



June 7, 2023

Roers Companies
c/o: Shane LaFave
110 Cheshire Lane, Suite 120
Minnetonka, MN 53210
Via Email Only to shane@roerscompanies.com

Subject: DNR Review of Interim & Remedial Action Status at
Community Within the Corridor - East Block
2748 N. 32nd Street, Milwaukee, WI 53210
BRRTS #02-41-263675, FID #241025400

Dear Mr. LaFave:

The Wisconsin Department of Natural Resources (DNR) has reviewed the interim and remedial actions that have been proposed and conducted for the Community Within the Corridor (CWC) East Block site to date. The DNR appreciates actions taken to date, and the DNR has reviewed the following reports submitted by CWC:

- Status reports submitted by CWC between March 23, 2023 – June 5, 2023 (Status Reports)
- *Interim Remedial Action Documentation Report*, received by DNR on April 7, 2023

Based on the DNR's review of CWC's interim and remedial actions that have occurred to date, along with the corrective actions taken by CWC since March 23, 2023, the DNR has determined that additional evaluation of remedial action options is required at this site, pursuant to Wis. Admin. Code § NR 722.07(5)(c), and as explained in this letter. Below is a review of the interim and remedial actions proposed and conducted to date, the basis for DNR's determination that additional evaluation of remedial action options is required at this time, and a list of next steps for conducting additional evaluation of remedial action options.

Background

On May 10, 2021, CWC submitted the *Proposed Modification of Vapor Mitigation / Extraction System* report (May 2021 Report). In summary, the May 2021 Report proposed remedial actions that included soil excavation near subsample locations SS-20 and SS-25 in Building 1B along with soil vapor extraction (SVE) using the vapor mitigation system (VMS), which was designed to cover the entire site building complex's footprint. On June 8, 2021, the DNR sent CWC a *Review of Updated Remedial Action Design Report* letter (June 2021 DNR letter) in response to the May 2021 Report. In the June 2021 letter, the DNR provided conceptual approval to CWC for the proposed remedial action plan with specific feedback regarding the VMS and SVE, and a recommendation to expand the planned soil excavation both vertically and laterally to increase the likelihood that a greater amount of contamination would be removed.

CWC has provided the DNR with the following reports concerning the status of the above-described remedial action plan for the site:

- On April 7, 2023, CWC submitted *Interim Remedial Action Documentation Report* (April 2023 Report) to the DNR. The April 2023 Report indicated that in August 2021, approximately 1,765 tons of contaminated soil was removed from beneath Building 1B, as shown on Figure 4 of the April 2023 Report (attached).
- CWC's Status Reports have provided information on the corrective actions that have been or are being implemented at the building complex. At this time, the actions are focused on modifying the VMS and sealing preferential pathways where contaminated vapors may be entering the building complex. CWC is taking these steps because the VMS is not currently functioning as intended. Because SVE is a component of the site's VMS, it appears based on the information provided by CWC that the SVE is also not occurring as intended.

DNR Review of Interim and Remedial Actions

Considering the above-outlined background information, the DNR provides the following input on the interim and remedial actions that CWC has performed to-date:

1. Soil Excavation

The highest concentration of TCE identified in soil during CWC's site investigation (pre-soil excavation) was at sample location EB-B-29, with TCE at 87 mg/kg from 2-4 feet below the building's slab. This sample location is within Building 1B, which is where some of the highest concentrations of TCE soil contamination were identified during the site investigation. As presented in the April 2023 Report, the remedial soil excavation performed within Building 1B extended to 1.5 feet below the building's slab. Following soil excavation, CWC collected confirmation soil samples from the base of the excavation cavity (at 1.5 feet below the building's slab). The highest concentration of TCE identified in the confirmation samples collected within the remedial excavation limits was 220 mg/kg at sample location EB-HS-5. Several confirmation samples collected from within the remedial excavation limits and several soil samples that were not excavated (i.e., deeper than the excavation limits), such as EB-HS-5 and EB-B-29, indicate that a significant amount of soil contamination remains beneath Building 1B, which will likely act as a continuing source for potential vapor intrusion.

2. Soil Vapor Extraction

CWC's Status Reports have not demonstrated that the VMS has, or likely will, perform SVE at a rate that remediates soil and soil vapor contamination to the extent practicable to protect public health, as required for case closure. *See* Wis. Admin. Code § NR 726.05(8)(b). The effluent data provided to-date along with previous estimates for system performance presented in CWC's May 2021 Report do not indicate that the remedial SVE component of the VMS will likely lower TCE levels in soil and soil vapor to the extent needed to protect public health in a reasonable timeframe. To demonstrate that the SVE component of the VMS is substantially reducing the mass and concentration of TCE contamination in soil and soil vapor beneath the building complex, the TCE effluent concentrations should be orders of magnitude higher than what has been reported in CWC's Status Reports. Although SVE might be used in conjunction with additional remedial actions to reduce mass and concentration of the soil and soil vapor contamination, based on the data, it does not appear to be an effective standalone remedial action to address the contamination remaining at the site, which is causing vapor intrusion into the building complex.

3. Corrective Action Status - TCE in Indoor Air

CWC is presently taking corrective actions at the CWC East Block site, as detailed in CWC's *Emergency Corrective Action Plan*, submitted to the DNR on April 25, 2023, to prevent vapor intrusion into the site building complex. However, concentrations of TCE in indoor air, as summarized in data tables presented in CWC's *Weekly Progress Report for Week Ending 06/03/2023*, submitted to the DNR on June 5, 2023, remain at levels greater than the protective human health value (i.e., the vapor action level). Furthermore, the supplemental temporary ventilation units that are being used within the site building complex are not permanent features of the VMS, and they may be influencing the TCE results. TCE continues to be found in indoor air well above its protective human health level (i.e., vapor action level) at several locations in the building despite actions taken to adjust the VMS and to identify and interrupt vapor intrusion pathways.

Additional Evaluation of Remedial Action Options Required

Under Wis. Admin. Code § NR 722.07(5)(c), “[r]esponsible parties shall comply with additional site-specific remedial action evaluation or documentation requirements that may be specified by the [DNR] due to the complexity of the site or facility, the persistence of certain compounds, or the severity of the potential or actual public health or environmental impacts.” The DNR has determined that CWC East Block must conduct an additional evaluation of remedial action options based on current site-specific conditions, including:

- the complexity of the CWC-East Block building complex and VMS,
- the persistence of high levels of TCE that remains in the indoor air within the building complex and in subslab vapor and soil beneath the building complex,
- the severity of potential public health impacts from short term exposure to TCE (particularly for women of child-bearing age),
- the limited soil excavation conducted to date to reduce the mass and concentration of TCE, and
- the lack of documented efficacy of SVE.

This evaluation should be conducted as soon as possible, while CWC conducts the on-going corrective actions.

Although it will take time to design and implement interim and remedial actions, CWC should consider whether it may be more cost and time effective to conduct remedial actions as soon as feasible, while the building is unoccupied. Choosing to take an incremental remedial approach could take a longer period of time than taking a more proactive remedial approach. While additional interim and remedial actions are not guaranteed to eliminate the risk of contaminated vapor entering the building complex, additional remedial actions to reduce the mass and concentration of remaining contamination may help interrupt vapor intrusion pathways and support the long-term effectiveness of the vapor mitigation measures so that they are, and continue to be, protective of public health.

In evaluating remedial action options, CWC should consider Wis. Admin. Code § NR 722.09(2)(d)1., which states: “At sites or facilities where vapors have migrated from the source of contamination, active remedial actions shall be taken to limit or prevent, to the extent practicable, potential and actual hazardous substances discharges and environmental pollution that may attain or exceed vapor action levels.” The soil excavation conducted to date and the proposed SVE may not limit or prevent, to the extent practicable, contaminated vapors in indoor air from exceeding the applicable vapor action level (VAL). Because sampling data shows that indoor air vapor contamination across the footprint of the building complex is greater than the applicable VAL for TCE, additional active remedial action will likely be required to satisfy this requirement.

Finally, although the CWC East Block site is still in the site investigation and remediation stages of the Wis. Admin. Code series NR 700 process, CWC should also consider and plan for the requirements for case closure under Wis. Admin. Code ch. NR 726. Specifically, Wis. Admin. Code § NR 726.05(8)(b) provides that where vapors are present above the vapor risk screening level (VRSL), a remedial action must occur to reduce the mass and concentration of volatile organic compounds to the extent practicable. The information presented to date shows that subslab vapor contamination across the footprint of the building complex is greater than the applicable VRSL for TCE and other contaminants of concern, and therefore, additional remedial action may be required to meet this case closure requirement.

Next steps

In accordance with administrative code requirements, CWC must take the following next steps:

- Under Wis. Admin. Code § NR 722.07(5)(c), the DNR requires CWC to conduct additional evaluation of remedial action options by submitting a remedial action options report (RAOR) that includes the content set forth in Wis. Admin. Code § NR 722.13(2). Pursuant to Wis. Admin. Code § NR 722.13(2)(e)2., CWC must include a schedule for implementing any selected additional remedial action(s). Pursuant to Wis. Admin. Code § NR 722.13(2)(e)5., CWC must also include a description of how the performance of a selected remedial action option will be measured (i.e., the type of environmental sampling data that would be used to demonstrate that a selected remedial action has reduced the mass and concentration of the environmental contamination to the extent practicable). Under Wis. Admin. Code § NR 722.15(1)(b), DNR review of the RAOR is necessary prior to proceeding to implement any selected remedial action. The DNR requests that the RAOR be submitted within 60 days of the date of this letter in order to ensure progress. For this formal DNR review and response, the RAOR must be submitted with the applicable technical assistance fee, pursuant to Wis. Admin. Code § NR 749.04(1).
- Per Wis. Admin. Code § NR 716.14, submit sample results within 10 business days of receiving laboratory data. The DNR reminds CWC of this requirement as confirmation soil results that were collected following the remedial soil excavations in August 2021 were not provided to the DNR until March 24, 2023.

The DNR appreciates the actions you are taking at this site. If you have any questions concerning the site or this letter, please contact me at (414) 435-8021, or by email at jane.pfeiffer@wisconsin.gov.

Sincerely,



Jane K. Pfeiffer
Project Manager – Hydrogeologist
Remediation & Redevelopment Program

Attachments:

- Figure 4 of the April 2023 Report, dated April 2, 2023

cc: Mr. Que El-Amin, Scott Crawford, Inc., que@scott-crawford.com
Mr. Robert Reineke, K. Singh & Associates, Inc., reineke@ksinghengineering.com
Dr. Pratap N. Singh, K Singh & Associates, Inc., psingh@ksinghengineering.com



LEGEND

- Soil Sampling Locations
- Previous Soil Boring Locations
- Known Elevator Shaft
- 1 - Bedroom Apartment
- 2 - Bedroom Apartment
- 3 - Bedroom Apartment
- 4 - Bedroom Apartment
- Studio Apartment
- Underground Plumbing
- Underground Tunnel
- TCE Zones for Mass Calculations
- TCE Hot Spot Removal Area

NOTE:
 • COMBINATION OF EXISTING AND PROPOSED PLUMBING

Analyte	NR 720 RCLs for GW Protection (1)	NR 720 RCLs - Non-Industrial Use for Direct Contact Protection (1)	NR 720 RCLs - Industrial Use for Direct Contact Protection (1)
Volatile Organic Compounds (VOCs)			
1,4-Dichlorobenzene	0.144	3.74	16.4
Benzene	0.0051	1.6	7.07
Chloroform	0.0033	0.454	1.98
cis-1,2-Dichloroethene	0.0412	156	2,340
Methylene Chloride	0.0026	61.8	1,150
Naphthalene	0.658182	5.52	24.10
Tetrachloroethene	0.0045	33	145
Trichloroethene	0.0036	1.3	8.41

- NOTES:**
- (1) FROM WDNR RCLS WORKSHEET DATED DECEMBER 2018
 - REPORTED UNITS IN MG/KG
 - ONLY EXCEEDANCES SHOWN
 - ITAU/CS = VALUE EXCEEDS GROUNDWATER PROTECTION RCLS
 - BOLD = VALUE EXCEEDS NON-INDUSTRIAL DIRECT CONTACT RCLS
 - BOLD UNDERLINED** = VALUE EXCEEDS INDUSTRIAL DIRECT CONTACT RCLS
 - "J" = ANALYTE DETECTED BETWEEN 'LIMIT OF DETECTION' AND 'LIMIT OF QUANTIFICATION'
 - SAMPLING LOCATIONS ARE APPROXIMATE

3636 North 124th Street
 Wauwatosa, WI 53222
 262-421-1171

CONSULTANT

CONSULTANT

CONSULTANT

PROJECT TITLE: COMMUNITY WITHIN THE CORRIDOR
 2748 N 32ND STREET
 MILWAUKEE, WI 53210
 PROJECT NUMBER: 40441

CLIENT: COMMUNITY WITHIN THE CORRIDOR LIMITED PARTNERSHIP

REVISIONS	DATE	DESCRIPTION

DRAWN BY	DATE
JRS	04/02/2023

CHECKED BY	DATE
RR	04/02/2023

EXCAVATION AREA WITH CONFIRMATORY SAMPLING LOCATIONS AND RESULTS

FIGURE 4