
Central Valley Regional Water Quality Control Board

31 July 2014

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Department of Waste Management & Recycling
9850 Goethe Road
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NOTICE OF APPLICABILITY OF GENERAL ORDER R5-2008-0149, COUNTY OF SACRAMENTO, ELK GROVE CLASS III LANDFILL, IN-SITU REMEDIATION OF VOLATILE ORGANICS COMPOUNDS, SACRAMENTO COUNTY

The County of Sacramento Department of Waste Management and Recycling (hereinafter Discharger) submitted a Notice of Intent, dated 20 August 2013 and a revised Notice of Intent dated 27 September 2013 requesting coverage under General Order No. R5-2008-0149, *General Waste Discharge Requirements for In-situ Groundwater Remediation at Sites with Volatile Organic Compounds, Nitrogen Compound, Perchlorate, Pesticides, Semi-Volatile Compounds and/or Petroleum Compounds*. Based on information in your submittal, Water Board staff has determined that this project meets the required conditions to be approved under Order R5-2008-0149. All of the requirements contained in the general order are applicable to your project. You are assigned Order No. R5-2008-0149-048.

Project Location:

The project is in the City of Elk Grove, Sacramento County, at Section 31, T7N, R6E, MDB&M. It includes Assessor's Parcel Nos. 127-0160-012, 127-0160-57 (parcels covering landfill) and Assessor's Parcel Nos. 127-0160-033, 046, 058, 060, and 127-0190-007 (surrounding treatment area).

Project Description:

The Discharger owns and operates the Elk Grove Class III Landfill (facility) in Elk Grove, Sacramento County. The facility is regulated by the Water Board under Waste Discharge Requirements Order R5-2013-0134. The facility is a closed municipal solid waste landfill and operated for approximately 17 years until 1978 when the landfill stopped accepting waste. Approximately 930,000 cubic yards of waste was disposed of at the site using a trench and fill method. The 37-acre landfill received final closure in 1992.

The landfill closure consisted of installation of a landfill gas extraction system and the placement of a final cover. The landfill gas control system became active in 1993 and consists of 23 in-fill

landfill gas extraction wells. Landfill gas is removed from the wells under vacuum. Volatile organic compounds have been detected in groundwater, and landfill gas has been determined as the source of contamination. The Discharger's corrective action measures began in 2002, and have included groundwater extraction and treatment with reinjection into the unsaturated zone, injection of Hydrogen Release Compound (HRC[®])¹ mixture into the groundwater for in-situ treatment of VOCs, and operation of the landfill gas system to control the source area in the landfill. The corrective action efforts have reduced or eliminated VOCs in some of the impacted monitoring wells; however, groundwater impacts are still present in other monitoring wells. Therefore, the Discharger has proposed to enhance its corrective actions in groundwater.

As explained in the Notice of Intent (NOI), the HRC injection program will be expanded to address residual VOC contamination detected in groundwater. To enhance the corrective action program and monitor constituents of concern, three HRC injection wells will be installed within the treatment zone, and one background groundwater monitoring well will be installed. Injection sites will include three new HRC injection wells plus existing wells PZ-2 and SMVE-3. HRC will be injected at a rate of one gallon per injection site and will be diluted at a 10 to 1 ratio with distilled water. The injection volume will be no more than 10 gallons (1 gallon HRC plus 9 gallons distilled water). The primary compounds detected in the 10 to 1 mixture are ethanol, 2-butanone and acetone. The Discharger will also be conducting sampling of groundwater and reporting the results as described in the attached Monitoring and Reporting Program.

General Information:

1. The project will be operated in accordance with the requirements contained in General Order R5-2008-0149 and in accordance with the information submitted in the Notice of Intent.
2. The required annual fee (as specified in the annual billing from the State Water Resources Control Board) shall be submitted until this Notice of Applicability is officially revoked.
3. Injection of materials other than HRC (composed of polylactate and glycerol) into the subsurface is prohibited.
4. 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 will implement the plan included as part of the Notice of Intent within 30-days of signature of the NOA. The first HRC injection shall take place by August 2014. The second HRC injection shall take place by April 2015 with a report documenting the installation of the injection wells and HRC injections submitted by **15 July 2015**.
6. The Discharger shall comply with the attached Monitoring and Reporting Program (Order No. R5-2008-0149-048) or any revisions thereto as ordered by the Executive Officer

¹ Hydrogen Release Compound (HRC) is used to remediate contaminated soil and groundwater and is composed of polylactate and glycerol. A Material Safety Data Sheet is provided in the Revised Notice of Intent dated 27 September 2013.

If you have any questions regarding this matter, please call Todd Del Frate at (916) 464-4737 or contact him by email at tdelfrate@waterboards.ca.gov.

Original Signed by

PAMELA C. CREEDON
Executive Officer

Attachment: MRP

cc: Lea Gibson, Sacramento Environmental Management Department