



May 8, 2023

Roers Companies
c/o: Shane LaFave
110 Cheshire Lane, Suite 120
Minnetonka, MN 55305
Via Email Only to shane@roerscompanies.com

Subject: Technical Assistance Provided – Review of Emergency Corrective Action Plan
Community Within the Corridor – East Block
2748 N. 32nd Street, Milwaukee, WI 53210
BRRTS #02-41-263675, FID #241025400

Dear Mr. LaFave:

On April 25, 2023, the Wisconsin Department of Natural Resources (DNR) received the *Emergency Corrective Action Plan for Vapor Mitigation System (Plan)* from K. Singh & Associates, Inc. (K. Singh) on behalf of the Community Within the Corridor Limited Partnership (CWC) for the above-referenced site. The Plan was presented with a technical assistance fee of \$700 for DNR review and response. The DNR reviewed the Plan in accordance with statutory and administrative code requirements as well as the Emergency Order that was issued by the DNR for this site on March 31, 2023. Below is a written response to CWC's Plan.

Plan Summary

CWC's Plan presents the following goals:

1. Remove water from the vapor mitigation system (VMS) piping and prevent water from entering the sub-slab in the future.
2. Restore the depressurization beneath buildings 1B-SW and 1B-W and the northern mechanical room.
3. Identify and seal points of vapor intrusion throughout the facility.

The Plan presents specific corrective actions to work towards the above-outlined goals. Furthermore, the Plan presents an anticipated schedule for achieving these goals, which indicates that the corrective actions may be completed by June 30, 2023. K. Singh indicates that implementing the corrective actions will be an iterative process.

The schedule presented by CWC in the Plan does not include CWC's timeline for VMS commissioning, which will occur following the implementation and verification of the corrective actions. As a reminder, the goal of commissioning is to demonstrate that the vapor pathways have been eliminated or mitigated, on a sustained and stable basis, and includes concurrent indoor air sampling and collection of VMS pressure field extension measurements. The DNR's guidance document RR-800, *Addressing Vapor Intrusion at Remediation & Redevelopment Sites in Wisconsin*, presents additional information on commissioning. As presented in RR-800, **the VMS commissioning process can take a responsible party and its qualified consultant a few months to**

more than a year, depending on site conditions and whether the responsible party must modify the VMS to achieve performance criteria.

Plan Review

The DNR provides the following comments to CWC's Plan:

1. Removal of water from the VMS
 - a. Consider whether the utilities beneath the building may be acting as preferential pathways for vapor intrusion. In addition to the proposed televising event within the storm sewer downspouts and their outlet(s), CWC could consider performing smoke and/or dye testing to help to evaluate these features as preferential pathways for vapor migration.
2. Restoration of depressurization
 - a. Given the information presented at this time, the DNR does not have any comments to share concerning this aspect of CWC's Plan.
3. Sealing of entry points
 - a. CWC's Plan does not specifically discuss the wood columns in the site building that may be acting as preferential pathways for vapor intrusion. Supplement the Plan with information about how these preferential pathway(s) will be assessed, eliminated, or mitigated. Evaluate the wood columns as a preferential pathway and address them accordingly.
 - b. Figure 7 – *Potential Areas of Surface Sealing*, shows areas of the first floor where floor sealing activities may occur. The floor sealing area should be expanded to include the fitness room and east-adjacent women's locker room.
 - c. Evaluate the wall with the plumbing conduits in the laundry room to determine whether it should be included during the sealing efforts.
 - d. CWC's Plan indicates that the brick wall separating units 1045 and 1050 may be sealed and that the same brick wall may be sealed on levels two and three of the site building. Consider whether other brick walls are acting as a preferential pathway for vapor intrusion. Consider sealing additional brick walls, where appropriate.
4. VMS Monitoring
 - a. Wisconsin Admin. Code § 724.13(1)(d) provides that “[v]apor mitigation systems and remedial actions designed to address vapor migration shall be monitored at a frequency determined by the department, to measure whether the action taken has been effective in meeting the vapor action level.” Based on site-specific conditions present at the site, including high levels of TCE in the soil beneath the building, short term exposure health risks of TCE, complexity of the building structure and VMSs, and documented exceedances of the vapor action level (VAL) for TCE in residential buildings, the DNR has determined that CWC must monitor the VMSs on a continuous basis. Please determine how continuous monitoring will be achieved and, in accordance with Wis. Admin. Code § 724.13(2), submit an interim operation, maintenance, and monitoring (OM&M) plan for all VMS components. It is strongly recommended that continuous monitoring of the VMSs includes audible alarms to alert building occupants of system failures as well as instrumentation, such as telemetry, to allow immediate notification of a person directly responsible for arranging repairs in the event of a system malfunction. Per Wis. Admin. Code § NR 724.13(2)(c), include a contingency plan in the OM&M plan for anticipated or potential operation and maintenance problems, including a plan for how CWC will address a loss of

electrical power to the system. It is strongly recommended that a backup power system is considered to address this potential situation.

5. Other

- a. As outlined in the *Update to Post Closure Modification Request / Remedial Action Plan*, dated March 19, 2021, and submitted to the DNR on March 23, 2021, the original purpose of the VMS was not only to mitigate vapors beneath the sub-slab, but also to serve as a remedial action through soil vapor extraction (SVE). The DNR conceptually approved this as a remedial action in the *Review of Updated Remedial Action Design Report* letter, dated June 8, 2021. CWC's Plan does not mention the SVE component of the VMS. Evaluation and adjustment of the SVE component of the VMS should be considered as you implement your Plan.
- b. As a reminder, per Wis. Admin. Code § NR 726.05(8)(b)(1), when sub-slab vapors exceed their applicable vapor risk screening level, remedial action(s) to reduce the mass and concentration of volatile compounds must be completed to the extent practicable prior to case closure. To-date, soil excavation and SVE are the planned remedial actions for this site. The past soil sample results and the concentrations of trichloroethylene (TCE) in indoor air identified to-date show that additional remedial action may be necessary to reduce the mass and concentration of TCE in addition to previous soil excavation and the conceptually approved SVE component of the VMS. Consider implementing supplemental remedial actions. Remedial actions to consider include, but are not limited to, targeted SVE with dewatering for observed conditions, additional soil excavation, or injections in the area(s) of highest soil contamination.
- c. For each component of the VMS, consider adding instruments that will measure the environmental media (i.e., vapor, water, etc.) removed to estimate discharge rates and any mass removal that may occur.
- d. The integrity and safety of the VMS components (e.g., sumps, inspection ports, etc.) should be demonstrated. If any system components are within residential living spaces or are otherwise accessible, CWC should ensure that these components are tamper proof by including appropriate safety features.
- e. It is recommended that CWC work with state and local health authorities to ensure compliance with any applicable requirements and protocols for worker safety.

Executing the corrective actions at this site will be an iterative process for CWC, and the results of system testing that is performed by CWC during and/or following the implementation of the corrective actions may demonstrate that additional actions are required that may not be included in CWC's Plan.

Next steps

In accordance with statutory and administrative code requirements as well as the Emergency Order that was issued by the DNR for this site on March 31, 2023, complete the following next steps:

- Paragraph 5 of Section III of the Emergency Order requires CWC to submit indoor air sample results to the DNR upon receipt. In accordance with this paragraph, submit all indoor air sample results to the DNR upon receipt of the results by CWC and/or your consultant. Lab reports are acceptable. In accordance with this paragraph of the Order, include maps showing locations of all samples.
- For all other sampling, per Wis. Admin. Code § NR 716.14, submit results within 10 business days of receiving laboratory data.
- Paragraph 3 of Section III of the Emergency Order requires CWC to identify, assess, and mitigate vapor intrusion pathways and/or sources, and provide documentation and a summary of actions taken. In accordance with this paragraph and Wis. Admin. Code § 724.15, within 60 days of the completion of the

corrective actions taken for the VMS, provide an interim construction documentation or as-built report to the DNR. This report must include diagrams and as-builts of each component of the system, including, but not limited to, the vapor mitigation system, the SVE components of the system, and the sump pumps. The DNR recommends that this report be provided as soon as is feasible.

- Paragraph 4 of Section III of the Emergency Order requires CWC to demonstrate that the installed VMS is preventing exceedance of the VAL for TCE throughout the entire building under all expected occupied building operating conditions and that vapor concentrations of TCE will remain below the residential VAL throughout the entire building. In accordance with this paragraph and per Wis. Admin. Code ch. NR 724, submit a commissioning plan to the DNR. Per Wis. Admin. Code §§ NR 708.11(4)(b)-(c) and 724.07(1), DNR review of the commissioning plan may be required prior to proceeding with implementation of the first round of system commissioning. Include a proposed commissioning schedule within the commissioning plan, along with a technical assistance fee for DNR review and response, per Wis. Stat. § 292.94 and Wis. Admin. Code ch. NR 749. The above-outlined as-built report should be provided prior to submitting the system commissioning plan, so that DNR can consider this report during its review of CWC's commissioning plan.
 - The commissioning plan should also demonstrate that the supplemental VMS, planned within Building 1B, will be effective at preventing vapor intrusion in the event it is to be used as a back-up system.
- Please submit an interim operating, maintenance and monitoring (OM&M) plan for all VMS components that includes the information specified in Wis. Admin. Code §§ NR 724.13(2) and 724.17, as applicable. CWC's OM&M plan should be submitted as part of the commissioning plan. A final OM&M plan will also be required once commissioning is complete, in accordance with Wis. Admin. Code § NR 724.13(4).

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

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