



February 16, 2017

Ms. Nicolette Jurgens-Tamminga
566 W. Lake Street STE 400
Chicago, IL 60661

Subject: Review of Site Investigation & Remedial Action Plan Report, dated January 11, 2017
1500-1528 West North Avenue, Milwaukee WI
WDNR BRRTS Activity #: 02-41-577925
FID #: 341277310

Dear Ms. Jurgens-Tamminga:

On January 11, 2017 the Wisconsin Department of Natural Resources (DNR) received a "Site Investigation & Remedial Action Plan Report" (the Report) prepared by The Sigma Group (Sigma) for the properties located at 1500-1528 W. North Avenue, Milwaukee (the Site). Portions of the Site have been historically occupied by manufacturing companies, commercial businesses, and residential properties since at least the 1940s. According to the Report, in addition to the historic uses of the Site, Sigma identified a permit for 1528 W. North Ave. dated April 28, 1950, for the installation of a 1,000-gallon fuel oil underground storage tank (UST), and a permit for 1500 W. North Ave. dated October 4, 1955, for the installation of a 7,900-gallon tank installed underground or within the basement of the building. Furthermore, during site reconnaissance conducted by Sigma on July 22, 2016, two fuel oil tanks were observed on a portion of the Site (i.e. the basement of the 1524 W. North Ave. property). Soil contaminated with polycyclic aromatic hydrocarbons (PAHs) has been identified at the Site at concentrations greater than DNR residual contaminant levels (RCLs). Further investigative activities conducted at the Site identified groundwater impacted by PAHs at the Site. The Report summarizes the results of environmental site investigation activities that have been conducted to date and the proposed remediation strategy to address the residual contamination. A fee was paid to the DNR to review the Report and provide a written response.

Site Investigation Review

The DNR has reviewed the Report and has determined that additional investigative activities will need to be completed at the Site. The DNR provides the following comments:

1. The Report proposed additional soil sampling to be completed within the footprint of the loading dock to confirm the western extent of PAH impacted soil and possible foundry material, as well as evaluate the presence of metals within the soil beneath the loading dock. The DNR agrees with the recommendation by Sigma that further delineation of the western extent of soil impacts is needed. Additionally, further evaluation of the eastern extent of soil impacts in this area should be considered. Furthermore, the soil impacts in the vicinity of GP-4, GP-2, and B-2 should be evaluated regarding the impact delineation west of GP-2, and to the south and east of GP-4. Based on this evaluation, a determination should be made on whether further investigative activities are warranted to define the extent of contamination in this area.
2. On July 22, 2016 Sigma observed two fuel oil aboveground storage tanks (ASTs), pooled fuel oil on the floor below the tanks dispenser, and staining on the floor surrounding the ASTs in the northwest corner of

the basement of the building located at 1524 W. North Ave. The samples collected directly west of the building at B-2 and GP-4 indicated PAH soil contamination at concentrations greater than Wis. Admin. § NR 720 RCLs, and to the northwest the groundwater sample collected at GP-3 indicated PAH contamination at concentrations greater than Wis. Admin. § NR 140 enforcement standards (ES). Assessment of the potential impacts a release from the ASTs could have on soil, groundwater, and/or vapor migration should be completed.

3. The tank closure report for the two ASTs decommissioned by Sigma on September 16, 2016 should be submitted to the DNR.
4. On October 13, 2016 Sigma collected one groundwater sample from the temporary well at GP-3. The analytical results of this groundwater sampling event indicated PAH contamination at concentrations greater than Wis. Admin. § NR 140 ES. In the Report Sigma has recommended that one additional groundwater sample be collected from the temporary well at GP-3, utilizing low flow sampling methods, in order to confirm the previous groundwater analytical results. The DNR agrees that at minimum one additional groundwater sample be collected to confirm the results of the previous sampling event, however, based on the analytical results of this additional sampling event further groundwater investigation may be required. Consideration should be given to the installation of Wis. Admin. § NR 141 compliant monitoring wells if further groundwater investigation is warranted.
5. An isoconcentration map/figure showing hazardous substance concentrations in each environmental medium should be developed according to Wis. Admin. § NR 716.15(4)(c).
6. A geologic cross-section figure showing soil types and correlations across the site should be developed according to Wis. Admin. § NR 716.15(4)(d). Vertical extent of contaminated materials, surface features, and surface elevation changes should be depicted on the figure.
7. Deed and locational information as detailed in Wis. Admin. § NR 716.15(5) should be provided for each property within or partially within the contaminated site boundaries.
8. This review of the site investigation relates only to contamination that has been currently identified at the Site. Obvious signs of contamination observed during future site activities must be assessed and reported to the DNR. Additional investigation may be required to define the degree and extent of newly discovered release areas. A determination will need to be made as to whether the proposed remedial action plan will adequately address newly discovered contamination. Impacted soil excavated from these areas must be properly characterized before being managed onsite or disposed of offsite. Proper storage, handling, and transport of this material must comply with the requirements outlined in Wis. Admin. Code § NR 718.

Remedial Action Plan Review

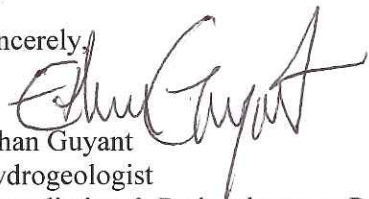
Currently, the Site is planned to be redeveloped with the construction of a new commercial/multi-family residential building on the western portion of the Site with the addresses 1524 and 1528 W. North Ave., Milwaukee, and renovation of the current building with the address 1500 W. North Ave., Milwaukee, with associated green space areas, parking lots, and sidewalks. Sigma has proposed that the development of the Site will create barriers that are protective against residual contamination and would allow closure for the environmental case at the Site. Further site investigation activities are needed at the Site as noted above and/or proposed in the Report. Sigma has proposed to prepare and submit an exemption to construct on an abandoned landfill. The DNR agrees that following future investigative activities, an evaluation of site conditions should be completed to assess the need for preparing an exemption and submit to the DNR if appropriate to comply with state rules and regulations. The Report indicated that a soil management plan (SMP) will be implemented during construction activities to ensure that residual environmental impacts at the Site will be properly managed if excavated or removed.

Based on our review of the currently available information, the DNR agrees that the conceptual use of an engineered cap, as proposed in the Report, to address environmental concerns identified at this property. The conceptual approval of this strategy is contingent on whether additional remediation actions will be required to address any newly discovered contamination. The DNR provides the following comments:

1. The DNR concurs with utilizing a cap to address residual contamination. The proposed cap is designed to prevent direct contact with impacted soil and to limit infiltration into the subsurface. The proposed cap would consist of the new and existing buildings, concrete, asphalt-paved areas, and green space areas. The cap will need to be completed before the open environmental case at the Site can be considered for closure. In addition, a Maintenance Plan, following the format presented in current DNR Guidance, must be prepared to describe how the cap will be inspected and maintained.
2. In the event the contaminated material on the property is determined to be waste fill, a Development at Historic Fill Site or Licensed Landfill Exemption may be necessary for construction activities. Additional details should be provided in a future submittal regarding the location and extent of waste materials at this site. It is recommended that you contact Tom Wentland, DNR Regional Engineer, if you have any questions regarding this exemption. He can be contacted at 920-893-8528 or at thomas.wentland@wisconsin.gov.
3. Contaminated material (which includes soil and waste material) will need to be properly managed during site development. Any excavated material can be taken to an offsite licensed landfill facility without prior DNR approval. Any material not taken to a licensed landfill must be properly stored, transported, and managed as outlined by the requirements Wis. Admin. § NR 718.
 - a. If site activities result in temporary stockpiles, as indicated in the Report, these temporary stockpiles must comply with the requirements for temporary stockpiles as detailed in Wis. Admin. § NR 718.05(3), if the requirements for temporary storage cannot be met, the general storage requirements of Wis. Admin. § NR 718.05(2) must be followed.
 - b. Waste material (non-soil) taken off site must be managed as solid waste following the requirements of Wis. Admin. Code § NR 500 through Wis. Admin. § NR 538 (the solid waste rules administered by the DNR Waste Program). A low hazard exemption can be requested for managing other waste off site at a property other than a licensed landfill. If you have any questions regarding solid waste transport, storage, and beneficial use, please contact Gerald DeMers (DNR) at 414-263-8594 or gerald.demers@wisconsin.gov.
4. A closure request will need to be prepared, following the completion of the development, in order for the Site to be considered for case closure. The maintenance of the cap and inclusion on the DNR GIS registry will likely be required as conditions for closure.

We appreciate your efforts to restore the environment at this site. If you have any questions regarding any of the above items, please contact me at 414-263-8586 or by email at Ethan.Guyant@wisconsin.gov.

Sincerely,



Ethan Guyant
Hydrogeologist
Remediation & Redevelopment Program

cc: Kristin Kurzka, The Sigma Group, 1300 W. Canal Street, Milwaukee, WI (electronic)