



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

**Via Electronic Mail Only**

March 25, 2020

Mr. Keith Egan  
Chief Consultant  
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RE: Sheboygan River and Harbor Superfund Site - EPA Review of Remedial Action Plan for Tecumseh Falls and Maryland Avenue Sites

Dear Mr. Egan:

The U.S. Environmental Protection Agency (EPA) has reviewed the Remedial Action Plan (Revision 1) dated 08 November 2018 for the Tecumseh Falls and Maryland Ave sites. EPA is concerned about the contamination that has been found at the sites and has the following comments on the document:

1. Tecumseh - Given the amount of time that this project has been under study, it is concerning that such significant contamination has been found at the Tecumseh facility. EPA requests that Pollution Risk Services (PRS) undertake a Data Gap Analysis to assess the adequacy of past investigations. As part of this study, PRS shall conduct a detailed evaluation of past surface and subsurface sampling and outline the horizontal and vertical extent of any soil removal actions. Areas not previously sampled or insufficiently sampled shall be highlighted for discussion.
2. Tecumseh - Utilizing the results of the Tecumseh Falls Data Gap Analysis, EPA requests that PRS design a sampling program to investigate those areas where surface and subsurface soil data are not available or are inadequate. The goal of this effort is to make sure that all parties have a complete understanding of residual contamination so that the follow-up remedial action can be appropriately scoped. In other words, we want the follow-up remedial work to be a "one and done" action.

The primary focus of the investigation shall be Polychlorinated Biphenyls (PCBs); however, recommendations for Polycyclic Aromatic Hydrocarbon (PAH) sampling shall also be proposed based on historic aerials and information about past plant operations.

PRS shall use the Visual Sample Program (VSP) or a technical equivalent to develop a statistically defensible Sampling and Analysis Plan (SAP) for the areas of the property that

have not been sufficiently investigated. The SAP shall clearly identify the statistical framework and decisions underpinning the sampling approach.

3. Tecumseh –EPA guidance on Principal Threat Wastes (PTW) generally sets the PTW threshold for PCBs at 500 parts per million (ppm) for industrial areas and 100 ppm for residential areas. Given the location (adjacent to the river) and the anticipated future recreational use of the property, EPA believes that the 100 ppm PTW threshold is appropriate for the Tecumseh location. While the recent groundwater data has not been problematic, the PTW guidance is very clear that the PTW determination is not just based on mobility, but also on toxicity. See also:
  - a. [Section K in the 2000 Record of Decision.](#)
  - b. [From the definition of PTW in OSWER Directive 9380.3-06FS \(page 2\) -](#) “Principal threat wastes are those source materials considered to be highly toxic or highly mobile that generally cannot be reliably contained or would present a significant risk to human health or the environment should exposure occur. They include liquids and other highly mobile materials (e.g., solvents) or materials having high concentrations of toxic compounds. No “threshold level” of toxicity/risk has been established to equate to “principal threat.” However, where toxicity and mobility of source material combine to pose a potential risk of  $10^{-3}$  or greater, generally treatment alternatives should be evaluated.”
  - c. [From Highlight 3 of OSWER Directive 9380.3-06FS \(in the box on page 2\)-](#) “Wastes that generally will be considered principal threats include, but are not limited to... (3rd bullet) Highly-toxic source material – buried drummed non-liquid wastes, buried tanks containing non-liquid wastes, or soils containing significant concentrations of highly toxic materials”.
  - d. [From the Executive Summary in OSWER Directive 9355.4-01 FS \(page iv\) -](#) “The Superfund program expectations should be considered in developing appropriate response options for the identified area over which some action must take place. In particular, the expectation that principal threats at the site should be treated, whenever practicable, and that consideration should be given to containment of low-threat material, forms the basis for assembling alternatives. Principal threats will generally include material contaminated at concentrations exceeding 100 ppm for sites in residential areas and concentrations exceeding 500 ppm for sites in industrial areas reflecting concentrations that are 1 to 2 orders of magnitude higher than the preliminary remediation goals. Where concentrations are below 100 ppm, treatment is less likely to be practicable unless the volume of contaminated material is relatively low.”
4. Tecumseh - Sections 5.3 and 5.4 – There is a typo in the cost for soil removal in Sections 5.3 and 5.4 making it unclear whether the cost is estimated at \$10M or \$1M. When we get to the point of reassessing costs (after the follow-up investigation), please correct.
5. Tecumseh - Table 1 – When we get to the point of reassessing costs (after the follow-up investigation), please also provide detailed information to support the soil excavation cost estimate. \$10M seems very high given the current soil volume estimate.

6. Tecumseh – Ultimately, once additional data is available to confirm that we fully understand the extent of contamination on the property, EPA would like to see a hybrid (excavation / containment) alternative evaluated for PCB-contaminated soil. The hybrid alternative would remove PTW but allow for containment of lesser-contaminated soils. Whether this is practical and a cost saving measure will depend on the distribution of contamination.
7. Tecumseh – PRS is requesting a modification of the PAH cleanup standards. Changes in cleanup standards will need to be selected in a new decision document. This request will not be evaluated until EPA and the Wisconsin Department of Natural Resources (WDNR) are confident that the full extent and significance of the contamination are understood.
8. Tecumseh –EPA does not agree with the scoring of the removal and containment alternatives, and we would like to revisit the alternatives evaluation once a full data set is available for the property.
9. Maryland Ave – Whatever is decided regarding the PAH contamination at the Tecumseh Falls facility, EPA will need to issue either a ROD Amendment or an ESD to memorialize the selection of cleanup goals and the remedial action.
10. Maryland Ave – Section 3.2 – Did PRS utilize data from all intervals for the calculation of the Exposure Point Concentration? If yes, it is inappropriate to average in subsurface data with surface because some of the potential exposure scenarios will be primarily limited to contact with surface soils. What is presented is not a “reasonable estimate of the concentration over time” when looking at several potentially applicable exposure scenarios.
11. Maryland Ave – Section 3.2, Sample Depth Interval data – It appears that a significant reduction in the contaminant load at the property could have been effectuated by the removal of the top 6 inches of soil. However, based on recent discussions, it seems that the property has since been filled and regraded. Please provide EPA with detailed information regarding all recent excavation, disposal, filling, and regrading actions at the property.

Based on the above concerns (specifically, comments 1 – 8), EPA requests that PRS perform additional work to fully investigate the Tecumseh Falls property. Please submit a Draft Data Gap Analysis for EPA and WDNR review within 30 calendar days of your receipt of this letter / email. The timeline for the draft SAP submittal will be established once EPA and WDNR have reviewed the Data Gap Analysis. However, please note that PRS may elect to submit the draft SAP concurrent with the Data Gap Analysis if it feels that the more comprehensive submittal would be beneficial and if the timeline for preparation allows.

Please don't hesitate to contact me at 312-353-6564 if you have any questions or would like to set up a conference call to discuss.

Sincerely,

Terese A. Van Donsel  
Remedial Project Manager

cc: Richard Nagle (EPA, via e-mail only)  
Jennifer Elkins (EPA, via e-mail only)  
Thomas Wentland (WDNR, via e-mail only)