



November 16, 2023

Mr. Robert Reuschlein  
Jomblee, Inc.  
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Madison, WI 5371  
Email only to: [bobreuschlein@gmail.com](mailto:bobreuschlein@gmail.com)

Subject: Review of *Vapor Mitigation System Commissioning Plan & Previous Pressure Field Extension Test Results*  
Pershing Plaza Shopping Center, 7536 Pershing Boulevard, Kenosha  
DNR BRRTS Activity #: 02-30-582211; FID #: 230007690

Dear Mr. Resuchlein:

The Department of Natural Resources (DNR) has completed its review of the October 19, 2023, *Vapor Mitigation System Commissioning Plan & Previous Pressure Field Extension Test Results* (the Plan). The applicable technical assistance fee for providing review and response to the Plan, in accordance with Wis. Admin. Code § NR 749.04 (1), was provided.

The Plan proposes collecting sub-slab vapor and indoor air samples and pressure field extension measurements to demonstrate that the sub-slab depressurization system (SSDS) is mitigating the vapor intrusion risk. As outlined below, the DNR is recommending some changes to the number and locations of these samples and readings to better comply with commissioning guidance provided in DNR guidance document RR-800, *Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin* and DNR reviews provided earlier.

### **System Optimization**

Based on the sub-slab pressure measurements, PF-1 and PF-2 may be located at the functional limits of the SSDS's area of influence. PF-4 may also be located at the edge of the system's influence area, but this would need to be confirmed with additional readings as the most recent measurement did not achieve adequate pressure (0.004 inches of water column). The area of the building affected by the SSDS does not appear to extend much beyond the extent of contamination at the site. The DNR would therefore recommend modifying the SSDS to increase the area being depressurized. If modifications to the system are not made, or if the modified system does not maintain adequate negative pressure under the entire footprint of the 7536 and 7540 units, sub-slab vapor samples would need to be collected just beyond the apparent area of influence to confirm that the system is at least influencing the area where contaminated soil vapor is present. Recommended locations for sub-slab sample collections are provided below.

### **System Commissioning Plan**

The DNR recommends conducting the following actions to demonstrate the SSDS is working as needed to mitigate the vapor intrusion risk. The DNR recommends conducting two sampling events, 6 months apart, with the first to be conducted in January or February. The operation of the SSDS must continue to operate during sample collection. We recommend that sample collection and sub-slab pressure readings be taken concurrently.

- Collect indoor air samples in the four locations proposed, as well as within the Former Lakeside Cleaners unit. It is the expectation of the DNR that indoor air samples be collected using passive samplers over a span of 7 to 10 days. Indoor air samples will be needed whether system modifications are made or not.
- If the SSDS is not modified, sub-slab pressure should be measured at PF-1 to PF-4 to confirm the apparent extent of influence of the system. Additional readings should also be collected in the garage area to determine the apparent extent of the system. The number and location of sub-slab pressure readings will need to be reassessed if the effective area of influence is different than what is currently expected or is changed by modifying the system.
- If sub-slab samples are collected to assess the effectiveness of the SSDS, and the area of influence is confirmed to extend only as far as the PF-1, PF-2, and PF-4 locations, the DNR would recommend the following sub-slab vapor samples be collected.
  - o VP-4A, this sample location is positioned appropriately to confirm that contaminated sub-slab vapors are not migrating under the 7532 unit.
  - o VP-7, this sample location should be positioned just beyond the effective limits of influence, once that is determined by pressure readings taken under the garage slab.
  - o VP-5 should be sampled to confirm that contaminated sub-slab vapors are not migrating under the 7600 unit.
  - o Collecting sub-slab vapor samples just east of PF-1 and PF-2 is recommended to demonstrate that the system is covering enough of the Former Lakeside Cleaners unit to be protective.
- The number and location of sub-slab vapor samples will need to be reassessed if the effective area of influence is different than what is currently expected or is changed by modifying the system.

Additional sampling, and modifications to the SSDS, may be needed if contaminants of concern are detected in the indoor air samples or contaminant concentrations in sub-slab samples collected outside the area of system influence exceed vapor risk screening levels.

### **Next Steps**

A site investigation and remedial action options report must be submitted to document all field investigation activities conducted by the Sigma Group and Giles Engineering Associates (including any soil boring logs, well construction forms, or laboratory reports not previously submitted), describe the commissioning of the sub-slab mitigation system and discuss the results of environmental samples collected during this process, and provide a detailed analysis of potential remedial options. A review fee may be provided with this report 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,



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