

# FINAL DECISION AND RESPONSE TO COMMENTS

for

## **Revitalizing Auto Communities Environmental Response Trust**

Former Delphi Harrison Thermal Systems Moraine Plant  
Former General Motors Corporation Powertrain Group, Moraine Engine Plant  
Former General Motors Corporation Truck Group, Moraine Assembly Plant

Moraine, Ohio

EPA IDs: OHD000817577, OHD041063074, OHD041063074

### **I. INTRODUCTION**

The U.S. Environmental Protection Agency (EPA), Region 5, is issuing this Final Decision and Response to Comments (FD/RTC) pursuant to Section 3008(h) of the Resource Conservation and Recovery Act. The FD/RTC identifies the final remedy selected for the Former Delphi Harrison Thermal Systems Moraine Plant; Former General Motors (GM) Corporation Powertrain Group, Moraine Engine Plant; Former General Motors Corporation Truck Group, Moraine Assembly Plant (“Facility” or “Site”) located in Moraine, Ohio. Included in this FD/RTC is the conclusion of a deliberative process to identify the final remedy for the Facility. The proposed remedy was published in the Statement of Basis. A public comment period opened on December 9, 2021 and ended on January 10, 2022. This FD/RTC provides a summary of information found in greater detail in the Statement of Basis (SB) and EPA’s responses to the public comments received.

### **II. FACILITY BACKGROUND**

On September 29, 2011, EPA and the Revitalizing Auto Communities Environmental Response Trust (RACER) entered into an Administrative Order on Consent (“AOC” or “Order”) for the Moraine Site requiring RACER to investigate and clean up contamination released at its property and establishing EPA oversight of the remedial process. The AOC was issued under Section 3008(h) of RCRA, as amended, 42 U.S. C. Section 6928(h), U.S. EPA Docket No: RCRA-05-2011-0016.

The Site has been used for industrial purposes since the mid-1920’s. The former Moraine Engine and Moraine Assembly facilities occupy approximately 239 acres, while the adjacent former Delphi Thermal Moraine facility occupies approximately 124 acres. The facilities are located in the City of Moraine in Montgomery County in southwestern Ohio. A small portion of the Moraine Assembly facility is located in the City of Kettering in Montgomery County.

Frigidaire (a former division of former GM Corporation) produced appliances at the Site from the late 1920’s until GM Corporation announced the shutdown of all Frigidaire operations in January 1979. During 1980 and 1981, the majority of the former Frigidaire Plant 2 was converted to the Moraine Engine facility, and the former Frigidaire Plant 3 and

the northeast corner of former Frigidaire Plant 2 were converted to the Moraine Assembly facility. Beginning in 1981, Moraine Engine operations have included the machining, painting (this operation was discontinued in September 1995), and assembly of diesel truck engines. Operations at the former Moraine Engine facility ceased in the fall of 2000. The plant building was decommissioned and demolished, and the majority of the property has been covered with a parking surface. GM Corporation operated a regional haulway at the location of the former Moraine Engine Plant, which was referred to as the Vehicle Distribution Center until December 2008 when operations ceased.

Beginning in 1981, Moraine Assembly operations included the manufacture, assembly, and painting of small trucks and later sport utility vehicles. Operations at the former Moraine Assembly ceased in December 2008.

Delphi Thermal Moraine's major operations, which began in 1941, included the machining and assembly of automotive air conditioning compressors, accumulator dehydrators, and miscellaneous air conditioning valves. Operations at the Delphi Thermal Moraine Building 14 ceased in September 2003 and the building was decommissioned. Demolition of Building 14 was completed in 2005.

On June 1, 2009, GM Corporation and certain subsidiaries filed voluntary petitions for relief under Chapter 11 of the Bankruptcy Code. An order was entered approving the sale of substantially all former GM Corporation's assets to a new and independent company (now known as General Motors Company, LLC) under Section 363 of the Bankruptcy Code on June 5, 2009. The sale closed on July 10, 2009. At that time, GM Corporation changed its name to Motors Liquidation Company (MLC). RACER was established on March 31, 2011 by a federal bankruptcy court to own, manage, remediate, and revitalize the properties from the 2009 former GM Corporation bankruptcy. On that date, all assets and cleanup funding that had been the responsibility of MLC were transferred to RACER. RACER is responsible for completing the Corrective Action activities at this Site in accordance with the Cost Estimate and Settlement Agreement that are the basis for the Trust.

### **RCRA Facility Investigation Results**

As described in the SB (see Attachment A), EPA conducted oversight of the investigation that was conducted by RACER Trust. During the investigation phases, environmental media such as soil and groundwater are sampled and analyzed for contamination. Where contaminated media are found, subsequent sampling is usually completed to refine the investigation and define the nature and extent of contamination, and to collect enough information for analysis of exposure effects in human health of ecological risk assessments. After each sampling event or investigation phase, EPA evaluates the conceptual site model to determine the adequacy of the data to support decision making. If found to be inadequate, additional data collection is necessary. This process can take several years to complete.

Section III of the attached SB provides detailed information about the scope of the investigation at the Site, including the initial RCRA Facility Investigation (RFI), Supplemental RFI, and several subsequent investigations that have been completed to ensure

the nature and extent of contamination is understood. In general, the primary contaminants of concern are VOCs due to their widespread presence in the groundwater on and off-site.

### **Risk Evaluation**

The information and data collected in the RFI and supplemental investigations were used to determine whether the contamination presents an unacceptable risk to human health. This is done in a human health risk assessment. The risk assessment completed as part of this investigation evaluated the potential significance of exposures to affected environmental media under current and reasonably expected future land use. The risk assessment evaluated the risk by parcel (identified by lot Number) throughout the Site and for potential off-Site receptors. As a RACER Site actively seeking to redevelop parcels on the property, the approach to organize by Parcel will assist in the preparation of environmental covenants and support communication with stakeholders throughout the redevelopment process.

Based on the current and historical evaluation of air, soil gas, soil, and groundwater data available at the Site and in off-Site areas associated with the Site, the following exposure pathways were found to be unacceptable: direct contact to groundwater and vapor intrusion. Corrective measures are required to address the potential exposures and risks to human health at the Site.

### **III. SELECTED FINAL REMEDY**

EPA is selecting the following final remedies:

#### **Source Area Remediation – Former PSA**

Treating the contaminated VOCs in the upper aquifer in the source area will limit the future migration of VOCs to downgradient portions of the upper aquifer into the lower aquifer. Enhanced Reductive Dechlorination (ERD) is selected to remediate the VOCs to achieve the Corrective Measures Objectives (CMOs). Operation of an ERD system for source zone remediation is expected to dechlorinate chlorinated VOCs to non-toxic end products with no long-term accumulation of daughter products such as vinyl chloride and to create a clean waterfront which would migrate downgradient and reduce plume concentrations. An ERD pilot test was completed following the 2012 Corrective Measures Proposal (CMP) and demonstrated the effectiveness of this technology.

#### **On-Site Upper and Lower Aquifers**

The remediation of the source area will reduce the VOC impacts on the upper and lower aquifers and prevent the migration of VOCs at concentrations exceeding the MCLs. Monitored natural attenuation (MNA) following source area treatment is selected to achieve long term CMOs. Institutional controls (deed restrictions) are also selected to restrict groundwater use.

#### **Off-Site Upper Aquifer**

The remediation of the source area will reduce the VOC impacts on the upper aquifer. MNA

following source area treatment is selected to achieve long term CMOs. Additionally, groundwater treatment in the off-site upper aquifer is selected. The selected remedy is the dynamic groundwater recirculation (DGR) treatment system, which has been operating as an interim measure since 2019 to address the vapor intrusion concerns in the Riverview Plat neighborhood. To prevent downgradient plume migration to the east of the DGR treatment system, periodic molasses injections in in-situ reactive zones (IRZs) along the southern boundary is selected. Vapor monitoring and operation and maintenance of the existing vapor intrusion mitigations systems until groundwater no longer serves as a source of contamination to soil vapors is selected.

### **Off-Site Lower Aquifer**

The remediation of the source area will reduce the VOC impacts on the lower aquifer. MNA following source area treatment is selected to achieve long term CMOs. Additionally, hydraulic containment is selected to prevent the plume from reaching downgradient receptors. When MNA alone is sufficient, the hydraulic containment remedy may be terminated. The existing DN-13 well, which pumps approximately 600 gallons per minute and maintains capture in the lower aquifer downgradient of the Site, is selected to achieve the hydraulic containment. Abandonment of two remaining off-site wells adjacent to the Site will continue to be pursued as part of the final remedy.

### **Institutional Controls**

To prevent potential exposure to VOCs in groundwater and soil gas across the Site, the use of the upper and lower aquifer for any purpose will be prohibited. Buildings or other enclosed structures that will be occupied will require a vapor intrusion evaluation and, if necessary, the installation of appropriate vapor intrusion mitigation measures. The land use of the Site will prohibit residential redevelopment. Environmental restrictive covenants for each of the lots (as identified by parcel numbers – See Figure 2 and Table 2 of the SB) at the Site will be required. These will be maintained by the current owner of each parcel.

### **Long Term Care/Stewardship**

RACER must ensure all controls and long term remedies are maintained and operate as intended. RACER will submit a Long Term Stewardship (LTS) plan to EPA. Components of the LTS plan include: an Institutional Control Implementation and Assurance Plan (ICIAP), five-year remedy review procedures, and operation, maintenance, and monitoring details. An annual certification that all controls are in place and remain effective should be included in this plan. Long term remedies will be reviewed and inspected on a five-year basis to ensure the remedy is functioning as intended, the exposure assumptions, toxicity data, cleanup levels, and CAOs are still valid, and any information that comes to light that could call into question the protectiveness of the remedy is considered.

If any five-year review indicates that changes to the selected remedy are appropriate, EPA would determine whether the proposed changes are non-significant, significant, or fundamental changes to the remedy. EPA may approve non-significant changes without public comment. EPA would inform the public about any significant or fundamental changes to the remedy.

#### **IV. PUBLIC PARTICIPATION ACTIVITIES**

A public comment period for the proposed remedy opened on December 9, 2021 and ended on January 10, 2022. EPA offered to host a public meeting, if requested. There was no request for a public meeting. A newspaper advertisement was placed, and a press release published in an effort to inform the public of the proposed remedy and comment period. EPA's cleanup website also offered an opportunity for the public to comment and provided the Facility record for review: <https://www.epa.gov/hwcorrectiveactioncleanups/hazardous-waste-cleanup-racer-moraine-facility-moraine-oh>. EPA received one comment on the SB, presented below.

#### **V. FUTURE ACTIONS**

The following future actions, required as part of the FD/RTC, are integral to the remedy implementation.

- Submit for EPA approval a Corrective Measures Implementation (CMI) Plan which will detail the work plans, methods, and schedules for the implementation of the final measures as outlined above.
- Submit for EPA approval a LTS Plan that details the monitoring and maintenance activities that will be performed after the implementation of the remedy and includes the components described above.
- Record, implement, and maintain institutional controls including restrictive covenants for all parcels of the Site.

#### **VI. ADMINISTRATIVE RECORD**

The Administrative Record supporting the selected final remedy is available on the EPA's cleanup website at: <https://www.epa.gov/hwcorrectiveactioncleanups/hazardous-waste-cleanup-racer-moraine-facility-moraine-oh>.

#### **VII. DECLARATIONS**

Based on the information in the FD/RTC and the Administrative Record, EPA has determined that the selected remedy for the RACER Moraine Site is appropriate and protective of human health and the environment.

Edward Nam  
Director  
Land, Chemicals & Redevelopment Division

EPA RESPONSE TO COMMENTS

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**Comment #1:** General Motors LLC provided comments requesting clarification to the description of the site with respect to General Motors. This includes clarification to Section II: Site Background and Table 2: Risk Evaluation Summary by Parcel. The comment suggests the SB language is not clear, where Table 2 states that Parcel 5416 is "Not part of the RCRA CA" while language in the Site Background indicates that DMAX Engine Plant (DMAX) has approval for no further action for RCRA CA. GM requests that Table 2 AOI for DMAX be changed from "Not part of the RCRA CA" to "No Further Action." Additional clarification is requested with respect to the Site name. GM requests the title page, Section I, paragraph one, and Attachment II of the SB change "Former General Motors Powertrain Group, Moraine Engine Plant; Former General Motors Truck Group, Moraine Assembly Plant" to "Former General Motors Corporation Powertrain Group, Moraine Engine Plant; Former General Motors Corporation Truck Group, Moraine Assembly Plant." GM request an update to Figure 1: Site Layout in the SB be updated to show the GM DMAX is outside the boundary of the RACER Trust Site.

**EPA Response:** Prior to the formation of RACER Trust, the northern portion of the former Moraine Assembly Plant property located at 3100 Dryden Road and referred to as the DMAX Engine Plant (DMAX) (City Lot #5416/Tax Parcel Number J44 04103 0006) was transferred to General Motors Company, LLC. As outlined in the 2011 Administrative Order on Consent (AOC), the DMAX property is not a respondent to the current AOC. The DMAX property is not part of the Statement of Basis or the corrective measures selected. EPA has changed the SB to clarify the DMAX facility is not within the RACER property

boundary and changed the names in the sections requested by the commentor to specify Former General Motors Corporation.