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WISCONSIN
DEPT. OF NATURAL RESOURCES

April 10, 2024

Mr. Ben Collins
Cedarburg Light & Water
PO Box 767
Cedarburg, WI 53012-0767
Via Email Only to bcollins@cedarburglightandwater.org

Subject: Department of Natural Resources Review of *Summary of Supplemental Site Investigation Activities*
Cedarburg Cty Power Plt, (Former) and Cedarburg Light & Water
W61N617 Mequon Ave., Cedarburg, WI
BRRTS #s: 02-46-547626, 03-46-003301

Dear Mr. Collins:

The Wisconsin Department of Natural Resources (DNR) has recently reviewed the *Summary of Supplemental Site Investigation Activities – Former City of Cedarburg Power Plant*, (the Report) submitted on your behalf by your consultant, Stantec Environmental Services Inc., (Stantec). The Report was received by the DNR on December 5, 2023, and was submitted with a technical assistance fee for review and written response from the DNR. This letter serves as your response.

Background

The subject site operated as a City of Cedarburg power plant from 1901 to 1984 and was converted to office space a few years ago. The case was reported in June of 1993 as a result of a site investigation for tanks removed in 1986 including two 20,000-gallon diesel underground storage tanks (USTs), which were used to fuel the power plant, and one 1,000-gallon gasoline/diesel UST used for fueling vehicles. These USTs are likely the source of the identified petroleum volatile organics (PVOC) contamination at the site. Chlorinated volatile organic solvents (CVOCs) were used in a former parts washer and stored in drums on the south end of the site building, and in the past, waste solvents from the parts washer were also discharged onto the ground surface to control weeds between the former cooling towers and the site building. Historical site investigation activities have identified PVOC and CVOC contamination.

In 2021, the DNR requested a site status update due to concerns regarding trichloroethylene (TCE) contamination presenting a potential vapor intrusion hazard in the office space, and also requested an evaluation of emerging contaminants, including per- and polyfluoroalkyl substances (PFAS). In response, Stantec conducted additional site investigation and submitted the Report. Findings of the Report included that concentrations of CVOCs have dropped below the Wis. Admin. Code ch. NR 140 Enforcement Standards in all monitoring wells; PVOC concentrations continue to be below Preventive Action Limits (PALs); however, PFAS compounds were found in groundwater above proposed regulatory standards.

Review

The DNR has reviewed the Report and has the following recommendations in consideration with the requirements outlined in Wis. Admin. Code ch. NR 716:

Scoping

Per Wis. Admin. Code §§ NR 716.07, NR 716.09, site investigation scoping and the site investigation work plan require an evaluation of the history of the facility, previous discharges, and uses on the site that may be associated with discharges.

Potential Contaminant Sources

a. Describe the on-site storage and use of fire-fighting aqueous film forming foam (AFFF) and other sources for potential PFAS contamination.
b. Determine if there are locations where AFFF may have been spilled, leaked, or have been placed for firefighting practice such as in a fire-fighting practice burn pit.
c. Develop a conceptual site model (CSM) that is supported by the identified contamination. For example, the CVOCs identified in groundwater are not located near identified CVOC source areas and this must be discussed. A revised CSM should direct sampling in all potentially affected environmental media. Include a discussion of subsurface utilities as a potential contaminant migration pathway.

Extent and Degree of Contamination in All Media

Per Wis. Admin. Code § NR 716.11(3)(a), the field investigation must determine the nature, degree, and extent, both areal and vertical, of the hazardous substances or environmental pollution in all affected media. The DNR believes you can take a stepwise approach to determining the extent of contamination at the site.

Soil

a. Develop a soil sampling program based on the site scoping and CSM, as discussed above. The sampling program should help to demonstrate if a source of CVOCs soil contamination is near the identified CVOC groundwater contamination. Discuss the lack of CVOC soil contamination near the former weed spraying area.

Groundwater

a. Propose a groundwater sampling program to establish groundwater contaminant concentration trends for PFAS. Sample the existing downgradient wells MW2 and MW3 for PFAS as part of the program.
b. Determine the horizontal extent of groundwater contamination.
c. Install piezometers to define the vertical extent of groundwater contamination.
d. Determine if natural attenuation is occurring for CVOCs and provide supporting evidence other than potentially decreasing contaminant concentrations. Natural attenuation parameters should be collected if monitoring natural attenuation (MNA) may be a proposed remedy.

Vapor

a. Conduct confirmation sub-slab vapor samples from the existing vapor pin locations SS-1 & SS-2, and install and sample a sub-slab vapor pin in the middle of the site building. Collect indoor air samples alongside the additional sub-slab vapor sampling.

Sediment And Surface Water

a. Determine if the sediment and surface water pathways may be complete from the on-site contaminants of concern (COCs) to Ruck Pond. Sample surface water and sediments for the COCs, if appropriate.

Documentation

The DNR requests the following additional documentation:

- Submit the February 1993 Phase I Environmental Site Assessment Report referred to in the April 7, 1997, case closure request.
- Include historic soil data in the tables from the 1994 and 1995 underground storage tank site investigations.

As a reminder, per Wis. Admin. Code § NR 716.14, all sampling results must be submitted within 10 days of receiving laboratory data.

Next Steps

Submit a site investigation workplan to address the above comments within 60 days of your receipt of this letter. The site investigation can be an iterative process, and additional information provided may indicate that further assessment is needed to define the degree and extent of contamination. Once this additional information is provided to the DNR, your consultant should re-evaluate remedial actions and the appropriate pathway for case closure.

The DNR appreciates your work. If you have any questions regarding the site or this letter, please contact me as the DNR Project Manager, or have your consultant contact me at 262-416-8643 or by email at johnm.feeney@wisconsin.gov.

Sincerely,

John Feeney, PG
Remediation and Redevelopment Program
Wisconsin Department of Natural Resources

cc: Ms. Erin Gross, Stantec, Erin.Gross@Stantec.com
Mr. Stu Gross, Stantec, Stu.Gross@Stantec.com