State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee WI 53212-3128

Tony Evers, Governor
Preston D. Cole, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

March 16, 2021

VIA EMAIL

Mr. Eric Ogden
Oak Creek Rawson Industrial, LLC
100 S. Wacker Drive, Suite 950
Chicago, IL 60606
Email: eogden@hsacommercial.com

SUBJECT: Supplemental Site Investigation Work Plan Review
Biogenesis Enterprises Inc. (Former), 610 W. Rawson Avenue, Oak Creek, WI
BRRTS #02-41-107191, VPLE #06-41-582006, FID #241020010

Dear Mr. Ogden:

The Wisconsin Department of Natural Resources (DNR) received the *Supplemental Site Investigation Work Plan*, (Work Plan) dated December 28, 2020, prepared by The Sigma Group, Inc. (Sigma) for the site referenced above. The Work Plan includes a scope of work for further investigation of the volatile organic compounds (VOCs), per- and polyfluoroalkyl substances (PFAS) and 1,4-dioxane at this site. Sigma requested DNR's review of the Work Plan and concurrence with their recommendations.

The DNR has reviewed the Work Plan and provides the following comments and recommendations.

Soil Investigation
Sigma concludes that "the 'source area' for PFAS impacts at the Site has been defined empirically based on the results of soil and groundwater sampling completed to date and generally corresponds to the area of monitoring well SMW-104R." Sigma is proposing one additional soil sample be collected north of the property, within the City of Oak Creek right of way, to define the extent of PFAS soil contamination.

The DNR does not concur with Sigma's conclusion, as currently the only soil PFAS sampling was in the area surrounding SMW-104R. Elevated PFAS concentrations have been detected in groundwater samples collected across the site that cannot be reasonably attributed to the SMW-104R area.

Additionally, there is not sufficient empirical evidence to support Sigma's interpretation that PFAS soil contamination is the result of atmospheric deposition via precipitation within organic wetland soils in the area of SMW-104R, and therefore not associated with any on-site activities. The Material Safety Data Sheets (MSDSs) included in Sigma's *Site Investigation Report*, dated February 1, 2019 identify a number of cleaning products manufactured by Biogenesis Enterprises, Inc. in the 1990s that list the ingredients as "a complex blend of surfactants classified trade secret." PFAS compounds were widely used in surfactants and were unregulated compounds at the time Biogenesis was manufacturing these products; therefore, the DNR cannot dismiss these former manufacturing activities as potential sources for the PFAS-contaminated soil and groundwater present across the property. Since SMW-104R is in a low area, the potential exists that PFAS-containing compounds could have collected in the area via spills or run-off. There has not been sufficient soil data collected to conclude that PFAS are only present in soil around SMW-104R.

Soil should be investigated in all areas where groundwater contamination has been shown to exceed the Wisconsin Department of Health Services' (DHS) recommended groundwater standards (refer to https://www.dhs.wisconsin.gov/water/gws-current.htm for Cycle 10 and 11 recommended standards). Former wetland areas on the north and southwest portions of the property should be investigated. Soil sampling should also be conducted when installing the proposed monitoring wells in the southeast area of the property and north of the property. Additional groundwater data requested from wells not previously analyzed for PFAS may indicate other areas of PFAS concentrations that need further soil investigation.

No additional soil analysis for 1,4-dioxane is required at this time. However, there may have been 1,4-dioxane sources in areas other than the southwest corner of the property, where 1,1,1-TCA and other chlorinated VOCs were remediated via soil excavation. Additional investigation of 1,4-dioxane in soil may be required if other source areas are identified.

Groundwater Investigation

The DNR concurs with Sigma's plan to install one groundwater monitoring well north of the property to further define the extent of PFAS and 1,4-dioxane, and one well to the southeast to define the extent of VOCs, PFAS, and 1,4-dioxane in these downgradient directions. Based on the data collected from all wells, you should evaluate whether additional wells are needed to define the extent of the contaminant plumes.

The DNR concurs with Sigma's plan to sample the entire well network for VOCs and 1,4-dioxane for two sample rounds. In addition, considering the uncertain sources for PFAS detected in groundwater over much of this property, all monitoring wells should be analyzed for PFAS, which is currently 33 analytes identified on the *Wisconsin DNR PFAS List* (https://dnr.wisconsin.gov/sites/default/files/topic/PFAS/LabUpdate20210301.pdf). A request may be made for reduced sampling (wells or parameters) after the next sampling event with a comprehensive analysis of all of the site data.

Evaluate variations in the water table to determine whether it is influencing the contaminant trends over time, and whether additional monitoring wells are needed to define the extent of these contaminants.

Vapor Investigation

The DNR concurs that one additional round of vapor sampling should be conducted during the winter months. The passive system ventilation ports should remain sealed off for at least two weeks prior to vapor sampling. The procedures used should be described, as well as the status of HVAC use and building occupancy, in the report with these results.

Schedule

In consideration of administrative code requirements, the DNR is requesting implementation of the following schedule:

- Per Wis. Admin. Code § NR 716.09(1), the DNR is requesting submittal of a supplemental site investigation work plan for additional PFAS soil and groundwater investigation within 60 days of the date of this letter, **by May 17, 2021**. The work plan must comply with Wis. Admin. Code § NR 716.09(2). It is requested that you include cross sections to depict proposed sample depths in relation to the changes in elevation that occurred due to regrading and redevelopment and to the water table.
- Per Wis. Admin. Code § NR 716.11(2g), the additional site investigation activities must begin within 90 days of the submittal of the work plan.
- Per Wis. Admin. Code § NR 716.15(1), a site investigation addendum report shall be submitted within 60 days after completion of the field investigation.

- NR 700 semi-annual progress reports are required until the case is closed.

Thank you for your efforts to protect Wisconsin's environment. If you have any questions, please contact me by email at Linda.Michalets@wisconsin.gov or by telephone at (414) 435-8010.

Sincerely,

Linda Michalets
Hydrogeologist
Remediation and Redevelopment Program

cc: Mr. Stephen Meer, The Sigma Group (email: smeer@thesigmagroup.com)