



California Regional Water Quality Control Board Central Valley Region

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Edmund G. Brown Jr.
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PREPARATION OF NOTICE OF APPLICABILITY

In-Situ Groundwater Remediation of Volatile Organic Compounds using Potassium Permanganate at Site 3, United States Air Force - Beale Air Force Base, Yuba County

TO ALL INTERESTED AGENCIES, GROUPS AND PERSONS:

This will serve as notice that the Regional Water Quality Control Board, Central Valley Region (Central Valley Regional Board) has prepared a Notice of Applicability for coverage under General Order No. R5-2009-0149, In-Situ Groundwater Remediation at Sites with Volatile Organic Compounds, Nitrogen Compounds, Perchlorate, Pesticides, Semi-Volatile Compounds and/or Petroleum Compounds.

Project Title: In-situ Groundwater Remediation of Volatile Organic Compounds using Chemical Oxidants at Site 3, United States Air Force, Beale Air Force Base, Yuba County.

Project location: Beale Air Force, Yuba County

Project Description: The Regional Board proposes to issue a Notice of Applicability to allow the United States Air Force Beale Air Force Base to be covered under General Order No. R5-2009-0149 for a treatability study that will provide remediation of groundwater at Site 3. Site 3 is located south of the flightline area in the northwestern portion of Beale Air Force Base.

The project consists of injecting potassium permanganate into groundwater containing volatile organic compounds (VOCs). The source area for groundwater pollution at Site 3 are several fire training exercise areas located east of the treatability study area. The groundwater pollution addressed by the treatability study appears to either be related to Fire Pit Training Area #4, which was addressed by previous remedial actions, or is related to a separate release that occurred near a dry well located within the central portion of the treatability study area. Remedial investigations performed by the Air Force identified trichloroethylene (TCE), cis-1,2 dichloroethane and carbon tetrachloride within the injection area. TCE is the primary groundwater pollutant that has been detected at concentrations as high as 414 µg/L and exceeds both the Federal and State maximum contaminant level (MCL) of 5 µg/L for this pollutant.

The Discharger will inject potassium permanganate, an oxidant, which allows chlorinated VOCs to break down into inert materials such as carbon dioxide, hydrogen and chloride. The Discharger proposes to install six injection wells, which will target the area of the TCE plume exceeding 350 micrograms per liter (µg/L). The Discharger estimates that approximately 180,000 gallons of potassium permanganate solution will be required to provide treatment of VOCs in the targeted cleanup area.

The Air Force plans to operate the in-situ groundwater remediation system for a period of 5 years. Under the Notice of Applicability and General Order, the project proponent is required to monitor the impacts on groundwater. The goal is to assess the feasibility of the technology to remove recalcitrant concentrations of VOCs. The treatability study will allow the Discharger to provide treatment of the VOC plume, and will allow collection of additional data over the next 5 years that will be used to develop a final groundwater remedy for Site 3.

The draft Notice of Applicability and Monitoring and Reporting Program are on file at the address above and are available for public examination at the Central Valley Regional Board, Monday through Friday between the hours of 8:00 a.m. to 4:30 p.m., as well as on the Central Valley Regional Board website at <http://waterboards.ca.gov/centralvalley>.

All interested agencies, groups and persons wishing to respond to the draft Notice of Applicability are invited to submit written comments to 11020 Sun Center Drive, Suite 200, Rancho Cordova, California, 95670-6114, for consideration by the Central Valley Regional Board on or before **8 August 2011**. For information, please call Robert Reeves at (916-464-4651), or contact him by e-mail at reeves@waterboards.ca.gov.

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