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WISCONSIN DEPT. OF NATURAL RESOURCES

September 5, 2024

Britta Chambers
3M
3M Center, 225-IN-22
St. Paul, MN 55144-1000

SUBJECT: Phase II CESA – Site Investigation Report Review
3M Menomonie, 1425 Stokke Parkway, Menomonie, WI
DNR BRRTS Activity #: 02-17-590808

Dear Ms. Chambers:

On October 3, 2023, the Department of Natural Resources (DNR) received a Phase II CESA – Site Investigation Report (SIR) prepared for 3M by Tetra Tech, Inc. (Tetra Tech). The SIR was submitted with a $1,050.00 review fee in accordance with Wisconsin Administrative Code (Wis. Admin. Code) ch. NR 749. The DNR reviewed the SIR for consistency with Wis. Admin. Code §§ NR 716.07 and 716.09 and determined that the general code requirements are met.

Background

The 3M Menomonie facility (Site) was part of a larger tract of land developed for agricultural use from at least 1938 to 1974. The Site was acquired by 3M in 1974 and was redeveloped with the original portion of the manufacturing building, which consisted of office space, process areas, a maintenance area, and a utility room. Multiple additions were constructed between 1974 and 2017, bringing the total manufacturing building footprint into its current configuration, with additional process areas, warehouse space and cooler/chiller rooms. From approximately 1974 to at least 1992, a wetland and the unnamed tributary on the west side of the Site was the discharge point of the former Site stormwater drainage system. Between 1992 and 2005, two stormwater retention ponds were constructed on-site. Both retention ponds serve as infiltration basins and there are currently no longer storm water discharges from the Site. Operations by 3M since 2005 have remained consistent with the current operations.

Two releases of fire suppression water containing aqueous film forming foam (AFFF) foam have been reported:

The first release occurred on November 3, 2021, where routine maintenance of the fire suppression system in Building 3 resulted in suppression water being released from an outdoor sprinkler valve with foam being observed. An estimated 100 to 400 gallons of water containing AFFF was discharged onto a concrete pad and grass adjacent to the building. The WDNR was notified of the release and a response action was immediately initiated by 3M. On November 8, 2021, 3M's contractor, Bay West, removed the concrete pad and excavated a total of 7.5 cubic yards of grass and soil in a 17 ft semi-circle around the release point to a maximum depth of 14 inches. Four samples were collected at the base of the excavation which confirmed the presence of per- and polyfluoroalkyl substances (PFAS).

The second release occurred on May 16, 2022, where a 3M contractor was capping and removing a fire suppression line in preparation for a building expansion project at Building 11, a cap and pipe failed and resulted in 700 to 800 gallons of fire suppression water released within a construction trench. The WDNR was notified of the release and additional response actions were initiated by 3M. Soil was excavated on May 17, 2022, and a total of approximately 125 cubic yards of soil were removed. Tetra Tech collected a total of 14 confirmatory samples, including 13 samples

at or below the base of the excavation and one sidewall sample. The depth of the excavation ranged from 10 ft to 17 ft. Samples were submitted for laboratory analysis of PFAS; Concentrations of perfluorooctane sulfonic acid (PFOS) ranged from 1.8 micrograms per kilogram (µg/kg) to 98 µg/kg and Perfluorohexane sulfonic acid (PFHxS) concentrations ranged from 1.1 to 5.9 µg/kg.

On October 21, 2022, 3M representatives communicated soil sample results with detections of PFAS from a stockpile from various facility operations.

A Responsible Party (RP) Notification letter was sent on October 25, 2022, requiring additional investigations to be completed in these areas to include further defining the degree and extent of impacts from the releases.

On January 25, 2023, the DNR received a Work Plan for Soil and Groundwater Investigation (SIWP) prepared for 3M by Tetra Tech. The SIWP presented scope of work (SOW) activities, in accordance with Wis. Admin. Code §§ NR 716.07 and 716.09, to determine if releases that have occurred at the Site have impacted soil and groundwater and to determine if impacts may have migrated off the Site. The DNR reviewed and replied to the SIWP on March 23, 2023.

SIR Summary

The SIR recommended additional investigation activities to provide additional characterization for several areas of interest throughout the Site. The additional investigation activities are related to PFAS detections, with limited areas of polycyclic aromatic hydrocarbons (PAHs) and Resource Conservation and Recovery Act (RCRA) metals.

The additional investigation activities proposed for this SOW includes:

- Step out borings to characterize PAH exceedances of industrial direct contact (IDC) residual contaminant levels (RCLs) at SB-4 and SB-13
- November 2021 AFFF Release
    - Additional soil delineation to further characterize the extent and total mass of impacts. Soil sampling locations and depths are limited in this area due to the congestion of utilities.
    - Additional groundwater delineation north of MW-2 to characterize the northern extent of PFAS in groundwater from the release, provide upgradient delineation of MW-5, and refine characterization of the potentiometric surface across the site.
- Fire Training Area
    - Additional soil delineation to further characterize the extent and total mass of PFAS in soils.
    - Additional groundwater delineation south of MW-3 to characterize the southern extent of PFAS in groundwater.
- General Soil Impact Investigation
    - Synthetic Precipitation Leachate Potential (SPLP) analysis of soils to establish site-specific soil PFAS concentrations representing a potential risk to groundwater.
- General Groundwater Impact Investigation
    - Additional upgradient investigation, east-southeast of MW-7 to characterize the northern extent of groundwater impacts at the site, provide upgradient delineation of MW-7, and refine characterization of the potentiometric surface across the site.
    - Additional delineation of groundwater impacts to the south and southwest of MW-4 to characterize the southern extent of PFAS in groundwater and refine characterization of the gradients in groundwater flow.
    - Additional vertical delineation of PFAS in groundwater in the vicinity of MW-3, MW-4, and to the southwest of MW-4 to establish the vertical extent of PFAS in groundwater and evaluate vertical gradients in groundwater flow.

- Assessment of potential PFAS in surface water in the unnamed tributary on the west edge of the Site that is downgradient of MW-4 and MW-5.
- Additional comprehensive groundwater sampling event to confirm initial analytical results and incorporate additional monitoring well locations.

Determination

The DNR agrees with the proposed SOW outlined in the Phase II CESA – Site Investigation Report and requests that 3M proceed with the activities listed above with one modification. The location(s)/area(s) of any spill(s) and/or release(s) of PFAS, or potential PFAS containing material, that occur at the Site while the site investigation is ongoing, shall be included as part of this investigation.

Thank you for your efforts to protect Wisconsin's environment. If you have any questions regarding this letter, please contact me at 608-219-2240 or Timothy.Zeichert@wisconsin.gov.

Sincerely,

Tim Zeichert
Hydrogeologist
West Central Region
Remediation and Redevelopment Program

cc: Chris Bonniwell, Tetra Tech (via email)