



September 29, 2020

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Subject: Case Closure under Wis. Admin. Code ch. NR 726 Not Recommended
Nor-lake Soil & Groundwater Remediation
DNR BRRTS Activity # 02-56-000089
FID #: 656009420

Dear Mr. Lonnau:

On July 8th, 2020, the Wisconsin Department of Natural Resources (DNR or “department”) reviewed the closure request for the case identified above. As you are aware, the DNR reviews environmental remediation cases for compliance with applicable laws, including Wis. Stat. ch. 292 and Wis. Admin. Code chs. NR 700 – 754 and whether any further threat to public health, safety, welfare or the environment exists at the site or facility, per Wis. Admin. Code § NR 726.13 (2) (b). Case closure is not recommended because additional legal requirements must be met. The purpose of this letter is to inform you of the remaining requirements. We request that within 60 days of this letter, you provide us with the information requested or your written response regarding the necessary work and a schedule for completion of this work.

Need to Complete a Vapor Investigation

Additional site investigation, per Wis. Admin. Code § NR 716.11 (5), is needed to determine whether vapor intrusion is a completed pathway at this site, or if there is a risk of future vapor exposure due to residual contamination.

- 1) The small commercial VRSLs need to be added to the historical vapor data table so that all VRSLs are documented (similar to including all soil residual contaminant levels regardless of the property zoning). Explain what VRSLs are being selected and the rationale to support the decision.
- 2) To be compliant with the NR 700 Rule Series:
 - a. Demographics should be assessed since TCE is the contaminant of concern as discussed in RR-800, Section 3.4.1. The potential for a preferential pathway from beneath the slab

directly into the indoor air in the restrooms needs to be assessed. While SSV data generally meets the VRSLs, it does exceed the applicable non-residential vapor action level (VAL) for TCE of $8.8 \mu\text{g}/\text{m}^3$ and underlies small occupied spaces. A preferential pathway that circumvents the attenuation through a slab could create a direct path from beneath the slab to indoor air, creating an unacceptable exposure to vapors. SSV samples should be paired with an indoor air sample.

- b. The office area overlies the perforated drainpipe from the dry well and is near the septic tank and needs to be assessed for indoor air via a preferential pathway as described above. The cross section and conceptual site model (CSM) should be updated appropriately.
- c. The black dots and triangular lines with distances on Figure 2, Vapor Sample Location Map in the December 2019 report, were not described or included on the revised map submitted as Attachment B.4.a. in the closure request. The dots and lines with distances noted need to be explained and cross section and CSM updated appropriately.
- d. It is unclear if VS-1, VS-2 and VS-7 as shown on Figure 2 of the December 2019 report were collected within enclosed or office space and should be clarified as well.

- 3) The off-site residual groundwater plume was not reviewed. Justification for not investigating vapors off-site should be provided and supported with technical findings such as depth to groundwater, TCE concentrations identified in the plume, subsurface geology and preferential pathways that include but are not limited to utility corridors and sewer lines.

Need to Conduct Additional Groundwater Monitoring

Sampling for 1,4-Dioxane is needed to establish compliance with the closure criteria of Wis. Admin. Code § NR 726.05 (6). 1,4-Dioxane is used as a stabilizer for TCE, the substance that was originally released at this site. Evaluation of 1,4 Dioxane should be completed on-site at all monitoring wells to determine if it is present. If 1,4 Dioxane is identified it may be necessary to further sample off-site within the TCE plume boundaries to define the extent of impacts. If sampling for 1,4-Dioxane was conducted earlier in the history of this site, those results may be considered in lieu of additional sampling. Please see the attached department mailing regarding emerging contaminants sent to all responsible parties on August 17, 2020.

Additionally, under the codes cited below, the department believes that it does not have the authority to grant closure for this case.

Wis. Admin. Code §NR 726.13(1)(b) states:

*“The agency **may not** close a case under this chapter if, at any time in the future, the remaining level of contamination is likely to do any of the following: 1. Pose a threat to public health, safety, or welfare or the environment. 2. Cause a violation of a ch. NR 140 groundwater quality enforcement standard at any applicable point of standards application...”* [emphasis added].

Wis. Admin. Code §NR 726.05(4) states:

“RESPONSE ACTION GOALS. For sites or facilities considering closure under this chapter, the closure request shall document that the remaining level of contamination is not likely to: (a) Pose a threat to public health, safety, or welfare or the environment. (b) Cause a violation of ch. NR 140 groundwater quality enforcement standards at any applicable point of standards application...”

The Wisconsin Department of Health Services has recommended that the enforcement standard for TCE

be reduced to 0.5 micrograms per liter ($\mu\text{g/l}$) from the present 5.0 $\mu\text{g/l}$, and this change is currently in the rulemaking process. This recommendation is based on toxicity and cancer risk level information. Please see the attached [DHS recommendation](#).

The DNR is not recommending closure at this time because we believe that the enforcement standard for TCE will be exceeded in private wells if the proposed rule is adopted. The DNR also believes that there is currently a threat associated with the levels of contamination remaining in private wells that exceed the recommended enforcement standard of 0.5 $\mu\text{g/l}$ that do not have a treatment system.

Schedule

Within 60 days of the date of this letter, respond in writing with a schedule of your plans to meet these requirements. Submit a groundwater sampling plan and additional vapor assessment within 60 days (NR 716.09 (1)), beginning of additional work within 90 days of approval of the groundwater sampling plan and additional vapor assessment (NR 716.11 (2g)), and an implementation report within 60 days of completion of work (NR 716.15 (1)), etc.]

Until requirements are met, your site will remain “open” and you are required to submit semi-annual progress reports, per Wis. Admin. Code § NR 700.11. You are also responsible for any operation and maintenance activities required under Wis. Admin. Code § NR 724.13. Once the additional work has been completed, documentation should be submitted to the DNR to demonstrate that the applicable requirements have been met, per the timelines above.

If you have any questions regarding the information in this letter or would like to schedule a meeting to discuss this case, please contact the DNR project manager, Candace Sykora at 715-928-0452 and candace.sykora@wisconsin.gov. For more information on the closure reconsideration process, please see DNR publication, RR-102, “Wis. Admin. Code ch. NR 726 Case Closure Reconsideration Process” by visiting dnr.wi.gov, search: RR-102, for more information.

The DNR appreciates your efforts to restore the environment at this site.

Sincerely,



Dave Rozeboom
West Central Region Team Supervisor
Remediation & Redevelopment Program

cc: Gregory Aldrian, Ayres Associates
Stacey Constas, Standex Industrial Corporation

Attachments:

Department mailing regarding emerging contaminants, August 17, 2020
DHS recommendation regarding recommended enforcement standard for TCE