



EDMUND G. BROWN JR.
GOVERNOR



MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Lahontan Regional Water Quality Control Board

February 18, 2014

Sheryl Bilbrey
Director, Remediation Program Office
Pacific Gas and Electric Company
77 Beale Street, B28A
San Francisco, CA 94105
S4BD@pge.com

CLEANUP AND ABATEMENT ORDER NO. R6V-2011-0005A3 FOR PACIFIC GAS AND ELECTRIC COMPANY (PG&E) COMPRESSOR STATION, HINKLEY, SAN BERNARDINO COUNTY

I have enclosed for your attention an amendment to Cleanup and Abatement Order No. R6V-2011-0005A3 (Order) allowing the interim replacement bottled water that PG&E supplies to residents of Hinkley, California that meet the requirements of the Whole House Replacement Water Program to contain concentrations of up to 1.2 µg/L of hexavalent chromium, instead of less than 0.02 µg/L. On May 9, 2013 I sent a letter to PG&E and the community revising the interim replacement bottled water concentration level (determination 4) and the attached revised Order makes the appropriate technical corrections.

As required by section 13304(f) of the California Water Code, and as stated in Finding No. 4 in the attached Order, the replacement water must be of comparable quality to that which the residents had prior to the discharge of waste that adversely affected the water supply. Because the average background concentration of hexavalent chromium in the Hinkley community is 1.2 µg/L, providing bottled water with concentrations of hexavalent chromium not exceeding that amount meets the requirements of section 13304(f) the Water Code. The water quality requirement for the permanent replacement water supply remains unchanged.

If you have any questions regarding the enclosed Order, please call Doug Smith at (530) 542-5453 or me at (530) 542-5412.

Patty Z. Kouyoumdjian
PATTY Z. KOUYOUMDJIAN
EXECUTIVE OFFICER

Enclosures: CAO R6V-2011-0005A3
May 9, 2103 Letter

cc: PG&E Hinkley Lyris List (and web posting)



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MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Lahontan Regional Water Quality Control Board

May 9, 2013

Sheryl Bilbrey
Director, Remediation Program Office
Pacific Gas and Electric Company
3401 Crow Canyon Road
San Ramon, CA 94105-1814

Dear Ms. Bilbrey:

In letters dated January 10, and February 7, 2013, you made several requests on behalf of Pacific Gas and Electric Company (PG&E) for modifications of existing California Regional Water Quality Control Board, Lahontan Region (Water Board) Orders. Your first letter requested modifications to monitoring of the whole house replacement water (WHRW) ion exchange (IX) and under-sink reverse osmosis (RO) systems. These requests were reiterated in a letter of March 11, 2013, and supplemented with several additional requests, including increasing the minimum hexavalent chromium concentration from the IX effluent from 0.06 to 2 µg/L, and moving the compliance point from the effluent from each RO unit to the IX treated water. Your February 7 letter set out an additional four requests: 1) a 90-day extension of the deadlines for the WHRW program, in order to reexamine the options for providing water to eligible homes in Hinkley; 2) an ability for residents to decline the RO systems; 3) ability to meet requirements for interim replacement (bottled) water by providing commercially available bottled drinking water; and 4) re-evaluation of the need to expand the 1-mile buffer zone in the future.

After considering comments from the Community Advisory Committee (CAC), through its technical advisors at Project Navigator; four individual members of the public; and the Lahontan Regional Water Board's prosecution team, I have made the following determinations.

1. Requests of January 10 and March 11 for Changes to Monitoring of IX and RO Systems

Your January 10, 2013 letter requested two specific modifications to its permanent replacement water supply monitoring plan that is required under Order 2.c.8 of Cleanup and Abatement Order No. R6V-2011-0005A1 (referred to hereafter as the CAO): 1) monitor leachates from the IX resin on a batch basis, rather than at each home during start up, and 2) monitor each RO unit during start-up and then every six months

PETER C. PUMPHREY, CHAIR | PATTY Z. KOUYOUNDJIAN, EXECUTIVE OFFICER

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thereafter rather than the biweekly or as needed basis stated in its current plan.¹ PG&E in its March 11, 2013 letter reiterated its request #2, above, and additionally requested that the compliance point should be the IX treated water and not at each RO unit effluent.

In addition to reviewing the comments from the Water Board Prosecution Team and from other interested stakeholders, the Regional Board advisory team has reviewed Exhibit 1, Reverse Osmosis Investigation Report by Arcadis, enclosed in the March 11, 2013 letter. I am providing the following rulings on PG&E's requested modifications to its permanent replacement water supply monitoring program:

- A. I am denying the request for IX resin leachate monitoring at each property.** Although batch testing may provide useful information, batch testing is unable to collect data specific to each IX unit and, therefore, cannot be used to determine if each IX unit is working properly.
- B. I accept the proposal to monitor each RO unit at start-up then every six months thereafter.** The start-up testing is critical to ensure the RO unit is well-flushed and working properly. The reduced monitoring after start-up should be less inconvenient to each residence and provide assurance that each RO unit is working properly.
- C. For those households that decline installation of the RO unit, I am accepting the compliance point to be the water treated from the IX unit. However, if an RO unit is accepted by the residence, then PG&E must perform the required monitoring, and compliance will be at the outlet of each RO unit.** This is a reasonable solution to accommodate the individual household needs while still ensuring water quality compliance.

2. Request from February 7 for 90 Day Extension to Reexamine WHRW Options

You had requested a 90 day extension of all applicable deadlines contained in the WHRW Program in order to address community concerns, evaluate technologies analyzed in the June 2012 Feasibility Study, and incorporate lessons learned during WHRW Program startup and implementation. You propose to issue a Feasibility Study Addendum that will identify and address changes required for the WHRW program.

I am denying your request for a 90 day extension of all applicable deadlines contained in the WHRW Program, but I would be willing to accept your Addendum and continue discussions about effective ways to provide alternative drinking

¹ Two pages of text and a two-page table from PG&E's June 6, 2012 Replacement Water Feasibility Study contain all elements of PG&E's current monitoring plan (PDF copy enclosed for reference) for its permanent replacement water supply.

water supplies to the community. As a practical matter, 90 days has already passed since your initial request. I believe, however, that it is still important to re-examine the WHRW Program and incorporate lessons learned and feedback from the community. Moreover, I have already granted a five month extension for those properties that have not signed an access agreement in my April 18, 2013 letter.

3. Request from February 7 Letter to Allow Residents to Decline an RO Unit

With respect to your request for residents who have elected a WHRW system, which consists of an IX and under-sink RO unit, to be allowed to decline installation of the RO unit, **I have decided to grant this request conditioned on the provision that PG&E provide the resident(s) with clear information regarding how this decision may affect the quality of the water delivered inside their homes through the IX system alone.** It is important that residents understand that although hexavalent chromium should be removed by the IX system, other constituents found in their domestic well may not be removed without the operation of the RO unit.

4. Request from February 7 Letter that Provision of Interim Replacement Water be Satisfied with Commercially Available Bottled Water

You have requested that the CAO requirements for interim replacement water (bottled water) be satisfied by PG&E's provision of commercially available bottled drinking water, without the requirement of further testing to ensure that the bottled water is non-detect for hexavalent chromium. **This request is denied; however, I am willing to change the requirements for replacement water quality from non-detect for hexavalent chromium to 1.2 ppb, which is the average background of hexavalent chromium for the Hinkley Valley, established by the Water Board in Amended CAO R6V-2008-0002A1.** I believe that this change will meet the requirements of Water Code section 13304, which requires that the replacement water not only meet all applicable federal, state, and local drinking water standards, but that it also have a comparable quality to that pumped by the private well owner prior to the discharge of waste. Recognizing that there is no drinking water standard for hexavalent chromium, and that bottled water, which is regulated by the Food and Drug Administration (FDA), may have up to 100 ppb total chromium (see <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm203620.htm#EnsuringQualityandSafety>), requiring bottled water to meet 1.2 ppb of hexavalent chromium would give the community replacement water of a comparable quality to that pumped by the well owner, in the absence of a more restrictive drinking water standard. Although I understand that the additional testing and warehousing of water provides additional and challenging order requirements, PG&E is currently meeting those requirements, and has established a monitoring program to ensure that the water they are providing does not have levels of hexavalent chromium that exceed what residents may naturally have in their wells.

5. Request from February 7 Letter to Re-evaluate the 1 mile buffer

Lastly, you are requesting approval from the Water Board to re-evaluate the need to expand the 1-mile buffer zone in the future. You have based this request on your assessment that the chromium plume is not continuing to migrate to the west. **At this time I will not change the 1-mile buffer, but I am willing to consider all relevant scientifically-based technical information to establish a buffer zone. As additional relevant data becomes available, PG&E should disseminate that information to stakeholders, including the Water Board and the CAC and its technical consultant, for subsequent review and analyses under a technical exchange meeting process.**

In closing, I would like to acknowledge the work that PG&E has done to meet the requirements of the Water Board's orders, including the Order to provide WHRW to all residences within one-mile up-gradient or cross-gradient of the plume whose wells have detections of hexavalent chromium. I believe that we are on our way to providing the community a safe, reliable, and convenient source of water for their homes. I do believe, however, that we still have a lot of work to do. I encourage PG&E to keep working to find ways to make this process convenient for the residents of Hinkley, and welcome additional suggestions that you or the community may have. Although the Water Board's jurisdiction is over water quality and related nuisance, we don't want solutions to the existing water quality problems to be blind to the effect that they have on the community at large, and encourage you to work with the community to find solutions that not only address water quality, but also help the community to remain whole.

Sincerely,



Patty Z. Kouyoumdjian
Executive Officer

Enclosures: January 10, 2013 PG&E Letter
February 7, 2013 PG&E Letter
March 11, 2013 PG&E Letter
April 18, 2013 Lahontan Water Board Letter

ecc: Jeffrey McCarthy, Remediation Site Manager –Hinkley, PG&E
Hinkley CAC Members
Craig Dishmon, Hinkley Resident
Lauri Kemper, Assistant Executive Officer, Lahontan Water Board

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION**

**AMENDED CLEANUP AND ABATEMENT ORDER NO. R6V-2011-0005A3
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 (PG&E) owns and operates the Hinkley Compressor Station located southeast of the community of Hinkley in San Bernardino County.
2. On October 11, 2011, the Water Board issued Cleanup and Abatement Order R6V-2011-0005A1 (Order) to PG&E. The Order required, in part, that PG&E provide interim and whole house ("permanent") replacement water service to those served by domestic or community wells that are within the affected area and determined to be impacted by its discharge. PG&E has provided interim replacement water service in the form of bottled water delivered to residents in the affected area that are determined to be impacted by its discharge.
3. The Order requires that bottled water provided as the interim replacement water must meet primary and secondary drinking water standards. Because there is currently no drinking water standard specifically for hexavalent chromium, the Order required that interim replacement water not exceed the public health goal of 0.02 ug/L¹, or the final Maximum Contaminant Level (MCL), once that standard is adopted by the California Department of Public Health (CDPH).
4. In a letter dated February 7, 2013, to the Water Board, PG&E requested "that the order requirements for interim water replacement (bottled water) be satisfied by PG&E's provision of commercially available bottled drinking water." PG&E stated that the requirement that bottled water have non-detectable levels of hexavalent chromium is challenging to meet and creates unnecessary uncertainty and alarm in the community about the quality of bottled water service.
5. Water Code 13304(f) requires that replacement water be of comparable quality to that which it was provided by the well prior to the adverse effect to the water supply by the discharge. For the purposes of interim water supply, the average background concentration of hexavalent chromium is considered "comparable water quality." The

¹ Because this is below the reporting limit, for purposes of this standard, drinking water must test below the reporting limit of 0.06 ug/L due to the limitation of laboratory analysis to accurately detect lower levels of chromium.

average background concentration of hexavalent chromium is 1.2 µg/L, as established in Cleanup and Abatement Order No. R6V-2008-0002A1. The hexavalent chromium water quality requirement for the permanent, whole house replacement water supply is unchanged.

6. The issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provision of the California Environmental Quality Act (CEQA) (Public Resources Code section 21000 et seq.), pursuant to California Code of Regulations (CCR), title 14, section 15321, subdivision (a)(2). In addition, CEQA includes a "common sense exemption" in CCR title 14, section 15061, subdivision (b)(3), which 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. It can be seen with substantial certainty that the issuance of this order, which amends Order R6V-2011-0005A1, would not have a significant effect on the environment.

IT IS HEREBY ORDERED, pursuant to Water Code section 13304 that Order No. R6V-2011-0005A1 is amended as follows:

CAO R6V-2011-0005A1, paragraph 1.b, fourth sentence reads:

"The report must include documentation to show that interim water supply meets state primary and secondary drinking water standards and hexavalent chromium levels of less than 0.02 µg/L¹ or the final MCL, once that standard has been adopted by CDPH."

¹ For the purposes of the 0.02 µg/L standard, drinking water must test below the reporting limit of 0.06 µg/L due to the limitation of laboratory analysis of low levels of chromium.

CAO R6V-2011-0005A1, Paragraph 1.b., fourth sentence is amended to read:

"The report must include documentation to show that interim water supply meets state primary and secondary drinking water standards and hexavalent chromium levels of up to 1.2 µg/L or the final MCL, once that standard has been adopted by CDPH."

Previous Orders

All other Orders in CAO R6V-2011-0005, CAO R6V-2011-0005A1, CAO R6V-2011-0005A2, and CAO R6V-2013-0001 remain in effect unless later modified by the Water Board, the Water Board's Executive Officer, or his/her designated representative.

Right to Petition: 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, or 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.

Ordered by: Patty Z. Kouyoumdjian Dated: 02-18-14

PATTY Z. KOUYOUMDJIAN
EXECUTIVE OFFICER