

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

AMENDED CLEANUP AND ABATEMENT ORDER NO. R6V-2008-0002A1

WDID NO. 6B369107001

REQUIRING PACIFIC GAS AND ELECTRIC COMPANY
TO CLEAN UP AND ABATE WASTE DISCHARGES OF
TOTAL AND HEXAVALENT CHROMIUM TO THE
GROUNDWATERS OF THE MOJAVE HYDROLOGIC UNIT

San Bernardino County

The California Regional Water Quality Control Board, Lahontan Region (Water Board), finds:

1. The Pacific Gas and Electric Company owns and operates the Hinkley Compressor Station (hereafter the "Facility") located southeast of the community of Hinkley in San Bernardino County. For the purposes of this Order, the Pacific Gas and Electric Company is referred to as the "Discharger."
2. On August 6, 2008, the Water Board issued Cleanup and Abatement Order (CAO) No. R6V-2008-0002 (attached) to the Discharger to cleanup and abate the effects of waste discharges and threatened discharges containing hexavalent chromium and total chromium to waters of the State. The CAO required the Discharger to take additional corrective actions to contain chromium migrating with groundwater, to continue to implement groundwater remediation in the source area and central plume area, and to develop and implement a final cleanup strategy. The Order also modified the monitoring and reporting program for permitted projects.
3. Amended CAO No. 6-87-160A2, issued in 1998, established the cleanup level for hexavalent chromium in groundwater at the laboratory method reporting limit that was in effect at the time of 10 micrograms per liter ($\mu\text{g/L}$). The method reporting limits for hexavalent chromium and total chromium are now 0.2 $\mu\text{g/L}$ and 1 $\mu\text{g/L}$, respectively.
4. Sampling in the Hinkley Valley indicates that hexavalent and total chromium occur naturally in groundwater at variable concentrations, according to the February 27, 2007, document, *Groundwater Background Chromium Study Report, Hinkley Compressor Station* (Study). The Study, submitted by the Discharger, presents the results of one year of water sampling from wells located outside the boundaries of the chromium plume. The mean concentrations detected in background are 1.19 $\mu\text{g/L}$ for hexavalent chromium and 1.52 $\mu\text{g/L}$ for total chromium. The work plan for the Study recommended that maximum likely background concentrations should be expressed as the 95% upper tolerance limits. The 95% upper tolerance limit is the value that is estimated to include 95 percent of the

population with a 95 percent confidence level. The 95% upper tolerance limits are 3.09 µg/L for hexavalent chromium and 3.23 µg/L for total chromium.

The Study added the laboratory analysis methods' accuracy limits to the 95% upper tolerance limits to recommend background threshold values of 3.55 µg/L for hexavalent chromium and 4.04 µg/L for total chromium in groundwater. In an August 2008 staff report, Water Board staff recommended the 95% upper threshold limits, rather than the Study's recommended background threshold values, as the maximum background concentrations that should be considered when evaluating the chromium plume. Staff's recommendation is based on the independent, expert peer reviewers' comments on the draft Study work plan, which were incorporated into the final Study work plan. The peer reviewers recommended using the 95% upper tolerance limit of the background study sample results as the maximum likely background chromium concentrations. Staff's review of literature on setting background concentrations has not identified a single case where laboratory method accuracy limits were added to the maximum likely concentrations derived through statistical analysis, such as the 95% upper tolerance limit method.

5. On September 11, 2008, Water Board staff hosted a meeting in Hinkley to inform the public of the status of chromium cleanup in groundwater and of the contents of the 2007 *Background Chromium Study*. Public comments and concerns about the Study were considered by Water Board staff.
6. At the November 12-13, 2008 meeting, the Water Board considered the 2007 *Background Chromium Study* and comments and recommendations by interested persons and staff.
7. The 1995 *Water Quality Control Plan for the Lahontan Region* (Basin Plan) establishes Water Quality Objectives (WQOs) for the protection of beneficial uses. WQOs include the following Maximum Contaminant Level (MCL) established by the California Department of Health Services as a safe level to protect public drinking water supplies.

Total chromium 50 µg/L

8. On August 15, 2008, the Discharger submitted to the Water Board a document titled, *Second Quarter 2008 Monitoring Report, Source Area In-situ Remediation Project* (Report). Groundwater monitoring data in the Report shows that concentrations of total chromium were reported up to 7,400 µg/L and hexavalent chromium were reported up 7,050 µg/L in the source area at well SA-MW-05D.
9. The concentrations of total chromium and hexavalent chromium detected in groundwater at and downgradient of the Facility exceed WQOs for groundwater specified in the Basin Plan. The concentrations adversely affect the groundwater in the Mojave Hydrologic Unit for its municipal and domestic supply beneficial uses. The levels of waste chromium in groundwater, therefore, constitute a pollution of hazardous waste as defined in Water Code section 13050, subdivision (I).

10. The discharge of chromium to the groundwaters of the Mojave Hydrologic Unit, as described in Finding No. 8 above, violates a prohibition contained in the Basin Plan. Specifically, the discharge violates the following discharge prohibition:

“The discharge of waste...as defined in Section 13050(d) of the California Water Code which would violate the water quality objectives of this plan, or otherwise adversely affect the beneficial uses of water designated by this plan, is prohibited.”

11. Chromium in groundwater in and downgradient of the source area at the compressor station continues to adversely affect groundwater quality. This Amended Cleanup and Abatement Order establishes background chromium concentrations to be considered when evaluating final cleanup actions. Technical reports are necessary to verify corrective action implementation, cleanup of water quality, and progress towards restoring the beneficial uses of the aquifer.
12. This enforcement action is being taken by this regulatory agency to enforce the provisions of the California Water Code, and as such is exempt from the provisions of the California Environmental Quality Act (Public Resources Code section 21000 et seq.) in accordance with California Code of Regulations, title 14, section 15321. In addition, there is no possibility that the proposed activity will have a significant effect on the environment. In pertinent part, California Code of Regulations, title 14, section 15061, subdivision (b)(3), known as the "common sense exemption", states that where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. In this case, the proposed activity maintains the interim background concentration for hexavalent chromium of 4 ug/L for the purpose of plume containment and establishes background concentrations for hexavalent chromium and total chromium against which remediation strategies are to be assessed. Consequently, because there is no possibility that the proposed activity will have a significant effect on the environment, the proposed activity is also exempt from CEQA pursuant to California Code of Regulations, title 14, section 15061, subdivision (b)(3).

IT IS HEREBY ORDERED that, pursuant to the Water Code sections 13267 and 13304, the Discharger must clean up and abate the effects of the discharge and threatened discharge of chromium to waters of the State, and must comply with the provisions of this Order:

1. For the purposes of evaluating plume containment and complying with Requirement No. 3 of Cleanup and Abatement Order No. R6V-2008-0002, the interim background concentration for hexavalent chromium of 4 µg/L remains in effect.
2. For the purposes of complying with Requirement No. 5, Final Cleanup Actions, of Cleanup and Abatement Order No. R6V-2008-0002, background concentrations against which remediation strategies are to be assessed are established as follow:

Maximum background hexavalent chromium = 3.1 µg/L
Maximum background total chromium = 3.2 µg/L
Average background hexavalent chromium = 1.2 µg/L
Average background total chromium = 1.5 µg/L

Remediation strategy assessment must include an evaluation of achieving average concentrations within the cleanup area that meet the average background concentrations established here, with discrete samples within the cleanup area not exceeding the maximum background concentrations established here.

Failure to comply with the terms or conditions of this Order will result in additional enforcement action that may include the imposition of administrative civil liability pursuant to Water Code sections 13268 and 13350 or referral to the Attorney General of the State of California for such legal action as he may deem appropriate.

Any person aggrieved by this action of the Lahontan Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must *receive* the petition by 5:00 p.m., 30 days after the date of this Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, of state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on November 12, 2008.


HAROLD J. SINGER
EXECUTIVE OFFICER

Attachment: Cleanup and Abatement Order No. R6V-2008-0002