



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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June 13, 2024

Jim Rakitsky
Quality Carriers
102 Pickering Way, Suite 105
Exton, PA 19341
Sent via email: jrakitsky@qualitycarriers.com

Re: UIC Site 38753 – Underground Injection Control (UIC) Program Well Registration for Voluntary or Independent Cleanup Sites, Quality Carriers Property (Site), 19929 77th Avenue S, Kent, WA

Dear Jim Rakitsky:

Ecology's UIC Program has reviewed your UIC registration for the above-mentioned Site. Based on the information provided in the registration and the additional information provided per Ecology's request, the UIC wells are **Conditionally Rule-Authorized**, and a State Waste Discharge Permit is not required to operate the wells under WAC 173-218 authorities.

The UIC registration number is 38753. The Site is undergoing Ecology's Expedited Voluntary Cleanup Program (VCP) technical reviews and assistance for in-situ remedial cleanup activities (IRCA) of residual groundwater contamination associated with petroleum product and chlorinated volatile organic compounds (CVOCs) release(s) inferred to be from tanker truck and equipment washing and vehicle refueling activities. The Expedited VCP Project Number is XN0041. The Facility Site Identification (ID) Number is 95467964 and the Cleanup Site ID number is 16932.

The Site is defined by the nature and extent of contamination associated with the following release(s):

- Diesel- (TPH-D) and heavy oil-range (TPH-HO) total petroleum hydrocarbons into the groundwater.
- CVOCs into the groundwater.

Review of the *Powered Activated Carbon Basis of Design*, dated June 4, 2024, prepared by SoundEarth Strategies, Inc. (Work Plan), and information provided in UIC registration 37761 indicates that a total of approximately 6,800 gallons of injectate consisting of approximately 2,500 pounds of powdered activated carbon (PAC) will be injected at 23 direct injection points at onsite locations. The PAC injections are focused to remediate CVOc impacts to groundwater and are not specifically designed to remediate the full extent of documented petroleum hydrocarbon impacts to groundwater. The proposed onsite injections will be targeted to the depths ranging from 3 to 15 feet below ground surface (bgs) with the injection pressure ranging from 20 to 60 pounds per square inch (PSI) and an estimated flow rate of up to 5 gallons per minute (gpm). The estimated

radius of influence is less than 5 feet around each injection point. The proposed powdered activated carbon concentration for the proposed injections is 5%.

Ecology's UIC Program reviewed the email message with the subject line "XN0041 – Quality Carriers – Ecology TCP Feedback on Injection Basis of Design", dated June 11, 2024, prepared by Frank Winslow, the VCP Cleanup Site Manager as part of the UIC registration review process. Suggested changes to the Work Plan by Ecology's VCP Cleanup Site Manager referenced in this letter were documented in the email message dated June 11, 2024.

The following activities will be performed during the injection process:

- Injection flowrate and pressures will be recorded and utilized to optimize subsequent injections.
- Groundwater levels will be measured in groundwater monitoring wells MW07 and MW14. Ecology's VCP suggested that pressure transducers/data loggers be used prior to and during the injection activities to provide more clear data demonstrating migration of the injectate.
- Groundwater samples will be periodically collected from groundwater monitoring wells MW07 and MW14 to assess the presence/absence (i.e., visual and field parameter measurement) of the injected PAC slurry. Ecology's VCP suggested that field parameter measurements include turbidity readings to provide data indicative of the presence of carbon within the monitoring wells that would be used to demonstrate the injectate radius of influence.

The injections are an approved one-time injection event scheduled to start on June 17, 2024 and expected to be completed over a two-week period. Information provided by the applicant in UIC registration 38753 indicates that a repeat injection event may be performed based on performance monitoring results. Any repeat injection events would require additional review and rule authorization from Ecology's UIC Program before being completed.

After the injections are completed, the direct-push injection points will be abandoned using hydrated bentonite chips or grout in accordance with WAC 173-160-451 and the UIC Registration well status will be updated to reflect the current closed status of the UIC wells.

The post-injection performance groundwater monitoring program will include the following:

- Measurement of groundwater levels and collection of groundwater samples from monitoring wells MW07 and MW14 at one and three months following the initial PAC injection. Quarterly sampling of monitoring wells MW04, MW06 through MW09, MW11, and MW14 until four consecutive quarters of compliant CVOC results have been achieved. Ecology's VCP suggested samples collected from monitoring well MW07 be analyzed for petroleum/polar compounds in addition to CVOCs.
- Groundwater monitoring and sampling will include field measurement of pH, dissolved oxygen, electrical conductivity, and oxidation-reduction potential to assess geochemical conditions.

- The Work Plan and Ecology's VCP email message dated June 11, 2024, also indicated that additional groundwater sampling and monitoring will be required for petroleum or arsenic contamination that is outside of the scope of work for this injection event which is focused on remediation of CVOC impacts to groundwater.

Conditional Rule-Authorization - Conditions of Use

There are inherent environmental risks associated with injecting compounds into groundwater. It is incumbent upon the owner and their representative to carefully characterize, manage, and monitor the Site surface and subsurface conditions to minimize risk and prevent unforeseen degradation of groundwater quality and other environmental risks.

Ecology will Rule-Authorize a UIC registration to operate when the two UIC Program requirements for Rule Authorization are met:

1. Registration of UIC wells (prior to use), and
2. The UIC well must meet the nonendangerment standard (WAC 173-218-080).

As stand-alone UIC wells, the wells do not meet the nonendangerment standard for Rule Authorization. Additional conditions are needed to allow for conditional rule-authorization and the remedial work to proceed.

The following Site-specific UIC Program requirements for **Conditionally Rule-Authorization** include:

- The IRCA is a one-time event, additional injections will require additional authorization.
- Onsite groundwater is not approved for use to mix with the remediation products for injection into the subsurface.
- The injection activities must follow the approved all VCP directives and agreements. Any deviations from the approved work plans or other agreements are not allowed unless Frank Winslow, the VCP Site Cleanup Manager, has pre-approved those changes in writing.
- The injections must not cause a further degradation to groundwater quality criteria at the down-gradient monitoring points per state or federal applicable criteria. If such groundwater degradation occurs, the injection activities must discontinue; any environmental release must be reported no later than 24-hours from the release discovery at [Reporting An Environmental Issue](https://ecology.wa.gov/Footer/Report-an-environmental-issue)¹ or call 1-800-645-7911.
- Additionally, notification to Ecology's UIC Program of any change in UIC well status is a required element of this registration.
- The planned IRCA start date is for June 17, 2024.

The Site will be **Conditionally Rule-Authorized** for as long as the nonendangerment standard of WAC 173-218-080 will continue to be met and the above items have been completed. Failure to

¹ <https://ecology.wa.gov/Footer/Report-an-environmental-issue>

capture any of the performance data required or cause a violation of the applicable cleanup standards may result in a denial, modification, or termination of the UIC registration.

The VCP Site Cleanup Manager will have final authority to determine if the IRCA described in the work plan have met the substantive requirement of the MTCA if such an opinion is requested. Ecology's UIC Program will not make that determination.

At any time if the nonendangerment standard cannot be met, Ecology may require you to apply for, and obtain, a State Waste Discharge Permit for the continued use of the proposed treatment compounds. You would need to obtain a formal waste discharge approval for this project through Ecology's State Waste Discharge Permit Program or Toxics Cleanup Program.

The owner is responsible to keep the UIC registration information current and retain all registration documents, plans, modeling, monitoring results, interim, and final reports. Upon Ecology request, the owner shall provide these documents to the UIC Program.

This UIC registration was evaluated under the presumptive approach, Ecology UIC has determined the conditions described in the UIC registration and other submitted documents to be truthful and factual when making the determination the injections will be protective of the Site groundwater quality and will meet the nonendangerment standard requirements of WAC 173-218-080. Any material misrepresentations or omissions of fact supplied in this application may result in the denial or revocation of this registration authorization. Ecology's UIC Program has the authority to rescind a rule authorization if Ecology determines the system no longer meets the nonendangerment standard.

Please contact John Bhend at UICwells@ecy.wa.gov if you have any questions. You can find additional information on the UIC Program can at our website:

[Ecology's Underground Injection Control Program²](#)

Sincerely,



John Bhend, LG
Statewide UIC Program Coordinator
Water Quality Program

cc: Levi Fernandes, SoundEarth Strategies, Inc., lfernandes@soundearthinc.com
Frank Winslow, Ecology VCP, fwin461@ecy.wa.gov

² <https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Underground-injection-control-program>