State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee WI 53212-3128

Tony Evers, Governor Preston D. Cole, Secretary

Telephone 608-266-2621 Toll Free 1-888-936-7463 TTY Access via relay - 711



November 23, 2020

Mr. Steven Dukatt Carol Investment Corporation 1410 South Clinton Street Chicago, IL 60607

Subject: Review of Remedial Construction Report

Sunrise Shopping Center

2410-2424 10th Avenue & 1009 Marquette Avenue, South Milwaukee, WI 53172

BRRTS #s: 02-41-576336 & 02-41-579429

Dear Mr. Dukatt:

On September 28, 2020, the Wisconsin Department of Natural Resources (DNR) received the *Remedial Construction Report* (the Report) dated September 9, 2020. The Report was prepared on your behalf by your consultant, DAI Environmental, Inc., and was submitted with a Technical Assistance review fee for DNR review and a written response. Additional information is needed before the DNR can approve the final remedial construction.

Report Summary

The Report documents the remedial actions completed since January 2019. Within the Report are details of the chemical treatment activities and results, final design and operation of the sump water treatment system, and final design and startup performance testing of the sub-slab depressurization system (SSDS). Chemical treatment activities occurred within the 2410 and 2412 tenant spaces, as well as within the alley in the back of the facility, and were conducted via injection and direct soil mixing. Confirmation soil sampling was conducted to track the remedial progress.

The sump within the basement of the Ace Hardware building (1009 Marquette Avenue) is documented to be capturing tetrachloroethylene impacted groundwater. The sump discharges into the municipal storm sewer system. To remedy this, a treatment system was installed to treat the water prior to the discharge. The treatment system consists of a two-stage activated carbon treatment process. Sampling of the sump is conducted prior to and after the treatment process to ensure that the treatment is adequate.

A SSDS was installed to address the elevated vapor concentrations identified during the sub-slab vapor sampling. The SSDS was constructed in the 2410 and 2412 tenant spaces and consists of five extraction points that are built into the subsurface. These extraction points are connected to polyvinyl chloride (PVC) piping, which lead to the piping manifold at the back of the middle portion of the 2410 tenant space. From the manifold, a larger PVC riser pipe penetrates through the roof and connects to a vacuum blower. One round of pressure field extension measurements was collected to determine whether the SSDS is operating adequately.



DNR Comments

The Report was reviewed to ensure compliance with Wis. Admin. Code ch. NR 724. After review, the DNR determined that additional actions are necessary to ensure human health is protected and provides the following comments:

- The December 19, 2018, DNR review letter indicated that post-remedy vapor samples should be collected to determine sub-slab vapor concentrations after the remedial actions were completed. The DNR's vapor intrusion guidance document, RR-800, also suggests two to three sampling events to confirm conditions in the vapor phase.
 - Only one round of sub-slab samples was collected from each sub-slab sampling location. These samples were collected prior to the completion of the remedial action. The DNR is requesting that you collect at least one additional round of sub-slab vapor sampling to confirm the extent of sub-slab vapor contamination. The DNR recommends collecting sub-slab vapor samples from the following locations: SS-1, SS-2, SS-3, SS-4, SS-7, SS-8, SS-201, SS-202, and SS-203. The samples should be collected during the winter heating season and sample analysis may be limited to the contaminants of concern. The SSDS should be turned off for a minimum of two weeks prior to conducting the sub-slab sampling.
- Additional pressure field extension (PFE) testing should be conducted at the existing eleven SSDS vacuum test monitoring points (identified as TP-1 through TP-11) and SS-4 to confirm the effectiveness of the SSDS. The additional PFE testing should be conducted during the winter heating season.
- As indicated in the August 17, 2020, letter sent by DNR, pursuant to Wis. Admin. Code §§ NR 716.07 & 716.09, an assessment should be conducted to determine if emerging contaminants were historically or are presently produced, used, handled, or stored at the site. Emerging contaminants of highest concern include 1,4 dioxane and per- and polyfluoroalkyl substances (PFAS). Refer to the August 17, 2020, letter for additional information.

Schedule

The DNR is requesting that the additional sampling activities are conducted this winter heating season. The information requested in this letter should be compiled and submitted in a supplemental remedial action documentation report within **60 days** of receipt of the sampling results.

The DNR appreciates your efforts to address the contamination at this site. If you have any questions regarding this letter, please contact me, the DNR Project Manager, at (414) 750-7030 or via email at riley.neumann@wisconsin.gov.

Sincerely,

Riley D. Neumann

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Project Manager / Hydrogeologist Remediation & Redevelopment

Cc: Tom DePaul, DAI Environmental, Inc. (electronic) Christopher Cailles, DAI Environmental, Inc. (electronic)