State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
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September 8, 2022

Mr. Kai Hansen
Scot Industries, Inc.
810 E. Nebraska St.
Muscoda, WI 53573

Subject: Review of NR 716 Site Investigation Report
Scot Industries, Inc.
1532 W. Galena St., Milwaukee, WI
BRRTS #02-41-587342 and #06-41-590344

Dear Mr. Hansen:

On April 5, 2022, the Wisconsin Department of Natural Resources (DNR) received the "NR 716 Site Investigation of Scot Industries" (Report), dated March 31, 2022, prepared on your behalf by Ramboll US Consulting, Inc. (Ramboll). The Report was submitted with a technical assistance fee for DNR review and response. The Report was reviewed for compliance with Wis. Admin. Code ch. NR 716. The DNR has determined that additional site investigation work is needed at the property to meet the requirements of Wis. Admin. Code ch. NR 716 and Wis. Stats. 292.15. Your application to participate in the Voluntary Party Liability Exemption (VPLE) program was approved by the DNR on August 16, 2022.

The Report was reviewed considering the completion of a thorough evaluation of all areas of potential environmental concern at the property. Areas of known or potential environmental concern include those described in the Phase I Environmental Site Assessment (Phase I ESA), dated October 20, 2020, prepared for Scot Industries by Ramboll, other reports prepared for the property, and those previously identified by the DNR. Investigations need to be conducted to evaluate and verify whether discharges have occurred at all areas of potential environmental concern, including floor drains, sumps, catch basins, locations of former machinery and associated machinery oil tanks, and utility corridors.

Completion of the Site Investigation
In addition to investigating the areas of potential environmental concern as mentioned above, the following additional investigation activities should be conducted to identify the sources of detected/known contamination and to further define the degree and extent of contamination in the affected media identified by the site investigation activities described in the Report.

Soil

1. Fill material was identified as the source for polycyclic aromatic hydrocarbons (PAH) and metals soil contamination on the south parcel. Based on the limited sampling conducted on the north parcel and the assumption that the north parcel was filled with material similar to the south parcel, the estimated extent of PAH and metals soil contamination should extend to the property boundaries of both parcels.

2. The former gas station on the southwest portion of the property was identified as the source for petroleum volatile organic compounds (PVOCs) detected in soil. Information needs to be provided on whether the underground storage tanks (USTs) remain, were abandoned in place, or were removed. Additional potential PVOC sources should be evaluated to explain the distribution of PVOCs in soil beneath the southern portion of the building.
3. The source for the trichloroethylene (TCE) detected in soil beneath the northeast portion of the building needs to be identified.
4. A soil sample was collected at soil boring SB-18 from 4-5 feet below ground surface (bgs) to try to confirm whether a release had occurred from the former gasoline and diesel fuel USTs. The base of the UST excavation was 8 feet bgs which indicates that the 4-5 feet bgs sample was collected from the excavation backfill. A sample should be collected from soil underlying the excavation backfill and analyzed for volatile organic compounds (VOCs), PAHs and metals.
5. Aerial deposition was identified as the source for polyfluoroalkyl substances (PFAS) detected in groundwater at the property. The PFAS source appears to be on-site based on the non-uniform distribution of PFAS in groundwater at the property and the lower PFAS concentrations detected in groundwater at off-site monitoring wells. Additional PFAS source evaluation is needed to determine whether PFAS-containing products were used in manufacturing operations. PFAS soil sampling may be required based on the results of the source evaluation.

Groundwater

1. Wis. Admin. Code § NR 726.09(2)(e) requires more than one round of groundwater sampling, unless otherwise directed or approved by the DNR. A minimum of two additional rounds of groundwater sampling are needed at the on-site monitoring wells to verify groundwater concentrations and trends, and to establish whether Wis. Admin Code ch. NR 726 closure criteria can be met. Sampling all on-site monitoring wells is recommended because of the variation in groundwater flow direction across the property. Groundwater samples should be analyzed for volatile organic compounds (VOCs), PAHs, metals, and PFAS.
2. Monitoring well MW-13 located on the north parcel and monitoring wells MW-5, MW-8 and MW-10 located on the northern part of the south parcel were dry when the wells were accessed in January 2022. If the monitoring wells are dry when additional groundwater sampling is attempted, replacement monitoring wells are recommended to accurately assess groundwater conditions in these areas.
3. A discussion should be provided for whether the off-site monitoring well placement is adequate to determine the down-gradient extent of groundwater contamination and the potential interception of groundwater by utilities adjacent to the property. One additional round of groundwater sampling is recommended for off-site monitoring wells MW-15, MW-16 and MW-18 to verify groundwater concentrations and trends, and to establish whether Wis. Admin Code ch. NR 726 closure criteria can be met. Groundwater samples should be analyzed for VOCs and PFAS.
4. The estimated extent of groundwater PVOC and chlorinated volatile organic compound (CVOC) contamination appears to be defined, except for PVOC groundwater contamination beneath the southwest portion of the building. The estimated extent of PVOC and naphthalene groundwater contamination should be shown to extend into the ROWs of W. Galena St. and N. 16th St., unless otherwise confirmed by additional monitoring well installation and groundwater sampling.
5. Fill material was identified as the source for the PAH and metals groundwater contamination, with the exception of arsenic which is likely to be naturally occuring in native soil underlying the fill material. Additional potential PAH sources should be evaluated to explain the distribution of

PAHs in groundwater beneath the south portion of the building. The estimated extent of metals groundwater contamination should extend to the property boundaries of both property parcels.

6. Two potential source areas are indicated by the PFAS groundwater samples collected from monitoring wells MW-10 and MW-12. Additional PFAS source evaluation is needed to determine whether PFAS-containing products were used in manufacturing operations. An off-site PFAS source is not likely based on the groundwater flow direction and the low PFAS concentrations detected in groundwater samples collected from the off-site monitoring wells.

Vapor

1. One round of vapor sampling was conducted during the site investigation. DNR's guidance publication RR-800 recommends conducting a minimum of two rounds of sampling to evaluate sub-slab vapor. An additional vapor point is recommended between SB-11 and SB-19 to evaluate sub-slab vapor conditions where TCE and other CVOCs were detected in soil and groundwater. Because of the low levels currently detected, the sub-slab vapor result from the new vapor pin will be evaluated to determine whether a second round of sub-slab vapor sampling is needed.

Light Non-Aqueous Phase Liquid

1. Light non-aqueous phase liquid (LNAPL), or free product, measured at monitoring well MW-12 was identified as lubricating oil (honing oil). The oil source needs to be identified and the extent of the LNAPL needs to be delineated to the south based on the assumed direction of groundwater flow.
2. The former gasoline station USTs and the diesel fuel UST located beneath the buildings need to be considered as sources for the intermittent LNAPL detected at monitoring wells MW-1 and MW-13, respectively. The extent of LNAPL needs to be delineated to the south based on the assumed direction of groundwater flow.
3. An interim action plan for recovering LNAPL at monitoring well MW-12 was requested in the *"Review of NR 716 Site Investigation Work Plan,"* letter dated August 21, 2021. A recovery plan for LNAPL has not been received.

Migration Pathways:

1. Additional evaluation is needed to determine the potential for groundwater, vapor, and LNAPL contamination to migrate through preferential pathways (Wis. Admin. Code § NR 716.11(5)(a)). Depth information for utilities beneath the building (storm and sanitary sewers, natural gas, and water) and the basement sump need to be included in the evaluation. Guidance for documenting the investigation of human-made preferential pathways, including utility corridors, is provided in DNR Publication RR-649.

Interim Protective Measures

1. Maintaining the existing surfaces (concrete driveway and building floor and vegetated soil), and the perimeter fence around the south parcel was recommended to protect the public from direct contact with contaminated soil. An interim maintenance plan is recommended that describes existing conditions at both parcels, provides a time limit for maintaining the existing conditions, and documents existing conditions with photographs.

Documentation

Soil and Groundwater Figures

1. Soil and groundwater figures should be revised to only show the analytical results for the contaminant identified in the figure title.

Cross-Sections:

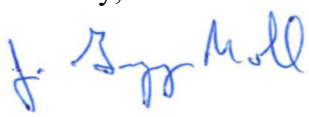
1. Fill material should be represented by the same pattern on both cross-sections.
2. On-site utilities (gas, water, sanitary and storm sewers) as well as all off-site utilities should be shown on the cross-sections.
3. The lateral and vertical extents of contaminants exceeding the soil to groundwater residual contaminant levels (RCLs) should be shown on the cross-sections. Soil to groundwater RCLS in the fill material should extend to the property boundaries.
4. PAH and metal contaminants in the fill material exceeding direct contact RCLs should extend to the property boundaries.
5. The VOC iso-concentration lines shown on cross-section B-B' represent two distinct VOC plumes, one for CVOCs and one for PVOCs. The iso-concentration lines need to indicate the type of groundwater contamination for each plume.

Next Steps

1. Prepare a site investigation work plan for the requested additional site investigation activities.
2. Per Wis. Admin. Code § NR 716.11(2g), the additional site investigation activities must begin within 90-days of submittal of the work plan.
3. Per Wis. Admin. Code § NR 716.15(1), an amended site investigation report, including revised figures, shall be submitted within 60-days after completion of the field investigation.

The DNR appreciates the actions you are taking to restore the environment at this property. If you have any questions regarding this letter, please contact me at (262) 202-3921 or at john.moll@wisconsin.gov.

Sincerely,



J. Gregory Moll, P.G.
Hydrogeologist
Remediation and Redevelopment Program

cc: Christopher J. Rogers, Ramboll US Consulting, Inc.
Jeanne M. Tarvin, Rogers, Ramboll US Consulting, Inc.