State of Wisconsin **DEPARTMENT OF NATURAL RESOURCES** 1027 W. Saint Paul Avenue Milwaukee WI 53233

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WISCONSIN Toll Free 1-888-936-7463 **DEPT. OF NATURAL RESOURCES**

December 14, 2021

Mr. Greg Butts, 4811 S. 76th Street C/o Real MGT Consultants, Inc. Greenfield, WI 53220

> Subject: Infiltration/Injection Temporary Exemption Request for Westbrook Shopping

> > Center/Bask Inc., 2136 E. Moreland Boulevard, Waukesha, WI

FID# 268188800, BRRTS# 02-68-297669 WPDES Permit Site ID (FIN): 80481

Dear Mr. Butts:

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 Anaerobic Biochem Plus (ABC⁺) to treat an area of residual tetrachloroethene (PCE) impacted groundwater was received on November 14, 2021. The Wisconsin Department of Natural Resources (Department) also received a complete electronic Notice of Intent (eNOI) and Discharge Management Plan for the Contaminated Groundwater from Remedial Action Operations Wisconsin Pollutant Discharge Elimination System (WPDES) General Permit on December 14, 2021. A review fee of \$700.00 had previously been submitted with a workplan on October 26, 2021. This temporary exemption is intended to provide assurances to the City of Waukesha that the environmental cleanup being conducted in response to a release of contaminants at Westbrook Shopping Center/Bask Inc., 2136 E. Moreland Boulevard, Waukesha, WI (Site) is being conducted in accordance with Wis. Stats. § 292.12.

KRPG & Associates (KPRG) plans to inject a mixture of ABC⁺ and zero valent iron (ZVI) which includes lactates, lactate esters, fatty acids and a phosphate buffer that promotes anaerobic biodegradation of halogenated solvents, such as PCE, in groundwater. The ABC⁺ and ZVI creates a reducing environment as it acts as an electron donor that lasts up to two years. KPRG will inject an average of 100 gallons of 12% ABC⁺ at each injection point at an operating pressure of 20-60 pounds per square inch (psi) and not to exceed a maximum of 100 psi. The injection will start from the north near MW-6, located downgradient of the site source, and proceed to the south near MW-7, located upgradient from MW-6 and adjacent to the area of the release. A total of 2,800 gallons of injectate will be applied. Eight injection points located near MW-7 will receive (8 x 200 = 1,600 gallons of injectate); and 12 injection points located near MW-6 will receive ($12 \times 100 = 1,200$ gallons of injectate). KRPG will conduct six rounds of groundwater sampling to monitor the groundwater quality at the site. KPRG will conduct quarterly sampling for the first year followed by semi-annual sampling the second year. Collected samples will be analyzed for chlorinated volatile organic compounds (CVOCs). The sampling results will be submitted to the Department, per Wis. Admin. Code § 716.14.



Determination on the NR 812 Injection Prohibition:

The injection prohibition under Wis. Admin. Code § NR 812.05, 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 dated 12/14/2021 to inject ABC⁺ in groundwater, in accordance with this temporary exemption.

NR 140 Temporary Exemption:

Department approval is hereby granted to KPRG for the injection of ABC⁺ in groundwater, in accordance with this temporary exemption, at the Site, with certain terms and conditions. <u>The expiration date of this temporary exemption shall be less than 2 years from the date of this letter.</u>

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 Wis. Admin Code § NR 140.28 (1) (d). 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 Wis. Admin Code § NR 140.28 (1) (d) have been or will be met, in accordance with Wis. Admin. Code § NR 140.28 (5) (c) and (d).

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 Wis. Admin. Code § NR 140.24 (2) or Wis. Admin. Code §NR 140.26 (2) within a reasonable period of time.
- 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 Wis. Admin. Code § NR 140.18 (1) 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:

- 1. The remedial materials to be injected in groundwater shall be limited to the treatment of CVOCs.
- 2. The remedial material and injection project shall be as described in KPRG's request.
- 3. KPRG will notify the Southeast Region DNR Project Manager, Gregory Moll of field activities, no less than one (1) week before starting the injection.
- 4. Include discussion of how if applicable sump infiltration will be monitored for successful remediation.
- 5. 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. 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.
- 6. Any significant changes to the injection process, based on information from the injection
- 7. groundwater monitoring reports or results shall be submitted to the Department for approval prior to the changes being implemented to the injection and treatment of CVOCs in the groundwater and soils at the Site. This includes but is not limited to adjustments to the volume/mass of the media injected.
- 8. Modifications to the sampling schedule may be requested.
- 9. The responsible party may apply to the Department for an extension of this approval if future injection activities are required, and the Department must receive any extension request before the expiration date of this approval.
- 10. The Department will review all permit extension requests, site-specific data and or any other necessary information.
- 11. Prior to moving to full scale injections if this applies, a Remedial Action Plan should be submitted for Department review.
- 12. Upon completion of the project, monitoring wells must be abandoned in accordance with Wis. Admin. Code § NR 141.25 and later topped off with grout or native soils if settling occurs, unless converted to Wis. Admin. Code ch. NR 141 compliant monitoring wells, or through an alternative approved by the DNR Project Manager.

C. <u>Monitoring Conditions</u>:

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 placed in unsaturated and saturated soil.
- 4. Monitor the ambient air in and around the work area during the proposed enhanced treatment of CVOCs injection process.
- 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 (Lower Explosive Limit) every 15 minutes during the first hour of each infiltration event.
- 8. Immediately notify the Department 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 Department within 60 days of completing the injection activities.

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

WPDES Permit

The Department has determined that the proposed injection/infiltration discharge to groundwater from the Site

is eligible for coverage and is hereby authorized 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 eNOI and Discharge Management Plan submitted by KPRG and received on November 14, 2021. Please download the permit and fact sheet from the Department website at:

https://dnr.wisconsin.gov/TEtopic/Wastewater/GeneralPermits.html.

The Department is also approving the discharge management plan that was submitted with the eNOI in accordance with the *Contaminated Groundwater from Remedial Action Operations* WPDES General Permit No. WI-0046566-07-0. The discharge management plan satisfies the requirements in Section 3 of the general permit.

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

1. <u>Coverage Effective Date:</u> Coverage at your Site will become effective under this permit upon the date of this letter until permit coverage termination, revocation, or reissuance of the general permit. This permit applies only to the discharge activities and Site described in the eNOI for the above referenced project.

- 2. <u>Discharge Management Plan:</u> 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 Wis. Admin. Code ch. NR 724 and the temporary exemption granted under Wis. Admin. Code § NR 140.28 (5).
- 4. <u>Coverage Termination</u>: Once the project is completed, please complete and submit a Notice of Termination (Form 3400-221) to the Department available at http://dnr.wi.gov/topic/wastewater/GeneralPermits.html.
- 5. <u>Change of Authorized Representative:</u> 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) to the Department available at http://dnr.wi.gov/topic/wastewater/GeneralPermits.html.
- 6. <u>Site Changes:</u> If there have been or will be any changes in the Site operations that result in new or different wastewater discharges to the waters of the state, please contact the Department consistent with Section 7.1.6 of the general permit. If reapplication is necessary, please complete a notice of intent (NOI) form for the applicable general permit to verify that your discharge is eligible for that general permit. NOI forms are available at http://dnr.wi.gov/topic/wastewater/GeneralPermits.html.
- 7. <u>Compliance with Permit Conditions:</u> 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

Wis. Stats. § 283.35 (1) 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 WPDES permit for that source in accordance with Wis. Stats. § 283.35 (2). 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 Wis. Stats. § 283.35 (3). 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 Wis. Stats. § 283.91, pursuant to Wis. Stats. § 283.89. 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, Wis. Stats. § 283.63 and Wis. Admin Code ch. NR 203 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 Wis. Stats. § 283.63, it may be possible for permittees or other persons to obtain an administrative review pursuant to Wis. Stats. § 227.42 and Wis. Admin. Code § NR 2.05 (5) or a judicial review pursuant to Wis. Stats. § 227.52. 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 at (414) 208-5874 or by e-mail at Binyoti.amungwafor@wiconsin.gov

Sincerely,

Binyoti F. Amungwafor

B. Amngwafor

Hydrogeologist

Remediation & Redevelopment Program

cc: Joshua D. Davenport, KPRG

 $Gregory\ Moll-DNR/SER$

Brian Austin, DG/5 Bill Phelps, DG/5

Maya Welch, Wastewater Specialist - DNR Southeast Region