



December 13, 2024

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

Subject: Technical Assistance Response – Commissioning Event Review  
Community Within the Corridor – East Block  
2748 N. 32<sup>nd</sup> Street, Milwaukee, WI 53210  
BRRTS #02-41-263675, FID #241025400

Dear Mr. LaFave:

On November 11, 2024, the Wisconsin Department of Natural Resources (DNR) received, *Proposed Plan for 4<sup>th</sup> Round of Commissioning of Vapor Mitigation System*, and on November 14, 2024, the DNR received, *Third Round of Commissioning*. Both documents were prepared and submitted by K. Singh & Associates, Inc. (K. Singh) on behalf of Community Within the Corridor (CWC) for the subject site. On November 20, 2024, the DNR requested additional information to supplement the information presented in the submittals. On November 22, 2024, the DNR received the requested additional information (collectively, the Report). The Report was presented with a technical assistance fee of \$700 for DNR review and response. The DNR reviewed the Report for compliance with Wisconsin Statutes (Wis. Stats.) ch. 292 and Wisconsin Administrative (Wis. Admin.) Code chs. NR 700-754. The DNR provides the following comments and recommendations in response to the Report, as outlined in this letter.

### Report Overview

In summary, a commissioning event for the site’s vapor mitigation system (VMS) occurred in two stages (“3A event” and “3B event”), collectively referred to as the “fall 2024 commissioning event”. The fall 2024 commissioning event consisted of the following actions, as presented in the Report:

- 3A event: August 19 – September 6, 2024
  - Pressure field extension (PFE) testing at 56 vapor pins.
  - Real-time indoor air sampling at 124 locations using the portable gas chromatograph (GC) unit.
  - Passive indoor air sampling at 63 locations over fourteen days.
  - Continuous indoor air monitoring in Units 1045 and 1050 over fourteen days using the GC unit.
  - Measurement of the blower exhaust, speed, anemometer readings, and trichloroethene (TCE) concentration of the VMS blower exhaust.
- 3B event: October 18 – November 1, 2024
  - This event focused on Rooms 1049, 1053, 1054, 1055, and the northern mechanical room.
  - PFE testing at 9 vapor pins.
  - Real-time indoor air sampling at 13 locations using the GC unit.
  - Passive indoor air sampling at 8 locations over fourteen days.

- Measurement of the blower exhaust, speed, anemometer readings, vacuum, and TCE concentration of the VMS blower exhaust using the GC unit.

The Report also presents a plan for the upcoming winter 2024/2025 commissioning event, which is planned to focus on the areas of most concern on the first floor of building sections 1B-W and 1B-SW, namely Units 1043, 1044, 1045, 1050, and 1051, and Rooms 1048, 1049, 1052, 1053, 1054, and 1055, as outlined in the DNR's May 30, 2024, *Technical Assistance Response* letter, along with the northern mechanical room. The following is a summary of the plan presented in the Report:

- Building preparations that include sealing the building for 24 hours prior to indoor air sampling, inspecting cracks and joints in the building, screening the building via real-time indoor air sampling using the GC unit, and the VMS performance will be monitored using the remote telemetry system.
- PFE will be measured at 58 vapor pins to demonstrate a negative pressure of a minimum of -0.004 inches water column.
- Real-time indoor air sampling at 33 locations using the GC unit.
- Continuous air monitoring in Units 1045 and 1050 over fourteen days using the GC unit.
- Passive indoor air sampling at 22 locations over fourteen days.
- Measurement of the VMS blower exhaust velocity and TCE concentrations using the GC unit.

### Report Review

The DNR considers the 3A and 3B Events to be the second VMS commissioning event with adequate PFE and without indoor air VAL exceedances at the subject site. As DNR has previously informed CWC, a minimum of three consecutive commissioning events that demonstrate that the VMS is successfully preventing vapor intrusion are necessary. The information collected during the commissioning process is used to demonstrate that the remaining level of contamination is not likely to cause a vapor action level (VAL) to be attained or exceeded, which is required prior to case closure per Wis. Admin. Code § NR 726.05(4)(e). If any of the upcoming commissioning events identify indoor air contamination greater than the applicable VAL(s), increasing trends of indoor air contamination, or inadequate PFE across the building footprint, the commissioning process may need to be restarted or continued.

The DNR provides the following comments and recommendations in response to the information presented in the Report:

1. TCE: All TCE indoor air data was below the applicable VAL for the recent commissioning event. However, TCE concentrations collected from the GC unit show a slightly increasing trend between the spring 2024 commissioning event and the fall 2024 commissioning event. For example, the average and maximum concentrations of TCE identified in the continuous monitoring samples collected from Units 1045 and 1050 were notably higher in the fall 2024 commissioning event. Given this data variability, in addition to the indoor air sampling locations proposed in the Report, the DNR requests CWC perform the following indoor air sampling in the up-coming winter 2024/2025 commissioning event:
  - a. As a part of the building preparations, collect real-time indoor air samples using the GC unit at all locations where TCE was identified equal to or greater than  $1.0 \mu\text{g}/\text{m}^3$ . If the real time data confirms the presence of TCE equal to or greater than  $1.0 \mu\text{g}/\text{m}^3$ , then collect a 14-day passive indoor air sample from the respective location to confirm TCE concentrations remain below the VAL of  $2.1 \mu\text{g}/\text{m}^3$ .
  - b. Collect passive and real-time samples from Units 1042 and 1041, based on their proximity to hotspot/source areas and the indoor air data collected from the fall 2024 commissioning event.

2. Building conditions:
  - a. The passive indoor air data from the fall commissioning event generally shows significantly lower concentrations of contaminants than the real-time indoor air data. The Radiello 130 passive indoor air samplers being deployed at the site require a minimum air flow rate of 10 centimeters per second (cm/s) to ensure the data is representative. Prior to the next commissioning event, use an anemometer or similar device to measure the baseline air flow rate in each of the units and rooms that will be sampled in the next commissioning event. If the air flow rate in any of these spaces is less than this required threshold, adjust the air flow within the space accordingly. Confirm any building manipulations are consistently applied throughout the whole duration of the passive sampling event. Provide detailed documentation in the winter 2024/2025 commissioning report outlining how the air flow may have been manipulated to allow for representative passive indoor air data.
  - b. Turn on kitchen and bathroom ventilation/fans for a sustained period of time (i.e., 8-12 hours) during the 14-day continuous monitoring period within Units 1045 and 1050. Document this manipulation in the winter 2024/2025 commissioning report, including the duration and date of this sustained operating period, and discuss how this may have impacted the data.
3. GC unit Quality Assurance / Quality Control (QA/QC):
  - a. In the next commissioning report, provide a copy of the standard operating procedures (SOPs) for the GC unit. Include a site-specific narrative providing details on how the SOPs were adhered to during each commissioning event. This can be included as an appendix to the future report and should address each section of the SOP document. Document how the correct calibration procedures, as outlined in the SOP, were accomplished in the field for each commissioning event. Address all portions of the SOP in this narrative, such as standard deviation, information on how the standards were prepared, the process for collecting blanks and replicates, and qualifications, credentials and experience of the staff person(s) collecting the real-time samples, etc.
  - b. Follow appropriate QA/QC procedures to ensure the high concentrations of TCE in the blower exhaust do not impact the calibration or accuracy of the GC unit. Provide an evaluation of the accuracy of samples collected with the GC unit and methods used to prevent contaminant carryover. Document this action in the above-mentioned SOP appendix/section and on any applicable GC calibration table(s).
4. Blower concentrations: There has been a notable increase in TCE concentrations in samples collected from several of the blowers between March 2024 and October 2024. For example, the concentration at Blower 10 has increased from 565  $\mu\text{g}/\text{m}^3$  to 2,810  $\mu\text{g}/\text{m}^3$ . A duplicate TCE sample should be collected from blowers 5, 9, 10, and 11 on the same day as the original sample to confirm TCE results. If the percent deviation between the two samples exceeds 30%, then a third sample should be collected from the respective blower. Provide an evaluation of the significance of any trend noted.
5. Other:
  - a. Provide the continual data log for the Differential Pressure Transmitter (DPT) readings in the winter 2024/2025 commissioning report. Include logs of any other telemetry data that is being collected between now and the submittal of the winter 2024/2025 commissioning report.
  - b. Continue to collect blower/fan vacuum measurements from all the VMS fans during the upcoming winter 2024/2025 commissioning event to provide data to establish their baseline conditions. The baseline measurements will likely differ slightly between the fans. Establishing baseline conditions is critical for the long-term operation, maintenance and monitoring (OM&M) of the VMS.

- c. Include the outdoor barometric pressure data on the *Summary of Weather Conditions* table (Table 1 in the Report) in the winter 2024/2025 commissioning report.
- d. Include a graph of outdoor temperature and barometric pressure on the figure for continuous monitoring results for Units 1045 and 1050 similar to Figure 22 in the spring 2024 commissioning report.
- e. The Report indicates that the building will be sealed for 24 hours prior to performing indoor air sampling. Clarify the details of the building sealing procedures in the forthcoming winter 2024/2025 commissioning report.
- f. Include the sample locations for the 14-day continuous monitoring samples taken from Units 1045 and 1050 on future indoor air sample location maps, as applicable.
- g. Include information on the temperature of the indoor air in the winter 2024/2025 commissioning report.
- h. In conjunction with the submittal of the winter 2024/2025 commissioning report, the DNR requests that up-to-date, comprehensive raw excel sheets with the indoor air data be submitted to the DNR via email. This data presentation is useful for the DNR to perform our technical review of the indoor air data.

### Next Steps


As CWC continues to move through the commissioning process, the DNR would like to note for CWC the following regulatory requirements for future planning and scheduling purposes.

- Per Wis. Admin. Code § NR 716.14, CWC must submit all sampling results within 10 business days of receiving laboratory data.
- Per Wis. Admin. Code § NR 724.15, submit a construction documentation or as-built report within 60 days after the date that construction of all interim actions is completed. The as-built report should include the VMS commissioning summary report. Alternatively, these reports can be submitted separately, but both reports must be submitted prior to CWC requesting DNR's approval of the VMS.
  - The DNR received the OM&M plan, dated December 10, 2024. The DNR will review the OM&M plan to determine whether it meets requirements and includes the information specified in Wis. Admin. Code §§ NR 724.13(2) and 724.17, as applicable. If any revisions to the OM&M plan are needed or proposed following the DNR's review of this document, a revised OM&M plan must be submitted with the as-built report in accordance with s. NR 724.15(3)(h). If a revised plan is needed, the DNR recommends the OM&M plan is included in an appendix or as a supplemental document that can be easily separated from the construction details and provided to individuals responsible for performing the OM&M.
  - Wis. 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.” In consideration of the 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 VAL for TCE in residential buildings, the DNR has determined that CWC must monitor the VMSs on a continuous basis, as was outlined in the DNR's May 8, 2023, *Technical Assistance Provided – Review of Emergency Corrective Action Plan* letter. CWC must determine and document how continuous monitoring will be achieved. 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), the OM&M plan must include a contingency 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 for the VMS to address this potential situation. The DNR will review the OM&M plan submitted to determine whether an adequate contingency plan has been provided.
- As outlined in the DNR's *Remedial Action Options Report Review* letter, dated December 11, 2023, the as-built should include a detailed narrative and supporting photo documentation on the sealing efforts that are performed for various building features, such as columns, walls, floors, and other building features. This report should also include operation and discharge information for the sumps at the site as they are part of the VMS. The OM&M plan included in this report should discuss how the sealing efforts will be inspected and maintained.

The DNR looks forward to continuing to work with you on this project and appreciates the actions you are taking to mitigate the effects of environmental contamination at this site. If you have any questions regarding this site or this letter, please contact me, the DNR Project Manager, at (414) 435-8021 or [jane.gray@wisconsin.gov](mailto:jane.gray@wisconsin.gov).

Sincerely,



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