



April 7, 2017

Mr. Steven Dukatt
Carol Investment Corporation
1410 S. Clinton St.
Chicago, IL 60607

Subject: Review of Site Investigation/Remedial Design Report
Sunrise Shopping Center
2410-2424 10th Ave. & 1009 Marquette Ave., South Milwaukee, WI
BRRTS #: 02-41-576336, FID #: 241828620

Dear Mr. Dukatt:

On November 1, 2016, the Wisconsin Department of Natural Resources (DNR) received two (2) reports for the site identified above: "Site Investigation Report Addendum" (SIR), dated October 19, 2016, and "Design Report (Vapor Intrusion)" (DR), dated October 19, 2016. The reports were prepared by DAI Environmental, Inc. (DAI) for HPH Fund I D20, LLC. The reports were submitted with a Technical Assistance Request fee for DNR review and a written response. Ownership of the property and the responsibility to address the contamination were transferred to Carol Investment Corporation after the reports were submitted.

Background

This site was developed as the Caveny & Co. coal and wood yard prior to 1910. The property was likely used to store coal and heating oil until at least 1950. By 1963, two (2) commercial buildings had been constructed on the site. Three (3) former dry cleaners were located on the property between 1966 and 1999. The 2410-2424 tenant spaces are slab-on-grade, while the building at 1009 Marquette Avenue has a basement. Tetrachloroethylene (PCE) contamination was discovered in the soil and groundwater beneath the building and in the alley west of the building. In addition, contamination associated with Polycyclic Aromatic Hydrocarbons (PAHs) was found in various places around the property, likely attributable to the former Caveny & Co. operations.

A closure request was submitted on October 28, 2015. The closure was denied due to additional site investigation requirements. Two (2) further site investigation mobilizations have further defined the degree and extent of PCE contamination in the vicinity of the former dry cleaner and PAH contamination in the parking lot in the south central portion of the site. Vapor sampling completed to date has identified Vapor Risk Screening Level (VRSL) exceedances for PCE and naphthalene within the 2410 and 2412 tenant spaces, respectively.

Based on current site investigation data, two (2) separate source areas have been identified: PCE impacts on the northwestern portion of the property and PAH contamination in the south central portion. These separate source areas will be managed as separate releases of hazardous substances, and a new BRRTS activity will be opened to address the PAH contamination. The DNR will issue a letter to you, as the Responsible Party (RP), for the environmental investigation and remediation of the PAH contamination. This work can proceed in conjunction with evaluation of the PCE contamination. The current BRRTS activity case file number (02-41-576336) will remain with the PCE release.

SIR & DR Summary

The SIR reported the soil and vapor sampling results within the 2410 and 2412 tenant spaces and within the basement of the 1009 Marquette Avenue address. The PCE and trichloroethylene (TCE) soil concentrations exceeded residual contaminant levels (RCLs) for direct contact and protection of the groundwater pathway in the 2410 and 2412 tenant spaces. Additionally, the PCE and TCE soil concentrations exceeded RCLs for protection of the groundwater pathway in the alley west of 2410 and 2412. Vapor concentrations exceeding VRSLs identified the need for further sampling, remedial action, and mitigation.

The DR proposed to install a sub-slab depressurization (SSD) system below the 2410 and 2412 tenant spaces as the most feasible vapor mitigation option to mitigate potential vapor intrusion into the building.

After review of the SIR & DR, the DNR provides the following comments:

Completion of Site Investigation

The SIR and previously submitted site investigation data were reviewed for compliance with Wis. Admin. § NR 716. The DNR has determined that additional actions are necessary to complete the site investigation, as summarized below:

- Degree and extent of contamination in all affected media

Wis. Admin. § NR 716.11(3)(a) requires the field investigation to determine the nature, degree and extent, both areal and vertical, of the hazardous substances or environmental pollution in all affected media.

Wis. Admin. § NR 716.15(4)(c) and (d) require the site investigation report to include isoconcentration maps and cross sections to depict the hazardous substance concentrations in each environmental medium.

1. Prepare contaminant isoconcentration maps for both the PCE and PAH contamination areas, in all affected environmental mediums (soil, groundwater, and vapor). Contour lines must be drawn to show the areal extent of soil contamination exceeding RCLs, groundwater contamination above the Enforcement Standards (ES) and Preventive Action Limits (PAL), and vapor concentrations above the VRSLs.
2. Prepare cross-sections that transect the identified PCE and PAH source areas, showing the vertical extent of soil and groundwater contamination.
3. The degree and extent of PAH contamination near the southern property boundary appears to be undefined to the south. The "Site Investigation Report Addendum" dated June 2, 2016, provides the results of the additional investigation conducted in the PAH contamination area but does not interpret the results or make recommendations for additional work. Evaluate the results and determine if additional investigation is needed.
4. Isoconcentration maps and cross sections should be reviewed to identify data gaps in the PCE and PAH investigation and where additional investigation is needed.
5. Due to potentially increasing concentrations in groundwater, additional groundwater monitoring is required to establish trends. Additionally, determine if the building at 1009 Marquette Avenue has a sump in the basement. If so, sample the water within the sump for volatile organic compounds (VOCs).

- Impacts to receptors

Wis. Admin. § NR 716.07(7) requires that responsible parties evaluate the potential or known impacts to receptors, including buildings and subsurface utilities. Additionally, Wis. Admin. § NR 716.15 (2)(c) 6 requires the inclusion of underground utilities on site layout maps.

1. Include utility laterals that enter the building on the maps, and assess if they are acting as migration pathways for contamination.

- Contamination sources

Wis. Admin. § NR 716.15(2)(c)6 requires the site layout map to include hazardous substance sources. Wis. Admin. § NR 716.07(1), (2), and (3) require responsible parties to evaluate the following: history of the site or facility that may have been associated with one or more hazardous substances discharges at the site or facility, knowledge of the type of contamination and the amount of contamination, and history of previous hazardous substance discharges.

1. Provide information of the historic use and location of solvents and hazardous substances at the site. Determine the location of any former dry cleaning machines, storage, or waste disposal areas and indicate their locations on the site maps. The possible source and locations of the PCE and TCE contamination must be discussed. Building doors should also be shown on site figures.

- Off-site affected properties

Wis. Admin. § NR 716.11(4) requires the field investigation to extend beyond the property boundaries of the source site as necessary to fully define the extent of contamination.

1. The extent of contamination in soil and groundwater appears to go off-site. The PCE contamination in soil and groundwater in the alley west of the tenant spaces potentially extends west into the railroad right-of-way. Additionally, the PAH contamination near the southern property boundary appears to extend off-site. If the responsible party is unable to complete the required investigation beyond the source property boundary because a property owner refuses access, notification to the DNR within 30 days of refusal is required.

Vapor Mitigation System (VMS) Evaluation

The DR proposes to install an SSD system to mitigate potential vapor intrusion into the building. The DR was reviewed with the DNR's Vapor Intrusion Team Leader, Alyssa Sellwood; she provided the following comments:

- Sellwood concurs with the proposed layout of the VMS. However, it is not considered adequate to address the vapor intrusion pathway.
- To indicate if each extraction point has sufficient vacuum, consider placing manometers at each of the drop points rather than only at the fan.
- If pressure field extension is not achieved, DAI proposed utilizing a more powerful fan or adding more drop points. This contingency plan should also include evaluating if a separate fan is needed for one or more extraction points.
- Additional extraction points may be needed depending on the results of the additional site investigation activities.

A VMS is not considered a remedial action, which is addressed below.

The above comments are intended to provide you and your consultant guidance on completing the site investigation. Additional investigative activities, beyond those listed above, may be required.

Remedial Actions

Wis. Admin. § NR 726.05(8)(b)(1) requires that remedial action be conducted to reduce the mass and concentration of volatile compounds when vapors are present above the VRSL. The referenced section of code also notes that VMSs are not considered remedial actions, as they do not reduce the mass or concentrations of the contaminants. PCE and naphthalene were detected above their respective industrial VRSLs. Therefore, remedial actions must be evaluated and completed in accordance with Wis. Admin. § NR 724 after completion of the site investigation and delineation of the degree and extent of contamination.

Consideration should be given to soil vapor extraction (SVE) and in-situ chemical oxidation (ISCO) methods. If practicable, these methods can reduce the concentration and mass of the chlorinated solvent contamination beneath the building floor slab. Since remedial action has not been assessed, the DNR recommends not installing a VMS until remedial action options have been evaluated or completed. **NOTE: The DNR requires you to immediately assess vapor exposure risks by collecting indoor air samples within the 2410 and 2412 tenant spaces. These results must be reported to the DNR within 10 business days of receiving the sample results.**

Schedule

In consideration of administrative code requirements, the DNR is requesting implementation of the following schedule:

- Per Wis. Admin. § NR 716.09(1), the DNR is requesting the submittal of a revised site investigation work plan within 60 days of the date of this letter, **by June 6, 2017**. The work plan must comply with Wis. Admin. § NR 716.09(2).
- Per Wis. Admin. § NR 716.11(2g), the additional site investigation activities must begin within 90 days of submittal of the work plan.
- Per Wis. Admin. § NR 716.15(1), a supplemental site investigation report shall be submitted within 60 days after completion of the field investigation.

The DNR appreciates the efforts you are taking to address the contamination at this site. If you have any questions about this letter, please contact me, the DNR Project Manager, at (414) 263-8699, or by email at Riley.Neumann@wisconsin.gov.

Sincerely,



Riley D. Neumann
Hydrogeologist
Remediation & Redevelopment Program

cc: Christopher Cailles, DAI (email)
Tom DePaul, DAI (email)