

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
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June 12, 2019

Mr. Tom Schafer
Bayside Development
Milwaukee, WI 53211

Subject: Infiltration/Injection Temporary Exemption Request for
Former Shorewood Queensway Cleaners
4300 North Oakland Avenue
Shorewood, Wisconsin 53211
BRRTs #:02-41-552089, FID #: 241094590

Dear Mr. Schafer:

The purpose of this letter is to provide a temporary exemption for the injection of a remedial material into groundwater. A request for a temporary exemption to inject/mix Fenton's reagent with added BAM™, a 90 percent carbon and 10 percent mineral solid into the soils at the Former Shorewood Queensway Cleaners was received from your consultant, Fehr Graham on May 16, 2019. The Department also received a request for a WPDES General Permit for Contaminated Groundwater from Remedial Action Operations. A review fee of \$700.00 was submitted on 05/16/2019. This temporary exemption is intended to provide assurances to Mr. Schafer that the environmental cleanup being conducted in response to a release of contaminants on the Property is being conducted in accordance with s. 292.12, Wis. Stats.

On April 25, 2019 the Department approved the revised *Remedial Design Report*, dated 04/24/2019. The report included: Injection/WPDES permitting, Village of Shorewood/Neighboring Property Access, Landfill/Utility approvals, Excavation and soil treatment, Chemical treatment of excavation base, Backfill, Replacement wells installation, Semi-annual groundwater monitoring and vapor assessment, Reporting, Case closure request and well abandonment. One of the conditions of approval was that "a WDNR injection approval and a WPDES permit are required prior to the injection of remedial materials into the subsurface.

Fehr Graham plans to inject/mix Fenton's reagent with added BAM™ into the soils at the Former Shorewood Queensway Drycleaners. The reagents will be mixed with contaminated soils in estimated 2-4-foot lifts that will be followed by testing for total volatile organic compounds (VOCs), and total characteristics leaching procedure (TCLP), VOCs. Fehr Graham estimates using about 2,500 gallons of 25 percent Fenton's Reagent and 76 cubic yards of BAM™. Soils that pass the test criteria in the WDNR approval letter dated April 25, 2019 will be removed and taken to a licensed subtitle D landfill for disposal. Soils that fail the test will be treated with additional mixed chemicals for retesting. Rented drop boxes will be used to place the treated soils pending laboratory test results so that further mixing and excavation activities at greater depths can proceed. It is estimated that 1,380 tons of direct haul soil, 936 tons of treated soil and 151 tons of contaminated concrete will be excavated and disposed in a landfill.

Determination on the NR 812 Injection Prohibition:

The injection prohibition under s. NR 812.05, Wis. Adm. Code, is not applicable in this case because the proposed action is a Department-approved activity necessary for the remediation of soils. This letter serves as your approval from the Department to inject/mix Fenton's reagent with added BAM™ to treat contaminated soils, in accordance with this temporary exemption.

NR 140 Temporary Exemption:

Department approval is hereby granted to Mr Schafer for the injection/mixing the soils on the Former Shorewood Queensway property, with certain terms and conditions. The expiration date of this temporary exemption shall be one year from the date of this letter.

The need to obtain a temporary exemption for the injection/mixing of a remedial material for which a groundwater quality standard has not been established is required under s. NR 140.28 (1) (d), Wis. Adm. Code. Based on the information provided by your consultant, it appears the requirements for a temporary exemption for the injection/mixing of a remedial material for which a groundwater quality standard has not been established under s. NR 140.28 (1) (d) have been or will be met, in accordance with s. NR 140.28 (5) (c) and (d), Wis. Adm. Code.

Department approval is granted with the following terms and conditions:

A. General:

1. The remedial action for restoring contaminated groundwater or soil, and any infiltrated or injected contaminated water or soil and remedial materials, shall achieve the applicable response objectives required by s. NR 140.24 (2) or s. NR 140.26 (2), Wis. Adm. Code, within a reasonable period of time.
2. The type, concentration and volume of substances or remedial material to be infiltrated or injected/mixing shall be minimized to the extent that is necessary for restoration of the contaminated groundwater or soil.
3. Any infiltration or injection/mixing of contaminated water/soil or remedial material into groundwater/soil shall not significantly increase the threat to public health or welfare, or to the environment.
4. No uncontaminated or contaminated groundwater, substance or remedial material shall be infiltrated or injected/mixed into an area where a floating non-aqueous liquid is present in the contaminated groundwater/soil.
5. There shall be no expansion of soil or groundwater contamination, or migration of any infiltrated or injected contaminated water or remedial material, beyond the edge of previously contaminated areas, except that infiltration or injection/mixing into previously uncontaminated areas may be allowed if the Department determines that expansion into adjacent, previously uncontaminated areas is necessary for the restoration of the contaminated groundwater/soil, and the requirements of s. NR 140.18 (1), Wis. Adm. Code will be met.
6. All necessary federal, state and local licenses, permits and other approvals are obtained and compliance with all applicable environmental protection requirements is required.
7. The remedial materials to be injected to the groundwater shall be limited to Fenton's reagent with added BAM™.
8. The remedial material and injection/mixing project shall be as described in Fehr Graham's submittal dated May 15, 2019
9. *Mr. Schafer/ Plamann* shall notify the Department of field activities no less than one (1) week before implementation.
10. In the monitoring plan, include screening for soil vapor as a best management practice.
11. Any sanitary sewers, storm sewers, and catch basins associated with the site shall be plugged

- during contaminated soil remediation to prevent potential vapor migration.
12. Remediation progress reports shall be submitted with the semi-annual progress reports. The progress reports shall include the groundwater monitoring and soil results. The first report should be submitted not more than three months after the first injection/mixing. Recommendations as to the next phase of sampling and/or the need for additional treatment shall be included in a future report. This report shall be submitted as soon as the necessary information is available and must be submitted prior to the expiration date of this temporary approval.
 13. Any significant changes based on information from the injection groundwater monitoring and soil reports or results shall be submitted to the Department for approval prior to the changes being implemented at the Former Shorewood Queensway Drycleaners site. This includes, but is not limited to, adjustments to the volume/mass of the media injected/mixed, additional injection/mixing points, number of injection/mixing events, and/or changes in the type of remediation media used in the injection/mixing points.
 14. Modifications to the sampling schedule may be requested.
 15. In the event of future injection/mixing activities, the responsible party may apply for an extension of this approval. A request for an extension of this approval must be received by the Department before the expiration date.
 16. Any permit extension approvals will be dependent on WI DNR review of site-specific data or any other information it deems necessary.
 17. Upon completion of the project, the injection holes must be abandoned in accordance with s. NR 141.25, Wis. Adm. Code, and later topped off with grout or native soils if settling occurs, unless converted to NR 141 complying monitoring wells, or an alternative approved by the DNR Project Manager.

Monitoring Conditions:

1. That the actual volume injected/mixed be recorded on an hourly basis for each day of the project.
2. That baseline monitoring be performed prior to the first injection/mixing event, for the following groundwater parameters, at the following wells: MW-1, 2, 3, 4, 5, 6,7,8 and MW-9
 - a. *VOCs, methane, ethane/ethene, total organic carbon, dissolved iron, manganese, water levels, dissolved oxygen, sulfate, PH, conductivity and oxidation/reduction potential*
 - b. *Replacement of removed monitoring wells, MW-3 and MW-5 upon completion of backfilling.*
 - c. Monitoring wells to be sampled: MW-1, 2, 4,6,7,8 9, MW-3R, MW-5R, PZ-10 and PZ-11.
3. That after completion of the injection/mixing phase of the remedial action (between 30 to 40 days), all monitoring wells be sampled for the parameters listed in #2. a.
4. That a Site-Specific Health and Safety Plan be followed.
5. That the injection is performed at less than 100 psi at a rate which prohibits solution mounding in the aquifer, and plume disfigurement.

Failure to adhere to the provisions of this temporary exemption may result in the Department requiring revisions to the remedial action design, operation or monitoring procedures, or the revocation of this exemption and the implementation of an alternative remedial action to restore soil or groundwater quality, or both.

WPDES Permit

Your proposed discharge is eligible for coverage under the general Wisconsin Pollutant Discharge Elimination System (WPDES) permit WI_0046566-06 for Discharge of Contaminated Groundwater from

Remedial Action Operations. You are responsible for compliance with the conditions contained in this permit. The permit and factsheet can be downloaded from the DNR website at <http://dnr.wi.gov/topic/wastewater/GeneralPermits.html>. The amended water will be discharged to the groundwater. No pollutants shall be injected into the groundwater, with the exception of those present in the groundwater which will be extracted from the site.

Discharges under this permit are required to be consistent with a discharge management plan that has been approved by the Department. Your plan, titled, Discharge Management Plan for Soil Mixing and Treatment, Remedial Action Former Shorewood Queensway Dry Cleaners, 4300 North Oakland Avenue Shorewood, Wisconsin dated May 15, 2019 will be considered as the required discharge management plan. The analysis results would indicate that monitoring is required for all parameters from ch. NR 140, Tables 1 – 3, detected in the discharge, or if specified in part 2.3 of the WPDES permit,

The Department hereby authorizes your pollutant discharge under the general WPDES permit for Discharge of Contaminated Groundwater from Remedial Action Operations, (WI-0046566-6) that was granted on May 21, 2019. The following conditions are highlighted for your information:

Monitoring and Reporting Conditions:

Note: These monitoring conditions are in addition to monitoring required by the RR Program for evaluation of remedial action effectiveness.

1. That after completion of the injection/mixing phase, quarterly monitoring shall continue for one year from injection/mixing completion, with sample collection and analysis completed according to #2 above (baseline monitoring) and the requirements of the accompanying WPDES discharge permit for this site.
2. The discharge limits if provided in the WPDES permit must be met.
3. The monitoring results shall be sent to the WDNR Project Manager, Mr. John Hnat.

Notice of Appeal Rights for WPDES General Permit:

Section 283.35, Wisconsin Statutes, authorizes the Department to issue general permits for discharges from categories or classes of point sources. If a permittee believes coverage of a facility under a general WPDES permit is not appropriate, the permittee may apply for issuance of an individual WPDES permit pursuant to section 283.35 (2) and may petition the Department for withdrawal of coverage under the general permit. The individual permit application should indicate which site-specific factors would justify alternate WPDES limits for the operation. Issuance of such a site specific WPDES permit will provide for a 30-day public comment period, and potentially a public informational hearing and/or an adjudicatory hearing. The Department may withdraw a facility from coverage under a general permit if it is determined that a discharge is a significant contributor of pollutants to waters of Wisconsin, or in certain other cases set out in s. 283.35, Stats. In lieu of general permit withdrawal, the Department may refer any violation of this permit to the Department of Justice for enforcement under s. 283.89, Stats. In order to avoid any enforcement action, please read the WPDES permit carefully and comply with the permit requirements.

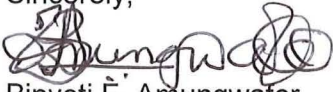
If you believe you have a right to challenge the Department decision to cover this facility with a WPDES general permit, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. To request a contested case hearing pursuant to section 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. Such a petition should identify pollutant(s) that are believed to be not appropriately regulated by the general permit for the specific site. All requests for contested case hearings must be made in accordance with section NR 2.05 (5), Wis. Adm. Code, and served on the

Secretary in accordance with section NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the time period for filing a petition for judicial review.

For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. A petition for judicial review must name the Department of Natural Resources as the respondent.

If you have any questions regarding this letter, please contact me at 414-263-8607 or e-mail me at Binyoti.Amungwafor@wi.gov.

Sincerely,



Binyoti F. Amungwafor
Hydrogeologist
Remediation and Redevelopment Program

cc: Dillon Plamann, Fehr Graham
Brian Austin, DG/5
Bill Phelps, DG/5
Bryan D. Hartsook, Waste Water Supervisor, SER
John Hnat, SER
Case File, FID #: 241094590