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June 15, 2023

Mr. Jeff Mawicke
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Milwaukee, WI 53202
Email only to: jmawicke@dmgr.com

Mr. Sam Morris
1101 South Prairie Avenue LLC
252 East Highland Avenue
Milwaukee, WI 53202
Email only to: smorris@jjeffers.com

Subject: Review of Supplemental Site Investigation Report and Remedial Action Plan
Schaefer Brush, 1101 South Prairie Avenue, Waukesha, Wisconsin
DNR BRRTS Activity #: 02-68-563736; FID #: 268138750

Dear Mr. Mawicke and Mr. Morris:

The Department of Natural Resources (DNR) has completed its review of the March 23, 2023, *2022 Supplemental Site Investigation Report and Remedial Action Plan* (SIRRAP) and other applicable documentation submitted for the site identified above. The applicable technical assistance fee for providing review and a written response, in accordance with Wis. Admin. Code § NR 749.04 (1), was received on April 4, 2023. The SIRRAP requests DNR concurrence that the investigation and remedial actions conducted at the site are complete and a request for case closure could be submitted. As discussed below, the DNR determined that additional actions are needed to investigate the extent of groundwater contamination, interrupt or mitigate the vapor intrusion pathway, and to reduce the mass and concentration of contamination impacting indoor air.

Investigate the extent of groundwater contamination

Additional groundwater samples must be collected to define the degree and extent (both vertically and horizontally) of PFAS contamination in groundwater as required by Wis. Admin. Code § NR 716.11 (3) (a) and (5) (f). Offsite samples may need to be collected to define the extent of impacts, per Wis. Admin. Code § NR 716 (4). The investigation must determine if discharges of PFAS-containing materials occurred onsite so the extent of contamination within these source areas can be determined (Wis. Admin. Code § NR 726 (5) (e)) and, if needed, remediated.

Recently collected groundwater samples have not clarified how far down gradient chlorinated volatile organic compound (CVOC) contamination has migrated. Sample data from MW-7 also does not demonstrate that contaminant concentrations will fall below the enforcement standard within a reasonable amount of time in compliance with Wis. Admin. Code § NR 726.05 (6) (b). Continue to collect groundwater samples from this well to support an evaluation of contaminant trends and assess what other actions would be needed to demonstrate compliance with this requirement (additional sampling locations, remedial actions, long-term monitoring, etc.).

Interrupt or mitigate the vapor intrusion pathway

The operation of the positive pressure system (PPS) appears to be having some positive impact on air quality. Tetrachloroethene (PCE) and trichloroethene (TCE) have not been detected in indoor air at concentrations greater than vapor action levels since the PPS has been operating. However, these contaminants continue to be consistently detected in indoor air samples indicating the that the vapor intrusion pathway has not been interrupted. Even brief increases in TCE concentrations, caused by pressure variations within the building or other factors, can pose a risk to occupants. Potential variations or spikes in TCE concentrations cannot be ruled out by the indoor air samples collected as these only represent conditions at a small portion of the facility over a relatively short amount of time. In addition, indoor air pressure readings at the BP- and BBP- locations indicate that positive pressure is not maintained in all portions of the facility throughout the entire year. While the monthly average building pressure (as measured by one sensor in the facility) is shown to be positive, this does not confirm that pressure is always maintained consistently in all areas of the facility. Additional steps must therefore be taken to fully interrupt or mitigate the vapor intrusion pathway to ensure TCE will not pose a risk. Because of concerns regarding the long-term maintenance and effectiveness of PPSs, the DNR does not recommend these measures as stand-alone long-term mitigation strategies, especially when TCE is present and acute risk is a concern.

The DNR recommends that you prepare a plan for mitigating the vapor intrusion pathway which identifies the area needing mitigation, the specific actions that will be taken to interrupt this pathway, the data and measurements that will be collected to confirm mitigation is occurring as expected, and the ongoing monitoring and/or maintenance that will be conducted to ensure continuous mitigation in compliance with Wis. Admin. Code § 724.13. Design and reports prepared for a mitigation system must be submitted to the DNR and comply with the applicable portions of Wis. Admin. Code §§ 724.09 and 724.11.

The DNR recommends that your mitigation plan includes the installation of additional sub-slab extraction points, similar to what was constructed as EX-1, in areas where impacted sub-slab vapors have been identified. You will need to demonstrate the extent to which the existing and newly installed extraction points influence sub-slab conditions by collecting sub-slab pressure readings around these locations.

Assessing Options for Conducting a Remedial Action

Per Wis. Admin. Code § NR 726.05 (8) (b) 1, case closure cannot be granted for a site with contaminant concentrations in soil vapor greater than a VRSL until a remedial action has been conducted that reduces the mass and concentration of volatile compounds to the extent practicable. A site where remediation is ongoing (such as treatment by an operating vapor extraction system) would not be eligible for closure. Sub-slab depressurization systems are not an effective means of reducing the mass or concentrations of contaminants in sub-slab vapor (see Note under Wis. Admin. Code § NR 726.05 (8) (b) 1).

The DNR requests that you evaluate potential remedial options, following the process outlined in Wis. Admin. Code § NR 722.07 and NR 722.09, to determine what could be a practicable means of reducing contamination impacting sub-slab vapors. Prepare a remedial action options reports as required by Wis. Admin. Code § NR 722.13 and submit a copy to the DNR.

General Questions

We request that responses to the following questions be provided to clarify information provided in the SIRRAP.

Is the base of the sump in the basement sealed?

Were the IA-3 samples collected from within the rest room as previously requested?

Other information

The DNR is not requesting additional soil, vapor, or air samples be collected at this time to complete the site investigation. However, additional sampling may be beneficial for planning a mitigation system or remedial actions, or for commissioning of mitigation systems. Results of sample analysis must be provided to the DNR, owners of the property where the samples were collected, and occupants of the buildings as appropriate within ten business days of receipt (Wis. Admin. Code § NR 716.14 (2)).

Documents prepared to address the above items may be submitted to the DNR with the applicable review fee to obtain a written response. Once the items outlined above are addressed you should reassess whether the requirements for case closure can be met or if additional investigation or remediation will be needed.

We appreciate your efforts to protect the environment at this site. If you have any questions regarding this request, please contact me by calling (414) 405-0764, or by email at paul.grittner@wisconsin.gov.

Sincerely,

Paul Grittner
Hydrogeologist
Remediation & Redevelopment Program

cc: Toni Schoen, SET Engineering, LLC – tschoen@setenv.com