



Minnesota Pollution Control Agency

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February 4, 2013

Mr. Charles Pinter, Senior Environmental Engineer
Ford Motor Company
Environmental Quality Office
Fairlane Plaza North
290 Town Center Drive, Suite 800
Dearborn, Michigan 48126

RE: Ford Twin Cities Plant, 966 South Mississippi River Boulevard, St. Paul
MPCA VIC Project Number VP23530
MPCA PBP Project Number PB3682
Review of May 2012 Supplemental Phase II Exterior Investigation Report

Dear Mr. Pinter:

The Minnesota Pollution Control Agency (MPCA) staff in the Voluntary Investigation and Cleanup (VIC) and Petroleum Brownfield (PB) Programs has reviewed the "Supplemental Phase II-Exterior Investigation Report" (Report), dated May 31, 2012, for the Ford Twin Cities Plant site, located at the address referenced above (the Site). The Report was prepared and submitted on your behalf by Arcadis U.S., Inc. (Arcadis).

A total of 86 soil borings were completed from August to November 2011, to further evaluate exterior features at the Site. Selected soil samples were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, polychlorinated biphenyls (PCBs), diesel range organics (DRO) and gasoline range organics (GRO). Temporary monitoring wells were installed in nine of the soil borings for the collection of groundwater samples. In addition, eight permanent monitoring wells were installed in the unconsolidated materials above bedrock, to supplement the groundwater monitoring network previously installed at the Site. The groundwater samples collected during the 2011 exterior investigation were all of shallow perched groundwater.

Although the Report includes much soil and groundwater data that helps advance the environmental investigation at the Site, the evaluation of that data is largely limited to exceedances of Industrial Soil Reference Values (SRVs) and Health Risk Limits (HRLs), respectively. The need for a more in-depth evaluation and presentation of data collected at the Site has been discussed with Ford and Arcadis in the past. We recognize that project staff at both companies has since changed, so we see this letter as an opportunity to reaffirm the MPCA's criteria for the current and future environmental reports submitted for the Site.

Please revise and resubmit the Report in accordance with the comments listed below. MPCA staff may have follow-up comments after reviewing the revised report, as the omission and/or presentation of some items somewhat hindered our review.

1. The scale of Figures 2 and 3 does not foster comprehension of the data: the information is cramped and the font size too small. While it is desirable to have site-wide figures showing a cumulative presentation of soil and groundwater data, respectively, the figures should be printed on either a larger scale plan-size sheet or multiple 11 by 17 inch sheets for a site of this acreage.
2. Additional larger-scale figures should be provided showing areas of concern (AOCs) and related sample locations and contaminant data. The scale and aerial extent of these supporting figures should be based on feature locations (or a group of feature locations) and the ability to show the relevant site features assumed to be the sources of contamination. Each of these figures should also be a cumulative presentation of sample locations/data.
3. For the figures discussed above, consider using color coding to distinguish between soil sample locations which meet or exceed risk-based screening values. For example, a green dot could represent a soil sample location that meets Residential SRVs; an orange dot a sample location that meets Industrial SRVs, and a red dot a sample location which exceeds Industrial SRVs. The visual impact of such a presentation will more efficiently convey the extent and magnitude of soil contamination as it pertains to different types of property use.
4. Please check the screened intervals for MW-5 and MW-6 (by the former solvent UST basin), as presented on Figure 3. These are shallow monitoring wells which are screened in the unconsolidated deposits overlying bedrock, thus the listed screened intervals may be incorrect.
5. Carcinogenic PAHs should be discussed and evaluated in terms of the calculated benzo(a)pyrene (BaP) equivalent. All data tables which present PAH data should include the calculated BaP equivalent as well as individual PAH concentrations. Figures showing SRV exceedances should use the calculated BaP equivalent of soil samples, not the individual benzo(a)pyrene concentration.
6. Please make the following revisions to Table 6 (*Summary of Detected Constituents in Soil*):
 - In addition to the feature number, include the name of the feature (or an abbreviated version of the name) in the table heading.
 - All soil data and SRVs should be presented in milligrams per kilogram (except for Toxicity Characteristic Leaching Procedure data).
 - It would be helpful to split Table 6 into two parts: Table 6A for features/data located east of Mississippi River Boulevard, and Table 6B for features/data located west of the boulevard.
 - Table 6A: References to Recreational SRVs can be deleted. To make the detected constituents easier to discern, use boldface for detected constituents, shading for concentrations that exceed Residential SRVs, and a box for concentrations that exceed Industrial SRVs (or different color shading for exceedances of Residential vs. Industrial SRVs).
 - Table 6B: References to Residential SRVs can be deleted. Highlight detections and exceedances as noted above, with data compared to Recreational and Industrial SRVs.

7. Please make the following revisions to Table 7 (*Summary of Detected Constituents in Groundwater*):
 - In addition to the feature number, include the name of the feature (or an abbreviated version of the name) in the table heading.
 - To make the detected constituents easier to discern, use boldface for detected constituents and shading or box to highlight exceedances of screening values. For this Site, EPA's MCL is a useful frame of reference only for arsenic. The table could be simplified by deleting the MCL column, changing the title of the next column to "Screening Value", and indicating EPA MCL as the basis for the arsenic screening value. For this Site, the MPCA does not need exceedances of EPA's MCLs to be highlighted.
8. Formal soil boring logs must be prepared for every soil boring, in addition to the field notes provided in Appendix A.
9. Include a figure depicting depth to bedrock at the Site.
10. Include representative geologic cross-sections of the Site.
11. The reference at the bottom of page 4 to a "historical structure with unknown use" appears to refer to the former manufactured gas plant. If this is indeed correct, please update the text accordingly.
12. The text of the report should address in a broader fashion the type and concentrations of contaminants that are present within the various AOCs and not be limited to analytes that exceeded Industrial SRVs or HRLs. While exceedances of Industrial SRVs may eventually drive Ford's risk-based soil cleanup activities, at this stage of the project, the goal is to define and understand the full range of contamination that may be present at the Site. For example, if chlorinated VOCs were detected in soil, the text should mention this, even if the concentrations were less than SRVs.
13. The soil samples from Feature 9 (Former Disposal Area A) and Feature 11 (Former Disposal Area B) were not sampled for SVOCs as requested in the March 15, 2010, Work Plan Approval letter from the MPCA. In addition, the approval letter requested a soil sample from within the upper four feet at each location. Please include these samples/analyses in a future scope of work.
14. In the pending work plan, include a proposal to resume sampling of the monitoring well network at the Site. In addition to the monitoring wells installed by Arcadis, include monitoring wells MW-4, MW-5, and MW-6 (former Bulk Storage and Waste Solvent USTs area) in the site-wide sampling plan.
15. Discuss the hydraulic connection between the Site and Hidden Falls Creek. The discussion should include information regarding the storm sewer that connects to the Outfall (depth, construction, elevation of storm sewer relative to shallow perched groundwater, etc.) and the potential that the


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storm sewer provides a conduit for the migration of contaminated perched groundwater from the Site to Hidden Falls Creek. Please clarify whether this storm sewer is to be removed during the upcoming site demolition.

16. If the MPCA's Quality Assurance/Quality Control staff have comments on the analytical data, a separate comment letter will be issued.

Please note the disclaimers found in Attachment A. If you have any questions on the above, please contact Shanna Schmitt at 651-757-2697 or Stacey Hendry-VanPatten at 651-757-2425.

Sincerely,


Shanna Schmitt, P.G.
Project Manager/Hydrogeologist
VIC and Emergency Response Section
Remediation Division


Stacey Hendry-VanPatten
Project Manager
Petroleum Remediation Section
Remediation Division

SS:SH:jmp

Attachment

cc: Angharad Pagnon, ARCADIS U.S., Inc.
Merritt Clapp-Smith, City of St. Paul

ATTACHMENT A
DISCLAIMERS
FORD TWIN CITIES PLANT
MPCA PROJECT NUMBER VP23530
MPCA PBP PROJECT NUMBER PB3682

1. Reservation of Authorities

The MPCA Commissioner reserves the authority to take any appropriate actions with respect to any release, threatened release, or other conditions at the Site. The MPCA Commissioner also reserves the authority to take such actions if the voluntary party does not proceed in the manner described in this letter or if actions taken or omitted by the voluntary party with respect to the Site contribute to any release or threatened release, or create an imminent and substantial danger to public health and welfare.

2. No MPCA Assumption of Liability

The MPCA, its Commissioner and staff do not assume any liability for any release, threatened release or other conditions at the Site or for any actions taken or omitted by the voluntary party with regard to the release, threatened release, or other conditions at the Site, whether the actions taken or omitted are in accordance with this letter or otherwise.

3. Letter Based on Current Information

All statements, conclusions and representations in this letter are based upon information known to the MPCA Commissioner and staff at the time this letter was issued. The MPCA Commissioner and staff reserve the authority to modify or rescind any such statement, conclusion or representation and to take any appropriate action under his authority if the MPCA Commissioner or staff acquires information after issuance of this letter that provides a basis for such modification or action.

4. Disclaimer Regarding Use or Development of the Property

The MPCA, its Commissioner and staff do not warrant that the Site is suitable or appropriate for any particular use.

5. Disclaimer Regarding Investigative or Response Action at the Property

Nothing in this letter is intended to authorize any response action under Minn. Stat. § 115B.17, subd. 12.

