

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
2300 N. Dr. Martin Luther King, Jr. Drive
Milwaukee, WI 53212-3128

Tony Evers, Governor
Preston D. Cole, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711



October 26, 2020

Mr. Frank Dombrowski
We Energy/Environmental Consultant
333 Everett Street
Milwaukee, WI 53203

SUBJECT: Infiltration Temporary Exemption Request for We Energies Metro North Service Center
3100 West North Avenue
Milwaukee, WI 53208
BRRTS #: 02-41-583015; FID #: 241311510; FIN#: 74114

Dear Mr. Dombrowski

The purpose of this letter is to provide a temporary exemption for the injection of a remedial material into the groundwater. A request for a temporary exemption to inject/mix in-situ-chemical oxidation (ISCO) of 10% potassium permanganate (RemOx™) solution to treat contaminated soils at the We Energies Metro North Service Center Site (Property) was received from your consultant Geosyntec Consultants (Geosyntec) on September 21, 2020. The Wisconsin Department of Natural Resources (DNR) also received a request for a WPDES General Permit for Contaminated Groundwater from Remedial Action Operations. A review fee of \$700 was submitted. The temporary exemption is intended to provide assurances to Mr. Dombrowski 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.

Geosyntec has proposed the use of 10% sodium permanganate (RemOx™) to mix with saturated soils at the bottom of the excavation at the site. This will be done to reduce the source area tetrachloroethene (PCE) mass and to enhance groundwater monitoring for natural attenuation. Unsaturated soils will be treated by direct mixing of sodium permanganate (Carus RemOx™ L ISCO Reagent). Approximately 1,050-gallons 40% oxidant will be mixed with 4,150-gallons of water before applying to get 5,200-gallons of 10% RemOx™ L application volume. The treatment area is estimated at 900 ft² and this equates to about a treatment volume of 300 yd³. Shallow groundwater/saturated soils will be treated by direct mixing and a blend of sodium permanganate and sodium persulfate (Carus Mixed Liquid oxidant (MLO)). In the shallow groundwater/saturated soils about 3,200-gallons of 40% oxidant will be mixed with 30,000-gallons of water before applying to get 33,200-gallons 5% MLO application volume. Planned treatment area is estimated at 5,400 ft² and this equates to about 600 yd³ treatment volume.

Based on bench scale treatability study, a 10% concentration of RemOx™ L will treat about 4,500 mg/kg of PCE contaminated soils to less than 60 mg/kg contaminated PCE soils. Areas impacted with concentrations exceeding the PCE land disposal restriction (LDR) will be treated with ISCO to allow for landfill. Oxidant mixing will be completed within a month and oxidant mixing is planned to be done fourth quarter 2020 and first quarter 2021. Monitored natural attenuation will be implemented in accordance with DNR approved groundwater monitoring plan.

Determination on NR 812 Wis. Adm. Code Injection Prohibitions:

The injection prohibition under s. NR 812.05, Wis. Adm. Code, is not applicable in this case because the proposed action is a DNR-approved activity necessary for the remediation of groundwater. This letter serves as

We Energies Metro North Service Center
3100 West North Avenue, Milwaukee, WI 53208
BRRTS #: 02-41-583015

your approval from the DNR of the use of potassium permanganate (RemOx™) to treat/mix impacted soils with chlorinated volatile organic compounds (CVOCs) at the property.

NR 140 Temporary Exemption:

The DNR approval is hereby granted to Geosyntec to treat/mix soils impacted with CVOCs with potassium permanganate (RemOx™) at the Property. The expiration date of this temporary exemption must be less than 2-years, per NR 140.28(5)(e)(1) 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 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.

DNR 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 reasonable period.
2. The type, concentration and volume of substances or remedial material to be infiltrated or injected/mixed shall be minimized to the extent that is necessary for restoration of contaminated groundwater.
3. Any infiltration or injection/mixing of contaminated water or remedial material into the 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 /mixed 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 an infiltrated or injected/mixed 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, 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 are required. A WPDES general permit for Discharge of Contaminated Groundwater from remedial action operation is required for this action.

B. Specific:

7. The remedial materials to be injected/mixed with the soils and groundwater shall be limited to the treatment of CVOCs.
8. The remedial material and injection/mixing project shall be as described in Geosyntec's request.
9. Geosyntec will notify the Southeast Region DNR Project Manager, Linda Stanek of field activities, no less than One (1) week before starting the injection.
10. Include discussion of how if applicable sump infiltration will be monitored for successful remediation.
11. Remediation progress reports shall be submitted semi-annually, and shall include the groundwater monitoring 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 prior to the expiration date of this temporary approval.
12. Any significant changes to the injection process, based on information from the injection groundwater monitoring reports or results shall be submitted to the DNR for approval prior to the changes being implemented to the injection and treatment of CVOCs in the groundwater and soils at the property. This includes but is not

limited to adjustments to the volume/mass of the media injected/mixed.

13. Modifications to the sampling schedule may be requested.
14. The responsible party may apply to the DNR for an extension of this approval if future injection/in-situ chemical oxidation activities are required, and the DNR must receive any extension request before the expiration date of this approval.
15. The DNR will review all permit extension requests, site-specific data and or any other necessary information.
16. Prior to moving to full scale injections if this applies, a Remedial Action Plan should be submitted for DNR review.
17. Upon completion of the project, the placement monitoring wells 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 through an alternative approved by the DNR Project Manager.

Monitoring Conditions:

In addition to your plan, it is your responsibility to meet all the following approval conditions during your proposed injection procedures at this site. The conditions are:

1. Maintain and follow the Site-Specific Health and Safety Plan in accordance with the Occupation Safety and Health Administration (OSHA) and the United States Environmental Protection Agency (USEPA) health and safety standards for hazardous waste workers.
2. If a chlorinated water source (i.e. municipal water) is used as the make-up water, it shall be filtered through an activated carbon filter or method proposed in your report to remove chlorine.
3. Record the start and stop times and the actual volume of the enhanced treatment/oxidation of CVOCs injected into each injection or delivered to each placement monitoring well.
4. Monitor the ambient air in and around the work area during the proposed enhanced treatment of CVOCs injection process using in-situ blending methods.
5. Monitor the headspace of all injection points prior to the proposed treatment of CVOCs, using in-situ blending methods.
6. Monitor the headspace of all groundwater monitoring wells prior to each groundwater monitoring event.
7. Conduct vapor monitoring at the closest proposed monitoring locations, including a measurement of percent (%) LEL every 15 minutes during the first hour of each infiltration event.
8. Immediately notify the DNR if any new groundwater quality enforcement standards are exceeded during monitoring.
9. Notify digger's hotline and all owners of utility lines if your project requires notification. Also, notify the local fire department prior to injection activities, and ensure that any representatives of these entities be allowed to observe the injection activities as needed. After completing the injection, sample all monitoring wells for applicable parameters quarterly.
10. Ensure that the injection is performed at less than 100 psi or at a reasonable psi which minimizes solution mounding in the aquifer, and plume disfigurement.
11. Maintain a log of all field monitoring results and injection/delivering activities.
12. Document and report all project activities and all test results to the DNR within 60 days of completing the injection activities.

Failure to adhere to the provisions of this temporary exemption may result in DNR 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 the soils or groundwater quality, or both.

WPDES Permit:

The Wisconsin Department of Natural Resources (hereafter Department) has determined that your proposed injection discharge from We Energies – Metro North Service Center located at 3100 West North Avenue,

We Energies Metro North Service Center
3100 West North Avenue, Milwaukee, WI 53208
BRRTS #: 02-41-583015

Milwaukee, Wisconsin is eligible for coverage under the *Contaminated Groundwater from Remedial Action Operations* Wisconsin Pollutant Discharge Elimination System (WPDES) General Permit No. WI-0046566-07-0. This determination was based on review of a complete General Permit Notice of Intent (NOI) form and Discharge Management Plan submitted by Greg Johnson, Geosyntec Consultants, and received on October 14, 2020. Please download the permit and fact sheet from the Department website at: <http://dnr.wi.gov/topic/wastewater/GeneralPermits.html>.

The Department hereby approves the discharge management plan in accordance with the *Contaminated Groundwater from Remedial Action Operations* WPDES General Permit No. WI-0046566-07-0. The approval of the discharge management plan hereby certifies that the discharge management plan requirements in Section 3 of the general permit are met.

The proposed injection discharge to groundwater is eligible for coverage and hereby authorized under the *Contaminated Groundwater from Remedial Action Operations* WPDES General Permit No. WI-0046566-07-0 in accordance with s. NR 205.08, Wis. Adm. Code, subject to the following general permit conditions:

1. Coverage Effective Date: Coverage at the facility will become effective under this general permit on the date of this letter until permit termination, reissuance of the general permit, or the expiration date of the temporary exemption (see above) whichever is sooner.
2. Discharge Management Plan: The permittee shall operate consistent with the approved discharge management plan. A copy of the discharge management plan shall be retained by the permittee and this plan shall be made available upon department inspection or submitted to the department upon request. Permittees shall notify the department when the discharge management plan is amended to determine if the amendment requires department approval.
3. Reporting: The permittee is exempt from monitoring and reporting under this general permit and shall follow the terms and conditions of the remedial action plan approval under ch. NR 724, Wis. Adm. Code, and the temporary exemption approved under s. NR 140.28(5), Wis. Adm. Code.
4. Discharge Status: If the project has been completed and/or the injection activities have ceased, please complete a Notice of Termination (Form 3400-221) available at <http://dnr.wi.gov/topic/wastewater/GeneralPermits.html>. Please email this form to David.Haas@Wisconsin.gov. The Department will then send a letter back to you confirming termination of coverage under this general permit.
5. New Ownership: If your facility changes ownership in the future, please complete and submit a Transfer of Coverage (Form 3400-222) available at <http://dnr.wi.gov/topic/wastewater/GeneralPermits.html>. Please email this form to David.Haas@Wisconsin.gov.
6. Change of Authorized Representative: If you plan on changing the authorized representative contact for the facility or you want to assign a new person to be a duly authorized representative to submit specific permit documents on your behalf, please complete and submit a Delegation of Signature Authority (Form 3400-220) available at <http://dnr.wi.gov/topic/wastewater/GeneralPermits.html>. Please email this form to David.Haas@Wisconsin.gov.
7. Facility Changes: If there will be any changes in the facility operations that result in new or different wastewater discharges to the waters of the state, please contact the Department and reapply for permit coverage. If reapplication is necessary, please complete a notice of intent (NOI) form for the applicable general permit(s) to verify that the discharge is eligible for that general permit. NOI forms are available at <http://dnr.wi.gov/topic/wastewater/GeneralPermits.html>. This document must be mailed to the Department.

We Energies Metro North Service Center
3100 West North Avenue, Milwaukee, WI 53208
BRRTS #: 02-41-583015

8. **Compliance:** You are responsible for compliance with the general permit requirements and conditions listed above and all other applicable requirements and conditions contained in the general permit. **To assure you remain in compliance and avoid any enforcement action, please read the general permit over carefully.**

LEGAL AUTHORITIES AND APPEAL RIGHTS FOR WPDES GENERAL PERMIT

Section 283.35(1), Wis. Stats., authorizes the Department to issue a general permit applicable to a designated area of the state authorizing discharges from specified categories or classes of point sources located within that area. Upon the request of the owner or operator of a point source, the Department shall withdraw the point source from the coverage of a general permit and issue an individual Wisconsin Pollutant Discharge Elimination System (WPDES) permit for that source in accordance with s. 283.35(2), Wis. Stats. Additionally, the Department may withdraw a point source from the coverage of a general permit and issue an individual WPDES permit if that source meets any of the factors listed in s. 283.35(3), Wis. Stats. Issuance of such an individual permit will provide for a public comment period, and potentially a public informational hearing and/or an adjudicatory hearing. In lieu of general permit withdrawal, the Department may refer any violation of a general permit to the Department of Justice for enforcement under s. 283.91, Wis. Stats., pursuant to s. 283.89, Wis. Stats. In order to remain in compliance and avoid any enforcement action, **please read your permit carefully.**

To challenge the reasonableness of or necessity for any term or condition of an issued, reissued, or modified general permit, s. 283.63, Wis. Stats., and ch. NR 203, Wis. Adm. Code, require that you file a verified petition for review with the Secretary of the Department of Natural Resources within 60 days after notice of the permit decision was issued by the Department. For other permit-related decisions, such as the decision to confer general permit coverage to your facility, that are not reviewable pursuant to s. 283.63, Wis. Stats., it may be possible for permittees or other persons to obtain an administrative review pursuant to s. 227.42, Wis. Stats., and s. NR 2.05(5), Wis. Adm. Code, or a judicial review pursuant to s. 227.52, Wis. Stats. If you choose to pursue one of these options, you should know that Wisconsin Statutes and Administrative Code establish time periods within which requests to review Department decisions must be filed.

If you have any questions regarding this letter, please contact me either at 414.208.5874 or by e-mail at Binyoti.Amungwafor@Wisconsin.gov

Sincerely,

B. Amungwafor

Binyoti F. Amungwafor

Hydrogeologist

Remediation & Redevelopment Program

cc: Jeremiah Johnson, Geosyntec Consultants, Inc. (electronic)
Linda Stanek, RR/SER
David Haas, Wastewater Specialist, General Wastewater Permits
Brian Austin, DNR DG/5
Bill Phelps, DNR DG/5
Case File, FID #: 241311510