Mr. Brandon Alger
Warren District Office
Remediation and Redevelopment Division
Michigan Department of Environment, Great Lakes, and Energy
27700 Donald Court
Warren, Michigan 48092

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ENVIRONMENT

Subject:
Ford Livonia Transmission Plant 2020 Response Activity Plan – Utility Corridor Evaluation Revised – Addendum

Date:
December 4, 2020

Contact:
Kristoffer Hinskey

Phone:
248-994-2240

Email:
Kristoffer.Hinskey@arcadis.com

Our ref:
30050315

Dear Mr. Alger:

Arcadis of Michigan LLC (Arcadis), on behalf of Ford Motor Company (Ford) has prepared this Utility Corridor (UC) Response Activity Plan (RespAP) Addendum for the Livonia Transmission Plant (LTP) property (the site) located at 36200 Plymouth Road in Livonia, Michigan. This UC RespAP Addendum is in compliance with a Consent Decree (CD) filed by the Michigan Department of Environment, Great Lakes, and Energy (EGLE) on July 27, 2017 (No: 2:1712372-GAD-RSW) and provides a response to EGLE's request for additional sampling of sanitary sewers located on the site and in the Plymouth Road right-of-way (ROW). This response serves as an Addendum to the *Response Activity Plan – Utility Corridor Evaluation Revised* submitted to EGLE on February 11, 2020. Below details the correspondence between EGLE, Ford, and Arcadis.

On October 22, 2020, Arcadis on behalf of Ford presented the analytical results of sewer sampling for both onsite and offsite. The results provided to EGLE included vapor, liquid, and sediment samples for the June 2020 and September 2020 sampling events.

On October 23, 2020, EGLE conducted a meeting with Arcadis to discuss the results of the two sewer sampling events and to gather more information concerning the onsite utility corridors. EGLE also requested a desktop evaluation to determine if any laterals were present adjacent to the northern Plymouth Road sanitary sewer system from the southern commercial properties.

On October 30, 2020 EGLE conducted a meeting with Arcadis to discuss the findings from the requests that were provided in the October 23, 2020 meeting. Arcadis obtained Geographic Information System drawings from the City of Livonia, which indicated that there were no laterals connected to the northern

sanitary sewer located on Plymouth Road. In addition, EGLE also requested that additional vapor samples to be collected along the northern ROW of Plymouth Road and from sanitary sewers on Ford's property.

The proposed additional sampling locations requested by EGLE are located in the northern Plymouth Road ROW and onsite. These locations were requested by EGLE to delineate vapor sample results that exceeded criteria, which was provided by EGLE on September 11, 2020, in previous sampling events from SAMH-1231 and SL-2. The proposed additional sampling locations (i.e., SAMH-1244, SAMH-1245, SAMH-1255, SAMH-1256, SAMH-1258, and SL-3) and the previously sampled locations (i.e. WDC, EDC, SAMH-1231, and SL-2) located in the Plymouth Road ROW and onsite are shown on **Figure 1**. The additional locations will be sampled concurrently with previously sampled locations in order to further evaluate the potential for vapor to migrate upgradient and downgradient of SAMH-1231 and SL-2.

PROPOSED SCOPE OF WORK

Additional Sewer Sampling

In order to evaluate the extent of vapor interacting with the sewers, Arcadis proposes the additional following work to be conducted:

- Collect vapor samples from sanitary manholes (SAMH-1244, SAMH-1245, SAMH-1255, SAMH-1256, SAMH-1258) to delineate potential vapor migration upgradient of SAMH-1231;
- Collect vapor sample from sanitary manhole (SL-3) to delineate potential vapor migration downgradient of SL-2.

Vapor Sampling Procedure and Methodology

Vapor samples will not be collected within 48 hours of a precipitation event as recorded by Michigan State's Enviroweather station in Commerce Township, Michigan. Prior to collecting a grab vapor sample from the sample and compliance points, locations will be screened with a Landtec GEM 2000 to determine if methane is present. Grab vapor samples will be collected from sewers at manhole locations using tubing attached to one-liter SUMMA® canisters. Sewers with grated lids will be sampled 24 to 48 hours after a vapor barrier has been applied to the opening. Collection of vapor samples from the sewers will be weather dependent to avoid isolate potential flooding. A small opening will be made in the liner 24-48 hours after the vapor barrier has been applied. Tubing will be placed through the opening in the manhole down to the opening of the pipe, but above any water in the sump. If no hole is present, the sewer manhole will be lifted slightly to allow the entry of the tubing into the sewer. Samples will be collected from the sewer via the tubing into the SUMMA® canister and analyzed for site-related constituents of concern (COCs) via United States Environmental Protection Agency (USEPA) Method TO-15. During the vapor sampling event, one field duplicate will be collected.

Assessment of LTP Sanitary Layout

During the third sampling event, Arcadis will also conduct an assessment of the sanitary layout at the LTP as shown on **Figure 1**. This will include verification of all overhead and underground sanitary sewer lateral connections inside and outside of the LTP building and documentation of any P-traps and drains within the LTP. The LTP assessment will provide a comprehensive understanding of the potential pathways where vapors from the sanitary sewers could migrate into the LTP.

Additionally, during the third sampling event, Arcadis will survey manhole rims, inverts, and sumps for any additional sampling locations that were not previously surveyed in an effort to understand the relationship between the depth of the sanitary sewer and the elevation of impacted groundwater.

Schedule

The third sewer sampling event and assessment of the LTP sanitary layout is anticipated to start on December 14th, 2020 and continue through December 18th, 2020. It should be noted that the utility corridor sampling as outlined in the RespAP will be completed concurrently with this additional SOW. The table below, pending any delays or complications, shows the schedule.

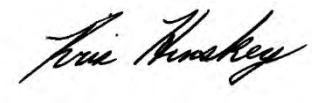
Monday	Tuesday	Wednesday	Thursday	Friday
December 14th: Recon of newly proposed onsite manholes; install vapor barriers; Onsite sampling	December 15th: Complete onsite sampling; begin offsite sampling (original RespAP SOW)	December 16th: Continue offsite sampling; Recon of sanitary layout in LTP	December 17th : Continue offsite sampling; Recon of sanitary layout in LTP	December 18th : Complete offsite sampling; Recon of sanitary layout in LTP; Manhole surveying

Closing

If you have any questions or concerns please do not hesitate to contact me by email at Kristoffer.Hinskey@arcadis.com or by phone at 248-994-2240.

Sincerely,

Arcadis of Michigan, LLC



Kristoffer Hinskey
Certified Project Manager

Copies:
File

Enclosures:

Figures

1 Site Sewer Sampling Locations

FIGURE

LEGEND

- APPROXIMATE COMPLIANCE POINT SAMPLING LOCATION
- APPROXIMATE SAMPLING LOCATION

SURVEY POINTS

- STORM CATCH BASIN
- CHAMBER
- SANITARY MANHOLE
- SANITARY MANHOLE / COULD NOT OPEN
- STORM MANHOLE
- PROPERTY BOUNDARY
- FORD PROPERTY BOUNDARY
- FLOW DIRECTION
- STORM WATER LINE
- SANITARY SEWER LINE

NOTES:

EDC = EASTERN DIVERSION CHAMBER

WDC = WESTERN DIVERSION CHAMBER

EGLE = DEPARTMENT OF ENVIRONMENT, GREAT LAKES & ENERGY

SAMH = SANITARY MANHOLE

SL = SAMPLING LOCATION

0 150 300

SCALE IN FEET

AMRHEIN RD
COMMERCE ST
LEVAN RD
ROSATI AVE
BEACON ST
BOSTON POST ST
STANDISH ST
BELDEN CT
YALE ST
PLYMOUTH RD
SAMH-1255
SAMH-1258
SAMH-1256
SAMH-1245
SAMH-1244
SAMH-1231
WESTERN DIVERSION CHAMBER
WDC
EDC
EASTERN DIVERSION CHAMBER
SL-2
SL-3

FORD MOTOR COMPANY
LIVONIA TRANSMISSION PLANT
LIVONIA, MICHIGAN

SITE SEWER SAMPLING LOCATIONS

ARCADIS Design & Consultancy for natural and built assets

FIGURE 1

CITY: Novi DIV: ENV DB: MG PIC: R. ELLIS PM: K. HINSKEY PROJECT NUMBER: 30050315 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
T:_ENV\Novi\Brighton_Mill\Ford\Livonia\GIS\docs\GEC\3Q_2020\Ford Utility Corridor\Figure 1_Site_Sewer_Sampling_Locations.mxd PLOTTED: 11/20/2020 9:08:16 AM BY: mali00749

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