



May 27, 2022

Mr. Roy Baietto  
1850 19<sup>th</sup> Avenue  
Kenosha, WI 53140

Subject: Review of Site Investigation Report  
Arctic Laundry & Cleaners, 5619 22<sup>nd</sup> Avenue, Kenosha  
DNR BRRTS Activity #: 02-30-245843; FID #: 230006920

Dear Mr. Baietto:

The Department of Natural Resources (DNR) has completed its review of the March 28, 2022 “Site Investigation Report and Request to Submit for Case Closure” (the Report) submitted for the Arctic Laundry & Cleaners site. The Report summarizes field investigation activities conducted at the site to investigate chlorinated volatile organic compound (CVOC) contamination resulting from spills of tetrachloroethene (PCE) during the property’s use as a dry-cleaning facility. These activities included advancing soil borings, installing groundwater monitoring wells, and collecting soil, groundwater, air, and sub-slab vapor samples. The Report concluded that the site investigation is now complete and recommended that this case closure request be submitted.

The DNR reviewed the information presented in the Report and concluded that additional actions must be completed before case closure can be considered for this site. Soil sampling is needed to define the extent of contamination and complete the site investigation. Additional indoor air samples must also be collected at the on-site building to confirm the sub-slab depressurization system is operating as expected. Further evaluation of the potential for vapor migration through utilities and for emerging contaminants to impact this site must be conducted. Finally, the requirement to conduct a remedial action to reduce the source of vapor contamination must be addressed. This letter provides details regarding these items.

### **Soil Contamination**

Soil samples collected at sampling locations GP-1, GP-8, and GP-11 confirmed contaminated soil is present at shallow depths likely due to surface spills. Samples collected northeast and east of the former Arctic Laundry building from boring locations GP-4, GP-5, and GP-6 were all collected at too great a depth to accurately assess impacts caused by surface spills. Additional soil samples must therefore be collected to define the eastern extent of soil contamination to comply with Wis. Admin. Code § NR 716.11(4). Defining the limits of soil contamination is needed to determine if the groundwater investigation needs to be expanded to the east or if buildings located east of the site are at risk for vapor intrusion and must be investigated further. Defining the extent of soil contamination is also necessary for planning a remedial action for source control.

The limits of soil contamination north the former Arctic Laundry building is also not defined. However, as soil contamination is most significant in soil shallower than 7 feet below ground surface northern migrations may be impeded by the basement wall of the building at 5605 22<sup>nd</sup> Avenue. Provide a discussion as to whether the building could be expected to limit contaminant migration in this direction. If that does not appear to be the case than additional soil samples will need to be collected to define the extent of contamination to the north of the site.

### **Groundwater Contamination**

Additional groundwater sampling is not recommended at this time. As stated above, the need to expand the groundwater investigation will need to be considered once the extent of soil contamination at this site is defined.

### **Vapor Contamination**

CVOC contamination under and near the former Arctic Laundry poses a vapor intrusion risk at that building. Trichloroethene has been identified within indoor air at concentrations that can potentially pose an acute risk to occupants of the building. It is therefore necessary to confirm that the sub-slab mitigation system is interrupting this pathway. DNR guidance document RR-800, "Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin", recommends collected three indoor air samples after the installation of a mitigation system to confirm the system is working as expected. At this time, only one round of samples was collected. The DNR requests that an additional round of indoor air samples (collected over a 24-hour interval) be collected at all levels of this building (in areas representative of occupied areas), preferably during the cooling season, to confirm CVOC concentrations in indoor air do not pose a risk to occupants.

The potential for vapor migration through utility lines must be evaluated. Identify whether storm or sanitary sewer lines are present in areas adjacent to the former Arctic Laundry building and if they are located near a potential source of CVOC vapors that could enter the line through pipe breaks. Vapor samples will need to be collected from within sewer lines if such a situation exists to determine if this is a pathway for contaminant migration. Refer to DNR document RR-649 "Guidance for Documenting the Investigation of Human-made Preferential Pathways Including Utility Corridors" for further information.

### **Propose a Remedial Action**

You must evaluate remedial options for reducing the risk of vapor intrusion at the on-site building to satisfy the requirement of Wis. Admin. Code § NR 726.05(8). The construction of an impervious barrier over residual soil contamination is not considered a valid remedial action for this purpose as it does not reduce contaminant mass or the potential for vapor intrusion. The DNR requests you reevaluate potential remedial options, following the process outlined in Wis. Admin. Code § NR 722.07 and NR 722.09, to determine what could be a practicable means of reducing contamination impacting sub-slab vapors. The DNR must approve of the assessment and any actions taken before case closure can be requested. When evaluating proposed remedial actions the DNR will consider that that contaminated soil at this site is located at shallow depths and appears to be generally accessible.

### **Emerging Contaminant Assessment**

The types of services offered by the former dry-cleaner business must be identified as part of the emerging contaminant assessment. Discuss whether services such as waterproofing, leather cleaning, rug cleaning, or other types of fabric treatment were offered in addition to the solvent-based dry-cleaning services and, if conducted, what is known about the products that were used to conduct these services. The DNR will reevaluate your assessment once this information is provided.

### **Submittals to the DNR**

A site investigation work plan with the applicable review fee may be provided if you would like written input from the DNR on proposed actions prior to initiating further field investigation. Once the items outlined in this letter are addressed a site addendum report and remedial action options report should be prepared and provided to the DNR for review. A review fee may also be provided with this document if you would want the DNR to provide recommendations for completing the site investigation (if needed) or for taking next steps to complete this project.

We appreciate your efforts to protect the environment at this site. If you have any questions regarding this review or wish to discuss any of these requests in further detail, please contact me by calling (414) 405-0764, or by email at [paul.grittner@wisconsin.gov](mailto:paul.grittner@wisconsin.gov).

Sincerely,



Paul Grittner  
Hydrogeologist  
Remediation & Redevelopment Program

cc: John C. Ekornaas Revocable Trust  
Robert Langdon, SCS Engineers – [rlangdon@scsengineers.com](mailto:rlangdon@scsengineers.com)  
Vanessa Wishart, Stafford Rosenbaum LLP - [VWishart@staffordlaw.com](mailto:VWishart@staffordlaw.com)