Permittee: Gabriel Performance Products, LLC and Occidental Chemical Corporation

Mailing Address: Gabriel Performance Products, LLC
725 State Road
Ashtabula, Ohio 44004

Owner: Gabriel Performance Products, LLC
725 State Road
Ashtabula, OH 44004

Operator: Gabriel Performance Products, LLC
725 State Road
Ashtabula, OH 44004

Location: Gabriel Performance Products, LLC
725 State Road
Ashtabula, OH 44004

Occidental Chemical Corporation
P.O. Box 809050
Dallas, Texas 75380

US EPA ID: OHD 003 913 308
Issue Date: JAN 07 2014
Effective Date: JAN 07 2014
Expiration Date: January 7, 2024

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.

By: __________________________ Date: __7-14__

AUTHORIZED ACTIVITIES

In reference to the application of Gabriel Performance Products, LLC and Occidental Chemical Corporation 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

PERMIT APPROVAL

__________________________
Scott J. Nally, Director
Ohio Environmental Protection Agency

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

Entered into the Journal of the Director this 7th day of January, [YEAR], 2014.

By: __________________________ of the Ohio Environmental Protection Agency.
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 permit application, as submitted to Ohio EPA on March 29, 2013 and last updated on July 15, 2013, is hereby incorporated into this permit. In the instance of inconsistent language or discrepancies between the above, the language of the more stringent provision shall govern.

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

A.2. Permit Actions

OAC Rule 3745-50-58(F)

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

A.3. Permit Effective/Expiration Date

OAC Rule 3745-50-54

The effective date of this permit is the date the permit is entered into the
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 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 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 application for a renewal permit under OAC Rule 3745-50-40; and
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 backup 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 the Director, within a reasonable time, any relevant information which the Director may request to determine whether cause exists for modifying, revising, revoking or suspending this permit or to determine compliance with this permit. The Permittee must also furnish the Director, upon request, copies of records required to be kept by this permit.

A.11. Inspection and Entry

OAC Rule 3745-50-58(I), 3745-49-03, 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 condition 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 Rules 3745-49-03 and 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 must be representative of the monitored activity. Further, a sample must be a representative sample, as such term is defined and used in the Ohio hazardous waste rules. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from Appendix I of OAC Rule 3745-51-20, Laboratory Methods. Laboratory methods must be those specified in Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods, EPA Publication SW-846, Third Edition, as amended by Updates I, II, IIA, IIB, III and IIIA, and additional supplements or editions thereof; Standard Methods for the Examination of Water and Wastewater: Twentieth Edition, 1999; or an equivalent method as specified in the approved waste analysis plan, or as this term is defined and used in the Ohio hazardous waste rules.

(b) Records of monitoring information must specify the:

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

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

(iii) date(s) analyses were performed;

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

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

(vi) results of such analyses.

A.13. Signatory Requirement and Certification of Records
OAC Rule 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

OAC Rules 3745-50-58(J) and 3745-50-58(M)

(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 are 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.

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

A.15. Planned Changes

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

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

A.16. Waste Shipments

OAC Rules 3745-52-12 and 3745-53-11, ORC 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 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 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 must be submitted to the Director no later than fourteen (14) days following each scheduled date.

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

(a) The Permittee must report orally to Ohio EPA's Division of Environmental Response and Revitalization within twenty-four 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 must consist of the following information (if such information is available at the time of the oral report):

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

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

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

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

(v) the extent of injuries, if any;

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

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

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

(a) A written report must also be provided to Ohio EPA’s Division of Environmental Response and Revitalization and the Division of Materials and Waste Management, Northeast 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 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 Condition 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, misleading, or incomplete information to the Director, the Permittee must promptly submit such facts, information or corrected information to the Director.

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

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

A.26. Reserved

A.27. 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 Corrective Actions are completed, the following documents (including amendments, revisions and modifications):

- (i) reserved;
- (ii) contingency plan developed and maintained in accordance with OAC Rule 3745-54-53 and the terms and conditions of this permit;
- (iii) reserved;
- (iv) reserved;
- (v) personnel training plan and the training records, developed and maintained in accordance with OAC Rule 3745-54-16 and the terms and conditions of this permit;
- (vi) reserved;
- (vii) inspection schedules developed in accordance with OAC Rule 3745-54-15 and the terms and conditions of this permit;
- (viii) reserved;
- (ix) reserved;
- (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, Maintenance 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, and ground water or surface waters which could threaten human health or the environment.

(b) Reserved.

B.2. Reserved

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)(2) and (C), and Section F of the permit application.

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

The Permittee must inspect the facility in accordance with OAC Rule 3745-54-15 and the inspection schedule set forth in Section F of the permit application. The Permittee must remedy any deterioration or malfunction discovered by an inspection, as required by OAC Rule 3745-54-15(C). Records of inspection must be kept for a minimum of three (3) years from the date of inspection. These records must be a part of the facility's operating record as required by OAC Rule 3745-54-73.
B.6. **Personnel Training**

OAC Rule 3745-54-16

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

B.7. **Reserved**

B.8. **Reserved**

B.9. **Required Equipment**

OAC Rule 3745-54-32

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

B.10. **Testing and Maintenance of Equipment**

OAC Rule 3745-54-33

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

B.11. **Access to Communications or Alarm System**

OAC Rule 3745-54-34

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

B.12. **Reserved**

B.13. **Arrangements with Local Authorities**

OAC Rule 3745-54-37

(a) The Permittee must comply with the requirements of OAC Rule 3745-54-37 (A) by making a diligent effort to:
(i) familiarize all emergency response agencies which are likely to respond in an emergency with the location and layout of the facility, properties of hazardous waste managed at the facility and associated hazards, places where facility personnel will normally be working, entrances to and roads inside the facility, and possible evacuation routes as depicted and explained in Section G of the permit application;

(ii) make arrangements with Ohio EPA emergency response teams, emergency response contractors, and equipment suppliers; and

(iii) make arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and types of injuries or illnesses which could result from fires, explosions, or releases at the facility; and

(iv) make agreements designating primary emergency authority to a specific police and a specific fire department and make agreements with any others to provide support to the primary emergency authority, where more than one police and fire department may respond to an emergency.

(b) Where authorities decline to enter into such agreements or arrangements set forth in OAC Rule 3745-54-37(A), the Permittee must document the refusal in the operating record as required by OAC Rule 3745-54-37(B).

OAC Rules 3745-54-51 and 3745-54-56

The Permittee must 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.

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

The Permittee must comply with OAC Rule 3745-54-52 and the contingency plan, as set forth in Section G of the permit application.
OAC Rule 3745-54-56(G)

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

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

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

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

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

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

(b) The Permittee must, in accordance with OAC Rule 3745-54-53, submit a copy of the contingency plan to all local police departments, fire departments, hospitals, and local emergency response teams that may be called upon to provide emergency services. The Permittee must notify such agencies and the local authorities, in writing, within ten (10) days of the effective date of any amendments of, revisions to, or modifications to the contingency plan.
(c) The Permittee must, in accordance with OAC Rule 3745-54-53, submit a copy of the approved contingency plan to the Ohio Environmental Protection Agency's Division of Environmental Response and Revitalization.

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

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

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

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

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

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

B.22. Reserved

B.23. Contingency Plan Records
OAC Rule 3745-54-73 and OAC Rule 3745-54-56(J)

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

B.24. Reserved

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. Reserved
B.40. Reserved.
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MODULE D – RESERVED

OHIO EPA - DMWM
JAN 07 2014
Several investigations were conducted at the facility to assess potential subsurface soil and ground water contamination. In November 1985, Woodward-Clyde Consultants (WCC) of Cleveland, Ohio, conducted a hydrogeologic assessment. Following WCC’s investigation, International Technology Corporation (IT) of Pittsburgh, Pennsylvania, delineated the extent of soil and ground water contamination identified by WCC. On August 7, 1989, U.S. EPA’s contractor, A.T. Kearney, Inc. of Chicago, Illinois, conducted a Visual Site Inspection (VSI) at the Occidental Chemical Corporation (OCC) facility. Pursuant to the VSI, a RCRA Facility Assessment (RFA) was submitted to the U.S. EPA on September 29, 1989. The RFA report identified thirty (30) Waste Management Units (WMUs) and one Area of Concern (AOC).

As a result of building construction activities in 1987, soil excavation for a building foundation in the southeast part of the facility (former burn area) identified contaminated soils. A total of 2600 cubic yards of soil were removed and sent off site for disposal.

The initial investigations revealed that there was a need to contain and collect the contamination that was found at the facility. The ground water characteristics indicated a substantial potential for off-site migration of contamination. In 1989, OCC performed a voluntary Interim Measure (IM) to contain and manage ground water. The IM consisted of the installation of a series of four ground water interceptor trenches (French drains) totaling 900 linear feet installed downgradient of the contaminated area. These interceptor trenches are approximately 10 feet deep and 3 feet wide. The interceptor trenches were excavated to slope to sumps which collect the ground water.

The ground water is then pumped from the sumps to a wastewater treatment plant. The treatment plant system was designed to remove Volatile Organic Compounds (VOCs) from ground water, process water, and storm water streams. The system consists of two air stripping columns, a vapor-phase carbon adsorber, and a liquid-phase carbon adsorber. The treated water is discharged to the State Road Storm Sewer via a National Pollutant Discharge Elimination System (NPDES) permitted outfall.

A slurry wall was also installed in 1989 around the perimeter of the facility, enclosing the outer limits of the detected soil or ground water contamination that were identified. The slurry wall is a three foot wide combination of excavated soil mixed with bentonite and water with a tested permeability of 1x10^{-7} cm/sec. It was installed to a depth of 13 feet and was keyed approximately three feet into the underlying clay layer, which also has a hydraulic conductivity of 1x10^{-7} cm/sec. The slurry wall prevents horizontal migration of...
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contaminated ground water and hazardous constituents. The underlying clay prevents vertical migration of contaminated water to deeper zones.

On April 3, 1992, a Federal Hazardous Waste Permit was issued to OCC, which included requirements for RCRA Corrective Actions at the facility. An Interim Measures Report (IMR) was submitted by OCC on June 29, 1992, so that the impact of the IM could be evaluated in the course of determining the RCRA Corrective Action needs at the facility. The IMR was reviewed by U.S. EPA and Ohio EPA. U.S. EPA stated that in order to fully characterize the extent of releases at the facility, OCC will be required to submit an RFI Workplan and Quality Assurance Project Plan (QAPP) while the information provided in the revised IMR would serve as a background information source.

On December 29, 1994, OCC submitted historical data in the form of a Risk Assessment (RA). Based on this report, one Waste Management Unit (WMU), #30, the former ditch, required remediation (above and beyond the ground water contamination) and that eight other Waste Management Units (some of the WMUs were combined into groups based on proximity) had more than a minimal potential for release to the environment. In July 1996, a fifth interceptor trench (French drain) was installed through the area designated as WMU #30.

On December 10, 1997, an Ohio Hazardous Waste Facility Installation and Operation Permit Renewal was issued to OCC. At this time, Ohio EPA assumed the lead for regulatory oversight of RCRA Corrective Action activities at the facility. Ohio EPA reviewed OCC’s risk assessment and supplemental information regarding data quality and helped OCC determine additional data quality objectives for the RFI. OCC submitted an RFI Work Plan to Ohio EPA on October 19, 2000. The Work Plan entailed the evaluation of eight Waste Management Units having more than a minimal risk of release and the assessment of the functionality of the site-wide ground water containment slurry wall.

In addition to the investigation of the Waste Management Units and the site-wide ground water containment slurry wall, the North and South Lagoons were reconstructed with liners removed, supporting soils stabilized, and new polyethylene liners installed.

The WMUs investigated during the RFI were:

1. WMU Group A: WMU 4 (Tank T-11), WMU 6 (Tank T-31), WMU 10 (Tank T-30), and WMU 15 (Former Carbon Tetrachloride Storage Area)
2. WMU Group B: WMU 21 (Burn Pit Area) and WMU 24 (Outdoor Drum Storage Area)
3. WMU Group C: WMU 1g (North Lagoon) and WMU 1h (South Lagoon)

The soil and ground water investigation activities for the RFI were initiated in April and May of 2002. The sampling results were submitted on August 13, 2002, in a report entitled, "Interim Groundwater and Soil Investigation Report."

The RCRA Facility Investigation Final Report was submitted to Ohio EPA on November 15, 2002. This report was approved on June 24, 2003 by Ohio EPA.

OCC and Gabriel Performance Products, L.L.C. submitted a Corrective Measures Study Final Report that was received on June 10, 2004 and approved on June 15, 2004 by Ohio EPA, which outlined the proposed remedies. Ohio EPA public noticed the selected remedies through a Statement of Basis, and no comments were received. The remedies were incorporated into the permit through a Director’s Initiated Permit Modification dated September 26, 2005.

In response to the permit requirements, the facility submitted a Corrective Measures Implementation (CMI) Report which contained a description of remedial measures implemented to date, and various plans (described below) for on-going implementation of the remedies. This report was revised on June 16, 2006 in response to Ohio EPA comments.

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1 Note that ownership of the facility was transferred from Occidental Petroleum Corporation to Gabriel Performance Products, L.L.C., on June 29, 2001. However, Occidental retained responsibility for certain corrective action activities required at the facility.
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), construction and demolition debris (as defined in ORC Chapter 3714) industrial waste, or other waste (as those terms are defined in ORC Chapter 6111), has been placed at any time, irrespective of whether the unit was intended for the management of waste or hazardous waste. Such units include any area at a facility at which wastes have been routinely and systematically released. For the purpose of Corrective Action, facility is defined as all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA. The terms Interim Measure (IM), RCRA Facility Investigation (RFI), Corrective Measures Study (CMS) and Corrective Measure Implementation (CMI) are defined in U.S. EPA’s Corrective Action Plan (CAP) (OSWER Directive 9902.3-2A, May 1994).

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

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

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

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

As a result of the extensive remedial activities implemented to date, most of the WMUs have been addressed through a site-wide approach, namely isolation and monitoring of the contamination. Therefore individual WMUs identified in the
Summary above have been combined into the holistic remedies for Corrective Action noted below.

Accumulation (less than ninety day) waste management units remain in use. There have been no releases from these less-than-90-day units to date, and they will be addressed through the generator closure requirements when they are removed from service.

E.4 Reserved
E.5 Reserved
E.6 Interim Measure (IM)

The following specific IMs have been identified by Ohio EPA:

Five ground water interceptor trenches, a ground water pump and treat system, and a confining slurry wall, have been installed and are operational, as noted in the introduction. The facility also has health and safety and soil management plans in place, which will become part of the final remedy.

Additional historical remedies include capping of some WMUs with soil, vegetation, gravel or pavement.

In the event other information arises 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 additional IM(s) (this may include an IM Work Plan) 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 Reserved
E.8 Reserved
E.9 Corrective Measures Implementation (CMI)

(a) Reserved

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

(i) Within 45 days after issuance of this permit, the Permittee must submit to Ohio EPA, a cost estimate to implement the corrective measure(s) as required by OAC Rule 3745-54-101 (B) and (C).

(ii) By March 31, 2014, 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).

(c) Selected Remedy Implementation

In 2005, Ohio EPA adopted the Interim Measures program to be part of the final remedy at this facility. In addition to the current IM program, various institutional controls were also required to be part of the final remedy. These controls include the following:

(i) Corrective Action Contingency Plan - The Corrective Action Contingency Plan, contained in Section G of the permit application, will be implemented if a physical change in the current conditions produces the potential for exposure to contaminants. The RCRA Corrective Action Contingency Plan is designed to minimize hazards to human health and the environment from unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water. This plan discusses emergency response procedures, including notification, identification of hazardous materials, assessment, and control procedures. This plan will be implemented if extreme weather causes significant erosion or deterioration of the soil cover of any Waste Management Unit (WMU), if any known contaminated soils are improperly handled during construction activities or any other emergency when the potential exists for an immediate threat to human health or the environment. The WMUs require routine monitoring and proper management.

(ii) Security - Security procedures for the facility are in place to restrict access by
random trespassers and visitors. The entire facility is fenced and there are designated employees to monitor the entrance gate 24 hours a day, seven days a week. Visitors must sign in and obtain a visitor’s pass restricting access to those people that are authorized (e.g., contractors) to be on facility grounds. The facility has an internal alarm system that can warn employees of emergency situations and also a paging system to contact key personnel. These security procedures as described in the permit application Section F (and in § 5.0 of the CMI Report) are hereby incorporated by reference into this permit.

(iii) Soil Management Plan - A Soil Management Plan (SMP) was submitted as Appendix D of the CMI Report for handling soil materials during any future excavation activities that may be conducted in known contaminated areas. The plan includes procedures on management of excavated soils, soil characterization and disposal, and a health and safety plan for on-site workers. Prior notice to Ohio EPA for field oversight is required. A revised, updated SMP shall be submitted by the permittee to Ohio EPA for approval within 30 days following the issuance of this permit. This SMP, as approved or modified by Ohio EPA, will thereafter be incorporated into this permit by reference.

(iv) Operation and Maintenance (O&M) Plan for the Slurry Wall - In conjunction with the continuation of the IM program, the Operation and Maintenance Plan submitted as Appendix A of the CMI Report (as modified) will be implemented. The O&M plan describes the inspection procedures for the slurry wall and what corrective measures should be taken in the event of a leak or break in the slurry wall that is detected by the ground water monitoring program or by inspection of the wall. The plan also addresses planned penetrations of the wall for utility installation and maintenance, and other intentional breaches. A revised, updated O&M Plan shall be submitted by the permittee to Ohio EPA for approval within 30 days following the issuance of this permit. This O&M Plan, as approved or modified by Ohio EPA, will thereafter be incorporated into this permit by reference.

(v) Ground Water Sampling and Analysis Plan - The Ground Water Sampling and Analysis Plan (GWSAP) submitted as Appendix C of the CMI Report will be implemented to monitor the integrity of the slurry wall and detect any migration of contaminated ground water. The plan is five years old, and additional data have been gathered in the meantime. Ohio EPA has provided comments to the facility in a letter dated April 18, 2013, so that revisions may
be made. As noted in the letter, the permittee shall perform verification re-
sampling of exterior wells with exceedances of the ground water protection
standards within 30 days of receipt of the laboratory report for any given
sampling event. The revised GWSAP shall be submitted by the permittee to
Ohio EPA for approval within 30 days following the issuance of this permit.
This GWSAP, as approved or modified by Ohio EPA, will thereafter be
incorporated into this permit by reference.

Following approval of the SMP, O&M Plans, and the GWSAP, the permittee
will implement the plans in accordance with the conditions and procedures
contained in the plans. If modifications to a plan are made following the initial
Ohio EPA approval noted above, the permittee will obtain approval from Ohio
EPA prior to implementation of the modified plan.

(vi) Environmental Covenant – Use of the facility will be restricted to industrial
purposes only, through enactment of an Environmental Covenant, an
enforceable mechanism under Ohio law that can be used to restrict property
use. This restriction will run with the land and will be binding upon all future
property owners should the property be sold. The Environmental Covenant
will include a legal description of the subject property, identifying the
contaminated areas, and describe acceptable and unacceptable land uses.
Ohio EPA will monitor the property owner’s adherence to the Environmental
Covenant to ensure continued protection of human health and the
environment. The types of limitations for this property include:

Activity and Use Limitations. As part of the Corrective Action of Waste
Management Units on the Property, Owner hereby imposes and agrees to
comply with the following activity and use limitations:

A. The facility shall not be used for residential activities but may be used for
industrial activities. The term “residential activities” shall include, but not
be limited to, the following:

(i) Single and multi-family dwelling and rental units;
(ii) Day care centers, educational facilities, and preschools;
(iii) Correctional facilities;
(iv) Transient or other residential facilities; and
(v) Production of food-chain products by agricultural means for animal or human consumption.

The term “industrial activities” shall include facilities which supply goods or services to the public, and facilities engaged in manufacturing, processing operations and office and warehouse use, including but not limited to production, storage and sales of durable goods and parking/driveway use.

In addition, the Environmental Covenant will restrict the extraction of ground water for any purpose other than monitoring, migration control, treatment or remediation in accordance with the permit conditions.

The Permittee shall initiate entering into an Environmental Covenant with Ohio EPA as described, pursuant to Ohio Revised Code Sections 5301.80 through 5301.92, within 60 days following issuance of this permit.

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:

(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 45 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 site characterization is required for newly identified WMUs, the Permittee must submit a written work plan to Ohio EPA upon a time frame established in written notification by Ohio EPA. This determination will be made based on the information submitted in accordance with Permit Condition E.10.

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

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

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

After completing Corrective Action as necessary to protect human health and the environment for all releases of hazardous wastes or hazardous constituents from any WMUs at the Facility, the Permittee shall submit a Corrective Measures Completion of Work (CMCW) Report. The CMCW Report shall document that Corrective Action construction is complete, cleanup objectives and standards have been met, and any releases of hazardous waste or constituents no longer pose an unacceptable risk to human health and the environment. The CMCW Report may be submitted for any part of the Facility for which corrective measures are complete, or for the entire Facility. The CMCW Report must be submitted as a request for Class 3 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, if required, 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

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i These units are located within the containment. The units are covered with soil, sod and grass, soil and gravel, or soil and asphalt. Permit Section F-2 requires semi-annual inspections of the cover, and inspections following severe weather.

ii This unit was used for land application of carbon catalyst contaminated with Daconil, a volatile fungicide, from 1972 to 1977. The half-life of Daconyl in the environment is six to ten days. The RFI found some contamination of the unit from chlorinated volatile organics above generic residential screening levels.

iii This unit was used to dispose about 50 drums of cured polyester resins. The drums and associated soils were removed in 1989 to facilitate construction of a building. A water leak in November 2001 resulted in extensive excavations of this unit. No odors, drums or other evidence of contamination were found.