



Central Valley Regional Water Quality Control Board

30 October 2022

Mr. Rajinder “Chris” Gill
424 D Street
Marysville, CA 95901

NOTICE OF APPLICABILITY – ORDER NO. R5-2015-0012-0075, FULL STOP MARKET, 1675 NORTH BEALE ROAD, LINDA, YUBA COUNTY, LUST CASE #580239, GEOTRACKER ID #T0611556877

Broadbent & Associates, Inc. (Broadbent) submitted the following documents on your behalf:

- *Corrective Action Plan (CAP)*, dated 25 February 2022
- *Notice of Intent Application (NOI)*, dated 4 April 2022

Broadbent submitted these documents for the proposed injection of Deep Earth Technologies, Inc.’s Cool-Ox proprietary peroxygen in-situ chemical oxidation (ISCO) formula. Broadbent proposes to implement ISCO to remediate petroleum hydrocarbon impacts to groundwater at 1675 North Beale Road in Linda (Site). Broadbent requested coverage for the proposed ISCO treatment under *Order R5-2015-0012, Waste Discharge Requirements General Order for In-SITU Groundwater Remediation and Discharge of Treated Groundwater to Land* (General Order). Based upon review of the documents submitted by Broadbent, Central Valley Regional Water Quality Control Board (Central Valley Water Board) staff concludes the proposed application of ISCO complies with the conditions specified in the General Order. As such, you are being issued this Notice of Applicability (NOA) and have been assigned Order Number **R5-2015-0012-0075**.

Project Location:

Street Address:	1675 North Beale Road
City, County:	Linda, Yuba
Assessor's Parcel Number:	021-080-039
Latitude & Longitude:	North 39.12803, West -121.55495
Township/Range/Section:	T15N / R4E / S00

MARK BRADFORD, CHAIR | PATRICK PULUPA, ESQ., EXECUTIVE OFFICER

The Site consists of an approximately 0.70-acre lot occupied by a Kwik Serv retail fuel service station. The property contains a single commercial building along the north side of the property with a dispenser island and parking lot occupying the remainder of the property to the south of the building. The Site is bounded by North Beale Road to the south, Hammonton-Smartsville Road to the west, and residential properties to the north and east. The surrounding area consists of mixed residential and commercial properties. The unauthorized petroleum release was observed during an upgrade of the underground storage tank (UST) system in 2004.

Project Description:

In 2004, soil samples collected during the UST system upgrade indicated that soil beneath the Site's dispensers was impacted with gasoline range hydrocarbons. Between 2013 and 2015, Applied Engineering and Geology, Inc. (AEG) conducted subsurface investigations to characterize the extent of the petroleum release in soil and groundwater. During this period, AEG also began the initial phases of the installation of a dual-phase extraction (DPE) system. However, the UST Cleanup Fund did not approve the necessary budget change order submitted by AEG to finish the installation of the DPE system and work on the system ceased. Broadbent conducted additional subsurface investigations in 2020. To date, 11 groundwater monitoring wells have been installed at the Site.

Remedial actions conducted at the Site consist only of a multi-day DPE test conducted by AEG. Based on the test, AEG concluded that DPE was an economically viable option for remediation. However, Broadbent evaluated several remedial strategies including DPE in the CAP. Broadbent anticipated DPE would perform poorly and that the lack of infrastructure at the Site would make DPE economically infeasible compared to alternative remedial strategies that were evaluated. Ultimately, Broadbent proposed ISCO as the preferred remedial option.

Broadbent has proposed a single targeted injection event of a peroxygen-based chemical oxidant consisting primarily of calcium peroxide. The injected oxidant will form hydroxyl radicals in groundwater that oxidize organic constituents, such as methyl tert-butyl ether (MTBE), breaking them down into carbon dioxide and water. Biodegradation is also expected to be increased due to elevated levels of dissolved oxygen in groundwater resulting from the proposed injection of oxidants.

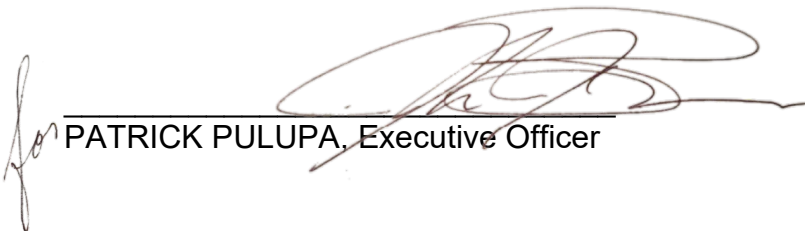
Prior to and following injection, analytical testing shall be performed on select monitoring wells in accordance with the enclosed Monitoring and Reporting Program (MRP) to assess the effectiveness of the remediation effort and to ensure that breakdown products generated or mobilized from the injection of Cool-Ox into groundwater does not exceed water quality objectives or groundwater limitations based on naturally occurring background water quality. As indicated in the attached MRP, if groundwater quality is degraded and concentrations of breakdown products in

Compliance Zone wells exceed Site-specific Action Levels due to injection of oxidants, the Contingency Plan will be implemented.

General Information:

1. The project will be operated in accordance with the requirements contained in the General Order, the information submitted in the NOI, the Work Plan and Addendum, and as specified in this NOA.
2. The required annual fee (as specified in the annual billing you will receive from the State Water Resources Control Board) shall be submitted until this NOA is officially rescinded.
3. Injection of materials other than those specified in the NOI into the subsurface is prohibited, unless analysis, as specified in the General Order, of the injectant is provided and concurred with by Central Valley Water Board staff.
4. Failure to abide by the conditions of the General Order in this NOA can result in enforcement actions as authorized by provisions of the California Water Code.
5. The Discharger shall comply with the attached Monitoring and Reporting Program (MRP), and any revisions thereto, as ordered by the Executive Officer or directed by Central Valley Water Board staff.
6. Central Valley Water Board staff concurrence with the use of the proposed remedial technology within this NOA does not constitute an endorsement or requirement of its specific use. It is the explicit responsibility of the applicant/discharger to obtain all relevant legal rights of its use.

If you have any questions regarding this NOA, please contact Michael DeSmet at (916) 464-4830 or by email at michael.desmet@waterboards.ca.gov.



PATRICK PULUPA, Executive Officer

Enclosure: General Order and MRP

cc: Aric Morton, Broadbent & Associates Inc. (email)
Paul Supple, Broadbent & Associates Inc. (email)
Clark Pickell, Yuba County Health Department (email)