Quarterly Technical Progress Report
January 2016 – March 2016

RCRA Corrective Action - IND 980 700 801
2915 Dr. Martin Luther King Jr. Boulevard, Anderson, IN
Revitalizing Auto Communities Environmental Response Trust

Indiana Department of Environmental Management

6520 Corporate Drive Indianapolis Indiana 46278
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Table of Contents

1. Introduction

GHD, on behalf of the Revitalizing Auto Communities Environmental Response (RACER) Trust, has prepared this Quarterly Technical Progress Report for the RACER Trust facility located at 2915 Dr. Martin Luther King Junior Boulevard in Anderson, Indiana (Facility or Site).

This Quarterly Technical Progress Report has been prepared to summarize activities related to the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI), Interim Measures (IM) activities, and Corrective Measures (CM) at the Facility for the period of January through March 2016.

2. Summary of RFI, Interim Measures, and Corrective Measures Activities

2.1 RCRA Facility Investigation/Environmental Indicators Determination

RFI activities conducted during this reporting period included preparation and submission of the Refined Human Health Risk Assessment – Addendum 2 (GHD, February 10, 2016) which evaluated the on- and off-Site cyanide soil and groundwater data related to the Site.

The Refined Human Health Risk Assessment (Conestoga-Rovers and Associates, October 2013) for the Site was submitted to IDEM in October 2013. On May 12, 2014, the Revised Human Health Risk Assessment - Addendum 1 was submitted to IDEM documenting RACER Trust's agreement to use IDEM's Remediation Closure Guide generic residential and commercial/industrial groundwater vapor exposure screening levels instead of the non-default screening levels proposed in the Risk Assessment. The Risk Assessment, coupled with the Addendum, was approved by IDEM on May 19, 2014.

In the project database, cyanide was categorized as a general chemistry parameter, along with alkalinity, chloride, organic carbon, nitrate, sulfur compounds, and hardness. As such, it was not a subject of the data screening process in support of the Risk Assessment since general chemistry parameters are not typically risk drivers. Nevertheless, it was subsequently identified by GHD as a potential data gap that needed to be addressed.

As part of Risk Assessment - Addendum 2, GHD performed a screening-level assessment of the available soil and groundwater cyanide data to determine the potential for any adverse effects on human health. In the assessment the concentrations of total and amenable cyanide in soil and groundwater were compared to the IDEM Remediation Closure Guide Screening Levels, as well as the Site Specific Closure Levels (SSCLs) developed using methodology originally documented in the Risk Assessment for the applicable exposure scenarios. The findings of the screening-level assessment are summarized in Section 3.1.

On March 18, 2016 IDEM approved the Refined Human Health Risk Assessment– Addendum 2.

RFI activities are 100-percent complete.

2.2 Interim Measures

On January 28, 2016, GHD submitted the 2015 Annual Groundwater Monitoring Report to IDEM on behalf of RACER Trust to summarize the groundwater and surface water sampling activities performed in 2015 and the results generated therefrom. The findings of the annual groundwater and surface water monitoring activities are presented in Section 3.2.

Interim measures are ongoing.

2.3 Corrective Measures

To support development of a revised Corrective Measures Proposal, activities conducted during this reporting period included preparation and submission of the Chromium Groundwater Investigation Work Plan (GHD, March 9, 2016) (Work Plan).

The approved Refined Human Health Risk Assessment identified chromium (all forms) in groundwater as a pragmatic risk driver for the Site. On- and off-Site groundwater samples have been collected historically for chromium and hexavalent chromium analysis, however IDEM's recent Remediation Closure Guide Screening Level (RCGSL) for hexavalent chromium for residential tap water (0.35 micrograms per litre [µg/L]) and GHD's calculated non-potable groundwater exposure Site-specific recreator cleanup level (SSCLRCR) (3.19 µg/L) are below the common laboratory reporting limit of 10 to 20 µg/L using laboratory analytical method 7196A. This poses some challenges when interpreting non detect results with detection limits that are in excess of the criteria. After discussion with IDEM about this challenge, IDEM requested additional testing of select wells on the RACER site to assess the need for sampling of downgradient residential wells.

The objective of the proposed Chromium Groundwater Investigation is to assess the groundwater quality at the perimeter of and downgradient to the Site for the presence or absence of chromium and hexavalent chromium at lower detection limits. The Chromium Groundwater Investigation will be conducted in April 2016, concurrent to routine semi-annual groundwater sampling.

Corrective measures alternatives are currently being evaluated.

3. Summary of Findings

3.1 RCRA Facility Investigation/Environmental Indicators Determination

The Refined Human Health Risk Assessment – Addendum 2 concluded that historical data for total cyanide was detected in soil and groundwater at some individual on-Site locations in excess of the default screening levels and SSCLs. After an evaluation of potential risk drivers in excess of the SSCLs for total cyanide on a Site-wide basis (for on-Site receptors), and taking exposure averaging into consideration, site-wide risks for total cyanide were within the acceptable thresholds. Accordingly, no Site-wide risk management actions are warranted.

3.2 Interim Measures

Groundwater and surface water monitoring activities completed in 2015 were summarized in the 2015 Annual Groundwater Monitoring Report which was submitted to IDEM on January 28, 2016.

Conclusions from the 2015 Site-wide groundwater and surface water monitoring are provided below.

- Groundwater monitoring of the wells along the groundwater mound between the South Court Area and Wastewater Treatment Plant (WWTP) Area plumes confirms that the volatile organic compound (VOC) plumes remain separate from one another.
- There is now no significant trend at MW 85. The other observed trends in trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride concentrations were consistent with the assessment conducted in 2014.
- Consistent with 2014 data, there are two increasing trends in the AOC 1 – South Court plume wells. Increasing treads are noted for cis-1,2-DCE at MW 49 and MW 79.
- Downgradient of MW 49 (east-northeast and east), MW 46 and MW 89-11 were either non-detect or exhibited only very low concentrations of VOCs, respectively. In October 2015 the extent of the AOC 1 – South Court plume remained defined on the east side with non-detect or low level estimated concentrations for all VOC constituents at monitoring wells MW 16, MW 37, MW 46, MW 75, and MW 84.
- MW 75 and MW 76 could not be sampled during the October 2015 sampling event and therefore the north perimeter boundary of the AOC 1 – South Court plume could not be confirmed in 2015.
- Increasing trends continue in several monitoring wells in the former WWTP Area plume. Most of the increasing trends relate to vinyl chloride within and along the tail margin of the plume (MW 28, MW 41, MW 58, MW 64, MW 66, and MW 81). An increasing trend for cis-1,2-DCE is also noted at MW-4 and for TCE at MW 68. The increasing trend in TCE concentrations at MW 68 is based on data from 2005 to 2015. However, when the same trend analysis is performed using only the last seven years of data (i.e., 2009 – 2015), the data set indicates that there is no statistically significant trend and that the TCE concentrations have been stable. In 2015, perimeter monitoring wells MW-2, MW 56, MW 61, MW 86, and MW 88 were either non detect or contained very low estimated concentrations of cis-1,2-DCE (MW 56) or vinyl chloride (MW 61 and MW 86) detected below the laboratory reporting limit.
- Results of the preliminary U.S. EPA score sheet screening and the presence of daughter products in groundwater indicate that natural attenuation of VOCs is occurring at the Site in both the AOC 1 – South Court plume and the former WWTP Area plume.
- Three surface water sampling events were conducted in 2015 (April, July, and October) at the Pond Intake and Pond North surface water monitoring locations at the Meadowbrook Golf Course central irrigation pond. Cis-1,2-DCE, trans-1,2-DCE and vinyl chloride were detected at surface water monitoring locations Pond North and Pond Intake during one or more surface water sampling event conducted in 2015. The detected concentrations of vinyl chloride at the Pond North and Pond Intake sampling locations exceeded the relevant screening criteria (i.e., recreator). No other parameters were detected above relevant screening criteria at surface water monitors Pond North or Pond Intake.
- Based on monitoring at adjacent monitoring well MW 85, the golf course irrigation pond appears to be within the former WWTP Area plume and the plume is expanding in the direction of the pond.
- Based on the 2015 groundwater results from residential well MW 89-11, there is no current unacceptable risk to nearby residents due to groundwater volatilization to indoor air.

3.3 Corrective Measures

No data with respect to corrective measures was generated during this reporting period.

4. Summary of Changes to RFI, Interim and/or Corrective Measures

With the exception of the Risk Assessment – Addendum 2, there were no changes to the RFI, Interim Measures and/or Corrective Measures during the reporting period.

5. Summary of Contacts with Representatives of Local Community, Public Interest Groups, or State Government

On January 18, 2016, GHD, on behalf of RACER Trust, submitted a summary of correspondence related to recent WWTP groundwater investigations in an effort to clarify the record and to summarize comments and related responses to comments on the Wastewater Treatment Plant Groundwater Investigation Report of Findings which was submitted to IDEM on March 26, 2015.

On March 9, 2016, on behalf of RACER Trust, GHD submitted the Chromium Groundwater Investigation Work Plan to IDEM.

On March 29, 2016, on behalf of RACER Trust, GHD submitted reference material and an agenda to facilitate the May 2016 working session between representatives from IDEM, RACER Trust, and GHD. The purpose of the working session is to discuss risk drivers, remedial approaches and develop a consensus on a general strategy for potential Corrective Measures for the Site.

The Environmental Restrictive Covenant for Lot 1 was executed by RACER Trust on March 29, 2016.

6. Summary of Problems or Potential Problems

No problems were encountered during this reporting period.

7. Actions Taken To Rectify Problems

No problems were encountered during this reporting period.

8. Changes in Personnel

There were no changes to personnel during the reporting period.

9. Projected Work for April through June 2016

Projected work for April through June 2016 includes the following:

- April groundwater and surface water sampling event
- Chromium Groundwater Investigation Work Plan Implementation
- Assessment and possible repair of Tract B (North) monitoring wells MW 75 and MW 76
- Decommissioning and replacement of monitoring well MW 97-14 on the Meadowbrook Golf Course
- Working session between representatives from IDEM, RACER Trust, and GHD to discuss Site risk drivers, remedial approaches and develop a consensus on a general strategy for potential Corrective Measures

10. Reports and Data

The 2015 Annual Groundwater Monitoring Report was submitted to IDEM on January 28, 2016.

The Quarterly Technical Progress Report, October 2015 through December 2015, was submitted to IDEM on January 29, 2016.

The Refined Human Health Risk Assessment – Addendum 2 was submitted to IDEM on February 2, 2016. IDEM approved Refined Human Health Risk Assessment – Addendum 2 on March 18, 2016.