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STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
SOUTHEAST MICHIGAN DISTRICT OFFICE



C. HEIDI GREYHER
DIRECTOR

March 9, 2018

CERTIFIED MAIL – 7016 1970 0001 1234 1807

RECEIVED MAR 16 2018

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

Dear Mr. Walton:

SUBJECT: Disapproval of the Response Activity Plan for:
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 (RRD), has reviewed the Response Activity Plan for Livonia Transmission Plant "Response Activity Plan – Remedial Investigation" for the Ford Livonia Transmission Plant submitted by Arcadis U.S., Inc. on behalf of Ford Motor Company on December 13, 2017. The Response Activity Plan was submitted pursuant to the Consent Decree, File No. 2:1712372-GAD-RSW, entered between the MDEQ and the Ford Motor Company and filed into the United States District Court on July 22, 2017 (CD). In accordance with the CD, the Response Activity Plan-Remedial Investigation must comply with Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Based on MDEQ's review, the Response Activity Plan (ResAP) is disapproved pursuant to Paragraph 13.2(c) of the CD.

The ResAP for the Facility at 36200 Plymouth Road, Livonia and associated Area of Concern has been disapproved for the following reasons:

- **Groundwater Sampling:** In the MDEQ 2013 VI Guidance Document, Section 3.2.2, Page 3-4, indicates, "*Contaminants at the water table, rather than deeper contamination, are responsible for causing potential VI problems. Hence, monitoring wells used to make VI evaluations should be screened across the air-water interface. Therefore, it is important to make sure that the well screens are not submerged below the water table.*" Based on MDEQ's review of the Q4 monitoring report, 17 of 20 off-site monitoring wells do not intersect the water table. To adequately evaluate the VIAP pathway from groundwater the screens need to intersect the water table. Using the existing data to screen out homes may be premature. Please address how or if this will be resolved in the ResAP.
- **Soil-gas sampling:** As indicated by Paragraph 6.6(b)(i) of the CD, the "...Response Activity Plan to assess VI risks to identify any unacceptable human health risks from volatilization to indoor air of COCs within the AOC"
- Page 4-1 of the MDEQ's VI Guidance recommends installing soil-gas wells, "at least five feet below grade with at least a two-foot separation above the water table." At this site, groundwater is shallow enough that soil-gas wells may not yield reliable data to characterize soil-gas. The ResAP needs revisions with consideration to the following:

- **Off-site:** Ford should determine how to assess VIAP with the shallow groundwater table – building information will be critical in assessing VIAP properly. For example, if a slab on grade structure is present, they might be able to use vapor pins for assessing VIAP
 - **Off-site:** For structures with basements, there may be immediate need to assess mitigation since groundwater could potentially be in contact with the basement floor, unless data can reliably prove otherwise.
 - **On-site:** There is LNAPL beneath most of the LTP building. The LNAPL plume should be delineated or presumed to be present under the entire LTP building. If the plume is under the entire LTP building, the entire building will need to be mitigated.
 - Have other lines of evidence beyond an oil shake test been performed? This needs to be included to assess if NAPL is present or not. Multiple lines of evidence are needed.
 - For proposed VIAP samples, collect one at the top of the water table, directly below the LNAPL. Take note of LNAPL thickness, where present.
 - As additional data becomes available, this needs to remain current, according to Paragraph 6.6(a)(ii)(H).
 - **Sitewide:** Indicate that oxygen and carbon dioxide concentrations will be collected when sub-slab soil-gas samples are collected.
- **Indoor Air:** Indoor air sampling is not regulated by the MDEQ. Our expectation is that sub-slab soil gas needs be below screening levels and if it exceeds or is not possible to sample (due to groundwater in contact), that mitigation plans would be expected in the Response Activity Plan under Paragraph 6.6(b)(ii). The MDHHS may request or provide alternative direction, and this should be followed, but MDEQ's requirement is to investigate and determine risk using sub-slab soil gas samples and mitigate if a known or potential risk is shown.
 - **Scheduling:** Paragraphs 6.6(b)(ii) and 6.7(a)(iii) of the CD discuss scheduling. Specifically, 6.6(b)(ii) requires, "The Response Activity Plan for mitigation of VI risks shall include a schedule for the implementation of necessary mitigation ... Implementation schedules for conducting the response activities and for submission of progress reports and an IRA report." For the other ResAP, 6.7(a)(iii) requires, "Preliminary implementation schedules for conducting the response activities and for submission of progress reports and an RI Report." The MDEQ expects at a minimum this schedule should include discussion on which tasks will begin first and what date they will begin, which tasks will run concurrently and when they will begin, an estimate on when RI tasks will be completed, and when an RI-Report will be submitted. Immediate attention should be given to obtaining access and getting into homes as quickly as possible, to sample soil-gas. Every effort needs to be made to obtain access and sample homes as quickly as reasonably possible, even if this requires multiple mobilizations.
 - It should not take seven months to delineate off-site groundwater.
 - The "Unknown" timeframe provided for off-site VIAP evaluation is not acceptable.
 - Additional detail related to scheduling can be found in Paragraphs 6.6(b)(i), 6.6(c)(i), and 6.7(a)(iii) of the CD.
 - **Access:** The proposed ResAP contains a section about obtaining access. The proposed plan for obtaining access for off-site properties in the ResAP should comply with the requirements of the CD.

- Paragraph 6.6(H)(c)(ii) of the CD requires a plan for obtaining access to properties not owned by Ford to perform the required investigations and response activities. According to the CD, Ford has 60 days after approval of the ResAP to secure access or take the necessary judicial action to secure access. Ford needs to provide to the MDEQ documentation that such judicial action has been filed in the court of the appropriate jurisdiction no later than 60 days after the MDEQ's approval of the ResAP. Section 7.2 also has requirements for access that should be complied with.
 - Upon receipt of access, the plan should specify the time from when access is received to when work will be conducted and completed. This should be communicated to the MDEQ and residents granting access.
 - Provide MDEQ and residents a specific time from when access is received to when work will be conducted and completed.
 - Due to concerns with groundwater and soil-gas data sets, excluding homes from the area of investigation and a need for an access request at this point may be premature. A presumptive approach should be used for requesting access until reliable and accurate data is available to determine the extent of the vapor plume and the 100' lateral exclusion zone.
 - VIAP needs to be assessed for every receptor and potential receptor. This means assessing VIAP on vacant parcels, unless a deed restriction including VIAP language for future buildings is planned or present for that parcel. Some properties were not included in the ResAP – based on available data it is premature to exclude these properties.
- **Visual Property Survey:** Related to access, during door to door delivery and requests for access, Ford representatives should conduct a limited property survey of each property. This could help in determining basement presence if no access or information is provided. Are there basement windows? Elevated porch? Wells in front yard? This should respect resident privacy and be limited to only that which can be observed from the public Right of Way.
 - **Abandoning Wells:** In Paragraph 6.7(a)(viii) of the CD, Remedial investigation must include, "a list of any on-site and off-site drinking water or irrigation wells within the impacted areas, and plans for their abandonment, if determined appropriate." This information should be included in the ResAP.
 - **Emergency Response:** Paragraph 6.6(d)(iii) requires that if data indicates an immediate vapor intrusion risk is present, immediate action will be taken in consultation with the MDEQ. Section 9.1 also requires the immediate undertaking of "*all appropriate actions to prevent, abate, or minimize such release, threat of release, or exacerbation*". Within the ResAP, identify that this will be part of the IRA should any data collected indicate an immediate risk to human health from volatilization of COCs into indoor air within the AOC.
 - **Waste Management:** Per Paragraph 6.7(a)(vi), of the CD, Remedial Investigation must include, "A description of the nature and amount of waste materials expected to be generated during the performance of response activities and the name and location of the facilities the Defendant proposes to use for the offsite transfer, storage, and treatment or disposal of those waste materials." The "Waste Management" sections of the ResAP should include estimated amount of waste materials.
 - **Boring Density/Adaptivity:** The ResAP should clearly indicate the intent of adaptive borings based on field observation and screening. Also, some proposed

boring/monitor well densities may not provide adequate characterization of groundwater and soil-gas. As required in the CD, Ford should conduct the investigation to the extent required to delineate contamination. Additional borings will likely be required for the following areas and should be included in the revised ResAP:

- o **North of LTP:** The proposed spacing of 900' is not adequate.
- o **Northeast of LTP:** The proposed spacing of 1000-1200' is not adequate.
- o **Utility Corridors:** Experience has shown the fill soil around utility corridors can become a preferential pathway. Adaptive borings and investigation should take place around known utility corridors – all corridors, not only sewer. This investigation is required under Paragraphs 6.6(a)(ii)(A) and 6.7(a)(v) of the CD.

Paragraph 6.6(b) vs. Section 6.7: The ResAP submission appears to combine requirements from Paragraph 6.6(b) and Section 6.7. A separate ResAP submission is required for each CD requirement, as outlined in the CD.

Per Paragraph 13.3 of the CD, you are required to correct the deficiencies and provide the revised Submission to the MDEQ for review and approval within thirty (30) days of receipt of this notice of disapproval. Unless otherwise stated in the MDEQ's notice of disapproval, the Defendant shall proceed to take the actions and perform the response activities not directly related to the deficient portion of the Submission. Please be advised that stipulated penalties will begin to accrue upon receipt of this notice of disapproval.

The deficiencies identified in this letter are based on representations and information contained in the submittal and other information available to the MDEQ. Therefore, additional response activities may be necessary beyond those identified above, should supplementary information become available.

If you should have further questions or concerns, please contact Brandon Alger, Project Manager, Southeast Michigan District Office, RRD, MDEQ, 27700 Donald Court; 586-753-3826; algerb@michigan.gov; or you may contact me.

Sincerely,



Paul Owens, District Supervisor
Southeast Michigan District Office
Remediation and Redevelopment Division
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cc: Mr. Kris Hinskey, Arcadis of Michigan, LLC
Mr. Brian Negele, MDAG
Mr. Travis Boeskool, MDEQ
Mr. Darren Bowling, MDEQ
Ms. Cyndi Mollenhour, MDEQ
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Mr. Brandon Alger, MDEQ