

From: [Hadiaris, Amy \(MPCA\)](#)
To: [Chuck Pinter \(cpinter@ford.com\)](mailto:cpinter@ford.com)
Cc: ["Oesterreich, Ryan"; Schmitt, Shanna \(MPCA\)](#)
Subject: MPCA response to Area C Report
Date: Friday, January 12, 2018 5:16:00 PM

Chuck, please see attached Area C response letter. I believe all of these items have already been discussed with you and/or Arcadis to some extent. I deliberately kept the letter focused on investigation-type issues, as opposed to scope of pending response actions. I consider the latter to be the focus of upcoming discussions rather than this letter.

Let me know if you have any questions.

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January 12, 2018

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

RE: Ford Twin Cities Plant, 966 South Mississippi River Boulevard, St. Paul
MPCA Project Number VP23530
MPCA Billing ID: AI 685
Comments on Area C Comprehensive Site History & Investigation Report – II

Dear Mr. Pinter:

Thank you for submitting the *Area C Comprehensive Site History & Investigation Report – II* (Report) for the former waste disposal area known as “Area C”, which is located on the river parcel of the larger Ford Twin Cities Plant site. The Report, dated May 5, 2017, describes the regulatory history and environmental investigations completed at Area C. The main focus of the Report is an environmental investigation completed by Ford Motor Company (Ford) at Area C from June 2015 to June 2016.

The Minnesota Pollution Control Agency (MPCA) staff in the Voluntary Investigation and Cleanup (VIC) Program has previously communicated, via telephone conversation or electronic mail, certain follow-up actions that are necessary to resolve questions and/or information gaps pertaining to the environmental investigation at Area C. Some of the follow-up actions requested by the MPCA have already been completed; others are in process or pending. The purpose of this letter is to formalize MPCA comments pertaining to the Area C investigation and to acknowledge certain additional information items already received, in response to ongoing Area C discussions between the MPCA and Ford.

1. *Water Table Contour Maps*

Please prepare and submit a water table contour map for the alluvial aquifer around Area C for the March and June 2016 groundwater monitoring events and include such a map in future monitoring reports as well. The MPCA acknowledges Ford’s inclusion of a water table contour map in the recently submitted monitoring report for the September 2017 sampling event.

2. *Groundwater Interaction with Industrial Waste*

At this time, it is not known whether, or to what extent, the bottom of the industrial waste would be inundated during flood conditions. Additional water level measurements collected from Area C monitoring wells, particularly AMW-26, can provide the necessary data to evaluate how the water table beneath the industrial waste fluctuates in response to changing river conditions. Please install a continuous water level recording device in AMW-26 and a few other

selected monitoring wells, to better evaluate temporal changes in groundwater elevation and flow direction at Area C. These measuring devices should be in place prior to this spring to take advantage of this seasonal data collection opportunity. Please work with MPCA staff to select a subset of Area C monitoring wells for this purpose.

3. Sand Tunnel 1A

Please evaluate the relationship between the water table in the St. Peter aquifer and the floor of Sand Tunnel 1A, to determine the likelihood of the sand tunnel being an intermittent conduit for groundwater flow into Area C. The sand tunnels were created in the unsaturated zone, although that doesn't preclude a localized intersection between the water table and the tunnel floor, depending on their relative elevations at any given point in time and space. Whether water on the floor of Sand Tunnel 1A would flow towards Area C is a related, but separate, question.

4. Method Detection Limits/Reporting Limits for Water Quality Analytical Methods

For future groundwater sampling events, please ensure that the laboratory uses analytical methods with method detection limits that allow a meaningful comparison to Class 2B Surface Water Standards, to the extent technically feasible. The MPCA acknowledges that the September 2017 analyses for thallium and polynuclear aromatic hydrocarbons achieved acceptable method detection limits.

5. Thallium Concentrations in Groundwater

The MPCA staff considers the thallium groundwater data presented in the Report as suspect for several reasons: the similar concentrations of thallium in Area C monitoring wells, regardless of position relative to the waste material; the sparse occurrence of volatile organic compounds (VOCs) in the groundwater samples, despite the known presence of VOCs within the waste and despite VOCs being more mobile in the environment; and absence of thallium as a contaminant of concern with respect to Ford's operations at the site. The MPCA views the September 2017 thallium data set, which was generated using an analytical method that is less prone to false positives, as more representative of groundwater quality at Area C. Based on multiple lines of evidence, the MPCA does not consider thallium to be an issue at the Ford site. Nevertheless, since thallium is one of the metals included on the Target Analyte List (TAL), which is being used for metals, please continue to use EPA Method 6020 for thallium analyses to ensure reliable results.

6. Groundwater Sampling

- a. Routine quarterly groundwater sampling should continue at Area C until a long-term groundwater monitoring plan has been approved by the MPCA. Analytes for quarterly sampling events should be the same as those for the 3rd and 4th quarter 2017 sampling events, e.g. volatile organic compounds (VOCs), semi-VOCs, TAL metals, polychlorinated biphenyls, cyanide, gasoline range organics, and diesel range organics.
- b. Development of a long-term groundwater monitoring plan is a future task that Ford should undertake after response actions have been completed at Area C. The long-term monitoring plan may include a subset of wells, reduced sampling frequency, and/or reduced list of analytes, depending on the collective body of information available at that time.

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- c. Please prepare and submit for MPCA approval a contingency groundwater quality sampling plan to implement during high water events. The contingency plan should include specific triggers for sampling, taking into account data obtained from the continuous water level recording devices.

The MPCA looks forward to continued discussion with Ford during preparation of the Feasibility Study for Area C, to ensure that the Feasibility Study evaluates an appropriate range of response actions (type and scope) in a thorough and transparent manner.

If you have any questions about the information presented above, please feel free to contact me at (651) 757-2402 or amy.hadiaris@state.mn.us or Shanna Schmitt at (651) 757-2697 or shanna.schmitt@state.mn.us.

Sincerely,



Amy Hadiaris, P.G.
Voluntary Investigation and Cleanup Program
Site Remediation and Redevelopment Section
Remediation Division

AH/akh

cc: Ryan Oesterreich, Arcadis