



Minnesota Pollution Control Agency

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September 17, 2013

Mr. Charles Pinter
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, Saint Paul
MPCA VIC Project Number VP 23530
PINs 05-117-21-13-0016 & 05-117-21-13-0015
Approval of Subsurface Investigation Work Plan – Work Element 1

Dear Mr. Pinter:

The Minnesota Pollution Control Agency (MPCA) staff in the Voluntary Investigation and Cleanup (VIC) Program has reviewed the "Subsurface Investigation Work Plan-Work Element 1" (Work Plan) for the Ford Twin Cities Plant site, located at the address referenced above (the Site). The Work Plan, dated July 15, 2013, was prepared and submitted on your behalf by ARCADIS U.S., Inc.

The Work Plan includes a scope of work to further evaluate soil and groundwater impacts identified to date and to address certain data gaps at the Site. It is understood that additional field work above and beyond that proposed in the Work Plan will be conducted in the future as discrete areas of contamination are discovered during demolition activities and certain potential source areas become more accessible. Please keep MPCA staff informed via email updates as areas of suspected contamination are encountered during demolition and to communicate any planned changes to the Work Plan resulting from such discoveries.

The Work Plan is hereby approved, subject to the conditions/clarifications from VIC staff listed below. Please note that the Petroleum Brownfields (PB) Program does not review and approve work plans. Petroleum investigations should follow Petroleum Remediation Program guidance documents for petroleum-related contamination and petroleum sources at the Site. Please see the guidance webpage at <http://www.pca.state.mn.us/u98u4qc> for additional information.

1. **Section 2.1.** Any soils vacuumed by the hydro-vacuum unit shall be disposed of at a permitted landfill.
2. **Section 2.2.** Each of the 25 existing monitoring wells should be sampled, so as to provide a more comprehensive snapshot of groundwater quality across the Site.

3. **Section 2.4.** The intent of the Groundwater Screening Values for the Vapor Intrusion Pathway is to use groundwater data along with soil vapor data when delineating areas that may pose a vapor intrusion risk. Since volatile organic compounds (VOCs) are contaminants of concern at the Site, a soil vapor investigation will be necessary to pursue a Certificate of Completion from the VIC Program.
4. **Focus Area 1 (North Parking Lot):**
 - a. Add one "data gap" soil boring in the northwest portion of Focus Area 1, roughly centered in the triangle formed by AMW-01, AMW-17, and ASB-123. At a minimum, analyze shallow soil samples (0-2 and 2-4 feet) for Resource Conservation and Recovery Act (RCRA) metals and polynuclear aromatic hydrocarbons (PAHs). If elevated photoionization detector (PID) readings are present, also collect soil samples from the appropriate intervals for analysis of VOCs, gasoline range organics (GRO), and diesel range organics (DRO). If groundwater is encountered in sufficient quantity, collect a groundwater sample for analysis of VOCs, GRO, and DRO.
 - b. Add four "data gap" soil borings in the northeast portion of Focus Area 1, roughly 150 feet from ASB-128 in a NW, NE, SW, and SE direction, respectively. Analyze shallow soil samples (0-2 and 2-4 feet) for RCRA metals and PAHs.
 - c. MPCA staff recommends relocating two or three of the proposed "delineation borings" clustered around ASB-134 to provide better spatial coverage in that general area. For the relocated borings, include analyses of shallow soil samples (0-2 and 2-4 feet) for RCRA metals and PAHs.
5. **Focus Area 2 (Open LUST Releases):** The elevated concentrations of certain metals in the groundwater sample collected from ASB-001 (total metals analysis), suggest that high concentrations of metals may be present in soil in that area. Soil samples previously collected from ASB-001 were fairly deep. Please analyze shallow soil samples (0-2 and 2-4 feet) from the proposed ASB-001 delineation boring for the Target Analyte List of metals.
6. **Focus Areas 3 and 9 (Main Assembly Plant) and Focus Area 5 (Paint Shop):** Since data from the initial interior sample locations has not yet been submitted, MPCA staff cannot fully evaluate the proposed scope of work. MPCA staff will evaluate the cumulative data set for these focus areas when the pending Phase II Investigation Report is submitted. In the meantime, MPCA staff concur that the proposed "data gap" grid-based borings will provide additional information that will be useful in moving forward, although such data will not eliminate the need for future sampling related to potential source areas ("features") within the building footprints.
7. **Focus Area 6 (Former Hazardous Waste Storage and Disposal):**
 - a. The five borings proposed solely for the purpose of delineating iron and copper concentrations around ASB-032 and ASB-034 are not necessary.
 - b. Please ensure that borings advanced in the vicinity of the sludge pits (ASB-202 delineation borings) are deep enough to evaluate soil conditions beneath the elevation of the pit floor and other potential points of release associated with this feature. Analyze a soil sample from at least one of the ASB-202 delineation borings for VOCs, from a depth interval below the elevation of the pit floor.

- c. As discussed under separate cover, additional investigation of the known release from the former chlorinated solvent tanks, over and above that proposed in the Work Plan, will take place under a pending investigation work plan specifically targeting that feature.

8. Focus Area 7 (Railroad Tracks):

- a. Soil data collected to date in Focus Area 7 indicates significant impacts by a variety of metals, including but not limited to arsenic, lead, and antimony. Given the impacts observed in the majority of soil samples, it appears that a mass excavation (as opposed to hot-spot remediation) may be necessary for Focus Area 7. A greater sampling density across the area would be needed to demonstrate that a mass excavation may not be necessary.
- b. For all soil samples collected within Focus Area 7, use the Target Analyte List of metals.
- c. At least three of the most highly-impacted soil samples collected from this area should be analyzed using the Toxicity Characteristic Leaching Procedure (TCLP). A single previous TCLP test (ASB-167, 6-8 feet) was conducted on soil with much lesser concentrations of contaminants and may not be representative of soil targeted for disposal during future response actions.

9. Focus Area 11 (Wastewater Treatment Plant):

- a. The four borings proposed solely for the purpose of delineating the iron and/or copper concentrations around ASB-026, ASB-196, and ASB-197 are not necessary. Instead, please move those borings to the former manufactured gas (MFG) plant area, to more fully evaluate that feature. Please ensure that each boring and samples interval targeting potential impacts from the former MFG plant is deep enough to evaluate the pre-fill conditions that existed when the plant was present.
- b. While the former MFG plant building was located immediately southeast of the steam plant, the elevated concentrations of polynuclear aromatic hydrocarbons (PAHs) detected in ASB-198 and the high method detection limits for PAHs associated with samples from ASB-195 suggest that impacts from the former MFG operation may be present south of the former plant footprint. MPCA staff recommends that one vertical delineation boring be advanced next to ASB-195 and ASB-198, respectively, instead of two delineation borings at each location, as proposed in the Work Plan. The two "extra" borings can be relocated within that general area to provide more comprehensive coverage.
- c. If groundwater is encountered in the borings described above, collect a groundwater sample for analysis of VOCs, PAHs, and cyanide.
- d. Include cyanide in the list of soil analytes for borings advanced in the former MFG plant area.

10. Pending Phase II Investigation Report:

- a. In addition to the Focus Area figures, which show sample locations superimposed on aerial photos, please show sample locations superimposed on "RECs, Historical RECs, & Areas of Interest" figures (see Phase I Environmental Site Assessment, Figure 2 series, for these base maps).

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- b. Please remove from future Focus Area figures any sample locations related to tunnels (e.g. soil samples collected from hand auger borings advanced in tunnels). While the tunnel samples may fall within the boundary of certain Focus Areas, they represent conditions well below the land surface and are not pertinent to the evaluation of soil quality at the Site, as the Focus Area figures are meant to portray. Note that Figure 2F of the Phase I ESA ("Subsurface Tunnel REC Layout") could be used to document the locations of samples collected from within the network of subsurface tunnels.

Please note the disclaimers found in Attachment A. If you have any questions on the above, please contact Shanna Schmitt, Project Manager, at 651-757-2697 or shanna.schmitt@state.mn.us, or Amy Hadiaris, Technical Analyst, at 651-757-2402 or amy.hadiaris@state.mn.us.

Sincerely,



Shanna Schmitt, P.G.
Project Manager
Site Remediation & Redevelopment Section
Remediation Division

SS:jmp

Attachment

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

ATTACHMENT A
DISCLAIMERS
FORD TWIN CITIES PLANT
MPCA VIC PROJECT NUMBER VP23530

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.

