
Central Valley Regional Water Quality Control Board

23 July 2020

Mr. Robert Saur
Sr. Remediation Project Manager
Pacific Gas and Electric Company
3401 Crow Canyon Rd.
San Ramon, CA 95583

NOTICE OF APPLICABILITY OF GENERAL ORDER NO. R5-2015-0012-063, IN-SITU GROUNDWATER REMEDIATION AND DISCHARGE OF TREATED GROUNDWATER TO LAND, PG&E DAVIS SERVICE CENTER, 316 L STREET, DAVIS, YOLO COUNTY

ERM-West, Inc. of Sacramento, California (ERM) submitted on behalf of the Pacific Gas and Electric Company (the Discharger), a *Notice of Intent* (NOI) dated 26 March 2020 and the *Revised Draft-Final Feasibility Study and Corrective Action Plan* (Work Plan) dated 20 March 2020, for the Pacific Gas and Electric (PG&E) Davis Service Center (Site), requesting coverage under Order No. R5-2015-0012, *Waste Discharge Requirements General Order for In-Situ Groundwater Remediation and Discharge of Treated Groundwater to Land* (General Order). Based on information in the submittal, it is our determination that this project meets the required conditions to be covered under General Order No. R5-2015-0012. All the requirements contained in the General Order are applicable to this project. The project is assigned Order No. R5-2015-0012-063.

Project Location:

The project is located at 316 L Street in the City of Davis, Yolo County. Township 8N, Range 2E, Section 57 Mount Diablo Baseline & Meridian.
Assessor's Parcel Number 070-550-099.

Project Description:

Operations at the approximately 27-acre PG&E Service Center located at 316 L Street in the City of Davis in Yolo County support electric and gas transmission operations and consist of vehicle and equipment maintenance and repair, material storage, fabrication, and business administration. Historical operations caused pollution of soil and groundwater beneath the Site. Constituents of concern (COCs) identified at the Service Center include volatile organic compounds (VOCs), mainly tetrachloroethene (PCE), petroleum hydrocarbons, and heavy metals. Depth to groundwater in Shallow Zone wells is typically present between 30 and 40 feet below ground surface (bgs). Based on the groundwater monitoring data, the flow direction of Shallow Zone groundwater fluctuates seasonally, but typically flows towards the southwest at an approximate gradient of 0.0015 feet per foot (ft/ft). Below the Shallow Zone, two to three deeper

groundwater-bearing zones extend vertically to depths ranging from approximately 63 to 118 feet bgs. In the Deeper Zone, groundwater appears to fluctuate between easterly flow and west to southwesterly flow at an approximate gradient of 0.015 ft/ft.

Elevated VOCs concentrations have been detected in subsurface soil vapor and sub-slab vapor collected at the Ground Shop Area of the Site. The remediation of VOCs in soil and groundwater at the Site was initiated in 2017 when a soil-vapor extraction (SVE) pilot study was conducted in the Ground Shop Area. The SVE system operated for six months and removed approximately three pounds of mass from the vadose zone. Although the pilot study was successful, but the mass removal tapered off significantly over a six-months period, with a limited rebound. It was concluded that it would not be expected that a significant amount of additional mass removal would occur with the continued operation of full-scale SVE system implementation. Additionally, residual PCE concentrations in groundwater are still above the water quality objectives (WQOs).

To expedite the groundwater cleanup time to meet the WQOs, PG&E is proposing to conduct a focused in-situ chemical reduction (ISCR) using the injection of EHC® around the on-Site monitoring well MW-7 to remediate VOCs in the groundwater. EHC® is a commercial product that combines zero-valent iron (ZVI) with a carbon substrate. This product provides strongly reducing conditions to support source area treatment through combined abiotic processes and a slow-fermenting organic substrate.

PG&E proposes to inject approximately 300 pounds of EHC®, which equates to approximately 109 gallons of EHC® slurry into the formation at 17 injection points IP-1 through IP-17 near the Ground Shop Area of the Site. The injection rate is estimated to be 10 to 15 gallons per minute at each injection point. The injection program will also include bioaugmentation of the existing bacterial population using KB-1® three months following the EHC® injection.

As part of this Order, groundwater monitoring will be performed in accordance with the attached Monitoring and Reporting Program (MRP) to confirm the injection of EHC® is not adversely impacting groundwater quality, and to monitor the progress of the remedy.

General Information:

1. The project will be operated in accordance with the requirements contained in General Order No. R5-2015-0012 and in accordance with the information submitted in the Work Plan, NOI, and specified in this Notice of Applicability (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 revoked.
3. Injection of materials other than EHC®, KB-1®, and tap water into the subsurface is prohibited.

4. The General Order requires a contingency plan for corrective actions should water quality exceed the requirements of the Order at the points of compliance. The General Order prohibits concentrations of metals, TDS, or electrical conductivity more than 20% greater than their respective baseline levels. Should corrective actions be necessary to revert the adverse effects of injections, PG&E shall immediately submit a contingency work plan for regulatory review and approval. Once approved by the Central Valley Water Board staff, the Discharger will immediately implement the regulatory approved contingency plan. Failure to abide by the conditions of the General Order could result in an enforcement action as authorized by provisions of the California Water Code.
5. The Discharger shall comply with the attached Monitoring and Reporting Program, Order No. R5-2015-0012-063, and any revisions thereto as ordered by the Executive Officer.

If you have any questions regarding this matter, you may contact Sid Sewalia by telephone at (916) 464-4658 or by email at siddharth.sewalia@waterboards.ca.gov.

(for) PATRICK PULUPA, Executive Officer

Attachments: Monitoring and Reporting Program Order No. R5-2015-0012-063

cc: Ms. Carol Yamane
Ms. Heather D. Balfour, ERM, Sacramento, CA
Mr. Ben LePage, PG&E, San Ramon
Ms. Della Kramer, Central Valley Water Board, Rancho Cordova