

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
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July 24, 2020

Mr. Joel Smullen
Marquette University
517 N. 14th St
Milwaukee, WI 53233

Subject: Infiltration/Injection Temporary Exemption Request for
Former Taxman Site 1214-1222 W. Wells St. Milwaukee, Wisconsin
WDNR BRRTS Activity # 02-41-152248

Dear Mr. Smullen:

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 sand, zero valent iron, carbon amendment, and bioaugmentation microbial culture into groundwater (the Request) at the Former Taxman Site was received from your consultant, Ramboll US Corporation (Ramboll), on June 9, 2020. Ramboll intends to treat groundwater impacted with chlorinated volatile organic compounds (CVOCs). The Department also received a request for a WPDES General Permit for Contaminated Groundwater from Remedial Action Operations on June 29, 2018. A review fee of \$700.00 was submitted on June 9, 2020. This temporary exemption is intended to provide assurances to Joel Smullen with Marquette University 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 February 19, 2019, the Department conditionally approved the *Remedial Design Report*, dated February 12, 2019. The report included a request for in-situ soil blending of zero valent iron and carbon amendment followed by groundwater monitoring. 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."

The Request states that fracture horizons will be induced at various depths within proposed injection wells. Immediately following the creation of fracture horizons, approximately 9,750 pounds of sand, 3,900 pounds of zero valent iron, 1,400 gallons of carbon amendment, and 1 gallon of KB-1 bioaugmentation bacteria culture will be injected into 9 planned injection wells at a total of 11 fracture horizons dependent on injection well location. The 9 injection wells will be located within the in-situ soil blending treatment zone on site. Contaminated groundwater that is encountered will be handled appropriately according to the Wisconsin Department of Natural Resources (DNR) issued Wisconsin Pollutant Discharge Elimination (WPDES) general permit requirements. The Request states that fugitive emissions are not anticipated during injection activities. The Request states that ambient air monitoring will not be conducted during pre-injection and injection activities because remedial activities will be performed in closed environments and injection depths will be greater than 12 feet below ground surface.

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 groundwater. This letter serves as your approval from the Department to inject sand, zero valent iron, carbon amendment, and KB-1 bioaugmentation bacteria culture, to treat CVOCs in groundwater, in accordance with this temporary exemption.

NR 140 Temporary Exemption:

Department approval is hereby granted to Mr. Joel Smullen for the injection of sand, zero valent iron, carbon amendment, and KB-1 bioaugmentation bacteria culture to groundwater on the Former Taxman Site 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 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 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 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.
2. The type, concentration and volume of substances or remedial material to be infiltrated or injected shall be minimized to the extent that is necessary for restoration of the contaminated groundwater.
3. Any infiltration or injection of contaminated water or remedial material into groundwater 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 into an area where a floating non-aqueous liquid is present in the contaminated groundwater.
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 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, 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. A WPDES general permit for Discharge of Contaminated Groundwater from Remedial Action Operations is required for this action.

B. Specific:

7. The remedial materials to be injected to the groundwater shall be limited to sand, zero valent iron, carbon amendment and KB-1 bioaugmentation bacteria culture.
8. The remedial material and injection project shall be as described in the Post-Remedial Action Documentation Report dated May 2020.
9. Ramboll 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. Remediation progress reports shall be submitted with the semi-annual progress reports. The progress reports shall include the groundwater monitoring results. The first report should be submitted not more than three months after the first injection. 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.
12. Any significant changes based on information from the injection groundwater monitoring reports or results shall be submitted to the Department for approval prior to the changes being implemented at the Former Taxman Site. This includes, but is not limited to, adjustments to the volume/mass of the media injected, additional injection points, number of injection events, and/or changes in the type of remediation media used in the injection points.
13. Modifications to the sampling schedule may be requested.
14. In the event of future injection 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.
15. Any permit extension approvals will be dependent on WI DNR review of site-specific data or any other information it deems necessary.
16. 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, Isaac Ross.

Monitoring Conditions:

1. That the actual volume injected be recorded on an hourly basis for each day of the project.
2. That baseline monitoring be performed prior to the first injection event, for the following groundwater parameters, at the following wells:
 - a. Monitored Natural Attenuation (MNA) parameters as outlined in Table 4 of the Report, Volatile Organic Compounds (VOCs) and CVOCs as conducted in the existing semi-annual groundwater monitoring events,
 - b. at monitoring wells: all groundwater monitoring wells and piezometers in the existing semi-annual groundwater monitoring program.
 - c. The DNR concurs that sampling for nitrate, dissolved iron, and ferric iron can be reduced to PZ-1R as requested in the Report.
3. That after completion of the injection phase of the remedial action (during the September or October groundwater monitoring event), 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.
6. While inducing fracturing in the subsurface, pressures are not to exceed 300 psi.
7. Prior to commencement of injection activities, ensure that no buried conduits, utility corridors, or preferential pathways exist that will transport injected material in an unintended fashion.

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_0046566-07-0 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 Department 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, except for 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 Ramboll's request dated 06/29/2020 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, as specified in part 3.2 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_0046566-07-0) dated 06/29/2018 with expiration date 06/29/2023.

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 Binyoti F. Amungwafor at (414-263-8607, Cell Phone (262)424-4175 or e-mail Binyoti.Amungwafor@wi.gov

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Former Taxman Property
BRRTS# 02-41-152248

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Sincerely,

B. Amungwafor

Binyoti F. Amungwafor
Hydrogeologist
Remediation & Redevelopment Program
Southeast Region

cc: Paul Lindquist, Ramboll US Corporation (electronic)
Issac Ross, RR (electronic)
Brian Austin, DG/5 (electronic)
Bill Phelps, DG/5 (electronic)
David Haas, WW (electronic)
Case File #: FID # 241086120