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Revitalizing Auto Communities
Environmental Response Trust

Ms. Michelle Kaysen
U.S. Environmental Protection Agency, Region 5
Waste Management Division
77 West Jackson Blvd., DE-9J
Chicago, IL 60604-3590

October 14, 2014

RE: Third Quarter 2014 Progress Report
RCRA Corrective Action
Former GM Delco Plant 5, Kokomo, IN
USEPA ID No. IND000806844

Dear Ms. Kaysen:

In accordance with the Performance-based Administrative Order on Consent between the U.S. Environmental Protection Agency Region 5 (USEPA) and Revitalizing Auto Communities Environmental Response (RACER) Trust, please find the attached progress report for the third quarter of 2014 (July 1, 2014 through September 30, 2014).

Please let me know if you have any questions about the report.

Sincerely,

A handwritten signature in blue ink, appearing to read "Robert W. Hare". The signature is fluid and cursive, with a large loop at the beginning and a long horizontal stroke at the end.

Robert W. Hare, P.E., CHMM
Cleanup Manager – (IL, IN, KS, MO, NJ, WI)

Attachment A – Third Quarter 2014 Progress Report

C: Glynda Oakes, IDEM Office of Land Quality (E-mail)
Howard County Health Department (CD)
Carey Stranahan, City of Kokomo (CD)
Kokomo Public Library (Public Information Repository) (CD)
Sarah Fisher, ARCADIS (CD)

ATTACHMENT A
THIRD QUARTER 2014 PROGRESS REPORT
PERFORMANCE-BASED ADMINISTRATIVE ORDER ON CONSENT
RCRA CORRECTIVE ACTION
FORMER GM DELCO PLANT 5, KOKOMO, IN
JULY 1, 2014 TO SEPTEMBER 30, 2014

WORK PERFORMED THIS QUARTER

- Collected 4 gallons of soil from within the pilot study treatment on July 2, 2014 and started the calcium oxide bench test.
- ARCADIS finalized and submitted the *Risk Assessment Addendum to CMP Amendment* to USEPA on July 11, 2014.
- Performed a subsurface investigation to further evaluate the ISCO pilot test and update the conceptual site model (CSM) from August 4, 2014 through August 8, 2014.
- From August 6, 2014 to August 8, 2014, and on August 15, 2014, ARCADIS provided oversight for the installation of a combined sub-slab depressurization and sub-membrane depressurization vapor intrusion mitigation system at a residence east of the Site. ARCADIS collected a 30-day performance monitoring sample at the residence on September 17, 2014.
- Collected depth to water measurements and deployed passive diffusion bag samplers on September 3, 2014. Collected groundwater samples from passive diffusion bag samplers on September 25, 2014.
- Per a request from USEPA, ARCADIS submitted a comprehensive summary table for vapor intrusion results from a residence east of the Site on September 9, 2014.
- ARCADIS updated and submitted the *Revised Work Plan for Treatability and Pilot Studies of Calcium Oxide Treatment* to USPA on September 12, 2014. USEPA granted approval of the Work plan on September 15.
- RACER Trust submitted a revised 2014 Budget Request for the project on September 17, 2014. USEPA accepted the request for additional funding in an email submitted September 17, 2014.

DATA AVAILABLE DURING THIS QUARTER

- Analytical results from the August 2014 ISCO Investigation completed at the Site (to be included in the *ISCO Summary Report*).

- Analytical results from the September 17, 2014 performance monitoring sampling event completed at a residence east of the Site (to be included in the 2nd Half 2014 Semi-Annual Status Report).

PROBLEMS ENCOUNTERED

- ARCADIS received a call from a resident requesting that the soil gas port on his property be abandoned.

SUMMARY OF PROBLEM RESOLUTION

- USEPA has made notifications to the Superfund Project Manager about the request to abandon the soil gas port.

POTENTIAL PROBLEMS

- To date, RACER Trust has been unable to determine the effectiveness of the distribution of ISCO substrate in the S1 groundwater unit.

ESTIMATED PERCENT COMPLETE AND INFORMATION SUMMARY FOR SELECTED ACTIVITIES

- DOCC 100%
Summarized available information for the Site and identified 7 Areas of Interest (AOIs), 4 of which require additional investigation. No ecological habitat identified at or in the immediate vicinity of the Site. Due May 15, 2006 and submitted October 10, 2005.
- Public Participation Plan 100%
- RFI Work Plan 100%
(Submitted December 15, 2005)
- RFI Phase I Implementation 100%
Objective was to characterize the hydrogeology, to evaluate potential off-Site groundwater impacts, and to characterize AOIs at the Site. Phase I included installation of 38 soil borings and 20 monitoring wells. Ninety-five (95) soil, 8 borehole water, and 23 groundwater samples were analyzed. Completed in October 2005.
- RFI Data Report (Phase I data) 100%
Major findings included identifying small, isolated zones with perched groundwater, two continuous saturated sand units over the investigation area with shallow groundwater flow generally to the southeast. TCE is primary chemical of concern with source areas identified in AOIs 5 and 7. TCE groundwater impacts extend off-Site but not present in borehole water samples collected approximately 800 feet from the Site. No potable water wells identified in immediate vicinity of the Site. Currently no unacceptable risks to human health have been identified. Submitted January 19, 2006.

- RFI Phase II Implementation

100%

Objective was to further characterize on- and off-Site groundwater impacts and AOIs on Site. Phase II included installation of 29 soil borings and 20 monitoring wells. Seventy-five (75) soil, 2 borehole water, and 20 groundwater samples were analyzed. Completed in March 2006.

- RFI Data Report (updated to include Phase II data)

100%

Major findings included more precise delineation of on- and off-Site TCE groundwater impacts, groundwater flow in the bedrock appears to generally be to the northeast and TCE distribution in bedrock groundwater indicates an upgradient source of TCE to the bedrock groundwater, more precise delineation of source area soil impacts at AOIs 5 and 7, and identification of a possible additional source area in the vicinity of the former south manufacturing building. Currently no unacceptable risks to human health have been identified. Submitted May 26, 2006.

- RFI Phase III Implementation

100%

Objective was to further characterize on- and off-Site groundwater impacts and AOIs on Site. The initial RFI Phase III fieldwork included installation of 6 soil borings and 13 monitoring wells. Fourteen (14) soil, 4 borehole water, and 42 groundwater samples were submitted for analysis. An additional 6 soil borings and 4 monitoring wells were installed, and 16 soil samples and 4 groundwater samples were collected as part of additional "step-out" activities (Phase IIIb) performed based on review of preliminary RFI Phase III soil and borehole water sample analytical data. Following review of the preliminary data from the "step-out" activities (Phase IIIb), two additional monitoring wells were installed (Phase IIIc) to further characterize and delineate the extent of groundwater containing TCE in the S1 unit in the northwestern portion of the Site (MW-0623-S1), and in the S2 unit east of the Site along Lordeman Street (MW-0607-S2). Access was obtained to the adjacent former Midwest Plating property where three monitoring wells were installed, and soil and groundwater samples were collected. Started on October 9, 2006 and completed in March 2007.

- RFI Data Report (updated to include Phase III data)

100%

Major findings included more precise delineation of on- and off-Site groundwater impacts, groundwater flow in the bedrock appears to generally be to the south, the source of the cis-1,2-DCE in bedrock groundwater is uncertain, additional characterization of the groundwater in the bedrock is necessary, there are relatively high concentrations of TCE and PCE in the soil at the former Midwest Plating property, and more precise delineation of source area soil impacts at AOIs 5 and the former south manufacturing building. Currently no unacceptable risks to human health have been identified. Submitted June 1, 2007.

- RFI Soil Gas Sampling

100%

Objective is to allow for verifying the appropriateness of the groundwater vapor intrusion criteria that have been used to guide the RFI field investigation at the Site. A work plan addendum was submitted to USEPA on July 10, 2007. A conference call was held with USEPA to discuss the work plan and the work plan was subsequently revised incorporating USEPA's comments and resubmitted to USEPA. Soil gas monitoring ports were installed in

the residential area east of the Site on August 7, 2007, and soil gas samples were collected on August 13, 2007. Preliminary soil gas analytical results were submitted to USEPA on August 28, 2007 and a conference call was held to discuss those results on August 30, 2007. Additional soil gas sampling ports were installed on September 4, 2007, and additional soil gas samples were collected on September 17, 2007. The preliminary analytical results from the second sampling event were submitted to USEPA on September 27, 2007. USEPA provided comments on the preliminary data in a letter dated October 2, 2007. The comment letter and results were discussed during an October 16, 2007, conference call. Additional risk evaluation was completed and submitted to USEPA on October 30, 2007, and a conference call to discuss the additional information was held on November 28, 2007. GM's response to USEPA's October 2, 2007 comment letter was submitted to USEPA on December 3, 2007.

- Soil Gas Investigation Data Report 100%

The final soil gas investigation data report was submitted to USEPA on December 21, 2007.

- RFI Phase IV Implementation 100%

Objective is to further characterize on-Site soil impacts in the former south manufacturing building and to characterize the groundwater flow and delineate the horizontal and vertical extent of cis-1,2-DCE in the groundwater in the bedrock.

A total sixty-two (62) soil borings were advanced from August 29, 2007 to September 5, 2007 within and in the vicinity of the former north and south manufacturing buildings, and field screened. Soil samples were collected based on field observations, and in total thirty-one (31) soil samples were submitted for laboratory analysis. An additional 26 soil borings were advanced from November 19, 2007 to November 20, 2007 to delineate TCE within and in the vicinity of the north and south manufacturing buildings. A total of 60 soil samples were submitted for laboratory analysis. An additional fourteen (14) soil borings were advanced on January 15, 2008 to delineate TCE within and in the vicinity of the north and south manufacturing buildings. A total of fifteen (15) soil samples were submitted for laboratory analysis. Based on review of this data, TCE is adequately delineated.

Installation of the pilot bedrock boring, packer testing, FLUTE testing, discrete low flow vertical groundwater sampling, and isolated groundwater sampling was completed between August 20, 2007 and December 8, 2007. A preliminary report of the results from the pilot bedrock boring was submitted to USEPA on November 16, 2007. An updated report was submitted to USEPA on March 21, 2008. Three additional bedrock monitoring wells were installed in the upper transmissive zone from December 4, 2007 to December 15, 2007. Installation of the additional three deeper bedrock boreholes was completed from April 14, 2008 to May 1, 2008. FLUTE hydraulic profiling of the bedrock boreholes was completed from May 13, 2008 to May 15, 2008. The technical memo with the results of the profiling was submitted to USEPA on July 10, 2008. Discrete depth vertical groundwater sampling (packer sampling) of select intervals in the boreholes was completed in the third quarter 2008. An updated technical memo to summarize the data and provide recommendations for future groundwater sampling was prepared and submitted to USEPA on October 20, 2008. A groundwater sampling event was completed in November 2008 that included collecting depth

to water information across the entire monitoring well network, collecting samples from a subset of approximately 30 existing wells, and discrete depth vertical groundwater sampling (packer sampling) of select intervals in the boreholes, all to confirm the characterization of contaminated groundwater on- and off-Site.

- RFI Supplemental Data Report (updated to include Phase IV soil data) 100%

Major findings included more complete characterization of on-Site soil impacts at AOIs 2, 3 and the former north and south manufacturing buildings. In addition, the Phase IV soil results were evaluated relative to the determination included in the CA725 Report for the Former GM Delco Plant 5 Facility in Kokomo, Indiana (ENVIRON 2007) that all current human exposures to “contamination” at or from the Facility are under control, based on soil data collected prior to September 1, 2007. The evaluation of the Phase IV soil data concluded that results do not alter the conclusions presented in the CA725 Report or the “YE” determination for the CA725. Submitted June 27, 2008.

- Groundwater Evaluation 100%

A draft groundwater evaluation was prepared to provide the USEPA with GM’s evaluation of groundwater quality and flow data collected through February 2009. Submitted on April 10, 2009. This evaluation will be included in the RFI Report. A meeting was held with USEPA on May 19, 2009 to discuss the evaluation and proposed additional investigation.

- Additional Groundwater Investigation 100%

Groundwater sampling completed June 17 through 19, 2009.

- Draft RFI Report 100%

(Submitted October 5, 2009)

A meeting was held with USEPA on October 27, 2009, to review the draft report. USEPA provided comments on the human health risk assessment on December 22, 2009. A call was held with USEPA on February 22, 2010 to discuss USEPA’s comments on the RFI risk assessment. Based on that call a revised RFI Report was submitted to USEPA for review on March 18, 2010.

- Final RFI Report 100%

The final RFI Report was submitted to USEPA on May 21, 2010.

- Human Health EI (CA725) Report 100%

(Submitted November 30, 2007)

Minor comments received from USEPA on December 12, 2007, and revisions submitted on December 20, 2007. USEPA approved the determination on January 3, 2008.

- Groundwater Migration EI (CA750) 100%

(Submitted November 30, 2009)

A draft determination was submitted to USEPA on October 30, 2009 and was reviewed with USEPA via teleconference on November 12, 2009. The final determination was submitted to USEPA on November 30, 2009. USEPA approved the determination on December 22, 2009.

- Draft Corrective Measures Proposal 100%
(Originally due June 30, 2010, Revised due date of August 31, 2010, Submitted on August 30, 2010)

MLC requested an extension to submit the CMP on June 22, 2010. USEPA agreed to extend the submittal date for the CMP to August 31, 2010. The draft CMP was submitted to USEPA on August 30, 2010. The draft CMP included proposed corrective measures to mitigate potentially significant future exposures that could results from historic site activities. The draft CMP also included documentation of groundwater modeling performed to support the identification of the area(s) where a groundwater use restriction should be pursued as part of final corrective measures. USEPA and MLC met on November 17, 2010 to discuss the draft CMP. Based on that meeting MLC prepared and submitted additional information to USEPA on December 23, 2010. USEPA provided comments on the draft CMP on January 7, 2011. Based on the comments, additional evaluation was completed and the results of that evaluation were submitted to USEPA. A conference call with USEPA was held on February 18, 2011 to discuss the comments and the results of the additional evaluation. April 30, 2011 was the established due date for revised CMP that addresses USEPA comments.

- Final Corrective Measures Proposal 100%
- CMP Addendum 75%
USEPA reviewed the summary approach for the CMP addendum and approved the budget reallocation for the addendum on June 25, 2013.

- Semi-Annual Groundwater Monitoring 18%
The first of the semi-annual groundwater monitoring events was completed on October 28, 2010.

- Vapor Intrusion Conceptual Site Model 80%
A revised version of the CSM was reviewed with USEPA on December 10, 2013. Out of the review, the USEPA and RACER Trust concluded that additional data is needed to finalize the CSM. As such, RACER Trust is developing an approach to further investigate the risk of vapor intrusion associated with Site related groundwater impacts. RACER Trust also informed EPA that the Trust will work with EPA to address public health concerns within the soil gas focus area. Data from a further vapor intrusion investigation and indoor air testing program was shared with EPA on March 31, 2014. USEPA concurred that the soil gas and indoor air impacts identified to the east of the Site are not related to RACER Trust. USEPA has referred the soil gas and potential vapor intrusion issue to the east of the Site to IDEM for further evaluation. Per a request by the EPA, ARCADIS will convert the current CSM from a presentation format into a written document format for submittal into the record.

SUMMARY OF CONTACTS WITH INTERESTED PARTIES

- Property owner east of the site contacted RACER in order to abandon a soil gas port, as described above.
- The following documents were placed in the public information repository:

- *Second Quarter 2014 Progress Report*, RCRA Corrective Action, Former GM Delco Plant 5, Kokomo, IN, USEPA ID No. IND000806844, July 14, 2014.
- *Semi-Annual Status Report, First Half 2014*, Former GM Delco Plant 5, Kokomo, IN, USEPA ID No. IND000806844, July 14, 2014

CHANGES IN PERSONNEL

- None.

PROJECTED WORK FOR NEXT REPORTING PERIOD

- Convert the current Vapor Intrusion CSM presentation into a written document format for submittal.
- Evaluate the data for the ISCO Pilot Test and prepare the *ISCO Summary Report* which will detail the performance of the ISCO Pilot Test and provide a proposed path forward.
- Prepare and submit a *CMP Amendment* to summarize information, data, and interpretations since the RFI and CMP were last submitted.
- Complete the bench test for the calcium oxide treatability study. Prepare and submit a *Calcium Oxide Treatability Study Memo* which analyzes and interprets the results of the bench test
- Prepare the *2nd Half 2014 Semi Annual Data Report*.
- Continue to support EPA's preparation of the Statement of Basis and Final Decision, as needed.
- Prepare the *Fourth Quarter 2014 Progress Report*.
- Prepare summaries of meetings, data reviews, or conference calls with USEPA, as appropriate.
