OhioEPA
State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

Certified Mail
Return Receipt Requested

Re: ***BASF Catalyst, LLC***
EPA ID # OHD 004 203 519
Final Renewal Permit

December 31, 2008

Mr. Jeffrey Roberts
BASF Catalyst, LLC
120 Pine Street
Elyria, Ohio 44035

Dear Mr. Roberts:

Here is the renewed Ohio Hazardous Waste Facility Installation and Operation Permit (Permit) for BASF Catalyst, LLC. The Permit is effective today, December 31, 2008. Since there were no comments received during the public comment period, there is no responsiveness summary for this permit action.

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

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, OH 43215

Ted Strickland, Governor
Lee Fisher, Lieutenant Governor
Chris Korleski, Director

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If you have any questions concerning the final renewal Permit, please call Wade Balser of Ohio EPA's Northeast District Office at (330) 963-1200.

Sincerely,

Jeremy A. Carroll, P.E.
Manager, Regulatory and Information Services Section
Division of Hazardous Waste Management

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cc: Edwin Lim/Shawn Sellers, ERAS, DHWM, CO
Dale Meyer, US EPA, Region 5
Natalie Oryshkewych/Wade Balser, DHWM, NEDO
Carol Hester, PIC, Ohio EPA
file

PUBLIC NOTICE

Lorain County

OHIO EPA ISSUES FINAL RENEWAL HAZARDOUS WASTE PERMIT

On December 31, 2008, Ohio EPA issued a final renewal hazardous waste facility installation and operation permit (Permit) to BASF Catalyst, LLC, fka Engelhard/Harshaw Chemical Company, for its facility at 120 Pine Street, Elyria, Ohio 44035. The EPA Identification Number for this facility is OHD004203519.

Why does BASF Catalyst, LLC need a Permit?

BASF Catalyst, LLC owns and operates an inorganic catalyst and pigment production facility. Currently, no RCRA waste is being treated or disposed at the facility. This final renewal Permit is required so BASF Catalyst, LLC can perform investigation and cleanup of past waste areas at the site. The final renewal Permit contains the conditions under which the facility must operate. To issue this final renewal Permit, Ohio EPA determined that the Permit application is complete and meets appropriate standards and that the applicant has a history of compliance with relevant environmental laws. The renewal Permit will allow BASF Catalyst, LLC to continue to investigate and cleanup any contamination of hazardous waste in the designated areas, or constituents that may be at the facility. Details about this final action can be viewed on Ohio EPA's website at http://www.web.epa.state.oh.us/dhwm/

Can I appeal this Permit?

Yes, if you are an officer of an agency of the state or of a political subdivision, acting in a representative capacity, or any person who would be aggrieved or adversely affected by this Permit, you have the right to appeal this permit decision to the Environmental Review Appeals Commission (ERAC).

If I decide to appeal the final Permit, how and when must I make the appeal?

If you file an appeal, you must put it in writing no later than **February 2, 2009.** Your appeal must explain why you are appealing the action and the grounds you are using for your appeal. The appeal must be accompanied by a filing fee of $70.00 which the Commission, in its discretion, may reduce if by affidavit you demonstrate that payment of the full amount of the fee would cause extreme hardship. Ohio EPA requests that a copy of the appeal be served upon the Ohio Attorney General's Office, Environmental Enforcement Section. You must file your appeal, according to Ohio Revised Code § 3745.04 with ERAC at the following address: ***Environmental Review Appeals Commission***, 309 South Fourth Street, Room 222, Columbus, Ohio 43215. You must send a copy of the appeal to the director of Ohio EPA at the following address no later than three (3) days after you file it with ERAC: ***Chris Korleski, Director of Ohio EPA***, P.O. Box 1049, Columbus, Ohio 43216-1049.

OHIO E.P.A.
DEC 31 2008
ENTERED DIRECTOR'S JOURNAL

OHIO ENVIRONMENTAL PROTECTION AGENCY

OHIO HAZARDOUS WASTE FACILITY INSTALLATION AND OPERATION PERMIT RENEWAL

Permittee: **BASF Catalyst LLC (Formerly Engelhard/Harshaw)**

Mailing Address: BASF Catalyst LLC
120 Pine Street
Elyria, Ohio 44035

Owner: BASF Catalyst LLC and Harshaw Chemical Company
100 Campus Drive
Florham Park, NJ 07932

Operator: BASF Catalyst LLC
100 Campus Drive
Florham Park, NJ 07932

Location: BASF Catalyst LLC
120 Pine Street
Elyria, Ohio 44035

Ohio Permit No.:	**02-47-0028**
US EPA ID:	**OHD 004 203 519**
Issue Date:	December 31, 2008
Effective Date:	December 31, 2008
Expiration Date:	December 31, 2018

AUTHORIZED ACTIVITIES

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

Corrective Action

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.

PERMIT APPROVAL

Christopher Korleski, Director
Ohio Environmental Protection Agency

By: _____ Date: 12.31.08

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

Entered into the Journal of the Director this 31 day of DECEMBER, 2008.

By _____ of the Ohio Environmental Protection Agency.

OHIO EPA DHWM

DEC 3 1 2008

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 conduct corrective action in accordance with the terms and conditions of this Ohio hazardous waste permit (hereinafter "permit"), ORC Chapter 3734, all applicable Ohio hazardous waste rules, all applicable regulations promulgated under the Resource Conservation and Recovery Act (RCRA), as amended, and the permit application. The renewal of this permit is for the purpose of accomplishing corrective action activities. The units undergoing corrective action are currently inactive and shall not be reactivated for management of hazardous waste. The permit application, as submitted to Ohio EPA on January 29, 2007 and last updated on June 2, 2008 is hereby incorporated into this permit. In the instance of inconsistent language or discrepancies between the above, the language of the more stringent provision shall govern.

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

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

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

OHIO EPA DHWM

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

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

A.4 Severability
The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application
of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

A.5 Duty to Comply
OAC Rule 3745-50-58(A)

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

A.6 Duty to Reapply and Permit Expiration
OAC Rules 3745-50-40(D), 3745-50-58(B), 3745-50-56 and ORC Section 3734.05(H)

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

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

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

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

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

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

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

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

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

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

The Permittee must at all times properly operate and maintain the facility (and related appurtenances) to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective management practices, adequate funding, adequate operator staffing and training, and where

appropriate, adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the terms and conditions of this permit.

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

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

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

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

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

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

(iii) inspect and photograph at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under the terms and conditions of this permit; and

(iv) sample, document, or monitor, at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by ORC Chapter 3734 and the rules adopted thereunder, any substances or parameter at any location.

(b) Any record, report or other information obtained under the hazardous waste rules or Chapter 3734 of the Revised Code shall not be available to the public upon the Permittee's satisfactory showing to Ohio EPA that all or part of the information would divulge methods or processes entitled to protection as trade secrets pursuant to Ohio Trade Secret Law and OAC Rule 3745-50-30.

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

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

(b) Records of monitoring information must specify the:

(i) date(s), exact place(s), and time(s) of sampling or measurements;

(ii) individual(s) who performed the sampling or measurements;

(iii) date(s) analyses were performed;

(iv) individual(s) who performed the analyses;

(v) analytical technique(s) or method(s) used; and

(vi) results of such analyses.

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

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

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

(a) The Permittee must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this permit, the certification required by OAC Rule 3745-54-73(B)(9), and records of all data used to complete the application for this permit, for a period of at least three (3) years from the date of the sample, measurement, report, certification, or application.

(b) The record retention period may be extended by request of the Director at any time and is automatically extended during the course of any unresolved enforcement action regarding the facility.

(c) The Permittee must maintain, in accordance with the Ohio hazardous waste rules, records of all data used to complete the permit application and any amendments, supplements or modifications of such application. The Permittee must retain a complete copy of the current application for the effective life of the permit as indicated in Permit Condition A.3.

(d) The Permittee must maintain records from all ground water monitoring wells and associated ground water surface elevations for the active life of the facility and for disposal facilities for the post-closure care period as well.

(e) The director may require the permittee to establish and maintain an information repository at any time, based on the factors set forth in OAC rule 3745-50-39(C)(2).

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

A.15 Planned Changes
OAC Rules 3745-50-51 and 3745-50-58(L)(1)

The Permittee must give notice to, and receive approval from, the Director for any planned physical alterations or additions to the facility affecting the corrective action activities in Module E of this permit. All such changes must be made in accordance with OAC Rule 3745-50-51.

A.16 Waste Shipments
OAC Rule 3745-53-11, ORC Section 3734.15(C)

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

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

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

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

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

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

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

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

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

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

(i) information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies; and

(ii) any information of a release or discharge of hazardous waste or a fire or explosion from the hazardous waste facility, which could threaten the environment or human health outside the facility.

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

(i) name, address, and telephone number of the owner or operator;

(ii) name, address, and telephone number of the facility;

(iii) date, time, and type of incident;

(iv) name and quantity of material(s) involved;

(v) the extent of injuries, if any;

(vi) an assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

(vii) estimated quantity and disposition of recovered material that resulted from the incident.

A.21 Follow-Up Written Report of Noncompliance
OAC Rule 3745-50-58(L)(6)(c)

(a) A written report must also be provided to Ohio EPA's Division of Emergency and Remedial Response and the Division of Hazardous Waste Management, Northeast District Office within five (5) days of the time the Permittee becomes aware of the circumstances reported in Permit Condition A.20.

(b) The written report must address the items in Permit Condition A.20 and must contain a description of such noncompliance and its cause; the period(s) of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and, if not, the anticipated time it is expected to continue; and steps taken or planned to minimize the impact on human health and the environment and to reduce, eliminate, and prevent recurrence of the noncompliance.

(c) The Permittee need not comply with the five (5) day written report requirement if the Director, upon good cause shown by the Permittee, waives that requirement and the Permittee submits a written report within fifteen (15) days of the time the Permittee becomes aware of the circumstances.

A.22 Other Noncompliance
OAC Rules 3745-50-58(L)(10) and 3745-50-58(L)(4)

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

A.23 Reserved

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

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

A.25 Confidential Information
OAC Rule 3745-50-30

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

A.26 Reserved

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

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

Ohio EPA, Director
c/o DHWM, Regulatory and Information Services
P.O. Box 1049
Columbus, Ohio 43216-1049

Northeast District Office
Attn: Division of Hazardous Waste Management
2110 East Aurora Road
Twinsburg, Ohio 44087

(b) The Permittee must submit to the Ohio EPA annually, the following information:

(i) Updated Corrective Action Cost Estimates
OAC Rule 3745-54-101

The Corrective Measures Completion Report (CMCR) contains information on the Maintenance and Upgrade Cost Estimates. During the active life of the facility, the owner or operator must adjust the corrective action cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with rule 3745-54-101 of the Administrative Code. The cost estimates may be submitted with the updated financial assurance mechanism in condition A.27(b)(ii).

(ii) Updated Financial Assurance Mechanism for Corrective Action
OAC Rule 3745-54-101

An updated financial assurance mechanism for corrective action must be submitted to the Ohio EPA annually. The value of the financial assurance mechanism must reflect at least the current amount of the corrective action cost estimate in condition A.27(b)(i).

During the life of the permit the facility may change the financial assurance mechanism. The facility must submit the new financial assurance mechanism documentation to the Ohio EPA for approval.

(iii) Reserved

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

(a) Unless otherwise specified by the hazardous waste rules, the Permittee must maintain at the facility, until closure is completed and certified by an independent, registered professional engineer, pursuant to OAC Rule 3745-55-15, and until the Director releases the Permittee from financial assurance requirements pursuant to OAC Rule 3745-55-43, the following documents (including amendments, revisions and modifications):

(i) reserved

(ii) reserved

(iii) reserved

(iv) reserved

(v) reserved

(vi) reserved

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

(viii) reserved

(ix) annually-adjusted cost estimate for facility corrective action, as required by OAC Rules 3745-55-101 and the terms and conditions of this permit.

(x) all other documents required by Module A, Permit Condition A.12.

(b) The Permittee must maintain copies of all inspection logs at the facility for a period not less than three (3) years from the date of inspection.

A.29 Reserved

MODULE B - GENERAL FACILITY CONDITIONS

B. GENERAL FACILITY CONDITIONS

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

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

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

(a) The Permittee may not receive hazardous waste from a foreign source.

(b) The Permittee may not receive hazardous waste from an off-site source.

B.3 Reserved

B.4 Security
OAC Rule 3745-54-14

The Permittee must comply with the security provisions of OAC Rule 3745-54-14(B)(1) or (2).

B.5 Reserved

B.6 Reserved

B.7 Reserved

B.8 Reserved

B.9 Reserved

B.10 Reserved

B.11 Reserved

B.12 Reserved

B.13 Reserved

B.14 Reserved

B.15 Reserved

B.16 Reserved

B.17 Reserved

B.18 Reserved

B.19 Reserved

B.20 Reserved

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

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

B.22 Reserved

B.23 Reserved

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

In managing waste at the facility the Permittee must comply with OAC Chapter 3745-52 and OAC Rules 3745-54-71, 3745-54-72 and 3745-54-76 with regard to the manifest system.

B.25 Reserved

B.26 Reserved

B.27 Reserved

B.28 Reserved

B.29 Reserved

B.30 Reserved

B.31 Reserved

B.32 Reserved

B.33 Reserved

B.34 Reserved

B.35 Reserved

B.36 Reserved

B.37 Reserved

B.38 Reserved

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

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

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

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

OHIO EPA DHWM

DEC 31 2008

MODULE C - RESERVED

MODULE D - RESERVED

MODULE E - CORRECTIVE ACTION REQUIREMENTS

History of Corrective Action with US EPA:
On August 10, 1989 a Visual Site Inspection (VSI) was performed at the permittee's site. Pursuant to the VSI a RCRA Facility Assessment (RFA) was submitted to US EPA on September 26, 1989. The RFA report identified 58 Solid Waste Management Units (SWMUs) and one Area of Concern (AOC). Based on the information in this report it was determined by US EPA that a RCRA Facility Investigation (RFI) would be conducted at the facility. On April 28, 1993 an RFI workplan was received by US EPA for the permittee's facility. The RFI workplan was approved by US EPA on September 29, 1993. As part of the RFI a risk assessment was performed at the facility on July 7, 1995. The RFI report was submitted for the facility and received by US EPA on July 28, 1994. The RFI report was approved by US EPA on August 4, 1994. The RFI required a Corrective Measures Study (CMS) plan to be filed with the US EPA for the facility. The CMS was received by US EPA on September 20, 1996 and approved on October 23, 1996. On March 31, 1997 the CMS final report was filed with US EPA and on June 17, 1997 was approved by US EPA. Based on the results of the CMS, US EPA selected corrective measures and on November 5, 1997 US EPA issued a draft permit modification to the permittee for the implementation of the selected corrective measures. After a public comment period the modification became effective March 12, 1998.

Corrective Action with Ohio EPA:
Ohio became authorized to implement the Corrective Action program through permits on December 23, 1996. Before that date Corrective Action activities within the state were led by U.S. EPA. In a September 10, 1998 modification to the facility's permit, Ohio EPA required the Corrective Measure Implementation (CMI) of the selected remedies. The remedies addressed the contaminated soils at the site through the following controls:

(1) capping of the entire site to prevent contact with soil and eliminate transportation by precipitation and wind

(2) install curbs along the edged of the cap to eliminate sheet flow or runoff down the banks

(3) maintain the integrity of the cap and the curbs along the edge of the cap

(4) modify the facility's storm water collection, piping, and outfall systems to accommodate any runoff from the capped areas

(5) impose institutional controls that restrict the use of the property to industrial or commercial use only

The facility submitted a Corrrective Measures Construction Work Plan that was approved by Ohio EPA on September 1, 1998. In November 1998, the Corrective Measures Construction Completion Report was finalized and all activities were certified by an independent licensed P.E. The report, which was approved on July 15, 1999, indicated that the selected remedies described above in numbers (1), (2), and (4) were completed. Almost the entire facility has now been capped with asphalt or concrete to prevent migration of contaminants.

The facility submitted a Corrective Measures Completion Report (CMCR) to the Ohio EPA in September 2005. This report includes the schedule of the above selected remedy number (2). Also, the facility has submitted a draft environmental covenant as the above selected remedy number (5) requires. Ohio EPA will approve the CMCR once the Environmental Covenant has been finalized. Condition E.4 of this permit details the current corrective action obligations.

All the documents referenced above are incorporated into the Part B and will be governed by the conditions in this permit and applicable corrective action rules.

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

In accordance with OAC Rule 3745-50-10 "waste management unit" means any discernible unit at which solid waste, hazardous waste, infectious waste (as those terms are defined in ORC Chapter 3734), constructions and demolition debris (as defined in ORC Chapter 3714) industrial waste, or other waste (as those terms are defined in ORC Chapter 6111), has been placed at any time, irrespective of whether the unit was intended for the management of waste or hazardous waste. Such units include any area at a facility at which wastes have been routinely and systematically released. For the purpose of Corrective Action, facility is defined as all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA. The terms Interim Measure (IM), RCRA Facility Investigation (RFI), Corrective Measures Study (CMS) and Corrective Measure Implementation (CMI) are defined in U.S. EPA's Corrective Action Plan (CAP) (OSWER Directive 9902.3-2A, May 1994).

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

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

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

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

The following is a list of Waste Management Units at the Facility:

WMU 1	Hazardous Waste Container Storage Area
WMU 2	Blender Tank
WMU 3	Shredder Tank
WMU 4	Hazardous Waste Treatment Unit Collection Tank
WMU 5	Hazardous Waste Treatment Unit Collection Filter Press
WMU 6	Baghouse Dust Collectors
WMU 7	Hazardous Waste Treatment Unit Collection Dust House
WMU 8	Ceramics Process Trenches and Sumps
WMU 9	Building 24 Waste Water Collection Tank
WMU 10	Building 24 Filter Press
WMU 11	Catalyst Trenches and Sump
WMU 12	Intermediate Storage Tank 1
WMU 13	Building 24 Reaction Tank
WMU 14	Building 2 Trenches and Sump
WMU 15	Equalization Tank 10
WMU 16	Equalization Tank 6
WMU 17	Neutralization Tank 3
WMU 18	Sand Filter
WMU 19	Plate and Frame Filter Press
WMU 20	Product Tank Truck Loading and Unloading Area
WMU 21	Rail Spur Loading/Unloading Area

WMU 22	Catalyst Wastewater Reaction Tanks
WMU 23	Catalyst Wastewater Filter Press
WMU 24	Process Area Collection Containers
WMU 25	Surface Impoundments
WMU 26	Sewer and Sumps in Wastewater Treatment Plant
WMU 27	Backwash Tank in Wastewater Treatment Plant
WMU 28	Zirconium Area Holding Tank
WMU 29	Zirconium Area Neutralization Tank
WMU 30	Alumina Gel Area Sumps
WMU 31	Alumina Gel Area Collection Tank
WMU 32	Alumina Gel Area Niagra Pressure Filter
WMU 33	Gel Holding Tank
WMU 34	Alumina Gel Rea Neutralization Tank
WMU 35	One-cubic Yard Waste Buggies
WMU 36	On-site Landfill
WMU 37	Catalyst Wastewater Collection Tanks
WMU 38	Pigment Hold Tank
WMU 39	Pigment Filter Press
WMU 40	Surge Tank
WMU 41	New Neutralization Tanks
WMU 42	Hold Tank 64
WMU 43	Parallel Plate Separator
WMU 44	Buffer Tank
WMU 45	Catalyst Hold Tank
WMU 46	Catalyst Filter Presses
WMU 47	Ammonia Stripper
WMU 48	Reflux Tank
WMU 49	Sludge Roll-Off Boxes
WMU 50	Fill Area
WMU 51	Pumphouse
WMU 52	Tank 201
WMU 53	Zirconium Sumps
WMU 54	New Sand Filter
WMU 55	Ammonia Wastewater Tank
WMU 56	Discharge Tank
WMU 57	Sludge Tank
WMU 58	Cadmium Spill Area

E.4 Current Corrective Action Obligations

(a) The following Corrective Action obligations are effective and must be performed by the permittee:

(1) Inspections and Reporting

The permittee will perform a visual inspection of the site on an annual basis after the final thaw in the spring. The inspection will be performed by the permittee's personnel or a designated contractor. The inspector will walk the site looking for visible signs of deterioration, damage, cracks, deferential settlement, or other changes that indicate compromised integrity of the cap. Inspection sheets will include the date, the name of the inspector, findings of the inspection and any remedies that may need to be taken. These inspections will be reviewed by the permittee and actions will be taken when necessary. Cap inspections and documentation of any necessary actions will be kept on site.

(2) Cap Maintenance and Replacement

(a) At approximately 5 year intervals the entire cap will be resealed to maintain its integrity. This may be accomplished through sectional repairs or a full site sealing operation. The permittee must maintain records of cap sealing on site.

(b) When an inspection reveals, or at any other time personnel at the facility report that sections of the asphalt integrity of the cap have been compromised, the permittee must either replace the sections with concrete or repave the asphalt sections.

(c) When an inspection reveals, or at any other time personnel at the facility report that sections of the concrete integrity of the cap have been compromised, the permittee must replace or repave the concrete sections.

(d) If the cap is compromised resulting in a release that may be of immediate threat to human health and the environment, the permittee must follow the procedures of condition A.20 of this permit.

(3) Environmental Covenant

The permittee will enter into an Environmental Covenant with the Ohio EPA to restrict use of the facility to only industrial purposes. Ground water extraction will also be prohibited for potable use. An environmental covenant is a legally enforceable document that imposes activity and use limitations and meets the requirements established in sections 5301.80 to 5301.92 of the Ohio Revised Code. This use restriction runs with the land and is binding upon the existing and any future property owner, should the property be sold.

(b) The Permittee may submit an application to Ohio EPA for a permit modification to change the Corrective Action obligations of this operating permit. The Permittee must provide sufficient information explaining why the Corrective Action obligations are to be modified. The modification request will be submitted and reviewed in accordance with OAC Rule 3745-50-51.

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

The Permittee has evaluated the nature and extent of the release of hazardous wastes and hazardous constituents from all applicable WMUs identified in Permit Condition E.3 above. The Permittee must conduct an RFI to thoroughly evaluate the nature and extent of the release of hazardous wastes and hazardous constituents from all applicable WMUs identified in Permit Condition E.10. The major tasks and required submittal dates are shown below. The scope of work for each of the tasks is found in U.S. EPA's CAP.

(a) RFI Workplan

The Permittee must submit a written RFI Workplan to Ohio EPA on a time frame established by Ohio EPA.

(1) Within 60 days of receipt of any Ohio EPA comments on the RFI Workplan, the Permittee must submit either an amended or new RFI Workplan that incorporates Ohio EPA's comments.

(2) Ohio EPA will approve or modify and approve, in writing, the amended or new RFI Workplan. The RFI Workplan, as approved or as modified and approved, shall be incorporated into this permit and become an enforceable condition of this permit. Subsequent changes to the approved RFI Workplan must be authorized by Ohio EPA.

(b) RFI Implementation

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

(c) RFI Final Report

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

1) Within 60 days of receipt of any Ohio EPA comments on the RFI Final Report, the Permittee must submit either an amended or new RFI Final Report that incorporates Ohio EPA's comments.

(2) Ohio EPA will approve or modify and approve, in writing, the amended or new RFI Final Report. The RFI Final Report, as approved or as modified and approved, shall be incorporated into this permit and become an enforceable condition of this permit. Subsequent changes to the approved RFI Final Report must be authorized by Ohio EPA.

E.6 Interim Measure (IM)

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

E.7 Determination of No Further Action

(a) Permit Modification

Based on the results of the completed RFI and other relevant information, the Permittee may submit an application to Ohio EPA for a permit modification under OAC Rule 3745-50-51 to terminate the Corrective Action tasks of the Schedule of Compliance. Other tasks identified in the Schedule

of Compliance shall remain in effect. This permit modification application must conclusively demonstrate that there are no releases of hazardous waste or constituents from WMUs at the Facility that pose an unacceptable risk to human health and the environment.

If, based upon review of the Permittee's request for a permit modification, the results of the completed RFI, and other information, Ohio EPA determines that releases or suspected releases which were investigated either are nonexistent or do not pose an unacceptable risk to human health and the environment, Ohio EPA will approve the requested modification. Decisions regarding the completion of RCRA Corrective Action and no further action may be made for the entire Facility, for a portion of the Facility, or for a specific unit or release.

(b) Periodic Monitoring

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

(c) Further Investigations

A determination of no further action shall not preclude Ohio EPA from requiring further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates that a release or potential release from a WMU at the Facility may pose an unacceptable risk to human health or the environment. In such a case, Ohio EPA shall initiate a modification to the terms of the permit to rescind the determination made in accordance with Permit Condition E.7(a). Additionally, in the

event Ohio EPA determines that there is insufficient information on which to base a determination, the Permittee, upon notification, is required to develop a Work Plan and upon Ohio EPA approval of that Work Plan, perform additional investigations as needed.

E.8 Corrective Measures Study (CMS)

If Ohio EPA determines, based on the results of the RFI and any other relevant information, that corrective measures are necessary, Ohio EPA will notify the Permittee in writing that the Permittee must conduct a CMS either as described

below or as described in Ohio EPA's notification to the Permittee. The purpose of the CMS will be to develop and evaluate the corrective action alternative(s) and to outline one or more alternative corrective measure(s) that will satisfy the performance objectives specified in Permit Condition E.9.

(a) CMS Workplan

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

(1) Within 90 days of receipt of any Ohio EPA comments, the Permittee must submit either an amended or new CMS Workplan that incorporates Ohio EPA's comments.

(2) Ohio EPA will approve or modify and approve, in writing, the amended or new CMS Workplan. The CMS Workplan, as approved or as modified and approved, must be incorporated into this permit and become an enforceable condition of this permit. Subsequent changes to the approved CMS Workplan must be authorized by Ohio EPA.

(b) CMS Workplan Implementation

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

(c) CMS Final Report

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

(1) Within 60 days of receipt of any Ohio EPA comments, the Permittee must submit either an amended or new CMS Final Report that incorporates Ohio EPA's comments.

(2) Ohio EPA will approve or modify and approve, in writing, the amended or new CMS Final Report. The CMS Final Report, as approved or as modified and approved, must be incorporated into this permit and become an enforceable condition of this permit. Subsequent changes to the approved CMS Final Report must be authorized by Ohio EPA.

E.9 Corrective Measures Implementation (CMI)

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

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

(a) Permit Modification

Ohio EPA will initiate a permit modification, as provided by OAC Rule 3745-50-51 to require implementation of the corrective measure(s) authorized.

The Permittee must not implement the corrective measure until the permit is modified pursuant to OAC Rule 3745-50-51.

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

Within 30 days after receiving approval of the CMI, the Permittee must provide financial assurance in the amount necessary to implement the corrective measure(s) as required by OAC Rule 3745-54-101 (B) and (C).

E.10 Newly Identified WMUs or Releases
OAC Rule 3745-54-101

(a) General Information

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

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(i) The location of the unit on the site topographic map;

(ii) Designation of the type of unit;

(iii) General dimensions and structural description (supply any available drawings);

(iv) When the unit was operated; and

(v) Specification of all waste(s) that have been managed at the unit.

(b) Release Information

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

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

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

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

Permittee must make such submittal in accordance with time frames established by Ohio EPA.

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

After completing Corrective Action as necessary to protect human health and the environment for all releases of hazardous wastes or hazardous constituents from any WMUs at the Facility, the Permittee shall submit a Corrective Measures Completion Report (CMCR). The CMCR shall document that Corrective Action construction is complete, cleanup objectives and standards have been met, and any releases of hazardous waste or constituents no longer pose an unacceptable risk to

human health and the environment. The CMCR may be submitted for any part of the Facility for which corrective measures are complete, or for the entire Facility. The CMCR must be submitted as a request for permit modification pursuant to OAC Rule 3745-50-51.

E.13 Documents Requiring Professional Engineer Stamp
ORC Section 4733.01

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

Final Interim Measures Report

Corrective Measures Final Design

Corrective Measures Construction Completion Report

Corrective Measures Attainment of Groundwater Performance Standards Report

Corrective Measures Completion of Work Report

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

END OF PERMIT CONDITIONS