

OHIO E.P.A.

JUL 18 2012

ENTERED DIRECTOR'S JOURNAL

**OHIO ENVIRONMENTAL PROTECTION AGENCY**

**MODIFIED OHIO HAZARDOUS WASTE FACILITY  
INSTALLATION AND OPERATION PERMIT**

Date of Issuance: July 18, 2012

Effective Date: July 18, 2012

U.S. EPA ID No.: OHD 042 157 644

**Name of Permittee:** Ineos USA LLC

**Mailing Address:** Ineos USA LLC  
1900 Fort Amanda Road  
Lima, Ohio 45804-0628

I certify this to be a true and accurate copy of the official documents as filed in the records of the Ohio Environmental Protection Agency.

**Facility Location:** Ineos USA LLC  
1900 Fort Amanda Road  
Lima, Ohio 45804-0628

By: John Lasser Date: 7-18-12

**Person to Contact:** Marcelyn Boone

---

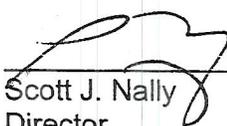
This Modified Ohio Hazardous Waste Facility Installation and Operation Permit is issued pursuant and subject to Section 3734.05(I) of the Ohio Revised Code and Rule 3745-50-51(D) of the Ohio Administrative Code.

The Ohio Hazardous Waste Facility Installation and Operation Permit with the above-referenced permit number as issued by the Ohio Environmental Protection Agency and journalized on December 20, 2002, is hereby incorporated by reference in its entirety, except as it may be modified herein.

This modification of the permit shall remain in effect until such time as the Ohio Hazardous Waste Facility Installation and Operation Permit is renewed, modified, withdrawn, suspended, or revoked.

The Permittee shall comply with all requirements of the modified Part B permit application as amended or supplemented on March 21, 2012, May 2, 2012, May 21, 2012, and June 11, 2012. The information contained in the modified Part B permit application is incorporated herein by reference. Specifically, all written statements regarding the specifications, locations, or capabilities of the processes, equipment, containment devices, safety devices or programs, or other matters made by the applicant in the permit modification application are hereby incorporated as express, binding terms and conditions of this modified permit.

The modified Terms and Conditions of this permit are attached hereto and are incorporated herein by reference. The modified Terms and Conditions supersede and replace the corresponding pages found in the December 20, 2002 renewal permit.

  
\_\_\_\_\_  
Scott J. Nally  
Director

## 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, incinerators, and a filter press in accordance with the terms and conditions of this 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 approved hazardous waste facility installation and operation permit renewal application, as such application has been revised and supplemented and as such application may be modified pursuant to the hazardous waste rules. The renewal of the surface impoundments is for the purpose of accomplishing closure and post closure activities. These units are currently inactive and undergoing closure. These units shall not be reactivated for management of hazardous waste. The approved Part B permit application as submitted to Ohio EPA on September 30, 1996 and any subsequent amendment thereto, and last updated on December 21, 2001 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, revoked, suspended, or renewed as specified by Ohio law. The filing of a request for a permit modification, revision, revocation, suspension, or renewal or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of 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 December 20, 2012.

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 shall 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 the rules adopted thereunder and is grounds for enforcement action, suspension, revocation, modification, revision, denial of a permit renewal application or other appropriate action.

A.6. Duty to Reapply and Permit Expiration  
OAC Rules 3745-50-40(E); 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 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 before the expiration date of this permit or, upon approval of the director, a later date prior to the expiration date if the Permittee can demonstrate good cause for late submittal.
- (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 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 reissuance 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) permission for a later date has been granted by the director. The director shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

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 shall expeditiously take all reasonable steps necessary to minimize or correct any adverse impact on the environment or the public health resulting from noncompliance with this permit.

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

The Permittee shall 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, but is not limited to, 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 shall furnish the director, within a reasonable time, any relevant information which the director may request in order to determine whether cause exists for modifying, revising, revoking or suspending this permit or to determine compliance with this permit. The Permittee shall also furnish the director, upon request, copies of records that the permittee is required to keep in accordance with this permit.

A.11. Inspection and Entry  
OAC Rule 3745-50-58(I), 3745-50-30 and ORC Section 3734.07

- (a) The Permittee shall 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 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 satisfactory demonstration 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 Rule 3745-50-30.

A.12. Monitoring and Records  
OAC Rules 3745-50-58(J)

- (a) Any sample and measurement taken for the purpose of monitoring shall be a representative sample or measurement, 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; SW-846:Third Edition, November 1992; and additional supplements or editions thereof; Standard Methods for the Examination of Water and Wastewater: Seventeenth Edition, 1989; or an equivalent method as specified in the approved waste analysis plan, or as such term is defined and used in the Ohio hazardous waste rules.
- (b) Records of monitoring information shall 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 Rule 3745-50-58(K) and 3745-50-42(B)

All applications, reports or information required by the terms and conditions of this permit or required by the Ohio Environmental Protection Agency shall be properly signed and certified in accordance with OAC Rule 3745-50-58(K).

A.14. Retention of Records  
OAC Rules 3745-50-58(J) and 3745-50-58(M)

- (a) The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, the certification required by paragraph B(9) of rule 3745-54-73 of the Administrative Code, 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 shall 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 shall maintain, in accordance with the Ohio hazardous waste rules, records of all data used to complete the Part B permit application and any amendments, supplements, modifications or revisions, of such application and shall retain a complete copy of the application for the life of the facility.
- (d) The Permittee shall 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 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 shall give notice to the Director, as soon as possible, of any planned physical alterations or additions to the permitted facility. All such changes must be made in accordance with OAC Rule 3745-50-51.

A.16. Waste Shipments  
OAC Rule 3745-52-12, ORC 3734.15(C)

The Permittee shall 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 shall 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 Condition A.5.

A.18. Transfer of Permits

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

- (a) This permit is not transferable to any person except after notice to the director.
- (b) 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 shall notify the new owner or operator in writing of the requirements of ORC Chapter 3734 and the rules adopted thereunder.
- (c) 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 Rule 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 shall 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 shall report orally to Ohio EPA's Division of Emergency and Remedial Response within twenty-four hours from the time the Permittee becomes aware of any noncompliance with this permit, ORC Chapter 3734 or the rules adopted thereunder, which endangers 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 shall 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) name and quantity of material(s) involved;
  - (iv) the extent of injuries, if any;
  - (v) an assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and
  - (vi) 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 shall also be provided to the Ohio Environmental Protection Agency's Division of Emergency and Remedial Response and the Division of Hazardous Waste Management Northwest District Office within five (5) days of the time the Permittee becomes aware of the circumstances reported in Condition A.20.
- (b) The written report shall address the items in A.20 and shall 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 Rule 3745-50-58(L)(10) and 3745-50-58(L)(4)

The Permittee shall report to the director, all other instances of noncompliance not provided for in Condition A.20. These reports shall be submitted within a month of the time at which the Permittee becomes aware of such noncompliance. Such reports shall contain all information set forth within Condition A.20 of this permit.

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 in the permit issuance proceedings, or submitted incorrect, misleading, or incomplete information in the permit issuance proceedings or in any other submission or report to the Ohio Environmental Agency or the Ohio Hazardous Waste Facility Board, the Permittee shall promptly submit such facts, information or corrected information to the appropriate entity.

A.25. Confidential Information

OAC Rule 3745-50-30

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

A.26. Ohio Annual Permit Fee

OAC Rule 3745-50-36

The annual permit fee, calculated pursuant to OAC Rule 3745-50-36 and payable to the Treasurer of the State, shall 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 the Ohio Environmental Protection Agency.

A.27. Compliance Schedule - Documents

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

Ohio EPA  
Division of Hazardous Waste Management  
Attn: Regulatory and Information Services Section  
P.O. Box 1049  
Columbus, Ohio 43216-1049

And

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

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

- (i) Updated Closure Cost Estimate  
OAC Rule 3745-55-42

Section I of the application containing the financial assurance mechanism for closure shall be updated to include a copy of the current closure cost estimate as set forth in OAC Rule 374-55-42.

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

Section I of the application containing the financial assurance mechanism for closure shall 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 Part B 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 application containing the financial assurance mechanism for closure shall be updated to include a copy of the current financial assurance 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 Part B permit the facility may change the mechanism used to demonstrate liability coverage as stated in OAC Rule 3745-55-47. The facility must submit the liability mechanism documentation to the Director of Ohio EPA in accordance with the parameters set forth in OAC Rule 3745-55-47.

- (c) The Permittee shall submit to Ohio EPA, within the time frame indicated, the following information to be incorporated in the approved Part B permit application:

Item	Date Due to the Director
<p>1) <u>Information on Tank T01-13, including:</u>            Installation of an electronic sensor in the lowest level of the space between the inner portion of the sump liner and the outer containment portion of the sump liner, to detect any leaks.</p>	<p>Within 60 days after journalization of permit</p>
<p>2) <u>Deletion of references to TO1-6 in Part B application</u>            Submit revised permit application pages.</p>	<p>Within 60 days after journalization of permit</p>
<p>3) <u>Deletion of references to North and Thermal Oxidizers in Part B application</u>            Submit revised permit application pages.</p>	<p>Within 60 days after journalization of permit</p>

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

- (a) The Permittee shall 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 3745-55-47, 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, as developed and maintained in accordance with OAC Rule 3745-54-16 and the terms and conditions of this permit;
  - (vi) operating record required by OAC Rule 3745-54-73 and the terms and conditions of this permit; and
  - (vii) inspection schedules developed in accordance with OAC Rules 3745-54-15; 3745-55-74 and 3745-55-95; and the terms and conditions of this permit.
- (b) All amendments, revisions and modifications to any plan required by the terms and conditions of this permit or the Ohio hazardous waste rules shall be submitted to the director. No such change shall be made unless the Permittee has received approval in accordance with the Ohio hazardous waste rules.
- (c) The Permittee shall maintain copies of all inspection logs at the facility for a period not less than three (3) years from the date of inspection.
- (d) Corrective Action reports and records as required by Condition J of this permit. These reports and records must be maintained for at least 3 years after all Corrective Action Activities have been completed.

A.29. Waste Minimization Report  
OAC Rule 3745-54-73

- (a) The Permittee shall 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(B) at least once every two years. The provision of OAC Rules 3745-54-75(H), (I) and (J); and 3745-54-73(B)(9) must be satisfied annually.
- (b) In completing this report, the Permittee should refer to the following information: instructions prepared by Ohio EPA for completing the Waste Minimization Annual Report required by OAC Rules 3745-54-75(H), (I), and (J); the Federal Register notice of May 28, 1993, vol. 58, p. 31114, "Interim Final Guidance: Guidance to Hazardous Waste Generators on the Elements of a Waste Minimization Program"; and U.S. EPA's "Facility Pollution Prevention Guide" including planning and organization, assessment, feasibility analysis, implementation, measuring progress, and maintaining the program.
- (c) The Permittee shall submit the Waste Minimization Report to the Technical Assistance Section, Office of Pollution Prevention within one hundred eighty (180) days of journalization of this permit, and shall submit updates to this report biennially thereafter.

## MODULE B - GENERAL FACILITY CONDITIONS

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

The Permittee shall 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 constituents to air, soil, and ground or surface waters which could threaten human health or the environment.

B.2. Reserved.

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

The Permittee shall follow the procedures described in the approved waste analysis plan found in Section C of the approved Part B permit application and the terms and conditions of this permit.

B.4. Security  
OAC Rule 3745-54-14

The Permittee shall comply with the security provisions of OAC Rule 3745-54-14 (B)(1) or (2) and Section F-1 of the Part B permit application.

B.5. General Inspection Requirements  
OAC Rules 3475-54-15 and 3745-54-73

The Permittee shall follow the inspection schedule set out in Section F-2 of the approved Part B permit application. The Permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by OAC Rule 3745-54-15(C). Records of inspection shall be kept for a minimum of three years from the date of inspection.

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

The Permittee shall conduct personnel training, as required by OAC Rule 3745-54-16. This training program shall contain at least the elements set forth in the Section H of the approved Part B permit application. The Permittee shall 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 Waste  
OAC Rule 3745-54-17

- (a) The Permittee shall comply with the requirements of OAC Rule 3745-54-17 and shall follow the procedures for handling ignitable, reactive, and incompatible wastes set forth in Section G-4g of the approved Part B permit application.
- (b) The Permittee shall 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 shall provide, and require the use of, spark proof tools during all operations involving the handling of all ignitable or reactive wastes.
- (d) The Permittee shall prohibit smoking and open flames in each area where ignitable, reactive or incompatible hazardous wastes are managed, and shall post appropriate signs.

B.8. Reserved.

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

At a minimum, the Permittee shall maintain at the facility all the equipment required by OAC Rule 3745-54-32 and the equipment set forth in the approved contingency plan contained in Section G-5 of the approved Part B permit application.

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

The Permittee shall inspect, test and maintain the equipment required by Condition B.9 as necessary to assure its proper operation in time of emergency, as specified in OAC Rule 3745-54-33, Section G-5 of the approved Part B 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 shall maintain access to the communications and alarm systems, as required by OAC Rule 3745-54-34, Section G-5 of the Part B 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 shall 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 shall comply with the requirements of OAC Rule 3745-54-37 (a) by making a diligent effort to:
- (i) 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-6 of the approved Part B permit application;
  - (ii) inform such agencies of safety equipment, supplies, proper emergency safety procedures that are applicable to the facility, and any further requirements related to emergency response imposed by terms and conditions of this permit; and
  - (iii) familiarize the local police and fire departments, hospitals and any other local emergency service, with the properties of hazardous waste managed at the facility and the types of injuries or illness which could result from fires, explosions, or releases at the facility.
- (b) When a State or local agency declines to enter into the arrangements set forth in OAC Rule 3745-54-37(A), the Permittee shall 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 shall immediately carry out the provisions of the approved 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 a 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 shall comply with OAC Rule 3745-54-52 and the contingency plan, as set forth in Section G of the approved Part B permit application.

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

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

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

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

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

- (a) The Permittee shall comply with the requirements set forth in OAC Rule 3745-54-53 regarding contingency plan distribution.
- (b) The Permittee shall, in accordance with OAC Rule 3745-54-53, submit a copy of the approved 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 shall 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 shall, in accordance with OAC Rule 3745-54-53, submit a copy of the approved contingency plan, to the Ohio Environmental Protection Agency's Division of Emergency and Remedial Response.

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

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

**B.20. Emergency Procedures**  
OAC Rules 3745-54-56 and 3745-51-01

The Permittee shall comply with the requirements set forth in OAC Rule 3745-54-56, Section G-4 of the approved Part B permit application, and the conditions of this permit, regarding emergency procedures.

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

The Permittee shall furnish to Ohio EPA, upon request, and retain, all records at the facility in accordance with OAC Rule 3745-54-74.

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

The permittee shall 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 3745-54-73 and OAC Rule 3745-54-56-(J)

The Permittee shall 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 of any such incident the Permittee shall submit to the Director a written report of the incident containing the elements set forth in OAC Rule 3745-54-56(J).

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

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

**B.25. Annual Reports and Additional Reports**  
OAC Rule 3745-54-77 and 3745-54-75

The Permittee shall comply with the annual 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 shall implement the provisions of the approved closure plan, Section I, in such a manner as to achieve compliance with OAC Rule 3745-55-11. Compliance with OAC Rule 3745-55-11 will be facilitated by referring to the Division of Hazardous Waste Management's most recent Closure Plan Review Guidance for RCRA facilities.

**B.27. Closure Plan**

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

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

The Permittee has one unit (AN-1) that was created after the previous permit was issued. This unit is subject to closure requirements of OAC Chapter 3745-55 but, has not yet achieved final closure. The purpose of this condition is to put the Permittee on schedule to complete closure of this unit. This unit is outlined in the following table:

<b>Unit Name (Type of Unit)</b>	<b>Type of Waste Managed/Contained in the Unit</b>	<b>Status of Closure</b>
AN-1 (Surface Impoundment)	Excavated soil from area around the thermal oxidizers; radioactive contaminants	The Permittee submitted a closure plan for the AN-1 unit on March 30, 1998. A revised plan was submitted on April 20, 2000. Ohio EPA issued a Notice of Deficiency on this submittal. The Permittee submitted a revised plan on March 21, 2001 to address the NOD. The revised AN-1 closure plan submitted on March 21, 2001 is hereby approved with issuance of this permit. The Permittee has completed closure activities. Hence, within 30 days of permit journalization, The Permittee shall submit the closure certification for this unit for Ohio EPA review and approval. Upon approval, the Permittee in accordance with OAC Rule 3745-50-51 can proceed to modify its permit to remove this unit from its permit.

Within 30 days of permit journalization, the Permittee shall submit the closure certification for AN-1 for Ohio EPA review and approval.

**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 shall amend the approved closure plan in accordance with OAC Rule 3745-55-12 (C).

**B.29. Content of Closure Plan**  
OAC Rule 3745-55-12

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

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

Within ninety (90) days after receiving the final volume of hazardous waste, the Permittee shall remove from the facility or treat or dispose of on site, all hazardous waste in accordance with the approved closure plan. The Director may approve a longer period, if the Permittee complies with all applicable requirements for requesting a modification (or revision) to the permit as set forth in OAC Rule 3745-55-13(A). The permittee shall complete all closure activities within one hundred eighty (180) days, 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 (or revision) 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 shall decontaminate and/or dispose of all contaminated facility equipment, structures, and soils, as required by OAC Rule 3745-55-14, the approved closure plan and the terms and conditions of this permit.
- (b) The Permittee shall 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, qualified, registered professional engineer shall certify that each hazardous waste management unit or the facility has been closed in accordance with the specifications in the approved closure plan and the terms and conditions of this permit, as required by OAC Rule 3745-55-15. The Permittee shall furnish to the director, upon request, documentation supporting the certification.

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

The Permittee shall submit a survey plat to the director and the local zoning authority no later than the submission 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, 3745-55-20

(a) Post-Closure Care Period

The Permittee shall begin post-closure care for each surface impoundment after completion of closure of the unit and continue for 30 years after that date. Post-closure care shall be in accordance with OAC Rule 3745-55-17 and the Post-Closure Plan.

(b) Post-Closure Security

The Permittee shall 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 shall amend the Post-Closure Plan, when necessary, in accordance with OAC Rule 3745-55-18(D), whenever necessary.

(d) Post-Closure Notices

(i) No later than 60 days after certification of closure of each hazardous waste disposal unit, the Permittee shall 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 shall do the following:

- (1) Record a notation on the deed to the facility property 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 notation.
- (3) The Permittee shall 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).

(d) 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 shall certify that the post-closure care period was performed in accordance with the specifications in the Post-Closure Plan, as required by OAC Rule 3745-55-20.

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

- (a) The Permittee's most recent closure cost estimate, prepared in accordance with OAC Rules 3745-55-42, 3745-55-44, 3745-55-97(C)(3) & (5), 3745-56-28(C)(3) and 3745-56-58(C)(2) is specified in Section I of the Part B permit application.
- (b) The Permittee must adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with OAC Rule 3745-55-42 (B) and Permit Condition B.36.
- (c) The Permittee must revise the closure cost estimate whenever there is a change in the facility's Closure Plan that increases the cost of closure as required by OAC Rule 3745-55-42(C).
- (d) The Permittee must submit to the Ohio EPA, and keep at the facility, the latest closure cost estimate as required by OAC Rule 3745-55-42(D).

**B.37. Financial Assurance for Facility Closure**

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

**B.38. Liability Requirements**

The Permittee shall maintain continuous compliance with the requirement 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 required by the applicable rules, exclusive of the legal defense costs.

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

## MODULE C - CONTAINER STORAGE AND MANAGEMENT

### C. CONTAINER STORAGE AND MANAGEMENT

The container storage building ~~is and the deepwell storage building are~~ centrally located at the Ineos USA LLC facility. The facility plot plan contained in Appendix D-1 of the approved Part B permit application shows the location of the container storage building and the deepwell storage building. The container storage building ~~exists and the deepwell storage building both consist~~ of a concrete base and steel metal building structure.

#### C.1. Process Capacity/Annual Quantity Limitation OAC Rules 3745-50-43(A)(7)

- (a) The Permittee shall not store more than 27,500 gallons of containerized waste at any given time in the permitted container storage building located in the barrel yard. The Permittee shall not exceed a maximum container storage inventory of 500 fifty-five gallon drums in the container storage building. The Permittee shall not store more than 6,875 gallons of containerized waste at any given time in the permitted filter cake room of the deepwell storage building. The Permittee shall store hazardous waste in the types of containers (size and type) described in Section D of the approved Part B 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) The provision of 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 the provisions of OAC Rule 3745-52-34(A).

However, when accumulating waste within the permitted container storage area and deepwell storage building, in accordance with OAC Rule 3745-52-34(A), the Permittee shall not, for the total amount of hazardous waste stored and accumulated, exceed the maximum container storage inventory established under this 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. Waste Identification

ORC Sections 3734.02(F) and 3734.05(H); and OAC Rule 3745-50-43

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

EPA Hazardous Waste #	Description
K011, K013, K014 D002, D007	Liquid bottom streams from acrylonitrile production
D001, D002, D003 D004, D007, D018 D038	Waste generated from acrylonitrile production
D003, D004, D005, D006, D008 D009, D010, D011, D019, D035 F039, P003, P005, P030, P069 P098, P101, P106, P120, U001 U002, U003, U007, U008, 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	Possible purified product

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

C.3 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 shall transfer the hazardous waste from such container to a container that is in good condition or otherwise manage the waste in a manner that complies with the terms and conditions of this Permit or the hazardous waste facility chapters of the OAC.

C.4 Compatibility of Waste with Containers  
OAC Rule 3745-55-72

The Permittee shall use containers that are compatible with the hazardous waste to be stored.

C.5. Management of Containers  
OAC Rule 3745-55-73

- (a) All container storage shall be conducted within the container storage containment ~~systems~~ described in Condition C.1. of this permit and Section D-1 of the approved Part B permit application.
- (b) The Permittee shall keep all containers closed during storage, except when it is necessary to add or remove waste, and shall not open, handle, or store containers in a manner which may rupture the container or cause it to leak.
- (c) In the event lab-pack wastes are generated they shall be handled in compliance with applicable storage requirements.
- (d) In the event lab-pack wastes are generated they shall be packaged in drums containing absorbent material that is compatible with the waste.

C.6. Containment Systems.  
OAC Rule 3745-55-75; ORC 3734.05(H)

- (a) The Permittee shall maintain the containment ~~systems~~ in accordance with the plans and specifications contained in Section D of the approved Part B permit application.
- (b) The Permittee shall maintain the containment ~~systems~~ as described in the approved Part B 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~~ shall 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 shall ensure that the ~~coating(s)~~ coatings utilized in lining the secondary containment ~~system(s)~~ ~~is~~ systems are compatible with each waste stored in containers situated at the permitted Container Storage Area and the deepwell storage building. For those hazardous wastes that are deemed incompatible with the liner material, the Permittee shall 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) Spilled or leaked waste and accumulated precipitation shall be removed from the sump or collection area in a timely manner. This time period is not to exceed twenty-four (24) hours from the time spilled and/or leaked waste is discovered.

C.7. Prohibition of Container Storage  
ORC 3734.02(F)

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

C.8. Inspection Schedules and Procedures  
OAC Rule 3745-54-15, and 3745-54-73

As required by OAC Rule 3745-54-15, the Permittee shall inspect the container storage area and deepwell storage building weekly, in accordance with the approved inspection schedule contained in Section F-2 of the approved Part B permit application, to detect leaking containers and deterioration of containers and the containment systems caused by corrosion or other factors. The Permittee shall note the results of these inspections in the inspection log along with any remedial action taken.

On days when containerized wastes are added or removed to and/or from any of the permitted areas for storage, the Permittee shall conduct an inspection as described in Section F-2 of the approved Part B permit application, and maintain the inspection results in the facility operating record.

C.9. Recordkeeping  
OAC Rule 3745-54-73

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

C.10. Special Container Provisions for Ignitable or Reactive Waste  
OAC Rules 3745-54-17 and 3745-55-76

- (a) The Permittee shall not locate containers holding ignitable or reactive waste within 15 meters (50 feet) of the facility's property line.
- (b) The Permittee shall 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 approved Part B permit application.

C.11. Special Container Provisions for Incompatible Waste  
OAC Rule 3745-55-77 and 3745-54-17

- (a) The Permittee shall not store incompatible waste except in accordance with OAC Rules 3745-54-17(B) and 3745-55-77.
- (b) The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material.
- (c) The Permittee shall separate containers of incompatible wastes from each other period.

C.12. Reserved.

C.13. Closure and Post-Closure  
OAC Rules 3745-55-10, 3745-55-11, 3745-55-78

- (a) At closure of the container areastorage area and the deepwell storage building, the Permittee shall remove all hazardous waste and hazardous waste residues from the containment systems~~systems~~, in accordance with the procedures in the Closure Plan set forth in Section I of the approved Part B permit application.
- (b) If the Permittee demonstrates that not all contaminated soils can be practically removed or decontaminated in accordance with the Closure Plan, Section I of the approved Part B permit application, the Permittee shall close the unit and perform post-closure care following a plan approved by the director of Ohio EPA.

*Ineos Permit T&C's Redline Version.v3.doc*

OHIO ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF MATERIALS AND WASTE MANAGEMENT

**SUMMARY OF MODIFICATIONS TO HAZARDOUS WASTE  
INSTALLATION AND OPERATION PERMIT**

Ineos USA LLC  
U.S. EPA ID #: OHD042157644  
Ohio ID #: 03-02-0450

Modification of the Hazardous Waste Facility Installation and Operation Permit will authorize Ineos USA LLC to make the following change:

**Class 2 Modification:**

- 1) This permit modification will increase the overall permitted container storage capacity of the facility up to 25% of the current 27,500 gallon total. Ineos currently stores hazardous filter cake for less than 90 days in a roll-off box in the deepwell storage building. In order to store the hazardous filter cake for greater than 90 days the facility has requested to increase their permitted hazardous waste storage capacity. This permit modification will allow Ineos USA LLC to store the hazardous filter cake in the deepwell building for greater than 90 days. The storage of hazardous filter cake in the deepwell storage building for greater than 90 days was the basis for an escalated enforcement action against Ineos USA LLC in 2009.

*Ineos C2 modification summary.doc*  
DT/jm

Tank No.	Capacity (Gallons)	Dimensions of Tank	Secondary Containment Required	Description of Hazardous Waste	Hazardous Waste No.
S02-5 Deep Well Surge Storage Tank	960,000	60 ft. (diam) x 48 ft.	Yes - Double Walled and Double Bottomed Tank	waste water on an emergency basis	K011, K013, K014, D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D019, D035, F039, 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
S02-14 Spent Caustic Storage Tank	300,000	40 ft. (diam) x 32 ft.	Yes - Double Walled and Double Bottomed Tank	process dip tank dumps	D002, P063

Tank No.	Capacity (Gallons)	Dimensions of Tank	Secondary Containment Required	Description of Hazardous Waste	Hazardous Waste No.
S02-6 Deep Well Sludge Storage Tank	6,000	8 ft. (diam) x 16 ft.	Yes*	sludge from the clarifier	K011, K013, K014, D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D019, D035, F039, 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
S02-18 Deep Well Collection Tank	1,200	4 ft. 6 in. (diam) x 10 ft.	Yes – Concrete Vault	waste water from maintenance activities in the Acrylonitrile area	K011, K013, K014, D001, D002, D003, DD04, D005, D006, D007, D008, D009, D010, D011, D019, D035, F039, 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

Tank No.	Capacity (Gallons)	Dimensions of Tank	Secondary Containment Required	Description of Hazardous Waste	Hazardous Waste No.
S02-19 Offsite Collection Tank	1,200	4 ft. 6 in. (diam) x 10 ft.	Yes - Concrete Vault	waste water from maintenance activities in the Offsite area	K011, K013, K014, D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D019, D035, F039, 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
S02-20 Backwash Flush Tank	9,300	12 ft. (diam) x 11 ft.	Yes*	waste water backflush fluid from the hydromation filters	K011, K013, K014, D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D038, F039, P003, P005, P030, P063, P069, P098, P101, P106, P120, U001, U002, U003, U007, U008, U009, 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

Tank No.	Capacity (Gallons)	Dimensions of Tank	Secondary Containment Required	Description of Hazardous Waste	Hazardous Waste No.
<u>Treatment Tank Units:</u>					
T01-1 Deep Well Water Mix Tank	22,000	12 ft. (diam) x 28 ft.	Yes - Double Walled Tank	raw waste water from plant operations	
T01-2 Reject Water Tank	8,400	12 ft. (diam) x 10 ft.	Yes*	waste water from filter press and sandfilters back wash	K011, K013, K014, D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D038, F039, P003, P005, P030, P063, P069, P098, P101, P106, P120, U001, U002, U003, U007, U008, U009, 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
T01-4 and T01-5 Hydromation Filters	3,470 each	10 ft. (diam) x 9 ft. 3 in.	Yes*	waste water from raw water mix tank and deep well clarifier	
T01-8 Filter Press Mix Tank	1,200	7 ft. 3 in. (diam) x 5 ft. 2 in.	Yes*	process waste water and diatomaceous earth mixed prior to the filter press	
T01-10 Deep Well Clarifier	132,000	36 ft. (diam) x 12 ft.	Yes - Double Walled Tank	feed streams from reject water tank and deep well water mix tank	

Tank No.	Capacity (Gallons)	Dimensions of Tank	Secondary Containment Required	Description of Hazardous Waste	Hazardous Waste No.
T01-13 Catalyst Wastewater Tank	8,000	Square 6 ft. x 6 ft. (diam) x 8 ft.	Yes - Double Walled and Double Bottomed Tank	waste waters from the process areas, chemical and warehouse sumps	D001, D002, D003, D007

\*These units are located in the Deep Well Treatment Building. The Deep Well Treatment Building is constructed with adequate secondary containment for the entire Deep Well Treatment Tank System. Secondary containment is not required for these units on an individual basis. See Section D-2d(1)(a) in the permit application.

- (b) The Permittee shall store and treat in the permitted tanks only the hazardous waste codes outlined in the table above and shall not exceed the annual quantity specified in Attachment XIV located in Part A of the approved permit application.
- (c) The Permittee is prohibited from storing or treating hazardous waste that is not identified in this permit condition.
- (d) The Permittee shall not exceed the treatment capacity for each treatment process listed below.

Tank #	Description	Process Capacity (gal/day)
T01-1	deepwell raw water mix tank	842,400
T01-2	deepwell reject water tank	90,900
T01-4, 5, 6	deepwell sand filters	1,206,000
T01-8	filter press mix tank	5,000
T01-10	clarifier	740,000
T01-13	catalyst waste water tank	40,000

D.2. Reserved.

D.3. Containment and Detection of Releases.  
OAC Rule 3745-55-93

New Tank Systems

The Permittee shall construct and operate the secondary containment system in accordance with the requirements of OAC Rule 3745-55-93(B) through (F), and Section D-2(d) of the approved Part B permit application.

The Permittee shall keep on file at the facility, written statements by those persons required to certify the design of the treatment tank systems and supervise the installation of the treatment tank systems in accordance with the requirements of OAC Rule 3745-55-92, that attest that the treatment 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, S02-14, S02-18, S02-19,  
T01-1, T01-2, T01-4, T01-5, T01-6, T01-8, T01-10, T01-13.

Existing tanks at the facility are: There no existing tanks at the facility.

D.4. Operating Requirements  
OAC Rule 3745-55-94

- (a) The Permittee shall 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 shall prevent spills and overflows from the tank or containment systems using the methods described in the Part B permit application. The Permittee shall comply with the requirements of OAC Rule 3745-55-96 if a leak or spill occurs in the tank system.
- (c) The sand filters and catalyst waste water tank must be operated in accordance with good industry practice and the Ineos USA LLC operating manuals for this equipment.

D.5. Inspection Schedules and Procedures.  
OAC Rule 3745-55-95

- (a) The Permittee shall inspect the tank systems, in accordance with the Inspection Schedule and shall complete the items in Permit Conditions D.4(b) and D.4(c) as part of those inspections:

- (b) The Permittee shall inspect the overfill controls in accordance with the procedure and schedule in the approved Part B permit application.
- (c) The Permittee shall 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;
  - (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 shall document compliance with Permit Condition D.5(a)-(c) in the operating record of the facility.

D.6. 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 shall remove the system from service immediately and complete the following actions:
  - (i) 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) Remove waste and accumulated precipitation from the system within 24 hours of the detection of the leak or at an earlier practicable time to prevent further release and to allow inspection and repair of the tank/containment system to be performed.
  - (iii) Contain visible releases to the environment. The Permittee shall immediately conduct a visual inspection of all releases to the environment and based on that inspection: (1) prevent further migration of the leak or spill to soils or surface water and (2) remove and properly dispose of any visible contamination of the soil or surface water.

- (b) Unless the requirements of Permit Conditions D.5.(b)(i) through D.5.(b)(iii) are satisfied, the Permittee shall close its tank system in accordance with OAC Rule 3745-55-97 and its approved 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 shall 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 shall 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 to eliminate leaks or restore the integrity of the tank system, the Permittee must obtain a certification by an independent, qualified, registered professional engineer in accordance with OAC Rule 3745-50-42(D) that the repaired system is capable of handling hazardous wastes without release for the intended life of the system before returning the system to service. Examples of major repairs are: installation of an internal liner, repair of a ruptured tank, or repair or replacement of a secondary containment vault.

D.7. Recordkeeping and Reporting

OAC Rule 3745-55-96, 3745-55-91(a), and 3745-55-92(g)

- (a) The Permittee shall report to the director, within 24 hours of detection, a leak or spill that 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 shall report the following information to the director: [OAC Rule 3745-55-96(D)(3)]
  - (i) Likely route of migration of the release;
  - (ii) Characteristics of the surrounding soil (including soil composition, geology, hydrogeology, and climate);

- (iii) Results of any monitoring or sampling conducted in connection with the release. If the Permittee finds it will be impossible to meet this time period, the Permittee should provide the director with a schedule of when the results will be available. This schedule must be provided before the required 30-day submittal period expires;
  - (iv) Proximity of downgradient drinking water, surface water, and populated areas; and
  - (v) Description of response actions taken or planned.
- (c) The Permittee shall submit to the director all certifications of major repairs to correct leaks within seven days after returning the tank system to use.
  - (d) The Permittee shall obtain, and keep on file at the facility, the written statements by those persons required to certify the design and installation of the tank system.
  - (e) The Permittee shall keep on file at the facility the written assessment of the tank system's integrity.

D.8. Closure and Post-Closure Care  
OAC Rule 3745-55-97

- (a) At closure of the tank system(s), the Permittee shall follow the procedures in the Closure Plan.
- (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 shall close the tank system(s) and perform post-closure care following the contingent procedures in the Closure Plan and in the Post-Closure Plan.

D.9. Special Tank Provisions for Ignitable or Reactive Wastes  
OAC Rule 3745-55-98

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

- (b) The Permittee shall 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 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code" (1991 or most recent edition) incorporated by reference in OAC Rule 3745-50-11.

D.10. Special Tank Provisions for Incompatible Wastes  
OAC Rule 3745-55-99

- (a) The Permittee shall 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 approved Part B permit application are followed. The Permittee shall document compliance with this condition and place that documentation into the operating record.
- (b) The Permittee shall not place hazardous waste in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless the requirements of Permit Condition D.10(a) are met.

D.11 Reserved.

## MODULE E - CORRECTIVE ACTION REQUIREMENTS

### 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 permit condition E.9 of this module, is requiring the Permittee to continue with this implementation.

On December 15, 2005, the Permittee entered into an Environmental Covenant for Firewater Pond No. 2 (SWMU #2) and Process Pond No. 2 (SWMU #3). This Environmental Covenant fulfills the Permittee's requirement to restrict the use of the property for SWMU #2 and SWMU #3.

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 Rule 3745-66-12, 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)

Lastly, the Permittee currently operates four on-site Class I Hazardous Waste Injection Wells at the Lima facility. The Underground Injection Control (UIC) units were not a part of the RFI conducted under the Federal permit. However, in accordance with the requirements of OAC Rule 3745-50-46 (B), the Permittee must include and evaluate the UIC units under OAC Rule 3745-55-011. Therefore, Ohio EPA has identified these UIC units as waste management units. The Permittee is being requested to provide information confirming that no contamination due to leaks, equipment, ancillary valves and piping associated with the well has occurred. The Permittee shall limit the investigation to the well head and the surface area surrounding the well head. The UIC permit numbers for these wells are:

UIC 03-02-003-PTO-I  
UIC 03-02-004-PTO-I

UIC 03-02-005-PTO-I  
UIC 03-02-006-PTO-I

See Condition E.12 which addresses these units.

E.1. CORRECTIVE ACTION AT THE FACILITY  
OAC Rules 3745-50-10 & 3745-55-011

In accordance with OAC Rule 3745-50-10 "waste management unit" means any discernible unit at which wastes have 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. As used in this permit the term "waste management unit" shall be consistent with and equivalent to the term "solid waste management unit" as that term is defined in Section 3004(u) of RCRA. 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 Attachment 1, Ohio EPA's Corrective Action Plan (OCAP).

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 Rules 3745-55-011

The Permittee must implement Corrective Action(s) beyond the Facility property boundary, where necessary to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of Ohio EPA that, despite the Permittee's best efforts, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the Facility boundary where off-site access is denied. On-site measures to address such releases will be addressed under the RFI, CMS, and CMI phases, as determined to be necessary on a case-by-case basis.

E.3 Reserved.

E.4 Reserved.

E.5 RFI  
OAC Rule 3745-55-011

The Permittee shall conduct an RFI to thoroughly evaluate the nature and extent of the release of hazardous waste(s) and hazardous constituent(s) from all applicable WMUs identified in Condition E.10. The major tasks and required submission dates are shown below. The scope of work for each of the tasks is found in Attachment 1 (Ohio EPA's CAP).

(a) RFI Workplan

The Permittee shall submit a written RFI Workplan to Ohio EPA within 90 days after the effective date of this permit or, in case of a newly discovered waste management unit, on a time frame established by Ohio EPA.

- (i) If necessary, Ohio EPA shall provide written comments on the RFI Workplan to the Permittee.
- (ii) Within 45 days of receipt of Ohio EPA's comments, the Permittee shall submit either an amended or new RFI Workplan that incorporates Ohio EPA's comments.
- (iii) 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 shall 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) If necessary, Ohio EPA shall provide written comments on the RFI Report to the Permittee.

- (ii) Within 45 days of receipt of Ohio EPA's comments, the Permittee shall submit either an amended or new RFI Report that incorporates Ohio EPA's comments.
- (iii) Ohio EPA shall approve or modify and approve, in writing, the amended or new RFI Report. The RFI 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 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 the development and implementation of an interim measure (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.

#### E.7 DETERMINATION OF NO FURTHER ACTION

##### (a) Permit Modification

Based on the results of the completed RFI and other relevant information, the Permittee may submit an application to Ohio EPA for a Class 3 permit modification under OAC Rule 3745-50-51 to terminate the Corrective Action tasks of the Schedule of Compliance. Other tasks identified in the Schedule of Compliance shall remain in effect. This permit modification application must conclusively demonstrate that there are no releases of hazardous waste or constituents from WMUs at the Facility that pose 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, including comments received during the initial (60-day) public comment period required for Class 3 permit modifications, 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.

##### (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 potential or actual releases of hazardous waste or constituents are likely to occur.

(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 likelihood of a release from a WMU at the Facility is likely to pose a threat 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 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 shall 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 by Ohio EPA.

(a) CMS Workplan

The Permittee shall 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) If necessary, Ohio EPA shall provide written comments on the CMS Workplan to the Permittee.
- (ii) Within 45 days of receipt of Ohio EPA's comments, the Permittee shall submit either an amended or new CMS Workplan that incorporates Ohio EPA's comments.
- (iii) Ohio EPA shall 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 approve CMS Workplan must be authorized by Ohio EPA.

(b) CMS Workplan Implementation

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

(c) CMS Final Report

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

- (i) If necessary, Ohio EPA shall provide written comments on the CMS Report to the Permittee.
- (ii) Within 45 days of receipt of Ohio EPA's comments, the Permittee shall submit either an amended or new CMS Report that incorporates Ohio EPA's comments.
- (iii) Ohio EPA shall approve or modify and approve, in writing, the amended or new CMS Report. The CMS 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 CMS Report must be authorized by Ohio EPA.

E.9 Corrective Measures Implementation (CMI)

Using the results of the RFI and CMS, the U.S. EPA selected a Corrective Measure and required implementation via a permit modification which became effective September 30, 1998. 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.

Because contaminant levels at all 8 WMUs (SWMUs) and the 1 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 until such a time when risk values for unrestricted land use are achieved. Under the federal permit, the institutional controls consisted of limiting the future use of the property in a manner that is consistent with the risk values for the site. This was proposed to be accomplished through the imposition of proprietary controls using a deed restriction on the property.

Within 30 days of permit issuance, the Permittee shall contact Ohio EPA to facilitate imposition of the use restriction on the property. The restriction of the property will be effectuated pursuant to Director's Final Findings and Orders.

The Director's Final Findings and Orders, on consent, will be issued which 1) create an equitable servitude upon the property, or portion thereof, which limits the use of the land as required by the approved Corrective Action, and demonstrate the agreement between the landowner and Ohio EPA to create such an equitable servitude, 2) require the landowner to file notice of the equitable servitude with the County Recorder's Office, 3) require the landowner to place the deed restriction into the deed at the time of the next transaction on the property, and 4) contain, as an attachment or otherwise, the specific, agreed-upon language of the land use restriction itself.

E.10 NEWLY IDENTIFIED WMUs OR RELEASES  
OAC Rule 3745-55-011

(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:

- (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 shall 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 3745-55-011

The Permittee shall submit a written RCRA Facility Investigation Workplan to Ohio EPA upon a time frame established in written notification by Ohio EPA that further investigations or corrective measures are necessary.

Further investigations or corrective measures will be established by Ohio EPA.

Permittee shall make such submissions in accordance with time frames established by Ohio EPA.

#### E.12 Compliance Schedule

The Permittee currently operates four, on-site Class I Hazardous Waste Injection Wells at the Lima facility. The Underground Injection Control (UIC) units were not a part of the RFI conducted under the federal permit. However, in accordance with the requirements of OAC Rule 3745-50-46 (B), the Permittee must include and evaluate the UIC units under OAC Rule 3745-55-011. Therefore, Ohio EPA has identified these UIC units as WMUs.

The UIC permit numbers for these wells are:

UIC 03-02-003-PTO-I

UIC 03-02-005-PTO-I

UIC 03-02-004-PTO-I

UIC 03-02-006-PTO-I

Within 60 days of permit issuance, the Permittee shall provide information confirming that no contamination due to leaks, equipment, and ancillary valves, piping and the like associated with the well have occurred. The Permittee shall limit the investigation to the well head and the surface area surrounding the well head.

## MODULE F - TREATMENT IN MISCELLANEOUS UNIT

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 Deep Well Treatment Filter Building. The filter press has a 30 cubic foot capacity. Secondary containment for the filter press is provided by the Deep Well Treatment Filter Building liner, trench, and sump system which has a total capacity of 20,055 gallons.

F.1. Reserved.

F.2. Process Capacity/Annual Limitation

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

F.3. Waste Identification  
 OAC Rule 3745-57-90

The Permittee shall treat in the permitted hazardous waste filter press only the hazardous waste codes specified in the approved Part B permit application and summarized below:

Unit #	EPA Hazardous Waste Codes
T04-9a	K011, K013, K014, D001, D002, D003, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D035, D038, F039, 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

F.4. Assessment/Certification of Miscellaneous Unit  
 OAC Rule 3745-57-91

The Permittee shall 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).

F.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.

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

- (a) Hazardous waste or treatment reagents shall 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 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.

F.7. Inspections  
OAC Rule 3745-57-92

- (a) The Permittee shall inspect the hazardous waste filter press system daily in accordance with OAC Rule 3745-55-95 and the approved inspection plan.
- (b) The Permittee shall document compliance with Condition F.7 (a).

F.8. Response to Leaks of 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 shall 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) The Permittee shall 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.

F.9. Special Requirements

(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 shall document compliance with Condition F.9 (a)(i) of this 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 shall document compliance with Condition F.9 (b)(i) of this permit, as required by OAC Rule 3745-55-99, and place this documentation in the operating record.

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

At closure of the filter press system, the Permittee shall follow the procedures in Section I of the approved permit application in accordance with OAC Rule 3745-55-10 through 3745-55-40.

## MODULE J - GROUND-WATER DETECTION MONITORING

### J.1 Module Highlights

This module addresses the ground water detection monitoring program associated with the Mixed Waste Ponds and the two Land Disposal Cells at Ineos USA LLC. The Permittee formerly operated four surface impoundments (V-1, Celite, Deepwell and Burn Ponds, referred to collectively as "Mixed Waste Ponds"). These surface impoundments were taken out of service in 1988 and are currently undergoing RCRA closure. Waste in the units was solidified and stabilized. Stabilized waste from the former Celite unit was placed in the former V-1 unit. The Deepwell and the Burn Ponds were combined to make a consolidated unit. The resulting two units undergoing landfill closure are 1) V-1 and 2) Deepwell and Burn Ponds. Celite Pond is to be clean closed. Closure construction activities (landfills) have been completed. Certification of closure of the two Land Disposal Cells is pending approval.

The two units being closed as landfills are subject to post-closure care requirements for 30 years. The closure and post-closure care includes ground water monitoring. The units have been monitored under OAC Rules 3745-65-90 through 94 and the Director's Final Findings and Orders of January 25, 1995. Upon the effective date of this Permit the permittee shall conduct ground water monitoring at all wells under OAC Rules 3745-54-90 through 55-01.

The Permittee's detection ground water monitoring system consists of ten (10) monitoring wells 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 consist of one upgradient background well (91-T9), four upgradient and/or side-gradient wells (91-T2, 91-T6, 91-T10, and 91-T13) and five downgradient 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 Mixed Waste Ponds and Land Disposal Cells, Appendix E-1, Volume IV of VI, Revision 6 (August 4, 2004) of the approved Part B permit application (hereafter referred to as the GWMP).

All of the monitoring wells listed in Permit Condition J.2 are under the detection monitoring program. Compliance monitoring has not been initiated.

### J.2 Well Location, Installation and Construction OAC Rule 3745-54-97

The Permittee shall install and maintain a ground-water monitoring system as specified below:

- (a) The Permittee shall maintain, as part of a Ground Water Detection Monitoring System complying with OAC Rule 3745-54-97(A) and (B), ground water monitoring wells as specified on Figure 1 of the GWMP in conformance with the following list:

Type of Well	Well Identification
Background Wells (upgradient)	91-T9
Upgradient and/or Sidegradient Wells	91-T2, 91-T6, 91-T10, 91-T13
Point of Compliance Wells (downgradient)	91-T7, 91-T8, 91-T11, 91-T12, 91-T14

The ground water monitoring well system must: yield samples in upgradient wells that represent the quality of the background ground water unaffected by leakage from any regulated unit(s), and in downgradient wells, yield samples that represent the quality of water passing the point of compliance. The number and location of monitoring wells must be sufficient to identify and define all logical release pathways to the uppermost aquifer from the regulated units based on site-specific hydrogeologic characterization.

- (b) The Permittee shall maintain the monitoring wells identified in Permit Condition J.2(a), in accordance with the detailed plans and specifications presented in Appendix A of the GWMP. This document is hereby incorporated into the approved permit application.
- (c) The Permittee shall remove or replace any monitoring well identified in Permit Condition J.2(a) in accordance with the Appendix to OAC Rule 3745-50-51 permit modification process. Each change must be accompanied by a revised map as specified on Figure 1 of the GWMP for Permit Condition J.2(a).
- (d) All wells removed or replaced in accordance with Permit Condition J.2(c) shall be plugged and abandoned in accordance with the document entitled "State of Ohio Technical Guidance for Sealing Unused Wells" (State Coordinating Committee on Ground Water, 1996). 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.
- (e) Whenever any of the wells specified in Permit Condition J.2(a) are replaced, the Permittee must demonstrate to Ohio EPA that the ground water quality at the replacement well meets the criteria in Permit Condition J.2(a) within a two-year period of the date of replacement using means appropriate to the reason for replacement.

J.3 Indicator Parameters and Monitoring Constituents  
OAC Rule 3745-54-98

- (a) The Permittee shall monitor upgradient background well (91-T9), upgradient and/or side-gradient wells (91-T2, 91-T6, 91-T10 and 91-T13) and downgradient wells (91-T7, 91-T8, 91-T11, 91-T12 and 91-T14), as described in Permit Condition J.2, for the following parameters and constituents:

Analyte or Constituent	Established Detection Concentrations <sup>1</sup> (PQLs) (micrograms per liter)
2-Methyl Naphthalene	5.0
Pyridine	10.0
Arsenic, Dissolved	3.0
Barium, Dissolved	50.0
Cadmium, Dissolved	1.0
Chromium, Dissolved	4.0
Mercury, Dissolved	0.2
Lead, Dissolved	4.0
Selenium, Dissolved	3.0
Silver, Dissolved	5.0
Nitrogen, Ammonia	100.0
Cyanide, Total	10.0
Acetone*	50.0
Acetonitrile*	20.0
Acrolein*	100.0
Acrylonitrile*	50.0
Bromomethane (Methyl Bromide)*	10.0
1,1-Dichloroethylene*	5.0
Methyl Ethyl Ketone*	100.0
Tetrachloroethylene*	2.0
1,1,1-Trichloroethane*	5.0
Trichloroethylene*	4.0
1,1,1,2-Tetrachloroethane	5.0
1,1,2,2-Tetrachloroethane	5.0
1,1,2-Trichloroethane	3.0
1,1-Dichloroethane	5.0
1,2,3-Trichloropropane	5.0
1,2-Dichlorobenzene	5.0
1,2-Dichloroethane	1.0
1,2-Dichloropropane	1.0
1,3-Dichlorobenzene	1.0
1,4-Dichlorobenzene	1.0
1,4-Dioxane	50.0
2-Chloroethyl Vinyl Ether	1.0

Analyte or Constituent	Established Detection Concentrations <sup>1</sup> (PQLs) (micrograms per liter)
2-Hexanone	10.0
4-Methyl-2-Pentanone	10.0
Allyl Alcohol	2000.0
Allyl Chloride	2.0
Benzene	1.0
Bromodichloromethane	1.0
Bromoform	1.0
Carbon Disulfide	1.0
Carbon Tetrachloride	1.0
Chlorobenzene	1.0
Chloroethane	2.0
Chloroform	1.0
cis-1,3-Dichloropropene	1.0
cis-1,4-Dichloro-2-butene	2.0
Dibromochloromethane	1.0
Dichlorodifluoromethane	1.0
Ethanol	2000.0
Ethyl Methacrylate	1.0
Ethylbenzene	1.0
Isobutyl Alcohol	50.0
m, p-Xylene	1.0
Methacrylonitrile	2.0
Methyl Chloride	10.0
Methyl Iodide	5.0
Methyl Methacrylate	10.0
Methylene Bromide	10.0
Methylene Chloride	5.0
o-Xylene	5.0
Pentachloroethane	5.0
Propionitrile	20.0
Styrene	5.0
Toluene	5.0
trans-1,2-Dichloroethene	5.0
trans-1,3-Dichloropropene	5.0
trans-1,4-Dichloro-2-butene	10.0
Trichlorofluoromethane	10.0
Vinyl Acetate	10.0
Vinyl Chloride	2.0

NOTES(1) Background concentrations for the dissolved metals, inorganics and those compounds highlighted with an asterisk were established earlier in the ground water detection monitoring program under the Director's Final Findings and Orders of January 1995. The remaining volatile organic compounds (VOCs) are presently being analyzed for background concentrations. The listed established detection concentrations for the remaining VOCs are the anticipated practical quantitation limits (PQLs) for these compounds based on U.S. EPA method 8260B method detection limits (MDLs). All of these VOCs have had "non-detect" concentrations during the background sampling events that have been completed to date (3).

J.4 Sampling and Analysis Procedures  
OAC Rule 3745-54-97

The Permittee shall use the following techniques and procedures when obtaining and analyzing samples from the ground water monitoring wells described in Permit Condition J.2:

- (a) Ground water elevations shall be measured using the techniques specified in the GWMP included in the approved Part B permit application
- (b) Samples shall 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 the GWMP included in the approved Part B permit application.
- (c) Field analysis shall be performed using instruments, procedures, and forms described in the GWMP included in the approved Part B permit application. Instruments shall be calibrated as described in the approved Part B permit application.
- (d) Sampling equipment shall be decontaminated using techniques described in the GWMP included in the approved Part B permit application.
- (e) Purge water shall be disposed of in accordance with procedures described in the GWMP included in the approved Part B permit application.
- (f) Laboratory analytical methods, detection limits and sample holding time shall be in accordance with techniques described in the GWMP included in the approved Part B permit application.
- (g) Quality assurance, including field/lab/equipment blanks, duplicate samples and identification of potential interferences, shall be in accordance with the methods described in the GWMP included in the approved Part B permit application.
- (h) Chain of custody procedures, including standardized field tracking reporting forms, and sample labels, shall be in accordance with the GWMP included in the approved Part B permit application.

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

- (a) The Permittee shall determine the elevation of the ground water surface at each well each time the ground water is sampled, in accordance with Permit Condition J.7(b).
- (b) The Permittee shall record, on the facility map, the ground water elevations at the monitoring wells for each ground water sampling events. The ground water elevations shall be retained for the life of the permit.
- (c) The Permittee shall record in the facility operating record the total depth of any replacement wells installed in accordance with Permit Condition J.2.(c) 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).

J.6 Statistical Procedures

- (a) The Permittee shall conduct the statistical procedures as presented in the GWMP of the approved Part B permit application which include:
  - (i) For fully quantified parameters, with ammonia being the only site specific parameter consistently detected, a comparison with the interwell parametric tolerance interval shall be performed. The parametric tolerance interval (T.I.) is defined as:

$$T.I. = x_{\text{mean}} + k \sigma$$

where:  $x_{\text{mean}}$  = background sample mean (background well 91-T9)

$\sigma$  = background sample standard deviation (background well 91-T9)

k = one sided tolerance factor obtained from statistical tables for 99% confidence level and coverage.

The upper one-sided tolerance interval for ammonia is 2.59 milligrams per liter (mg/l).

- (ii) For partially quantified parameters, which are defined as those parameters in the sample with 50 to 90 percent "non-detects" and include arsenic, barium, chromium and lead, the non-parametric prediction limits for future median statistical method shall be performed.

- (iii) For partially quantified parameters, which are defined as those parameters in the sample with greater than 90 percent "non-detects" and include arsenic, barium, chromium and lead, the Poisson prediction limits statistical method shall be performed.
  - (iv) For parameters with analytical results below detection limits, which includes all of the remaining site specific parameters, a comparison of these analytical results to the practical quantitation limits (PQLs) listed as the established detection concentrations in Permit Condition J.3(a), shall be performed.
- (b) If the Permittee decides in the future, based on data collected, that another statistical method would be more appropriate, the Permittee shall 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. The Permittee may follow the flow chart for statistical analysis decision making as included in the ASTM guidance document number D 6312-98 entitled: "Standard Guide for Developing Appropriate Statistical Approaches for Ground-Water Detection Monitoring Programs" where deemed appropriate by the Ohio EPA.

Any statistical method that is chosen must comply with the following performance standards:

- (i) The statistical method shall utilize a sample large enough to ensure with reasonable confidence that a contaminant released to the ground water from the facility will be detected.
- (ii) The statistical procedure must be protective of human health and the environment and provide reasonable confidence that the migration of hazardous constituents from a regulated unit into and through the aquifer will be indicated.
- (iii) The statistical method must be used in evaluating ground water monitoring data for each hazardous constituent specified in Permit Condition J.3(a).
- (iv) The statistical method must be appropriate for the distribution of the data used to establish background values or concentration limits. If the distribution for the constituents differ, more than one statistical method may be needed.
- (v) The statistical method must provide a reasonable balance between the probability of falsely identifying a non-contaminating unit and the probability of failing to identify a contaminating regulated unit.

- (vi) The statistical method shall account for data below the limit of detection with one or more statistical procedures that are protective of human health and the environment. Any practical quantitation limit (PQL) approved in the permit that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility using the methods outlined in the most recent version of SW-846.
- (vii) If necessary, the statistical method shall include procedures to control or correct for seasonal and spatial variability as well as temporal correlation in the data.

J.7 Monitoring Program and Data Evaluation  
OAC Rules 3745-54-97 and 3745-54-98

The Permittee shall establish and implement a detection ground water monitoring program that will determine with reasonable confidence whether any hazardous constituents have entered the ground water as a result of activities from the unit covered by the Part B Permit. The Permittee shall determine ground water quality as follows:

- (a) The Permittee shall collect, preserve, and analyze samples pursuant to Permit Condition J.4.
- (b) The Permittee shall determine ground-water quality and elevation, at each monitoring well listed in Permit Condition J.2(a), semi-annually during the active life of a regulated unit, including the closure period and post-closure care period for land disposal units which are not clean closed.

The Permittee shall express the ground water quality at each monitoring well in a form necessary for the determination of statistically significant increases.

- (c) The Permittee shall determine the ground water flow rate and direction in the uppermost aquifer (upper Tymochtee Dolomite) at least annually. Record and report as required under Permit Condition J.8.
- (d) The Permittee shall determine whether there is a statistically significant increase over the background values for each parameter identified in Permit Condition J.3(a) at each well each time ground water quality is determined. In determining whether such an increase has occurred, the Permittee must compare the ground water quality at each monitoring well specified in Permit Condition J.2(a) to the background value specified in Permit Condition J.3(a), in accordance with the statistical procedures specified in Permit Condition J.6.

- (e) The Permittee shall perform the evaluations described in Permit Condition J.7(d) within ninety (90) days after completion of sampling.
- (f) If the Permittee determines, pursuant to Permit Condition J.6, that there is statistically significant evidence of contamination, the Permittee shall, in order to reduce the Type I error rate (false positive rate) immediately resample (and split sample, if deemed appropriate by the Permittee) the well or wells for that parameter in accordance with Section 6.5 of the GWMP in the approved Part B permit application. If the analytical results and statistical evaluation of the resample data confirm a significant statistical increase then the Permittee shall take the response actions and fulfill the requirements of Condition J.10 regarding statistical evidence of contamination.
- (g) The Permittee shall, within 90 days of permit journalization, submit an amended GWMP to meet the revisions required by this permit. The submittal of the revised GWMP constitutes a Class 1 permit modification for which the Director's Approval is required.

J.8 Recordkeeping and Reporting  
OAC Rules 3745-54-97(J)

Operating Record

OAC Rule 3745-54-73(B)(5&6), OAC Rule 3745-54-97(J), & OAC Rule 3745-54-98(C)

- (a) Ohio EPA may request a copy of the full Quality Assurance/Quality Control (QA/QC) report for a particular sampling event if circumstances warrant, but in general, QA/QC data will not be required except as described below in this Condition. The Permittee shall enter all of the following information obtained in accordance with Permit Condition J.7 in the operation record as required by OAC Rules 3745-54-73(B)(5&6), 54-97(J) and 54-98(C):
  - (i) The laboratory results from each of the wells and their associated qualifiers including the laboratory sheets for the full volatile and semi-volatile analyses (must include method codes; detection limits, and units of measurement);
  - (ii) The date each well was sampled (tabulated);
  - (iii) The date, time, and identification of all blanks and duplicates;
  - (iv) Any field log documentation of deviation from the procedures in the GWMP of the approved Part B permit application including documentation of parameter omissions during the sampling event;

- (v) The date the Permittee received the results from the laboratory;
- (vi) 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. This review shall be based upon the elements in Permit Condition J.8(a)(vii), and compliance will be facilitated by referring to:
  - U.S. EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, February 1994
  - U.S. EPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, October 1999, and
  - Ohio EPA Technical Guidance Manual for Hydrogeologic Investigations and Ground Water Monitoring, February 1995
- (vii) The results of the data validation review per J.8(a)(vi) 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 consistent with the U.S. EPA and Ohio EPA guidelines for data review;
- (viii) Results of all blanks (trip, field, equipment, and method) and duplicates;
- (ix) Results of the field parameters;
- (x) All chains of custody;
- (xi) The date of completion of the statistical evaluation;
- (xii) The statistical evaluation of the data according to the statistical tests that the director has specified, including all computations and results of statistical tests;
- (xiii) Any changes in well status (i.e., going from unaffected to affected status and vice versa);
- (xiv) The constituent lists for the affected wells;
- (xv) Ground water surface elevations taken at the time of sampling each well as required by OAC Rule 3745-54-73(B)(6);

- (xvi) Data and results of the annual determination of the ground water flow rate and direction as required by OAC Rule 3745-54-73(B)(6); and
  - (xvii) 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) For those volatile organic compounds stipulated in Permit Condition J.3(a) for which the background sampling period has not been completed, (compounds 23 through 72 on Table 2 of the GWMP) it is anticipated that the sampling results for all these compounds will be "non-detect" concentrations and that the established detection concentrations shall be those PQL values listed in Permit Condition J.3(a). If the analytical data from the background sampling period indicates that any compound has been detected at a well listed in Permit Condition J.2(a), then the Permittee shall take the response actions and fulfill the requirements of Condition J.7(f) regarding statistical evidence of contamination for a re-evaluation of this/these compounds.

#### Reporting

OAC Rule 3745-54-75 and OAC Rule 3745-54-97(J)

- (c) The Permittee must submit an annual report to the director by March 1<sup>st</sup> of the following year or first business day thereafter, if this falls on a weekend. The annual report must reference the titles and dates of any other periodic reports required by the Permit or any updates to those reports (for example, due to confirmation sampling, comments by Ohio EPA, etc.), 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.7(b), the ground water elevation, flow rate and direction as required by Permit Conditions J.5(a) and J.7(c), and the results of the initial statistical analyses required by Permit Condition J.7(d). 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 Condition must be submitted in the annual report.
- (d) Other Reports

The Permittee shall comply with any reporting requirements that become necessary under Permit Condition J.10 in accordance with the schedule in that Condition and as required by OAC Rule 3745-54-77(C). If any of these dates falls on a weekend, the reports will be due no later than the following business day. Resampling reports must include the same types of information as the initial reports pertaining only to the resampled wells.

The Permittee shall submit the analytical results and elevation data required by Permit Conditions J.7(b&c), and the results of the initial statistical analyses required by Permit Condition J.7(d), in accordance with the following schedule:

<b>Monitoring Well Samples Collected During the Months of:</b>	<b>Results Due to the Director By:</b>
March - April	90 days after completion of semi-annual ground water sampling event
September - October	

**J.9 Assurance of Compliance**  
OAC Rule 3745-54-98

The Permittee shall assure the Director that the ground water monitoring program will ensure the earliest possible detection of contamination leakage from the regulated units, that any contamination leakage would be characterized, and that the need for further action will be determined.

**J.10 Special Requirements if Significant Increases Occur in Values for Parameters or Constituents** OAC Rule 3745-54-98(G)

If the Permittee determines, pursuant to Permit Condition J.6 and 7, there is a statistically significant increase above the background values in any well for any of the chemical constituents specified in Permit Condition J.3(a), the Permittee shall:

- (a) Notify the Ohio EPA in writing within seven days of that determination. The notification must indicate what parameters or constituents have shown statistically significant increases and the corresponding analytical results.
- (b) Immediately sample the ground water in all wells and determine the concentration of all 72 constituents listed in Permit Condition J.3(a).
- (c) If the Permittee desires, re-sample affected wells within one month of determining a statistically significant increase and repeat the analysis for any of the 72 constituents listed in Permit Condition J.3(a) that were detected. If the results of the second analysis confirm the initial results or if the Permittee elects not to re-sample, then the detected compounds form the basis for compliance monitoring.
- (d) Within ninety (90) days of determining a statistically significant increase, submit to the Director an application for a permit modification to establish a compliance monitoring program in accordance with OAC Rule 3745-54-99. The application must include the following information:

- (i) An identification of the concentration of each of the 72 constituents listed in Permit Condition J.3.(a) found in the ground water at each well at the compliance point.
  - (ii) Any proposed changes to the ground water monitoring system at the facility necessary to meet the requirements of compliance monitoring (OAC Rule 3745-54-99).
  - (iii) Any proposed changes to the monitoring frequency, sampling and analysis procedures, or methods or statistical procedures used at the facility necessary to meet the requirements of compliance monitoring (OAC Rule 3745-54-99) and the Ground Water Protection Standard (OAC Rule 3745-54-92).
  - (iv) For each hazardous constituent found at the compliance point, 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 (OAC Rule 3745-54-94(B)).
  - (v) The Permittee shall 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.
- (e) Submit to the Director an engineering feasibility plan (EFP) for corrective action all data necessary to satisfactorily justify an alternate concentration limit within 180 days of determining a statistically significant increase, unless the concentrations of all hazardous constituents identified under permit condition J.3(a) do not exceed their respective values listed in Table 1 of OAC Rule 3745-54-94 (or their respective MCLs), or the permittee has sought an ACL variance for every hazardous constituent identified under J.3(a). If the permittee's ACL request is denied the permittee shall specify a time frame for the submittal of the EFP.
- (f) If the Permittee determines, pursuant to Permit Condition J.7, there is a statistically significant increase above the background values in a well for the parameters specified in Permit Condition J.3(a), the Permittee may demonstrate that a source other than a regulated unit caused the increase or that the increase resulted from an error in sampling, analysis, or evaluation. In such cases, the Permittee shall:
- (i) Notify the Director, in writing, within seven (7) days of determining a statistically significant increase that he intends to make such a demonstration.

- (ii) Within ninety (90) days of determining a statistically significant increase, submit a report to the Director which successfully demonstrates that a source other than a regulated unit caused the increase, or that the increase resulted from an error in sampling, analysis, or evaluation.
- (iii) Within ninety (90) days, submit to the Director an application for a permit modification to make any appropriate changes to the detection monitoring program at the facility.
- (iv) 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 same period of ninety (90) days is required for both a successful "Other Source Demonstration" and the submittal of the permit modification application for compliance ground water monitoring. The Permittee is not relieved of the ninety (90) day requirement for the permit modification unless the "Other Source Demonstration" is deemed successful by the Agency prior to the ninety (90) day time limit.
- (v) Continue to monitor in accordance with the detection monitoring program at the facility.

J.11. Request for Permit Modification  
OAC Rule 3745-54-98(H)

If the Permittee or the Director determines that the detection monitoring program no longer satisfies the requirements of the regulations, the Permittee must, within 90 days of the determination, submit an application for a permit modification to make any appropriate changes to the program which will satisfy the regulations.

## **MODULE M - POST-CLOSURE CARE**

### **M.1. 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. Waste 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 is to be 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 being 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 ground water 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.

### **M.2. Unit Identification OAC Rule 3745-55-17**

The Permittee shall provide post-closure care for the following hazardous waste management units upon completion of the closure requirements as found in this Permit and in OAC Chapter 55, subject to the terms and conditions of this permit, and as described as follows:

Type of Waste Unit	Unit No. or Other Designation	Maximum Waste Inventory	Description of Wastes Contained	Hazardous Waste No.
Landfill	V- Pond Cell #1	49,800 yd <sup>3</sup> (cubic yards)	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	K011, K013, K014, U003, U009, P063, D002, D003
	Deepwell and Burn Pond Cell #2	117,300 yd <sup>3</sup>		

**M.3. Post-Closure Procedures and Use of Property**  
 OAC Rules 3745-55-17, 3745-57-10(B), and 3745-55-18(B)

- (a) The Permittee shall conduct post-closure care for each hazardous waste management unit listed in Permit Condition M.2., to begin after completion of closure of the unit and continue for 30 years after that date, except that the 30-year post-closure care period may be shortened upon application and demonstration approved by Ohio EPA that the facility is secure, or may be extended by Ohio EPA if the director finds this is necessary to protect human health and the environment.
- (b) The Permittee shall maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of OAC Rules 3745-54-90 thru 99 and 3745-55-01 during the post-closure period.
- (c) The Permittee shall 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) Maintain and monitor the ground-water monitoring system and comply with all other applicable requirements of OAC Rules 3745-54-90 thru 99 and 3745-55-01;

- (iv) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and
  - (v) Protect and maintain surveyed benchmarks used in complying with the surveying and recordkeeping requirements of OAC Rule 3745-57-09.
- (d) The Permittee shall comply with all security requirements, as specified in the approved Part B permit application.
- (e) The Permittee shall not allow any use of the units designated in Permit Condition M.2. 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 shall implement the Post-Closure Plan. All post-closure care activities must be conducted in accordance with the provisions of the Post-Closure Plan.

M.4. Inspections  
OAC Rule 3745-55-17(A)(1)(b)

The Permittee shall inspect the components, structures, and equipment at the site in accordance with the Inspection Schedule located in Table F2-1 of the approved Part B permit application.

M.5. 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 shall 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 shall identify the type, location, and quantity of the hazardous wastes to the best of the permittee's knowledge and in accordance with any records the permittee has kept.
- (b) Within 60 days of certification of closure of each hazardous waste disposal unit, the Permittee shall:
- (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:

- (aa) The land has been used to manage hazardous wastes;
  - (bb) Its use is restricted under OAC Rules 3745-55-10 thru 20; and
  - (cc) 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 M.5(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 disposal unit is located, wishes to remove hazardous wastes and hazardous waste residues, the liner, if any; or contaminated soils, then the permittee, owner or operator shall request a modification to this post closure permit in accordance with the applicable requirements in Chapter OAC Rule 3745-50. The Permittee or any subsequent owner or operator of the land shall demonstrate that the removal of hazardous wastes will satisfy the criteria of OAC Rule 3745-55-17(C).
- (d) No later than 60 days after completion of the established post-closure care period for each hazardous waste disposal unit, the Permittee shall 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, 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.

M.6. Financial Assurance  
OAC Rule 3745-55-45

- (a) The Permittee shall maintain financial assurance during the post-closure period and comply with all applicable requirements of OAC Rules 3745-55-40 thru 51.

M.7. 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 Chapter OAC Rule 3745-50, and must include a copy of the proposed amended Post-Closure Plan for approval by the director. The Permittee shall 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.

**End of Permit Conditions**