



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

LU-16J

Via E-mail and Certified Mail 7017 0530 0000 1267 5857  
RETURN RECEIPT REQUESTED

August 8, 2019

Mr. Joseph M. Bianchi  
Group EHS Manager  
Amphenol Corporation  
40-60 Delaware Avenue  
Sidney, NY 13838

Subject: *Off-Site Interim Measure Work Plan and Response to Comments*,  
dated June 18, 2019  
Franklin Power Products, Inc./Amphenol Corporation  
Administrative Order on Consent, Docket # R8H-5-99-00  
EPA ID# IND 044 587 848

Dear Mr. Bianchi:

Thank you for preparing and submitting the document *Off-Site Interim Measure Work Plan and Response to Comments*, dated June 18, 2019 ("Work Plan"). In this revised and expanded Work Plan, Amphenol Corporation ("Amphenol") provided responses to EPA's June 3, 2018 comments on the *Off-Site Interim Measure Conceptual Design*, dated May 7, 2019 and the May 16, 2019 *Off-site Interim Measure Conceptual Design Addendum*.

EPA agrees with Amphenol's statement that the project benefits will be many, including mitigating vapor intrusion into homes, improving wastewater flow from homes and decreasing flow to the POTW.

The Work Plan is conditionally approved with the following conditions. Only Condition One requires an additional submittal before construction may begin. The remaining conditions and comments can be addressed later in the process, as indicated.

- 1) Condition One A revised *Ambient Air Monitoring Program Plan* (Appendix E) must be approved in advance of construction. Please refer to EPA's letter dated

July 22, 2019. EPA agreed that Amphenol would provide a draft revised plan for discussion the week of August 4, 2019, in advance of submitting a final document, to streamline the approval process. This week, IWM Consulting, EPA, and ATSDR have been discussing approaches to meeting air monitoring requirements. EPA anticipates that Amphenol will submit an approvable work plan in time for planned construction.

- 2) Condition Two Amphenol proposes confirmatory groundwater sampling in the Work Plan. While EPA agrees that collecting data on groundwater conditions after completion of the sewer remedy will be informative, the primary remedy must be evaluated and monitored consistent with standard practice. Amphenol must prepare and submit a remedial monitoring program designed to evaluate whether the VOC contamination in the sewer lines has abated or ceased. The monitoring program must be provided to EPA for approval by October 25, 2019.
- 3) Condition Three As discussed and agreed to by Amphenol, biweekly progress reports must be submitted during the remedial work. The reports must note any problems encountered and describe how they were resolved. In addition, EPA must be informed of any issues via phone or email during the construction period.
- 4) Condition Four Amphenol should address the comments and deficiencies noted in the enclosure and revise the Work Plan as indicated. The revised Work Plan should be submitted by September 30, 2019.

The primary purpose of the remedy is to mitigate the impacts to sanitary sewers from historical releases and prevent VOC vapor intrusion to buildings from connections to the impacted sewer lines. Amphenol anticipates additional improvements to other impacted media, primarily groundwater. However, only a small area of the vadose zone soils around the sewers targeted for excavation has VOC concentrations higher than the calculated soil to groundwater leaching threshold Corrective Action Objective. While contaminated groundwater daylighting in the excavation trenches will be pumped and treated during this remedy, the remedy itself is not designed for groundwater remediation. Therefore, EPA will require that Amphenol develop additional remedies for groundwater, including source areas. EPA will provide details about this requirement later this fall.

In its response to EPA comment #20, Amphenol indicated that CrossRoad Engineers has prepared a community relations plan to communicate construction related details to the community. However, the plan was not provided in the Work Plan as requested. It

is unclear whether the brief paragraph provided via email on August 2, 2019 constitutes the entirety of the plan. EPA may require additional details and examples of the outreach materials that CrossRoad plans to use. Meanwhile, EPA, CrossRoad Engineers, IWM Consulting, and Amphenol are effectively coordinating on outreach materials such as the Question and Answer document being prepared for the August 14, 2019 open house in Franklin.

EPA did not thoroughly review Appendix A, *Detailed Bid Specification and Preliminary Construction Plans*. It is Amphenol's responsibility to ensure that the project is constructed as designed and described in the Work Plan, and to comply with all permits, and local, state and federal requirements.

If you have any questions or would like to schedule a meeting to discuss these comments, please contact me at (312) 886-3020.

Sincerely,



Carolyn Bury  
Project Manager  
Remediation Branch

Enclosure

cc: Matt Kupcak, BorgWarner, Inc.

ecc: Brad Gentry, IWM Consulting Group, LLC.  
Chris Parks, IWM Consulting Group, LLC  
Motria Caudill, ATSDR  
Bryan Cress, IDEM  
City of Franklin  
Conor Neal, RRB CAS2  
Bhooma Sundar, RRB CAS2



EPA has reviewed the *Off-Site Interim Measure Work Plan and Response to Comments* ("*Work Plan*"), dated June 18, 2019 and has the following comments. The Work Plan is conditionally approved per the conditions stated in the cover letter to this enclosure.

## **General Comments**

Throughout the Work Plan, Amphenol states that following source removal activities, groundwater concentrations will decrease, and soil gas will no longer be generated. However, if source material is the small areas of soil documented to be above the calculated soil to groundwater leaching criteria, and potentially some additional unsampled areas directly beneath the sewers, then the statements may be overly optimistic. While it may be true that groundwater concentrations will decrease, there is no certainty about how quickly groundwater concentrations will decrease, whether this removal action will decrease groundwater concentrations below vapor intrusion screening levels, or that soil gas will no longer be generated.

The remedial Work Plan purpose is to mitigate VOC vapors in the sewer lines and the complete exposure pathway to buildings and was not designed as a groundwater remedy. The soil contamination that will be left in place below the water table may well be recalcitrant sources to groundwater contamination; these require additional remediation. Amphenol proposes a post-remedial monitoring plan for groundwater. A plan for monitoring sewer vapors must also be developed. EPA will use the data submitted in monitoring reports to inform decisions on what subsequent actions may be necessary.

EPA agreed that if confirmatory soil sampling at the ROW/private property boundary indicates that contamination extends onto private property, then that contamination would be included in a remedial plan under a different mobilization. This is not discussed in the Work Plan. Amphenol must record all locations where contamination at the boundary exceeds the soil CAO and work with EPA to develop a remedial plan for those properties.

## **Response to Comments:**

- 1) Comment One Response: *Areal Extent of Project*
  - EPA notes that Amphenol's response implies that the areal extent of the project was based upon media sampling, including soil sampling. However, design-level soil samples were only taken in the described areas along portions of North Forsythe St. and Hamilton Ave.
  - Referring to Ross Court, the response states that "soil beneath this sewer line has not been documented to be contaminated" EPA notes that this statement is misleading because the soil there was not sampled. (Nonetheless, sewers there will be relined based on impacted groundwater).

- VOC impacts to sewers extends beyond the portions of the streets where sewer work will be completed. Based on the scope of this remedy and standard practice, post-construction confirmatory sampling must be completed. This comment takes into consideration the vagaries of sewer vapor flow discussed later in the Work Plan.
- The response states that the sewer line submersion beneath the water table on North Forsythe Street starts south of Ross Court. While recognizing that the water table fluctuates, based on the submitted cross-sections figures, the sewer submersion begins north of Ross Court.
- Glendale Drive – Per the response and the Work Plan, the City of Franklin lined the impacted section of the sewer between Manholes 250080 and 250070 during Spring 2019. However, EPA was not aware of this project until submittal of the subject Work Plan, and it is unclear whether the laterals were inspected and replaced during this work. The groundwater levels were above VISLs in some of this area. Add the lateral inspection and replacement work in this area to the Work Plan or provide justification why that would not be necessary.

2) Comment 2 and 6 Responses: *Remedial performance monitoring*

- The statement “Based upon the results of the recent assessment activities and subsequent mitigation measures already completed to date, lining of sewer lines within the project area is not necessary to meet soil and groundwater remedial objectives” is not understood.
- The vapor intrusion mitigation measures completed in homes is acknowledged and appreciated. However, this type of work must be considered as a temporary measure because plumbing systems and homes age and deteriorate, and home ownership changes. That is, the response work completed to prevent indoor air exposures should not be considered a permanent solution to the VOC contamination that has persisted for decades in the project area.
- Amphenol states that VOC contaminated media needs to be remediated. However, the groundwater contamination source removal in this specific project will be minimal, and the groundwater monitoring program is not a surrogate evaluation and monitoring of the sewer remedy.

3) Comment 3 Response: *Contingency measures* Amphenol should propose contingency measures in the required remedial performance monitoring plan (Condition Two).

Comment 4 and 5 Responses: *Pipe life expectancy and smear zones* EPA will require further remediation of contaminated groundwater and source areas. The potential consequence of smear zones includes the eventuality of impaired pipes and associated potential risks.

Comment 12 Response: *Other utility work* Please further describe or clarify the coordination between Amphenol and the gas and water utilities. Per a recent

discussion with IWM Consulting, IWM may be providing roll-off boxes for the excavated materials during trench work.

Comment 20 Response: *Community Relations Plan* This plan was not included in the Work Plan. Please refer to the cover letter comment on this topic.

## **Specific Comments**

### **Section 5.0 Corrective Action Objectives**

EPA agreed to the calculated CAO for soil, as presented in this section. However, the purpose of the remedy is the abatement of VOCs in sewers. Therefore, Amphenol must develop goals for VOC vapors that will be incorporated into the confirmatory sampling plan required in the conditional approval.

### **Section 6.1 Project Overview and Goals**

This section identifies the remedial goal for this project as

“an off-Site interim measure for adsorbed soil impacts, impacted groundwater, and soil gas surrounding and within the sanitary sewer main and laterals in the Study Area and will provide a vapor resistant conveyance structure for the City of Franklin’s wastewater as it is transported through the Study Area.”

EPA agrees that the project will accomplish the goal of restricting VOC vapors from the surrounding environment from entering homes by replacing or repairing damaged sewers. Currently, the sewers intercept VOC vapors or VOC-impacted groundwater allowing for a complete exposure pathway via sewer laterals into homes.

In addition, to some extent contaminated environmental media will be removed from the impacted area. However, as only a small portion of sewer bedding and street ROW soil was found to be impacted above the soil-to-groundwater leaching value, the overall off-site remedial work beyond sewer repair and replacement may be limited. Confirmatory sampling will likely identify additional material requiring removal and groundwater will be pumped from the portion of the project area where the sewers are at or below the water table. Amphenol projects that the soil removal and groundwater pumped during excavation will “assist in reduction of groundwater concentrations to levels near CAOs.” EPA agrees that this should occur to some extent. Post-construction sampling of sewer vapors and groundwater will provide information about the remediated media.

This remedy will not address deeper contamination and impacted soil and groundwater will remain in the area. Design-level sampling reported contamination of deeper soil intervals (impacted soils in the saturated zone) and groundwater impacts increasing with depth (bottom of Unit B). Soil will remain a source of contamination to groundwater, and eventually a smear zone is presumed to develop around the new sewer pipes, which are projected to remain intact for 50 to 100 years. To preclude

future vapor intrusion problems, the off-site soil and groundwater contamination must be addressed in another remedy. EPA will work with Amphenol to develop additional remedial approaches for on- and off-site contaminated media as a next step in the Corrective Action process.

### **Section 6.2 Project Benefits**

EPA agrees that the project benefits will be many, including mitigating vapor intrusion into homes, improving wastewater flow from homes and decreasing the flow to the POTW, and protecting environmental media from various impacts including illicit dumping into sewers such as used automotive oil.

### **Section 6.2 Local Challenges**

This section provides a good description of the local challenges and reflects a thorough analysis. EPA acknowledges that other challenges may occur as the work proceeds.

#### **6.5.1 Site-Specific Constraints/Considerations**

Page 26. The plan should describe the strategy for gaining access to private properties to evaluate and potentially replace sanitary sewer laterals. For example, IWM may need to visit each residence multiple times to gain access during the optimal period of sewer main replacement, which could be a moving target considering the items identified in the "local challenges" section.

Please describe how the sidewalls will be stabilized to prevent undermining.

#### **6.6 Plan Design** Page 26 and 27 –

Bullet 2: add text stating that the excavation area could be greater based on confirmatory sampling results.

Bullet 15: Provide EPA with the status of the IDEM SWPPP application.

#### **6.6.2 Confirmatory Soil Sampling**

Confirm that both sides of the trench will be sampled.

#### **6.6.5 Ambient Air Monitoring Program and Appendix E**

Please refer to EPA's letter dated July 22, 2019 for required revisions to Ambient Air Monitoring Program Plan. A revised plan must be approved in advance of construction.

#### **6.6.8 Confirmatory Groundwater Sampling**

This section lists monitoring wells IT-2 and IT-3 as on-site wells. However, these wells are off-site on private property. The work plan should be revised to make this correction.

In general, the proposed groundwater monitoring plan is acceptable, specifically these elements of the plan:

- 1) the horizontal and vertical placement of new monitoring wells MW-36 through MW-40
- 2) monthly groundwater elevation and quality monitoring from MWs 31 through 40 for 12 months following soil removal and sewer replacement, and
- 3) use of low-flow groundwater sampling techniques.

However, Amphenol must:

- 1) Justify why monthly groundwater monitoring will begin six months after completion of the removal instead of immediately, then one month, three months, etc.
- 2) Add *turbidity* to the stabilization criteria being monitored prior to sample collection. Stabilization criteria for turbidity should be +/- 10% over three consecutive readings
- 3) For QA/QC purposes, one field duplicate should be collected at a rate of one (1) sample per ten (10) confirmatory samples.

