



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
SOUTHEAST MICHIGAN DISTRICT OFFICE



C. HEIDI GREETHER
DIRECTOR

August 30, 2018

Ford Motor Company
c/o Mr. Todd M. Walton
Fairlane Plaza North, 8F
290 Town Center Drive
Dearborn, Michigan 48126

Dear Mr. Walton:

SUBJECT: Compliance with Consent Decree No. 2:1712372-GAD-RSW
Response Activity Plan-Remedial Investigation
Ford - Livonia Transmission Plant
36200 Plymouth Road; Livonia, Wayne County, Michigan
MDEQ Site ID No. 82002970

The Michigan Department of Environmental Quality (MDEQ), Remediation and Redevelopment Division, has reviewed the Response Activity Plan-Remedial Investigation submitted by Ford Motor Company (Ford) in accordance with Section 6.7 of the Consent Decree entered into by the MDEQ and Ford on July 27, 2017. The response activity plan for conducting remedial investigations was submitted by Arcadis of Michigan, LLC on the behalf of Ford on April 13, 2018. Section 13.2 of the Consent Decree requires MDEQ to review the submission and (a) approve the submission; (b) approve the submission with modifications; or (c) disapprove the submission and notify the Defendant of the deficiencies in the submission.

Based on MDEQ review, the Response Activity Plan-Remedial Investigation is approved with the following modifications:

- **Section 1 – Schedule:** Modify proposed schedule for the investigation of the utility corridors to include three steps based on the time necessary to perform each step:
 1. 1-2 months for investigations that include: closed-circuit television; diversion chamber sediment samples; systematic evaluation for development of sampling program.
 2. 1-2 months to design a sampling program based on the evaluation of data from the investigation proposed in step one.
 3. 2-4 months for completion of a sampling program and results of the risk assessment conducted for the utility corridors.
- ❖ Ford may set dates above as necessary or required based on their work plan, but the total period of all three tasks is not to exceed six (6) months, as currently proposed in the Response Activity Plan for conducting remedial investigations.
- **Section 2 – On-site Remedial Investigations:** On-site groundwater samples collected as part of routine monitoring shall be compared to site-specific criteria for the volatilization to indoor air pathway, or the analytical method target detection limits where appropriate in addition to the drinking water criteria. Additionally, Ford

is required to demonstrate their compliance with MIOSHA and Due Care obligations pursuant to Section 20107a of Part 201 of the Natural Resources and Environmental Response Act (Act 451) of 1994.

- **Section 2 – Potential Source (PS)-2 Evaluation (Figure 4):** Additional borings are needed within the interior of the Livonia Plant Transmission building to further identify the locations of potential sources beneath the building, between potential sources PS-2 and PS-6, as identified on Figure 4, based upon the high method detection limits for samples collected from the series of borings identified as LMW-15
- **Section 2 – Northwest Corner Evaluation (Figure 6):** The four to six borings beneath the structure identified as proposed “adaptive borings” should be identified as proposed borings. If delineation of the contamination is determined insufficient based on observations during the construction of these four to six borings, additional adaptive borings should be added as necessary.
- **Section 4 – Off-Site Remedial Investigations (parallel to proving model in 6.6b):**
 - To prove the groundwater plume model, additional monitoring wells will be added between the location where the groundwater contaminant plume has been delineated to the extent that the concentrations in groundwater are less than the analytical method target detection limits, and the 100’ lateral inclusion zone. The monitoring wells will be added at intervals, as required to prove the model. If contamination in the groundwater is found above site-specific criteria or analytical method target detection limits, whichever is appropriate, this will initiate modifications to the groundwater plume model and the establishment of a new 100’ lateral inclusion zone. All properties within the newly established 100’ lateral inclusion zone will be incorporated into the area to be investigated.
 - To prove the model, Ford shall add nested or paired groundwater monitoring wells at the locations of the existing monitoring wells that are not currently screened to interest the top of the water table and are being used by Ford to extrapolate vinyl chloride levels to the analytical method target detection limit or assess plume stability. The monitoring wells will be monitored and sampled in accordance with the MDEQ 2013 VI Guidance document as part of the continuing site investigation to determine the stability of the groundwater plume.
 - During sampling, prioritization of homes will be based upon risk. As an example, homes with basements which have taken on standing water in the past should be a higher priority. The MDEQ has a non-exhaustive list of these homes. Ford shall obtain this information from the MDEQ, determine any additional residences with these conditions, and make these properties a priority in their investigation, along with other properties with basements. If results from sump water or other standing water indicates an exceedance of criteria the MDEQ should be contacted within 24 hours and immediate response activities may be required.
- **Section 4 – Proposed Groundwater Sampling Response Activity Plan:** MDEQ staff will provide random and occasional oversight of sampling procedures and methodology; including split sampling for testing at the MDEQ laboratory.
- **Section 4 – North of LTP Property:** Place a boring north of the boring identified as HPT-179 to delineate (soil, groundwater or both) contamination in this area. It may

- be appropriate to place the boring on the Ford-Livonia Transmission Plant property, with proposed off-site adaptive borings.
- **Section 5 – Routine Monitoring:** The data for groundwater samples from on-site monitoring wells collected as part of routine monitoring shall be compared to site-specific criteria, or analytical method target detection limits where appropriate, in addition to the drinking water criteria.
 - **Section 5 – Routine Monitoring:** As required in Attachment 1 of the November 13, 2017, Conceptual Site Model approval, Ford shall develop figures showing aerial and cross-sectional views of the extent of Dense Non-Aqueous Phase Liquid (DNAPL) beneath the plant property, and off-site if applicable.
 - **Section 5 – Routine Monitoring:** MDEQs understanding is that Ford has been testing for 1,4-Dioxane in offsite groundwater samples. This is supported by table data in quarterly reports. Ford shall also include with these reports a figure demonstrating on-site and off-site 1,4-Dioxane concentrations.
 - **Section 8 – Off-site Residential and Irrigation Wells:** Ford shall notify the MDEQ and the City of Livonia of the presence and location of existing residential or irrigation wells and shall provide a plan for obtaining permission from the respective property owners for the subsequent abandonment of any such wells, in accordance with Section 6.7 of the Consent Decree. This shall be done within 30 days of discovery of a well. This includes the currently known well east of Stark, if any future sampling indicates impact to this well above relevant criteria.
 - MDEQ has been informed of at least two properties with active irrigation wells. Please contact the MDEQ for this information as Ford is required to remove these pursuant to the consent decree. If additional properties have wells Ford should remove these wells on an expedited basis.
 - **General Comment:** Acknowledge and incorporate the necessary requirements to prove the groundwater plume model as proposed in MDEQ's review comments provided in response to the submittal of the Response Activity Plan-Vapor Intrusion Evaluation.
 - **General Comment:** While the response activity plan for conducting remedial investigations notes this, the MDEQ further stresses the need for adaptive borings, both for density and location, based on observations made in the field and evaluation of laboratory data gathered during the ongoing and proposed investigations.

If the above modifications are not undertaken or accomplished, the MDEQ's approval with modifications of the Response Activity Plan-Remedial Investigation is withdrawn. The MDEQ's approval with modifications is also contingent upon **Ford Motor Company's** timely implementation of these response activities, in accordance with the schedule provided in the Response Activity Plan-Remedial Investigation.

While groundwater screening levels for vinyl chloride and trichloroethylene (TCE) are based on the Target Detection Limit (TDL), as required under Part 201 of Act 451 of 1994, Natural Resources and Environmental Protection Act Sec. 20120a(10), it should be noted that TDLs are subject to change. It is strongly encouraged that to preserve future reliability of data, Method Detection Limits and Reporting Limits below the TDL be used whenever possible. Screening levels are defined, even if TDLs do not permit for the immediate enforcement of these levels. Ford may also consider additional source control requirements or additional Hydraulic Control Structure (HCS) analysis and reporting requirements, for the

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approval of a future RAP. Ford may wish to begin implementation of these efforts now. It is unclear if the HCS sufficiently controls the source based on the limited data on the structure. The MDEQ requests information for the HCS, including but not limited to: as-built drawings of the design and construction of the system, performance objectives for the HCS, performance monitoring that demonstrates system operation and that the system controls groundwater flow vertically and laterally.

Pursuant to Paragraph 6.6(a)(ii)(H) of the Consent Decree, the conceptual site model should be revised as appropriate to include investigation data collected at the Property and area of concern as directed by the MDEQ. Please provide an update on the progress Ford has made to address the data gaps identified in the attachment to the November 13, 2017, and July 2, 2018, letters from MDEQ to Ford and a timeline to outline when remaining data gaps will be filled, within 14 days of receipt of this letter.

MDEQ's approval with modifications of the submission (Response Activity Plan-Remedial Investigation) is based upon the representations and information contained in the submittal, therefore the MDEQ expresses no opinion as to whether other conditions that may exist will be adequately addressed by the proposed response activities. Notwithstanding this approval with modifications, if environmental contamination is found to exist that is not addressed by the Response Activity Plan-Remedial Investigation and Ford is otherwise liable for the contamination, additional response activities may be necessary.

Pursuant to Paragraph 13.2, upon receipt of a notice of approval or approval with modifications from the MDEQ, the Defendant shall proceed to take the actions and perform the response activities required by the Submission, as approved or as modified, and shall submit a new cover page and any modified pages of the Submission marked "Approved."

If Ford should have further questions or concerns, please contact Brandon Alger, Remediation Division, Southeast Michigan District Office, at 586-753-3826.

Sincerely,



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Remediation and Redevelopment Division
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cc: Mr. Kris Hinskey, Arcadis of Michigan, LLC
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