 2 closed as landfills. Certification of closure of Land Disposal Cells 1 and 2 was approved on November 22, 2004. Land Disposal Cells 1 and 2 are subject to 30 years of post-closure ground water monitoring. Upon the effective date of this Permit, the Permittee shall conduct ground water monitoring at all wells under OAC Rules 3745-54-90 through 3745-54-100.

The Permittee's detection ground water monitoring system consists of ten (10) monitoring wells and piezometers which are screened in the weathered and fractured zone of the upper Tymochtee Dolomite. This zone is considered to be the uppermost aquifer. The screened intervals for these wells range from 39 to 49 feet below ground surface (bgs) at well 91-T2 to 58 to 68 feet bgs at well 91-T7. The monitoring wells and piezometers consist of one upgradient background monitoring well (91-T9), four upgradient and/or side-gradient piezometers (91-T2, 91-T6, 91-T10, and 91-T13), and five downgradient monitoring wells (91-T7, 91-T8, 91-T11, 91-T12, and 91-T14) near the compliance boundary, as illustrated in Figure 2 of the Ground-Water Monitoring Plan for the Land Disposal Cells, Revision 8, May 21, 2012, (revised March 25, 2013) hereafter referred to as the GWMP, found in Section E, Volume I of II of the Permit Application.

All of the monitoring wells listed in Permit Condition J.3. and the analytical compounds listed under Permit Condition J.9. are 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 units:  

Land Disposal Cell 1 and Land Disposal Cell 2  

(b) 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 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;  

(c) 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 upper Tymochtee Dolomite zone 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 (including piezometers) consists of the ground water wells as specified on Figure 2 of the GWMP in conformance with the following list:

<table>
<thead>
<tr>
<th>Unit Name</th>
<th>Monitored Zone</th>
<th>Type of Well</th>
<th>Well ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Disposal Cells 1 and 2</td>
<td>Upper Tymochtee Dolomite</td>
<td>Background/Upgradient (monitoring)</td>
<td>91-T9</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Upgradient and/or Sidegradient (piezometers)</td>
<td>91-T2, 91-T6, 91-T10, 91-T13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Point of Compliance/Downgradient (monitoring)</td>
<td>91-T7, 91-T8, 91-T11, 91-T12, 91-T14</td>
</tr>
</tbody>
</table>

(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 4.4 and Appendix A of the GWMP. 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. Appendix A of the GWMP contains ground water monitoring well construction diagrams which illustrate compliance with OAC Rule 3745-54-97(A) to (C).

(d) The Permittee must maintain the monitoring wells identified in Permit Condition J.3(b), in accordance with the detailed plans and specifications presented in Section 4.4 and Appendix A of the GWMP.

(e) 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 well location map to replace Figure 2 in the GWMP referenced in Permit Condition J.3(b).

(f) The Permittee must record in the facility operating record the total depth of any replacement wells installed in accordance with Permit Condition J.3(e) and the surveyed elevation of the top of casing, ground surface and/or apron elevation, and the protective casing of the monitoring well(s) within thirty (30) days of the date of installation (with as-built drawings).
(g) 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 (February 2009). 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.

(h) Whenever any of the monitoring wells specified in Permit Condition J.3(b) are replaced, the Permittee must demonstrate to Ohio EPA that the groundwater quality at the replacement monitoring well meets the criteria in Permit Condition J.3(a) within a two-year period of the date of replacement using means appropriate to the reason for replacement.

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 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 Section E 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). The Permittee must use the following techniques and procedures when obtaining and analyzing samples from the ground water monitoring wells described in Permit Condition J.3:

(i) Samples must be collected and handled (including well evacuation, sample withdrawal, preservation, containerization, filtration, and shipment) to ensure representative samples are obtained using the techniques and equipment described in Section 3.0 of the GWMP.

(ii) Field analyses must be performed using instruments, procedures, and forms described in Section E, the GWMP, of the Permit Application. Instruments must be calibrated as described in Section 3.4 of the GWMP.

(iii) Sampling equipment must be decontaminated using techniques described in Section 4.1 of the GWMP.

(iv) Purge water must be disposed of in accordance with procedures...
described in Section 3.3 of the GWMP.

(v) Laboratory analytical methods, detection limits and sample holding time must be in accordance with techniques described in Section 5.0 of the GWMP.

(vi) Quality assurance, including field/lab/equipment blanks, duplicate samples and identification of potential interferences, must be in accordance with the methods described in Sections 4.0 and 5.0 of the GWMP.

(vii) Chain of custody procedures, including standardized field tracking reporting forms, and sample labels, must be in accordance with Sections 4.0 and 5.0 of the GWMP.

(c) Field and analytical data must be validated in accordance with the procedures specified in Section E 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 monitoring well and piezometer identified in the table in Permit Condition J.3(b) each time ground water is sampled using the methods in Section 3.2 of the GWMP.

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

Data on each hazardous constituent specified in Permit Condition J.9(b) will be collected from background monitoring wells and monitoring wells at the compliance point(s). The sampling procedure and interval for each constituent are described in Sections 2.0 and 3.0 of the GWMP.

(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 6.0 of the GWMP 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) and (I)

The Permittee must use the following statistical procedures in evaluating ground water monitoring results for each hazardous constituent in Permit Condition J.9(b) in each monitoring 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 6.0 of the GWMP.

(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 determine whether such leakage of hazardous constituents into the ground water exceeds specified concentration limits. If the Permittee decides in the future, based on data collected, that another statistical method would be more appropriate, the Permittee must submit to Ohio EPA the appropriate statistical method for approval.

Compliance will be facilitated by referring to the most recently finalized U.S. EPA statistical guidance document (currently, USEPA Office of Solid Waste and Emergency Response, Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance (Final), March 2009). 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.9(b) in each monitoring 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(1)(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 Permittee.

(vii) If necessary, the statistical method must include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

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 Condition J.9 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, method 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 the GWMP, including documentation of parameter omissions during the sampling event;

(vi) The date the Permittee received the results from the laboratory;

(vii) The date the owner or operator completed their review of the analytical laboratory’s verification of the accuracy and precision of the analytical data and determined its quality. Compliance will be facilitated by referring to the most recent versions of:

- U.S. EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review
- U.S. EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, and
- Ohio EPA Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring

(viii) The results of the data validation review per Permit Condition J.8(a)(vii) including: report completeness, 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 consistent with the U.S. EPA and Ohio EPA guidelines for data review;

(ix) Results of all blanks and duplicates (trip, field, equipment, and method);

(x) Results of the field parameters;

(xi) All chains of custody;

(xii) The statistical evaluation of the data (must include all computations, results of statistical tests, and date the statistical evaluation was completed);
(xiii) Any change in well status (i.e., going from unaffected to affected status and vice versa);

(xiv) Ground water surface elevations taken at the time of sampling each well;

(xv) Data and results of the semi-annual determination of the ground water flow rate and direction including potentiometric maps;

(xvi) 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 and Other Periodic Required Reporting

(i) Required Annual Reporting

The Permittee must submit an annual report to the Director by March 1\textsuperscript{st} 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 reports 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 Condition J.5 and J.8(a)(xiv)&(xv), and the results of any statistical analyses required by Permit Condition 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 the annual reporting form supplied by the Director and OAC Rule 3745-54-97(J).

(ii) Required Semi-Annual Reporting

The Permittee must submit a Data Report and Evaluation for each semi-annual sampling and analysis event each year. The reports
must be submitted in accordance with the schedule in the Table below.

<table>
<thead>
<tr>
<th>Samples to be Collected During the Months of:</th>
<th>Results Due to the Director By:</th>
</tr>
</thead>
<tbody>
<tr>
<td>March – April</td>
<td>90 days after completion of semi-annual ground water sampling event</td>
</tr>
<tr>
<td>September - October</td>
<td></td>
</tr>
</tbody>
</table>

The reports must include all of the following information obtained in accordance with Permit Module J:

(a) Ground water monitoring data collected in accordance with this permit including actual levels of constituents tabulated.

(b) The results of the laboratory review of the data 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;

(c) The date, time, and identification of all blanks and duplicates;

(d) Field data sheets for monitoring well sampling and any field log documentation of deviation from the procedures in Section 3.0 of the GWMP, including field/stabilization parameter results and documentation of parameter omissions during the sampling event;

(e) Results of all blanks and duplicates tabulated (trip, field, equipment, and method);

(f) Results of the statistical evaluation, identifying any hazardous constituents showing statistically significant evidence of contamination. This shall serve as the notification required by OAC Rule 3745-54-98(G)(1);

(g) Any notification in accordance with OAC Rule 3745-54-98(G)(6)(a) that the Permittee intends to make a demonstration of a false indication of a release under OAC Rule 3745-54-98(G) to (G)(6)(d).
(h) Any change in well status (i.e., going from unaffected to affected status and vice versa);

(i) Ground water surface elevations taken at the time of sampling each well tabulated;

(j) Results of the determination of the ground water flow rate and direction including potentiometric surface maps;

(k) The results of inspections conducted in accordance with the Ground-Water Monitoring Well Integrity Program, described in Section 4.4 of the GWMP.

(l) Description of any well maintenance performed since the last semi-annual report and a schedule to perform any repairs not complete.

(m) Evaluation of the detection monitoring program including the determination of whether the ground water monitoring system still consists of a sufficient number of wells installed at appropriate locations and depths to meet the requirements of Permit Condition J.3.

(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). Resampling reports must include the same types of information as the initial reports pertaining only to the resampled wells.

J.9 Detection Monitoring Program

OAC Rule 3745-54-98

(a) The Permittee must establish and implement a detection ground water monitoring program as required by OAC Rule 3745-54-98.

(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(s)
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.

<table>
<thead>
<tr>
<th>Analyte or Constituent</th>
<th>Established Detection Concentrations (PQLs) (micrograms per liter)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methyl Naphthalene</td>
<td>5.0</td>
</tr>
<tr>
<td>Pyridine</td>
<td>10.0</td>
</tr>
<tr>
<td>Arsenic, Dissolved</td>
<td>5.0</td>
</tr>
<tr>
<td>Barium, Dissolved</td>
<td>50.0</td>
</tr>
<tr>
<td>Cadmium, Dissolved</td>
<td>1.0</td>
</tr>
<tr>
<td>Chromium, Dissolved</td>
<td>7.0</td>
</tr>
<tr>
<td>Mercury, Dissolved</td>
<td>0.2</td>
</tr>
<tr>
<td>Lead, Dissolved</td>
<td>10.0</td>
</tr>
<tr>
<td>Selenium, Dissolved</td>
<td>10.0</td>
</tr>
<tr>
<td>Silver, Dissolved</td>
<td>5.0</td>
</tr>
<tr>
<td>Cyanide, Total</td>
<td>10.0</td>
</tr>
<tr>
<td>Acetone</td>
<td>10.0</td>
</tr>
<tr>
<td>Acetonitrile</td>
<td>10.0</td>
</tr>
<tr>
<td>Acrolein</td>
<td>20.0</td>
</tr>
<tr>
<td>Acrylonitrile</td>
<td>20.0</td>
</tr>
<tr>
<td>Bromomethane (Methyl Bromide)</td>
<td>2.0</td>
</tr>
<tr>
<td>1,1-Dichloroethene</td>
<td>1.0</td>
</tr>
<tr>
<td>Methyl Ethyl Ketone</td>
<td>10.0</td>
</tr>
<tr>
<td>Tetrachloroethene</td>
<td>1.0</td>
</tr>
<tr>
<td>1,1,1-Trichloroethane</td>
<td>1.0</td>
</tr>
<tr>
<td>Trichloroethene</td>
<td>1.0</td>
</tr>
<tr>
<td>1,1,1,2-Tetrachloroethane</td>
<td>1.0</td>
</tr>
<tr>
<td>1,1,2,2-Tetrachloroethane</td>
<td>1.0</td>
</tr>
<tr>
<td>1,1,2-Trichloroethane</td>
<td>1.0</td>
</tr>
<tr>
<td>1,1-Dichloroethane</td>
<td>1.0</td>
</tr>
<tr>
<td>1,2,3-Trichloro propane</td>
<td>1.0</td>
</tr>
<tr>
<td>1,2-Dichlorobenzene</td>
<td>1.0</td>
</tr>
<tr>
<td>1,2-Dichloroethane</td>
<td>1.0</td>
</tr>
<tr>
<td>1,2-Dichloropropane</td>
<td>1.0</td>
</tr>
<tr>
<td>1,3-Dichlorobenzene</td>
<td>1.0</td>
</tr>
<tr>
<td>1,4-Dichlorobenzene</td>
<td>1.0</td>
</tr>
<tr>
<td>1,4-Dioxane</td>
<td>50.0</td>
</tr>
<tr>
<td>2-Chloroethyl Vinyl Ether</td>
<td>1.0</td>
</tr>
<tr>
<td>2-Hexanone</td>
<td>10.0</td>
</tr>
<tr>
<td>4-Methyl-2-Pentanone</td>
<td>10.0</td>
</tr>
<tr>
<td>Allyl Alcohol</td>
<td>2000.0</td>
</tr>
<tr>
<td>Allyl Chloride</td>
<td>2.0</td>
</tr>
<tr>
<td>Benzene</td>
<td>1.0</td>
</tr>
<tr>
<td>Chemical</td>
<td>Limit</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Bromodichloromethane</td>
<td>1.0</td>
</tr>
<tr>
<td>Bromoform</td>
<td>1.0</td>
</tr>
<tr>
<td>Carbon Disulfide</td>
<td>1.0</td>
</tr>
<tr>
<td>Carbon Tetrachloride</td>
<td>1.0</td>
</tr>
<tr>
<td>Chlorobenzene</td>
<td>1.0</td>
</tr>
<tr>
<td>Chloroethane</td>
<td>2.0</td>
</tr>
<tr>
<td>Chloroform</td>
<td>1.0</td>
</tr>
<tr>
<td>Cis-1,3-Dichloropropene</td>
<td>1.0</td>
</tr>
<tr>
<td>Cis-1,4-Dichloro-2-butene</td>
<td>2.0</td>
</tr>
<tr>
<td>Dibromochloromethane</td>
<td>1.0</td>
</tr>
<tr>
<td>Dichlorodifluoromethane</td>
<td>1.0</td>
</tr>
<tr>
<td>Ethanol</td>
<td>2000.0</td>
</tr>
<tr>
<td>Ethyl Methacrylate</td>
<td>1.0</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>1.0</td>
</tr>
<tr>
<td>Isobutyl Alcohol</td>
<td>50.0</td>
</tr>
<tr>
<td>m,p-Xylene</td>
<td>1.0</td>
</tr>
<tr>
<td>Methacrylonitrile</td>
<td>2.0</td>
</tr>
<tr>
<td>Methyl Chloride</td>
<td>1.0</td>
</tr>
<tr>
<td>Methyl Iodide</td>
<td>1.0</td>
</tr>
<tr>
<td>Methyl Methacrylate</td>
<td>2.0</td>
</tr>
<tr>
<td>Methylene Bromide</td>
<td>1.0</td>
</tr>
<tr>
<td>Methylene Chloride</td>
<td>4.0</td>
</tr>
<tr>
<td>o-Xylene</td>
<td>1.0</td>
</tr>
<tr>
<td>Pentachloroethylene</td>
<td>1.0</td>
</tr>
<tr>
<td>Propionitrile</td>
<td>4.0</td>
</tr>
<tr>
<td>Styrene</td>
<td>1.0</td>
</tr>
<tr>
<td>Toluene</td>
<td>1.0</td>
</tr>
<tr>
<td>trans-1,2-Dichloroethene</td>
<td>1.0</td>
</tr>
<tr>
<td>trans-1,3-Dichloropropene</td>
<td>1.0</td>
</tr>
<tr>
<td>Trans-1,4-Dichloro-2-butene</td>
<td>1.0</td>
</tr>
<tr>
<td>Trichlorofluoromethane</td>
<td>1.0</td>
</tr>
<tr>
<td>Vinyl Acetate</td>
<td>2.0</td>
</tr>
<tr>
<td>Vinyl Chloride</td>
<td>1.0</td>
</tr>
</tbody>
</table>

(c) The Permittee must monitor upgradient background monitoring well (91-T9) and downgradient monitoring wells (91-T7, 91-T8, 91-T11, 91-T12 and 91-T14) as described in Permit Condition J.3 for Nitrogen, Ammonia.

(d) The Permittee's ground water monitoring program must include collection, preservation, and analysis of the above listed elements and compounds from samples 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.
(e) 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).

(f) The Permittee must determine the ground water flow rate and direction in the uppermost aquifer at least annually using the procedures specified in Section 3.2 of the GWMP.

(g) 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 and within ninety (90) days after completion of sampling. Results must be included in the semi-annual data report in accordance with permit condition J.8(b)(ii). 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.

(h) If the Permittee determines, pursuant to Permit Condition J.9(g), that there is statistically significant evidence of contamination for any chemical parameter or hazardous constituent specified in Permit Condition J.9(b), the Permittee, if desired, may resample the affected well(s) for any of the constituents listed in Permit Condition J.9(b) that were detected above corresponding PQLs. All resampling results, if collected, must be submitted within the same timeframe required by Permit Condition J.8(b)(ii).

(i) If the Permittee determines, pursuant to Permit Condition J.9(g), 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 monitoring wells listed in Permit Condition J.3(b) and determine whether any of the 71 constituents identified in Permit Condition J.9(b) are present, and if so, in what concentration.

(iii) For any compounds listed in Permit Condition J.9(b) found in the analysis pursuant to Permit Condition J.9(i)(ii), the Permittee may re-
sample affected wells within one month or at an alternative site-
specific schedule approved by the Director 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 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) Identification of the concentration of any Permit Condition
J.9(b) 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 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, 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) day time 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 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 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.

(j) If the Permittee or the Director 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

J.11 Reserved.

END OF PERMIT CONDITIONS