



Long-Term Stewardship Assessment Report

W. R. Grace

EPA ID #: MDD001710227

Baltimore, Maryland 21226

Assessment Date: March 28, 2019

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Introduction: Long-term stewardship (LTS) refers to the activities necessary to ensure that engineering controls (ECs) are maintained and that institutional controls (ICs) continue to be enforced. The purpose of the EPA Region 3 LTS program is to periodically assess the efficacy of the implemented remedies (i.e., ECs and ICs) and to update the community on the status of the RCRA Corrective Action facilities. The assessment is conducted in twofold, which consists of a record review and a field inspection, to ensure that the remedies are implemented and maintained in accordance to the final decision.

Site Background: The W. R. Grace facility occupies approximately 110 acres located at 5500 Chemical Road in Baltimore, Maryland (Facility). The Facility has been the site of inorganic chemical manufacturing operations since approximately 1909, currently producing silica-based absorbents and related products, polyolefin catalysts used in manufacturing of plastics, and fluid cracking catalysts used in petroleum refining. In June 2002, EPA and W. R. Grace entered into a RCRA Administrative Order on Consent (AOC). The AOC required Grace to perform the following activities at the site: (1) complete a RCRA Facility Investigation (RFI); (2) complete a more comprehensive Phase II RFI; (3) complete a RCRA Corrective Measures Study (CMS); and, (4) complete Interim Measures (IM), if necessary. EPA approved the RFI in May 2009, and subsequent Human Health Risk Assessment Report (HHRA) in December 2012. With the RFI approval, EPA requested that a Corrective Measure be undertaken pursuant to the AOC. In 2013 and early 2014, Grace performed excavations at four areas including the Former Burn Pit Area and the areas surrounding historical boring locations SB-28, SB-29, and SB-12.

Current Site Status: Grace subsequently completed all requirements stipulated in the 2002 AOC, and EPA terminated the 2002 AOC on June 25, 2015. On that same date, Grace and EPA entered AOC Docket No. RCRS-03-2015-0074 providing framework for Grace to implement the Final Decision and Response to Comments (FDRTC) selected by EPA on September 4, 2014.

The selected remedy consists of: (1) establishment of a TI zone for groundwater with long term monitoring; and (2) Institutional Controls (ICs). ICs include groundwater use restrictions, land use

restrictions, and access restriction through the use and maintenance of fencing and controlled access (security gate). Other requirements include compliance with Corrective Measures Implementation (CMI) soil management and groundwater monitoring plans.

Long-term Stewardship Site Visit: On March 28, 2019, EPA conducted a long-term stewardship site visit with W. R. Grace and its consultant to discuss and assess the status of the implemented remedies at the Facility.

The attendees were:

Name	Organization	Email Address
John Hopkins	EPA Region 3	hopkins.john@epa.gov
Kurt Krammer	W. R. Grace & Co.	kurt.krammer@grace.com
Brandon Welbourn	W. R. Grace & Co.	brandon.welbourn@grace.com
James Wang	Geosyntec Consultants	jwang@geosyntec.com

Institutional Controls (ICs) Status:

Administrative Order on Consent: The AOC is the method for implementing institutional controls required as a condition of the Statement of Basis and Final Decision. The following ICs apply to the W. R. Grace facility, shown on Figure 1:

Groundwater Use Restriction: Groundwater at the Facility shall not be used for any purpose, including, but not limited to, use as a potable water source. Local ordinance COMAR 26.03.01.05 prevents an individual water supply from being installed where an adequate community water facility is available. The Facility is connected to Baltimore City water and does not use groundwater for any purpose other than long-term monitoring required by EPA.

Soil Management Plan: All intrusive earth moving activities at the Facility, including excavation, drilling and construction activities, shall be conducted in compliance with the Facility specific health and safety protocols and an EPA-approved Soil Management Plan. Historical aerial imaging available on Google Earth does not show evidence of recent changes or disturbances. There were no earth-moving activities observed during the site visit.

Groundwater Technical Impracticability Zone (T.I. Zone): EPA has determined that restoration of groundwater to drinking water standards at the Facility area depicted on Figure 1 is technically impracticable. Corrective Action Objectives (CAOs) for Facility groundwater are to control exposure to Facility-related constituents remaining in groundwater and ensure that groundwater containing Facility-related constituents will not impact ecological receptors or adjacent surface water bodies.

Eighteen monitoring wells are currently included in the CMI groundwater program. All wells are sampled every 15 months for total unfiltered metals (primarily arsenic) while some locations are sampled for semi-volatile organic compounds (SVOCs). An intra-well statistical evaluation is performed to compare groundwater quality data collected at each well to groundwater data collected at the same well from 2008 – 2013. Results are screened against a 95% upper prediction limit (UPL)

calculated for each analyte at each well using 2008 – 2013 data. Results of the September 2017 sampling event show several metal concentrations detected above UPLs at three well locations, however, these concentrations were generally lower than 2016 results. With the exception of these locations, all wells had most, if not all, analytes below their respective 95% UPL. The next groundwater sampling event is scheduled for March 2020.

Engineering Controls (ECs) Status:

Security Fence: Access to the Facility is restricted through the use and maintenance of fencing and controlled access through a security gate. The fencing and gate were observed to be intact during the site visit (see Picture 3).

Reporting Requirements/Compliance: W. R. Grace submits CMI Assessment Reports/Progress Reports on an annual basis, the latest of which was received May 2018, and is currently meeting requirements of the AOC.

Mapping: The EPA facility website map is accurate and includes the 110-acre property. A downloadable geospatial PDF map is available on EPA’s corrective action facility webpage under the “Reports, Documents and Photographs” section, found [here](#).

Conclusions and Recommendations No institutional or engineering control deficiencies were identified. EPA has determined that the remedy institutional and engineering controls have been fully implemented.

Attachments:

Figure 1: Aerial Map of W. R. Grace Baltimore

Picture 1: Security Entrance

Picture 2: Monitoring Well Cluster G-27 (Shallow, Intermediate, Deep)

Picture 3: Facility Security Fence

Picture 1: W. R. Grace Security Entrance



Picture 2: Monitoring Well Cluster G-27 (Shallow, Intermediate, Deep)



Picture 3: Facility Security Fence

