

November 12, 2018

Mr. Tom Schafer
4300 Oakland, LLC
2551 North Wahl Avenue
Milwaukee, WI 53081

Subject: Remedial Action Option Report/Remedial Action Plan with Hazardous Waste Determination Request, Former Shorewood Queensway Cleaners, 4300 Oakland Avenue, Shorewood, WI

FID: 241094590, BRRTS: 02-41-552089

Dear Mr. Schafer:

The Wisconsin Department of Natural Resources (DNR) has reviewed the above-described document submitted by Fehr Graham on your behalf, dated July 24, 2018. The document included the recommended remedial option for the site and a request for a hazardous waste determination for soil contaminated with chlorinated solvents. A fee of \$1050 was submitted to the DNR to review the Remedial Action Options Report, Remedial Action Design Report, and Hazardous Waste Determination.

During review of the document, the DNR requested additional information/explanation and revisions to maps from Fehr Graham in the DNR's email dated September 5, 2018. Fehr Graham responded to the DNR's email on October 23, 2018. You have been copied on in these emails.

Per Wis. Admin. Code ch. NR 722, standards for selecting remedial actions, Fehr Graham recommended excavation and off-site disposal of contaminated soil, followed by placement of residual chemicals in the excavation base, and post-excavation groundwater monitoring. The Tasks to complete the remedial action are:

- Task 1: Injection and WPDES Permit, Landfill Approval, Contractor Bids
- Task 2: Project Management, Access Agreement, Utilities, Village of Shorewood Approval
- Task 3; Excavation and Treatment
- Task 4: Backfill and Base Chemical Treatment of Saturated Soil
- Task 5: Remedial Action Documentation Report
- Task 6: Semi-Annual Groundwater Monitoring and Status Report
- Task 7: Vapor Monitoring of Off-Site Property
- Task 8: Case Closure and Well Abandonment

After reviewing the remedial action plan, response submittal (emails), and the hazardous waste determination request, the DNR recommends the following to be included or revised in the remedial proposal.

Task 2

- Contact Michael Ellenbecker, DNR Hazardous Waste Management Engineer, for approval on the handling and disposal of potentially contaminated concrete and asphalt at the property. Fehr Graham has contacted Mr. Ellenbecker by email on November 5, 2018. You were copied on this email.
- Contact Binyoti Amungwafor, DNR Hydrogeologist, for the approval of a WDPES permit and soil mixing of chemicals insitu.

- In the health and safety plan, include any requirements for air monitoring of chlorinated solvent vapors during soil excavation, treatment, and groundwater removal.
- Include any Village of Shorewood local requirements and acquire any necessary local permits.

Task 3

In Section 3.6.3.4, treatment of soil, the proposal states that the treated soil be temporarily placed and treated in the onsite five-foot deep concrete basement of the building. The basement doesn't meet Wis. Admin. Code § NR 665.1100, Subchapter DD for containment buildings. Therefore, the use of the basement in treating the soil is denied. The use of lined lugger boxes is appropriate and the proposal should be revised reflecting this change and the use of lugger boxes.

Hazardous Waste Determination


The DNR doesn't concur with Fehr Graham's hazardous waste determination pertaining to the proposed using a threshold level of 40 ppm (parts per million) for tetrachloroethene (PCE) for the treatment and disposal of contaminated soil. The DNR's document, "Guidance for Hazardous Waste Remediation (RR-705)" and regulatory limits that have been established by rule in Wis. Admin. Code § NR 661.24(2), Table 2, for PCE, trichloroethene (TCE), and vinyl chloride (VC) are used to establish threshold levels for these compounds found in the onsite soils. The threshold level meeting the characteristically nonhazardous standard for PCE (0.7 ppm), TCE (0.5 ppm), and VC (0.2 ppm) is 20 times the toxicity Characteristic Leaching Procedure (TCLP) test, therefore PCE = 14 ppm, TCE = 10 ppm, and VC = 4 ppm.

Any excavated and treated soils meeting or below these threshold levels can be considered acceptable to be disposed at a subtitle D landfill. Above these threshold levels would require additional treatment and testing before being removed for landfilling. Fehr Graham will have to revise their treatment plan in the proposal accordingly.

Fehr Graham should revise their remedial action plan and incorporate the above discussed items for review by the DNR for approval.

If you have any questions or comments, please feel free to contact me at the above address or at (414) 263-8644. Please refer to the FID number at the top of this letter in any future correspondence. Future correspondence should be sent directly to the Remediation and Redevelopment Program Associate Jennifer Dorman (414-263-8683) at the above address.

Sincerely,



John J. Hnat, P.G., C.P.G.
Project Manager/Hydrogeologist
Southeast Region
Remediation and Redevelopment Program

C: Ken Ebbott – Fehr Graham
David Grams – Erastus Investments, LLC
WDNR SER Files