



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
SOUTHEAST MICHIGAN DISTRICT OFFICE



C. HEIDI GREYER  
DIRECTOR

November 13, 2017

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

Dear Mr. Walton:

SUBJECT: Livonia Transmission Plant  
Consent Decree Reporting - Conceptual Site Model  
36200 Plymouth Road; Livonia, Wayne County, Michigan  
MDEQ Site ID No. 82002970

The Michigan Department of Environmental Quality (MDEQ), Remediation and Redevelopment Division (RRD), completed the review of the Conceptual Site Model (CSM). The CSM was submitted as part of a Consent Decree (CD) between the MDEQ and Ford Motor Company, filed on July 27, 2017. Based on our review and due to satisfying the requirements outlined in Section 6.6(a) of the CD, the initial CSM is approved.

The MDEQ makes this determination based on the established understanding that the CSM is a dynamic document which shall be updated with all new information and an expectation that all identified data gaps, and concerns expressed by the MDEQ in Attachment 1, will be addressed as part of the ongoing response activities.

This communication serves as the MDEQ's written approval of the CSM, as outlined in Section 6.7(a) of the CD. This shall begin the 30 day timeline for submission of a Response Activity Plan (RespAP) for conducting a Remedial Investigation (RI). The RespAP shall be done with intent of developing an RI Report which will contain a refined and comprehensive CSM to support the development of a Remedial Action Plan.

The MDEQ's approval of the CSM is based upon representations and information contained in the CSM and applies strictly for the Area of Concern defined in Section 4.1 of the CD. The MDEQ again expects refinement of the document as the adequate data is collected during future Remedial Investigations.

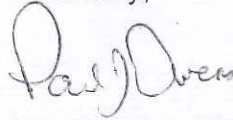
Mr. Todd M. Walton  
Ford Motor Company

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If you have additional questions regarding this matter, please contact Brandon Alger, Project Manager, at 586-753-3826, [algerb@michigan.gov](mailto:algerb@michigan.gov), or MDEQ, RRD, 27700 Donald Court, Warren, Michigan 48092; or you may contact me.

Sincerely,



Paul Owens, District Supervisor  
Southeast Michigan District Office  
Remediation and Redevelopment Division  
586-235-6990  
[owensp@michigan.gov](mailto:owensp@michigan.gov)

Enclosure: Summarized MDEQ Review Comments

cc: Mr. Kris Hinskey, Arcadis  
Mr. Brian Negele, MDAG  
Mr. Darren Bowling, MDEQ  
Mr. Gerald Tiernan, MDEQ  
Ms. Cyndi Mollenhour, MDEQ  
Mr. Brandon Alger, MDEQ





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**Livonia Transmission Plant – Consent Decree Reporting; Conceptual Site Model  
Attachment 1: Summarized MDEQ Review Comments**

- Continue with investigation of groundwater impacts including the extent of groundwater plume beneath the primary plant structure, potential vapor impacts to the eastern plant structure, out-buildings shown to be potentially impacted by groundwater sampling, off-site boundaries where groundwater in perimeter wells is above screening levels, and other Area of Concern (AOC) locations where data is shown to have not delineated groundwater to concentrations outlined in the Consent Decree (CD).
- All future sampling must use appropriate methods for Method Detection Limits (MDL) at or below provided screening levels, unless Ford is to provide, and MDEQ to approve, an alternative site-specific screening level at which point this would be the new MDL.
- Investigate and document potential utility corridors which may have become preferential pathways. Provide insight to how these corridors have been, or will be, investigated. Pay special attention to sediment outfall, migration along preferential pathways created by the sewer line, and other impacts from the former cracked storm drain at the southeastern portion of the property.
- Conclusions made about on-site VI do use multiple lines of evidence, but the MDEQ does not agree that the lines of evidence are sufficient in making the determination, made by Ford, that *"VI is likely not occurring"*
  - Indoor air sampling is highly variable and even sampling "multiple times" only provides multiple isolated snapshots.
  - A lack of a pressure gradient does not indicate VI is not occurring. To use pressure as a line of evidence, the gradient would need to be negative beneath the slab, assuring airflow from the pressurized building, to the depressurized sub-slab area.
  - The Johnson & Ettinger Model does not allow for a slab to be used as a reliable remedial activity, more information about the epoxy coating and any QA done for this would be required. An epoxy coating not designed or tested for vapor mitigation should not be assumed to be of any use.
- Proceed with design and implementation of on-site sub-slab depressurization system for on-site remedial activities; begin investigation for appropriate off-site remedial activities where it can be shown that a completed pathway may exist.
- Determine if and where the "clean water lens" is consistently reliable. From the CSM and based on discussions with Ford, it is clear that a significant part of the response is to rely upon the existence and reliability of this proposed clean water lens. This needs to be proven and well documented.
  - Establish how top and bottom of lens is defined.





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- Incorporate into future editions of the Conceptual Site Model (CSM) how we know this is stable or unstable. What is the minimum thickness in each area it is relied upon?
  - What is the source of this water? What is the long-term behavior of the water? Is this to be relied upon in perpetuity?
  - Design appropriate response activities around this greater understanding of the "clean water lens".
  - If Ford is to continue to rely upon this lens to protect residents from potential Vapor Intrusion, the MDEQ expects this lens to be defined and established as stable, reliable, and protective of any potential risk to receptors.
- Further investigate vapor intrusion pathway with continued soil-gas samples, including appropriate off-site, sub-slab, soil-gas samples to investigate composition and behavior of soil-gas beneath residential homes, and find where completed exposure pathways exist. Measure and report atmospheric barometric pressure on days of soil-gas or sub-slab sampling.
    - Off-site, sub-slab samples are going to be highly-recommended, for a determination of how soil vapor behaves beneath the structures. This won't be required for each home as appropriate selection may be extrapolated to structures better protected by the proposed clean water lens, if established, or horizontal exclusion zone (100' from screening level).
  - Demonstrate that the off-site, near-slab, soil-gas samples are representative of soil-vapor which is in contact with the groundwater, and not ambient air being pulled from above. Clearly document how this is demonstrated.
  - Summarize necessary source information to better define which sources are most problematic and estimate, to the best of your knowledge, the amount of product released at these problematic sources. If possible, include a date or range of dates when this product was released.
  - Include areal and cross-sectional delineation of DNAPL in future CSM.
  - Proceed with using the working CSM and associated updates to conduct and prepare Response Activity Plan which includes a diagram or flow chart for each potentially impacted off-site structure (within lateral inclusion zone), based on its construction and any associated contamination. Include discussion on which cases would result in which response activity if all completed pathways cannot be ruled out.