State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
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October 9, 2020

Steve Todd
Waukesha County
515 West Moreland Boulevard
Waukesha, WI 53188

SUBJECT: Review of the Site Investigation Report
WI DOT Waukesha County Highway Operations 1641 Woodburn Road Waukesha, WI
BRRTS #: 03-68-584431, FID #: 268274160

Dear Mr. Todd

On September 1, 2020 the Department of Natural Resources (DNR) reviewed your request for approval of the *Site Investigation and Remedial Action Plan* (Report) prepared by your consultant Terracon Consultants (Terracon). The submittal was reviewed for regulatory compliance, as this site is subject to regulation under Wis. Stat. ch. 292. The Site Investigation Report reviewed for compliance with Wis. Admin. Code ch. NR 716 and Wis. Admin. Code ch. NR 724. The submittal of a Site Investigation Report (SIR) is required per Wis. Admin. Code § NR 716.15. The DNR has determined that additional site investigation is needed, and the planned remedial action may need to be re-evaluated after completion of the site investigation. The DNR's comments related to the SI and RAP are presented below.

Background

During the Site Investigation for the above-mentioned site Terracon notes that five recognized environmental conditions (REC) were identified: 1) BRRTS Nos. 03-68-001128 Waukesha County Highway Main Shop #1 is a closed LUST case which was opened in October 1990 and close in October 1994. 2) BRRTS Nos. 03-68-001205 Waukesha County Highway Main Shop #2 is a closed LUST case which was opened in November 1990 and closed in May 1996. 3) BRRTS Nos. 03-68-004411 Waukesha County Highway Main Shop #3 is a closed LUST case which was opened in August 1994 and closed in March 1997. 4) BRRTS Nos. 02-68-173407 Waukesha County Highway Main Garage is a closed Environmental Repair Program (ERP) case which was opened in August 1997 and closed in August 2003, case closure review requested was received, and groundwater monitoring wells were abandoned. 5) BRRTS Nos. 02-68-001004 Waukesha County Highway Main Shop is a closed Environmental Repair Program (ERP) case which was opened in September 1994 and was closed in November 2006. As identified in the report contaminates of concern on this site are related to unleaded petroleum compounds.

Site Investigation Summary

On September 17, 2019 a *Construction Emergency Response and Underground Storage Tank Removal Documentation Report* was completed by Wisconsin Department of Transportation (Wis. DOT) contractor OBG Ramboll. The report documented the removal of a 200-gallon gasoline petroleum Underground Storage Tank (UST), which was encountered during grading activities associated with the construction of a salt shed and detention pond. On June 5, 2019 OBG Ramboll emptied, cleaned, and removed the 200-gallon UST. Approximately 570.28 tons of petroleum impacted soil were excavated and transported for off-site landfill disposal. Terracon conducted a Limited Site Investigation (LSI) on August 28, 2019 by advancing ten soil borings on the property. All ten soil borings were converted into temporary groundwater monitoring wells and each one was abandoned the same day. The LSI identified concentrations of Petroleum Volatile Organic Compounds (PVOCs) above Wis. Admin. Code ch. NR 720 groundwater pathway and non-industrial direct contact Residual

Contaminant Levels (RCLs) in soil. Laboratory analysis of the groundwater samples taken from the temporary groundwater monitoring wells indicated that PVOCs were detected above Wis. Admin. Code ch. NR 140 Enforcement Standards (ES) and Preventive Action Limits (PALs). On January 30 and January 31, 2020 Terracon advanced three additional soil borings and installed four monitoring wells. The soil borings further defined the degree and extent of soil impacts. Analytical test results from two rounds of groundwater sampling confirmed naphthalene above Wis. Admin. Code ch. NR 140 PALs.

Completion of the Site Investigation

After reviewing the Report and all case file information submitted to date, the DNR has determined that additional work is necessary to complete the site investigation. The degree and extent of contamination currently identified at the site has not been adequately defined and documented with respect to Wis. Admin. Code ch. NR 716. The findings and interpretations by the DNR regarding the incomplete site investigation are summarized below:

A. Degree and extent of contamination in all affected media

Evaluation of the extent of contamination in the source area (Wis. Admin. Code § NR 716.11(5)(e)).

1. Groundwater

Additional NR 141 complaint monitoring well(s) must be placed west/northwest of P-12 and groundwater samples are needed to define the extent of contamination. After installing the NR 141 compliant monitoring well(s), the new and existing wells should be sampled, with results submitted to the DNR.

B. Visual Aids

Wis. Admin. Code § NR 716.15(4) requires the SIR to include tables and figures to clarify and support results and interpretations. The horizontal and vertical extent of contamination must be shown on isoconcentration maps and cross-sections. All sampling results should be included on figures to support the placement of isoconcentration lines and interpretation of the extent of the contaminants of concern. Correct tank location on maps to be consistent with cross sections and with boring log information from P-6.

Remedial Action Plan Comments

According to the Remedial Action Plan (RAP), Terracon recommends allowing petroleum-impacted soil and groundwater to naturally attenuate in-situ. The proposed remedial action will be reviewed upon completion of the site investigation. The RAP may need to be revised after additional SI activities are completed. Once the additional work has been completed and documented, your consultant should evaluate the appropriateness of case closure based on the results of this additional work. If a remedial action is warranted, your consultant should submit a Remedial Actions Option Report (RAOR) within 60 days after the completion of the field investigation

The DNR appreciates your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at 414-639-4053, or at melesa.greene@wisconsin.gov.

Sincerely,

Me'le'sa Greene
South East Region
Remediation & Redevelopment Program

cc: Timothy Welch, Terracon Consultants (via email)