

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION
MEETING OF MARCH 9-10, 2011
Barstow**

ITEM: 11

SUBJECT: PUBLIC WORKSHOP FOR DRAFT SUBSEQUENT ENVIRONMENTAL IMPACT REPORT, FINAL GROUNDWATER CLEANUP STRATEGY FOR HISTORICAL CHROMIUM DISCHARGES FROM PACIFIC GAS & ELECTRIC COMPANY'S HINKLEY COMPRESSOR STATION, SAN BERNARDINO COUNTY

CHRONOLOGY: This chronology lists events concerning Water Board actions related to requiring a comprehensive cleanup strategy for chromium in groundwater.

Aug. 6, 2008 Cleanup and Abatement Order (CAO) No. R6V-2008-0002 directed PG&E, among other things, to develop and implement a final cleanup strategy for chromium in groundwater.

Nov. 12, 2008 Amended CAO R6V-2008-0002A1 established background chromium concentrations against which final cleanup strategies are assessed.

ISSUES: The Subsequent Environmental Impact Report (SEIR) evaluates the potential environmental impacts of activities associated with cleaning up groundwater contaminated and degraded by PG&E's chromium discharge. To provide the Water Board a wide range of options, including feasible cleanup schedules, the SEIR is considering a broad scope of activities that PG&E might employ to meet the cleanup goals that may be set by the Water Board.

Water Board member input is sought on the following issues:

1) Cleanup Standard

Should the SEIR only consider the cleanup goals and objectives identified in the CAO R6V-2008-0002A1, or should the SEIR consider cleanup levels different from those

identified as background in the above CAO as requested by the public during the public scoping period?

2) Cleanup Times and Technologies

What is the reasonable range of cleanup times for chromium in groundwater in the Hinkley area that the SEIR should consider? This is important because the amount of time established to cleanup groundwater will affect the types and intensity of cleanup technologies employed, which will affect environmental impacts.

3) Potential Impacts

Are there additional environmental impacts that the SEIR should consider?

DISCUSSION:

Need and Process for Developing SEIR

In August 2010, the Water Board received a Feasibility Study report from PG&E that presented alternatives for final cleanup of the chromium plume. The Feasibility Study identified PG&E's preferred alternative, involving in-situ groundwater treatment at the plume core, and extraction and agricultural re-use in the lower-concentration plume areas (Alternative 4).

Implementation of any final cleanup proposal will require new or amended Waste Discharge Requirements (WDRs). A Mitigated Negative Declaration was adopted by the Water Board for PG&E's existing General WDRs in 2008. The expansion of cleanup activities using existing or new technologies or consistent with the time mandated by the Water Board to achieve cleanup may result in potentially significant impacts to the environment that were not analyzed in the previous environmental document.

Therefore, the Water Board, as Lead Agency in accordance with the California Environmental Quality Act (CEQA), must certify an SEIR before taking any discretionary actions. In addition to issuing WDRs for implementation of the cleanup, the Water Board will also consider issuance of a new Cleanup and Abatement Order (CAO), which will specify cleanup levels and time schedules. The issuance of a CAO is a discretionary action also subject to CEQA.

In November 2010, a Notice of Preparation of an SEIR was circulated for a 30-day comment period. A CEQA scoping meeting was held in Hinkley to gain input from public on the scope and content of the SEIR. As required by California

Water Code section 13307.5, a 30-day public review period on the Feasibility Study was also initiated.

In January 2011, public information meetings were held in Hinkley to provide updates on the SEIR development process, summarize comments received, and provide information on the status of groundwater cleanup.

Issue 1: Cleanup Standard

Background concentrations for total chromium and hexavalent chromium were approved by the Water Board in the 2008 Amended CAO:

- Maximum background hexavalent chromium = 3.1 parts per billion (ppb)
- Maximum background total chromium = 3.2 ppb
- Average background hexavalent chromium = 1.2 ppb
- Average background total chromium = 1.5 ppb

Comments received during the public comment period show that many Hinkley area residents do not believe that cleaning up to maximum background concentrations, as proposed by PG&E's Feasibility Study, is a reasonable cleanup level. For example, some residents whose drinking water wells previously contained non-detectable levels of chromium do not believe that maximum background concentrations should be allowed in their wells.

The draft Public Health Goal (PHG) for hexavalent chromium, released by the Office of Environmental Health Hazard Assessment in December 2010, is 0.02 ppb. Many residents expressed the view that given this low proposed PHG, the maximum background level of 3.1 ppb is not appropriate for a cleanup goal for the entire affected area.

The SEIR is evaluating the potential impacts of cleaning up groundwater above 3.1 ppb hexavalent or 3.2 ppb total chromium in the project area to the average background concentrations shown above. However, the Water Board may propose a new cleanup standard in a future CAO, and may consider proposing different standards for certain areas of the plume; for example, where sufficient information on historic chromium concentrations demonstrates that groundwater quality in a certain drinking water well is historically better than the background levels set in the CAO. The environmental impacts may not be any different due to changes in the cleanup goal and therefore the Water Board

may be able to rely on the SEIR even if cleanup goals are revised in the future. An analysis of any effects would have to be made.

Because Water Board staff has insufficient information at this time to recommend changes to the cleanup goal, Water Board staff recommends using the current cleanup goal for the impact analysis in the SEIR.

Issue 2: Cleanup Times and Technologies

During the CEQA scoping and Feasibility Study public comment periods, a primary concern expressed was the length of time estimated by PG&E to achieve final cleanup levels. In response, Water Board staff required PG&E to submit an addendum to the Feasibility Study that hastened cleanup times and provided better measures to ensure the existing plume will not expand in size. PG&E submitted the requested information on January 31, 2011. A summary chart of the proposed alternatives, associated technologies, and cleanup milestones is shown in Enclosure 1.

The Water Board has the authority to impose cleanup times different from the PG&E proposal. The SEIR project goal is to cleanup groundwater in the project area to background levels of chromium within the minimum amount of time feasible, and reducing environmental impacts to the extent possible. To that end, Water Board staff has requested PG&E to continue to refine alternatives to further shorten cleanup timeframes than those proposed in the 2010 Feasibility Study and the 2011 addendum. It is important the SEIR analyzes the most aggressive cleanup schedule that may be imposed by the Water Board, to ensure that the SEIR discloses the full range of potential impacts and considers all reasonable mitigation measures. For example, increasing the intensity of in-situ treatment areas to shorten cleanup times could result in greater levels of undesirable by-product concentrations (iron, manganese, and arsenic) in the short term, requiring mitigation measures such as alternate water supply.

The SEIR will analyze the impacts of a range of alternatives in depth. These alternatives are based on the Feasibility Study, including the supplement and addendum, and public and agency input. The types of technologies proposed in the Feasibility Study are primarily the same technologies used at the site currently, with the exception of the above-

ground (ex-situ) treatment technology proposed in the new "combined alternative". Several comments expressed the view that new or different technologies could be more effective than those currently employed, and should be proposed. PG&E has spent considerable time performing pilot studies to identify technologies that would be effective at removing hexavalent chromium from groundwater. If the Water Board wants the SEIR to consider technologies that have not yet been tested as effective at the site, that may require additional analysis that has not yet been completed in order to identify any potential impacts.

Water Board staff believes that the alternatives to be analyzed in the SEIR represent a sufficient range of alternatives, and considers an alternative that includes the most aggressive cleanup activities anticipated.

Issue 3: Potential Environmental Impacts

Impact statements for each CEQA topic were developed based previous environmental documents, public and agency input, and best professional judgment. These statements are shown in Enclosure 2.

Water Board staff have reviewed the impact statements, and believe they adequately disclose the reasonably foreseeable environmental impacts of implementing a comprehensive cleanup strategy.

RECOMMENDATION:

This is an information item only. The Water Board may provide direction to staff as appropriate.

ENCLOSURES:

- 1) Alternatives Summary Chart
- 2) CEQA Impact Statements