



January 30, 2019

MR JAMES FARKAS
FRASER SHIPYARD INC.
1 CLOUGH AVENUE
SUPERIOR WI 54880

Subject: Request for Technical Assistance
Punch Shed Building
BRRTS #02-16-562899

Dear Mr. Farkas,

On December 20, 2018 the Department of Natural Resources (Department) Remediation and Redevelopment Program received a completed Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request (Form 4400-237) prepared by Environmental Troubleshooters, Inc. (ETI). The technical assistance request was submitted by ETI on behalf of Fraser Shipyards Inc. (FSI). The form was accompanied by the appropriate review fee for “Other Technical Assistance” and recent soil/groundwater data and maps. The request is associated with the Fraser Shipyards – Punch Shed Building, BRRTS #02-16-562899 (Site).

The technical assistance request as indicated in the submittal cover letter is twofold:

1. Does the Department conclude the site investigation efforts to date define the degree and extent of contamination adequately as required by Wis. Stat. § 292.11, and Wis. Admin. Code ch. NR 716?
2. Does the Department consider submittal of a closure request appropriate at this time?

This correspondence will address both these requests.

Site Background

The FSI property has a one-hundred-year history as a shipyard facility. In 2014 an addition to the existing Punch Shed building was planned. Geotechnical soil borings performed for building and foundation design encountered soil with petroleum odor. Soil samples were collected for laboratory analysis which lead to a notification of discharge of hazardous substances at the Site in November of 2014. The Department issued a correspondence on December 8, 2014 detailing FSI of their responsibility to bring the site into compliance with Wis. Stat. § 292.11, and Wis. Admin. Code chs. NR 700-754.

FSI retained ETI as an environmental consultant in 2014. Prior to this technical assistance request, ETI submitted the following documents for the Site:

- Site Investigation Work Plan (SIWP), February 2015.
- Supplemental SIWP, May 2015.
- Site Investigation Report (SIR), January 2016

- Request for Technical Assistance (formal review of SIR) October 2016

Between 2015 and 2018 soil sample laboratory analysis, well installation and groundwater monitoring were performed as site investigation efforts. Additionally, as part of the construction of the Punch Shed Addition, approximately 800 tons of soil was excavated from the addition footprint and landfill disposed. Both the investigative efforts and soil disposal are documented in the January 2016 SIR.

There are other Sites on the FSI property that are listed with the Department. This includes the following four (4) closed and one (1) open site:

- AOC #1, BRRTS #02-16-120589 (closed)
- AOC #5: BRRTS #02-16-047210 (closed)
- AOC #2-4, 6-10, 12-13: BRRTS #02-16-000079 (closed)
- AOC #11: BRRTS #02-16-120588 (closed)
- AOC #14: BRRTS #02-16-120591 (open)

Site Investigation Review

In October 2016 ETI requested a technical review of the January 2016 SIR. A November 16, 2016 response from the Department provided comments on the SIR. That correspondence provided recommendations for additional work to fully define the degree and extent of contamination at the Site to comply with requirements of Wis. Admin. Code ch. NR 716.

The November 15, 2016 correspondence resulted in six (6) comments and recommendations, summarized as follows:

1. The Department concurred that there is evidence of recent and historic contamination associated with the Site.
2. The extent of soil contamination was adequately defined to the north and west and residual contamination under the Punch Shed Building would be addressed through a continuing obligation for a structural impediment.
3. The extent of historic contamination to the east and south of the New Office Building was not sufficiently defined and recommended 3 additional soil borings in that area.
4. Recommended a review of data associated with adjacent site AOC #9 (BRRTS #02-16-000079) to determine if the data associated with that site could be applied to the Punch Shed Building Site.
5. Requested data on any soil characterization data was collected and documentation of any soil excavation and disposal activities associated with the New Office Building construction.
6. The Department indicated that the degree and extent of contamination to groundwater was sufficiently defined and recommended continued monitoring to meet requirements for site closure under Wis. Admin. Code ch. NR 726.

The following is a summary of ETI's response to these points given in the December 20, 2018 technical request cover letter:

1. No action requested by the Department.
2. No action requested by the Department.

3. Three (3) soil borings (GP-15, GP-6, GP-17) were performed in 2018 in response to this item. The 3 borings were located on the east, south and southwest of the new office building. ETI indicates that with the laboratory data from the 3 borings, the degree and extent of contamination is adequately defined.
4. ETI indicated the data from AOC #9 was not useful in definition of degree and extent especially regarding polycyclic aromatic hydrocarbons (PAHs).
5. ETI was not involved with construction of the New Office Building and is not aware of site development issues or availability of any data associated with construction activities.
6. Four (4) permanent groundwater monitoring wells have been installed at the Site to investigate the degree and extent of contamination to groundwater. The wells have had 4 rounds of groundwater monitoring with volatile organic compound (VOCs) and/or PAHs analysis.

The data from the January 2016 SIR and the data submitted with the December 20, 2018 technical assistance request was reviewed to determine if the site investigation efforts defined the degree and extent of contamination as required by Wis. Admin. Code ch. NR 716. The following are comments resulting from the review:

1. The Department concurs that PAHs are the chemicals of concern at the Site.
2. The Department concurs that the Site is zoned Industrial and the use of the Wis. Admin. Code ch. NR 720 Industrial-Direct Contact (IDC) Residual Contaminant Levels (RCLs) are appropriate. The Wis. Admin. Code ch. NR 720 groundwater protection RCLs are also appropriate at this site.
3. The Department concurs that the degree and extent of soil contaminated by PAHs has been adequately defined. Figure 4 submitted with the December 20, 2018 technical assistance request accurately displays the area of soil impact exceeding the IDC-RCLs.
4. The Department does not concur that degree and extent of groundwater contamination by PAHs at the site is adequately defined. This pertains to consistent exceedances of Wis. Admin. Code NR 140 Enforcement Standards in sidegradient well MW-3 and upgradient well MW-4. It is recommended to install additional wells to full define degree and extent as required by Wis. Admin. Code § NR 716.01.

Additional Actions Needed

A Supplemental Site Investigation Work Plan should be submitted within 60 days of this letter (Wis. Admin. Code § NR 716.09(1)). This work plan should include proposed work to comply with the recommendations noted above in item #4.

Closure

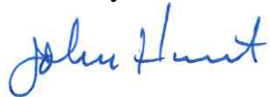
The cover letter included with the December 20, 2109 technical assistance request asks if submittal of a site closure request is appropriate at this time. The degree and extent of contamination is must be fully defined as required by Wis. Admin. Code. ch. NR 716 before closure can be considered. As previously indicated the degree and extent of contamination has not been fully defined. Additionally, you have not demonstrated stable or decreasing groundwater contaminant concentrations at the Site, which is a requirement of closure under Wis. Admin. Code § NR 726.05(6).

The following comments are presented for future consideration in bringing the Site to closure:

- Vapor intrusion was not addressed in any submittals to date. It should be noted a vapor intrusion assessment is required under Wis. Admin. Code §. NR 716.11(5)(a).
- A Remedial Action Options Report (RAOR) as required by Wis. Admin. Code. § NR 722.13 and must be submitted for the Site prior to a request for closure.
- To comply with Wis. Admin. Code. ch. NR 726, continuing obligations associated with the following may be required for closure:
 - Residual soil contamination.
 - Residual groundwater contamination.
 - Structural impediment limiting investigation and remedial action
 - Cap or cover and associated maintenance plan.
 - Maintain Industrial zoning.
- Per Wis. Admin. Code ch. NR 712, all future submittals shall include the proper certification language as outlined in Guidance Document RR 081 – *Wis. Admin Code ch. NR 712 Qualifications and Certifications* which can be found at the following link:
<https://dnr.wi.gov/files/PDF/pubs/rr/RR081.pdf> .
- Per Wis. Admin. Code § NR 700.11(3g), future submittals should follow the procedures outlined in Guidance Document RR 690 – *Guidance for Submitting Documents* which can be found at the following link:
<https://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>.

Thank you for the opportunity to provide technical assistance for this Site and I hope you will continue in bringing it to successful closure. If you have any comments or questions, please feel free to contact me.

Sincerely,



John T. Hunt
Hydrogeologist - Remediation & Redevelopment Program
Northern Region

Cc: John McCarthy (Environmental Troubleshooters Inc.)