TRANSMITTAL LETTER



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Copies:			Date: July 31, 2	2024	
Subject: Livonia Transmission Plant EGLE Site ID No. 82002970 Schlaufmanj1@michigan.gov Quarterly Residential Mitigation Update Letter			Arcadis Projec 3020616	ct No.: 9	
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SUBJECT Ford Livonia Transmission Plant-Quarterly Residential Mitigation Update Letter 36200 Plymouth Road, Livonia, District Office Wayne County, Michigan то

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EGLE Site ID No. 82002970

DATE July 31, 2024

DEPARTMENT Environment **PROJECT NUMBER** 30206169.0201.02

NAME Kris Hinskey Kristoffer.Hinskey@arcadis.com

On behalf of Ford Motor Company (Ford), Arcadis of Michigan, LLC (Arcadis) has prepared this quarterly update letter to the interim preemptive mitigation (IPM) system installations for the Livonia Transmission Plant (LTP) site (the site) as requested by Michigan Department of Environment, Great Lakes, and Energy (EGLE) via email on May 26, 2019 and on July 26, 2019. As discussed during the meeting with EGLE on October 22, 2020 and documented in the November 30, 2020 letter from EGLE, Ford is providing the mitigation updates on a quarterly basis, with this quarterly update covering the quarter of April through June 2024.

As of June 30, 2024, the following progress has been made at 33 residential properties in the Alden Village subdivision:

- 33 of 33 IPM systems are designed. 31 of 33 are installed and operating. The status of the remaining 2 are described below:
 - 12124 Boston Post: Between 2018 and 2020, four rounds of sub-slab and indoor air samples were collected from this residence with results below EGLE residential sub-slab volatilization to indoor air criteria. The property owner refused the installation of the mitigation system because no vapor impacts were detected inside or under the residence by the vapor samples collected. Ford and Arcadis will follow the process outlined in the consent decree to request for an alternative monitoring plan in lieu of mitigation in a remedial action plan.
 - 12121 Boston Post: Arcadis has not been granted access to this property and a groundwater monitoring plan is in place in lieu of mitigation.
- 10 of 10 sheds where Retro-Coat[™] has been proposed have had it applied to the floor. 10 of 10 garages have had Retro-Coat[™] applied to the floor.

Ford has established an Electrical Reimbursement Program to reimburse residents for the electrical costs associated with the operation of interim preemptive mitigation systems. The Electrical Reimbursement Program is administrated by Arcadis on behalf of Ford. Electrical reimbursements will continue to be processed and distributed on a quarterly basis.

As described in the EGLE letter dated February 1, 2019, EGLE required for the entirety of the residential structure floor to be depressurized to a minimum of -0.02 inches of water column (iwc) for the residential interim preemptive mitigation systems. Due to various reasons such as competency of the slab and subgrade obstructions, -0.02 iwc could not be met for select homes. The issue was discussed with EGLE who ultimately recommended the

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installation of vacuum transmitters at these structures. The transmitters continuously monitor the presence of vacuum below the slab to confirm that a negative differential pressure is being maintained which may be less than -0.02 iwc. The graphs of the continuously monitored differential pressure at these structures are depicted below. Arcadis continues to work diligently to maintain the interim preemptive mitigation systems.

Details are provided below for all 33 locations.

Interim Preemptive Mitigation Systems Currently Operating

- **34380 Beacon** The system is currently in operation and is being maintained and monitored. The fourth annual Operations Maintenance and Monitoring (OM&M) event was completed on April 3, 2024. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc.
- 34424 Beacon The system is currently in operation and is being maintained and monitored. The fourth annual OM&M event was completed on March 13, 2024. All monitoring points achieved the performance metric established by EGLE of -0.02 iwc. During the OM&M check, Arcadis noted cracking in the concrete slab of the shed resulting in damage to the Retro-Coat ®. The concrete slab of the shed has settled and is not repairable without major structural updates or replacement. The damaged concrete pad is being evaluated for repairs and recommendations will be included in the remedial investigation report (RIR) and response activity plan (RAP) which are currently being drafted. The interim preemptive mitigation system installed at this home was installed presumptively; and to date, no pre- or post-mitigation indoor air samples collected from within the residence have identified detections that exceed the residential indoor air recommended interim action screening levels. Additional details regarding the vapor intrusion assessment will be provided in the RIR.



34424 Beacon Detached shed with Retro-Coat ®, photographs taken on March 13, 2024.

• 34450 Beacon – The system is currently in operation and is being maintained and monitored.

On April 17, 2024, following a rain event that produced more than 1 inch of rain in a 24-hour period, Arcadis inspected the barrier and did not observe any water to remove. Vacuum influence measurements were collected following the rain inspection and readings exceeded the performance metric established by EGLE of -0.02 iwc except for SSMP-1 which is continuously monitored by a vacuum transmitter.

• 34550 Beacon - The system is currently in operation and is being maintained and monitored.

On April 17, 2024, Arcadis responded to a property owner's notification that the insulation and jacketing on mitigation piping was damaged and needed repairs. Arcadis inspected the mitigation pipe and noted the

piping did not have any damage and confirmed the system continued to operate. Arcadis reinstalled and repaired the insulation and jacketing on mitigation piping located in the garage.



34550 Beacon: Damaged insulation and jacketing (left). Repaired insulation and jacketing (right).

• 34591 Beacon – The system is currently in operation and is being maintained and monitored.

On April 17, 2024, following a rain event that produced more than 1 inch of rain in a 24-hour period, Arcadis inspected the barrier and did not observe any water to remove. Vacuum influence measurements were collected following the rain inspection and readings exceeded the performance metric established by EGLE of -0.02 iwc except for SSMP-1 which is continuously monitored by a vacuum transmitter.

An update of the data logged by the vacuum transmitter connected to SSMP-1 is presented below. Throughout the second quarter, there were two brief positive vacuum readings recorded by the vacuum transmitter. Arcadis monitored the vacuum readings and the vacuum readings returned to normal negative levels.



A zoomed in view of the data log below shows negative vacuum levels are being maintained.



• **34600 Beacon** – The system is currently in operation and is being maintained and monitored. The fourth annual OM&M event was completed on May 10, 2024. No damage was observed to the Retro-Coat[™] in the basement. In the garage, Arcadis repaired a hairline crack by sealing the crack with urethane caulk.



34600 Beacon - Two photographs above show the garage crack (left) and repairs to the crack using urethane caulk (right).

- **34644 Beacon** The system is currently in operation and is being maintained and monitored.
- **34682 Beacon** The system is currently in operation and is being maintained and monitored. The fourth annual OM&M event was completed on April 24, 2024. Vacuum influence measurements were collected, and all readings exceeded the performance metric established by EGLE of -0.02 iwc except for MP-5 which is constantly monitored by a vacuum transmitter.

An update of the data logged by the continuously monitored vacuum transmitter connected to sub-membrane monitoring point MP-5 is presented below. From April 16, 2024, through April 20, 2024, and again from April 26, 2024, through May 18, 2024, the transmitter power was disconnected due to ongoing renovations at the home. According to the property owner, the home is not occupied while renovations are occurring.



Below is a zoomed in portion of the data plot showing the IPM system continuing to maintain vacuum level at the monitoring point which is typical of normal operation at this property.



Monitoring in accordance with the EGLE-approved property-specific monitoring program is underway. Second quarter 2024 groundwater sampling results for vinyl chloride were non-detect at MW-115S and did not exceed the historic high of $3.9 \ \mu g/L$ observed in November 2019. The vinyl chloride concentrations were non-detect at MW-155S and did not exceed the groundwater screening level of $1.0 \ \mu g/L$. MW-154S was not accessible at the time of sampling. Therefore, additional sub-slab sampling was not required.

- 34920 Beacon The system is currently in operation and is being maintained and monitored.
- 34940 Beacon The system is currently in operation and is being maintained and monitored.

Arcadis consulted with the Retro-Coat ® manufacturer, Land Science, and installation contractor to review procedures to complete repairs to the Retro-Coat ® applied in the basement at the property. The repair process included cleaning and removal of deposits, scouring the existing Retro-Coat ® surface by sanding the surface, followed by a single application of 10 mils of Retro-Coat ®. On April 24, 2024, Arcadis and the installation contractor made repairs to the deposits and depressions located in the western portion of the basement. On April 25, 2024, following approximately 20 hours of cure time, Arcadis and the installation contractor inspected the cured Retro-Coat ®, and noted the reappearance of some of the depressions in cured the Retro-Coat ®.



34940 Beacon – Two photographs showing the applied Retro-Coat ® in the western portion of the basement. Photographs taken on April 24, 2024.



34940 Beacon – Two photographs showing the cured Retro-Coat ® and the pinhole depressions in the recently applied Retro-Coat ®. Photographs taken on April 25, 2024.

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Arcadis consulted with the Retro-Coat [®] manufacturer for an explanation and further repair methods after the reappearance of depressions after the repair in April. Following review of the repair process, it was decided that in addition to the steps taken during the first repair, as recommended by the manufacturer, an additional step of sealing the depression with urethane caulk would be completed. On June 14, 2024, Arcadis applied urethane caulk to the depressions after removing any sediment debris and cleaning the surface.



34940 Beacon – Two photographs showing the applied urethane caulk sealing the pinhole depressions in the Retro-Coat [®]. Photographs taken on June 14, 2024.

Arcadis has scheduled a follow up visit on July 25, 2024, to inspect the basement floor repairs and take vacuum readings. Detail regarding this follow up visit will be included in the third quarter update letter.

• 34950 Beacon – The system is currently in operation and is being maintained and monitored.

 34990 Beacon – The system is currently in operation and is being maintained and monitored. An update of the data logged by the vacuum transmitter connected to MP-7 is presented below.



• **12066 Boston Post** – The system is currently in operation and is being maintained and monitored.

On April 17, 2024, following a rain event that produced more than 1 inch of rain in a 24-hour period, Arcadis inspected the barrier and did not observe any water to remove. Vacuum influence measurements were collected following the rain inspection and readings exceeded the performance metric established by EGLE of -0.02 iwc.

• **12067 Boston Post** – The system is currently in operation and is being maintained and monitored.

On April 17, 2024, following a rain event that produced more than 1 inch of rain in a 24-hour period, Arcadis inspected the barrier and did not observe any water to remove. Vacuum influence measurements were collected following the rain inspection and readings exceeded the performance metric established by EGLE of -0.02 iwc.

An update of the data logged by the vacuum transmitter connected to MP-1 is presented below.



- **12070 Boston Post** The system is currently in operation and is being maintained and monitored.
- **12089 Boston Post** The system is currently in operation and is being maintained and monitored.

12100 Boston Post – The system is currently in operation and is being maintained and monitored. An update
of the data logged by the vacuum transmitter connected to sub-slab monitoring point SSMP-4 is presented
below.



Monitoring in accordance with the EGLE-approved property-specific monitoring program is underway. Second quarter 2024 groundwater sampling results for vinyl chloride were non-detect at MW-115S and did not exceed the historic high of 3.9 μ g/L observed in November 2019. The vinyl chloride concentration was non-detect at MW-79SR which did exceed the historic high of 1.5 μ g/L observed in November 2023. The vinyl chloride concentration was non-detect at MW-156S did not exceed the groundwater screening level of 1.0 μ g/L.

• 12131 Boston Post – The system is currently in operation and is being maintained and monitored.

On June 6, 2024, Arcadis responded to the property owner's notification that the system fan was making a grinding noise. Arcadis cleaned out the inside of the fan removing fine sand and dirt, improving the noise level of the fan. The property owners notified Arcadis that the fan noise returned after the cleaning. Arcadis scheduled a fan replacement with support from an electrician. The replacement Force Fan was installed on June 14, 2024, and the grinding noises were eliminated.



12131 Boston Post: Removal of the damaged fan (left). Replacement AMG Force Fan installed (right). The update of the data logged by the vacuum transmitter connected to MP-4 is presented below.



• 12141 Boston Post - The system is currently in operation and is being maintained and monitored.

The fourth annual OM&M event was completed on May 30, 2024. Vacuum influence measurements were collected, and all readings exceeded the performance metric established by EGLE of -0.02 iwc except for MP-4 which is constantly monitored by a vacuum transmitter. An update of the data logged by the vacuum transmitter connected to MP-4 is presented below. The vacuum transmitter returned positive vacuum influence readings between May 28, 2024, to June 2, 2024. Arcadis received alarm notice that the fan was turned off during this period. Vacuum influence readings returned to normal levels as shown below after June 2, 2024.



- **12017 Brewster** The system is currently in operation and is being maintained and monitored. The property owner has not been available to conduct the annual monitoring event in second quarter. Arcadis has completed the fourth annual OM&M event on July 25, 2024. Detail regarding this annual OM&M event will be included in the third quarter update letter.
- **12036 Brewster** The system is currently in operation and is being maintained and monitored. An update of the data logged by the vacuum transmitter connected to SSMP-2 is presented below.



• **12075 Brewster** – The system is currently in operation and is being maintained and monitored.

On April 17, 2024, following a rain event that produced more than 1 inch of rain in a 24-hour period, Arcadis inspected the barrier and removed approximately three gallons of water which had entered through the crawlspace entrance due to the recent precipitation. Vacuum influence measurements were collected following the rain inspection and readings exceeded the performance metric established by EGLE of -0.02 iwc.

• **12088 Brewster** – The system is currently in operation and is being maintained and monitored.

On April 17, 2024, following a rain event that produced more than 1 inch of rain in a 24-hour period, Arcadis inspected the barrier and did not observe any water to remove. Vacuum influence measurements were collected following the rain inspection and readings exceeded the performance metric established by EGLE of -0.02 iwc.

• 12091 Brewster – The system is currently in operation and is being maintained and monitored.

• 12101 Brewster – The system is currently in operation and is being maintained and monitored.

On April 17, 2024, following a rain event that produced more than 1 inch of rain in a 24-hour period, Arcadis inspected the barrier and did not observe any water to remove. Vacuum influence measurements were collected following the rain inspection and readings exceeded the performance metric established by EGLE of -0.02 iwc.

- 34367 Capitol Avenue The system is currently in operation and is being maintained and monitored.
- 34380 Capitol Avenue The system is currently in operation and is being maintained and monitored.
- 34401 Capitol Avenue The system is currently in operation and is being maintained and monitored.

On April 17, 2024, following a rain event that produced more than 1 inch of rain in a 24-hour period, Arcadis inspected the barrier and removed approximately one gallon of water which had entered through the crawlspace entrance due to the recent precipitation. Vacuum influence measurements were collected following the rain inspection and readings exceeded the performance metric established by EGLE of -0.02 iwc.

34424 Capitol Avenue – The system is currently in operation and is being maintained and monitored. The
tenant has not been available to conduct the monitoring event in second quarter. Arcadis has completed the
fourth annual OM&M event on July 25, 2024. Detail regarding this annual OM&M event will be included in the
third quarter update letter.

Monitoring in accordance with the EGLE-approved property-specific monitoring program is underway. Second quarter 2024 groundwater sampling results for vinyl chloride were non-detect at MW-90S, MW-103S, and MW-169S and did not exceed the groundwater screening level of $1.0 \ \mu g/L$. The vinyl chloride concentration was non-detect at MW-136S and did not exceed the historic high of $3.2 \ \mu g/L$ observed in November 2020. The vinyl chloride concentration was non-detect at MW-148S and did not exceed the historic high of $2.3 \ \mu g/L$ observed in November 2020. The vinyl chloride concentration was non-detect at MW-148S and did not exceed the historic high of $2.3 \ \mu g/L$ observed in November 2020. Therefore, additional sub-slab sampling was not required.

- 34450 Capitol Avenue The system is currently in operation and is being maintained and monitored.
- 34480 Capitol Avenue The system is currently in operation and is being maintained and monitored.

An update of the data logged by the vacuum transmitter connected to SSMP-2 is presented below. Throughout the second quarter, there were a single brief positive vacuum readings recorded by the vacuum transmitter. Arcadis monitored the vacuum readings and the vacuum readings returned to normal negative levels.



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Interim Preemptive Mitigation Systems Not Installed

- 12124 Boston Post –Three rounds of pre-mitigation indoor air and sub-slab data have been completed. No
 detections of vinyl chloride were reported in any of the samples. Additionally, all groundwater samples from
 the closest upgradient monitoring well MW-118S were non-detect in the second quarter of 2024 and have
 been below the groundwater screening level of 1.0 μg/L.
- **12121 Boston Post** Under the supervision of EGLE, Ford is continuing to monitor groundwater proximate to the home to accommodate the homeowner's refusal to grant access to their property for other investigation, characterization, or mitigation activities.