State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
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February 12, 2024

Mr. Ed Scaro
ATI Ladish, LLC
5481 S. Packard Avenue
Via Electronic Mail Only to *Edward.Scaro@ATImaterials.com*

SUBJECT: Supplemental Site Investigation Work Plan Review
ATI Ladish Drainage Channel, 3445 E. Grange Avenue, Cudahy, WI
BRRTS #02-41-559604, FID #341225390

Dear Mr. Scaro:

The Wisconsin Department of Natural Resources (DNR) received the *Supplemental Site Investigation Work Plan* (Work Plan), dated October 25, 2023, submitted on your behalf by Geosyntec Consultants (Geosyntec), for proposed activities to define the extent of soil contamination at the site referenced above. Geosyntec is requesting DNR's review and approval of the proposal. The Wis. Admin. Code ch. NR 749 review fee of $700 was received.

In the Work Plan, Geosyntec summarized the historical use of the 75.25-acre Ladish property and potential sources of contamination that may have impacted the 2,500-foot long drainage channel and upland areas. Geosyntec evaluated the potential migration and exposure pathways and concluded that direct contact with impacted soil and sediment presents the greatest exposure risk within the drainage channel. Additional soil investigation activities are proposed to further characterize potential sources and soil contamination on the property. Off-site activities are proposed to the north, south and west, where contamination was detected as part of the *Superfund Site Inspection Report* (SSIR), dated December 2021, prepared by the DNR on behalf of the US EPA. No sediment, surface water, groundwater or vapor sampling is proposed at this time.

The DNR and the US EPA reviewed the Work Plan and have determined that the proposed sampling is too limited in scope to provide adequate information for decision-making going forward. Overall, the proposed scope of work is not sufficient for characterization of contamination that is of an unknown nature, that likely occurred over time and at various locations, and extends over a very large area. The following comments and suggestions are provided for consideration of a revised, more comprehensive, scope of work.

Sources

- Historical activities and land uses must be considered when scoping a site investigation to ensure that the scope and detail of the field investigation are appropriate for the complexity of the contamination sources. Based on the complex history of manufacturing and potential contaminants disposed at the site an emerging contaminants evaluation should be conducted at this time.
- The DNR records cited by Geosyntec stated that the Ladish landfill accepted general plant refuse, loose asbestos, titanium swarf and foundry waste until 1979. Considering the disposal history and wide-ranging operations and processes at this facility, including experimental metallurgy and potential associated waste streams, additional laboratory analysis should be considered, including, but not limited to: asbestos, cesium, beryllium, cobalt, tungsten, lithium, nickel, chromium, titanium, vanadium, molybdenum, zinc, explosives and other rare metals that may have been used in specialized manufacturing. Screening for radioactive materials should also be considered.
- Based on historical aerial photos, the DNR recommends that areas of long-duration disturbance be targeted in the landfill sampling plan. Specifically, a notably darker area of disturbance on the west side

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of the landfill is visible in the 1963 and 1967 aerial photos included in the *NR 716 Site Investigation Report and Upland Area Interim Action Plan*, Ramboll US Corporation, October, 2019. Similar dark features are also visible further east in the upland area where PCB concentrations of up to 410 milligrams per kilogram (mg/kg), were reported.

- The landfill has a history of burning; therefore, dioxins and furans should be added to analytical parameters in areas where burning may have occurred.
- The report states: "Atmospheric deposition from vicinity industrial use areas may be a secondary source of surface soil PAH impacts."
    - Please expand on the basis of this comment (historical data, background study, etc.).

Soil

- Although Geosyntec stated that the investigation is an iterative process, the limited number of proposed borings over large areas are not sufficient to characterize the extent of contamination, considering the heterogeneity of materials, long history of filling and disposal, and the randomly distributed contamination reported to date.
- As with the previous point, the limited sampling proposed will not provide a sufficient dataset to support development of site-specific soil residual contaminant levels or performance standards for such a large area with likely heterogeneous contaminant sources.
- Given the large site area, fill heterogeneity, contaminant variability and sources, collection of an adequate number of discrete soil samples or use of another sampling method such as incremental sampling methodology (ISM) is recommended to obtain representative soil data for all site areas. Refer to the ITRC's ISM guidance document (https://ism-2.itrcweb.org/) for more information.
- Screening soil with a photoionization detector (PID) is not adequate to determine whether a sample should be analyzed for volatile organic compounds (VOCs). Laboratory analysis is required to rule out the presence of less volatile compounds that would not cause an appreciable spike on a PID.
- Laboratory analytical parameters should be expanded based on the potential sources identified above, or ruled out with adequate justification.
- Current stormwater runoff/overland flow patterns should not be the only criteria for selecting sample locations as contamination was deposited or may have migrated during many years of surface disturbances and changing topography that affected runoff patterns.
- Some soil sample locations appear to be near or within mapped wetland areas. Determine whether proposed sample locations in these areas require input from the DNR's wetland program prior to sampling.
- A subsurface utility clearance effort should be conducted before all intrusive investigative work occurs. If this is deemed unnecessary, adequate reasoning should be presented in the Work Plan.
- As indicated on page 15 of the Work Plan, one additional soil sample will be collected from native soil below the fill layer at select locations in the Upland Area. What rationale will be used to determine when to collect a native soil sample?
- The Landfill Area supplemental site investigation includes installing test pits within the former landfill material. As part of the screening process, US EPA advises the use of a landfill gas meter to screen for the presence or absence of other potential landfill byproduct compounds, such as hydrogen sulfide and methane. Similarly, equipment to gauge environmental criteria during pit installation such as an LEL meter is advised for this area of the site.
- In the event residential property owners decline to offer access for investigative sampling, what contingency will ATI implement to minimize data gaps? Please include this discussion in the Work Plan.

Groundwater and Sediment

- No groundwater sampling is included in this scope of work. Saturated conditions should be noted during field work and results should be evaluated for the potential risk to contaminate groundwater and the need for monitoring wells.

- Although no sediment sampling is proposed at this time, you are reminded that the degree and extent of sediment contamination has not yet been defined. An evaluation of sediment contamination is necessary, with figures that illustrate the extent of PCB contamination in sediment.

Investigation Derived Waste Management
This section needs to be expanded with more details about specific waste management procedures as it applies to TSCA, RCRA and State regulatory requirements:

- All PCB Remediation Waste generated must be disposed of in accordance with 40 C.F.R. §§ 761.61(a)(5)(i)(B)(2)(ii) or 761.61(a)(5)(i)(B)(2)(iii), for < 50 mg/kg and ≥ 50 mg/kg wastes, respectively.
- Any water containing PCB must be decontaminated or disposed of as allowed under 40 C.F.R. §§ 761.61(a)(5)(i)(B) or 761.61(b)(1).
- Decontamination wastes including personal protective equipment must be disposed of in accordance with 40 C.F.R. §§ 761.61(a)(5)(v).
- Prior to being transported off-site for disposal, any storage of PCB remediation wastes must be in compliance with 40 C.F.R. § 761.65(c)(1) or (9).
- Determine whether wastes generated are also subject to hazardous waste regulations under Wis. Admin. Code chs. NR 600-699 and 40 C.F.R. § 239-299.

A revised, more comprehensive scope of work is necessary to further define the conceptual site model (CSM). Due to the complexity of this site, the CSM should be developed to include both a text description and graphic depictions. A revised work plan should be submitted **within 60 days** of this letter for the DNR to provide a review and response without the need for a new fee. The submittal should also be sent to William Grossett (grossett.william@epa.gov) and Andrew Kleinberg (kleinberg.andrew@epa.gov), US EPA Project Managers, for review.

We appreciate your efforts to protect the environment at this site. If you have any questions regarding this letter, please contact me at 414-435-8010, or by email at Linda.Michalets@wisconsin.gov.

Sincerely,

Linda Michalets
Hydrogeologist
Remediation and Redevelopment Program

cc: Edgard Bertaut, ATI (*Edgard.Bertaut@ATImaterials.com*)
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