

**Activities Update for Chromium Cleanup at
PG&E's Compressor Station**

**ATTENTION!
PUBLIC MEETING ON April 26, 2010, 6:30 – 8:30 PM
At the Hinkley Elementary School**

See details inside.

ADDITIONAL INFORMATION

If you have questions about the meeting or about the overall status of chromium cleanup at the PG&E's Hinkley Compressor Station, please contact:

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Lahontan Regional Water Quality Control Board
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Attn: Chuck Curtis

Address Service Requested



California Regional Water Quality Control Board, Lahontan Region

April 2010

**Pacific Gas & Electric Company
Hinkley Chromium Groundwater Cleanup**

The Lahontan Regional Water Board is still making sure that PG&E cleans up the chromium near its Hinkley Compressor Station and makes sure the contamination doesn't spread. Contaminated soil there has been dug up and taken away. Crews are working on several projects to stop affected groundwater from moving and to cleanup chromium in the underground water. This fact sheet reports on the active chromium cleanup projects and stopping the chromium plume from moving any further.

Summary of Chromium Cleanup Activities

Two projects at the site that clean up chromium underground (**in-situ cleanup**) continue to operate full-scale. The two projects are near the Compressor Station, where the most chromium in groundwater is, and in the central plume area, north of Frontier Road. At both projects, contaminated groundwater is pumped from wells, mixed with ethanol, and pumped back using injection wells. Natural bacteria in the groundwater eat the ethanol and also use the dissolved oxygen in the groundwater. The process makes hexavalent chromium (chrome 6) change into trivalent chromium (chrome 3) (a MUCH less harmful type), which attaches to the soil particles and is effectively removed from the water. Monitoring data show that this method works and the chrome 6 levels have dropped to naturally occurring amounts in portions of both areas.

Under Water Board orders, PG&E pumps groundwater to **control chromium movement** in the northern area of the plume. At the Desert View Dairy, pumped groundwater containing chrome 6 is watered on fields for growing grass using a below-ground drip irrigation system. Chrome 6 is converted to chrome 3 by reaction with the organic matter in the soil. The chrome 3 binds to soil particles. Soil and plant monitoring is done to make sure that chromium concentrations do not exceed safe levels.

In addition to the projects described above, PG&E began operation of the **new South-Central Re-injection Area project** in fall 2009. The operation pumps groundwater containing chromium from five wells near the intersection of Highway 58 and Mountain View Road. The water is piped south, mixed with ethanol, and pumped back into the groundwater in eight wells north of Community Boulevard. The project serves two purposes: it contains the plume in the northwest area and reduces the chromium in groundwater in the southern area by in-situ cleanup like the other two projects where groundwater is treated with ethanol.

Also in fall 2009, the Water Board required PG&E to begin **pumping clean water** into four wells along Serra Road, north of Highway 58. This is meant to contain the plume by using groundwater outside the northwest plume boundary to push the chromium contaminated groundwater back towards the main plume. The combination of pumping clean water into the ground just outside the plume and pumping contaminated water out of the plume should stop the plume from moving more to the northwest. It should also protect those drinking water wells to the northwest, such as the wells of the Hinkley School.

Proposal to Combine In-situ Projects

Both of PG&E's new actions are regulated by the Water Board's 2007 General Permit for site-wide containment and cleanup activities. The Permit allows several types of cleanup and plume containment activities.

PG&E has requested that the Water Board regulate the source area, central area, and south-central in-situ projects as one project using the General Permit instead of two individual permits plus the General Permit. PG&E is not proposing any changes to the operation of the projects, just combined monitoring and reporting. Because the projects overlap each other (the source area project extends to the south-central project, which extends to the central area project), certain monitoring for the source area and south-central projects is no longer appropriate. The Board will require monitoring along the sides of the project and at the end of the central area portion of the project (which the water moves to). We will require more monitoring within each area to evaluate performance of the in-situ cleanup zones. The public will have the opportunity to provide comments on this proposal during April 2010.

Chromium in the Northern Part of the Plume

There's more chromium in what was PG&E's northernmost monitoring well (MW-62) than there was a year ago. It is now higher than naturally occurring levels. Because of this, the Board has required PG&E to install five more sets of wells to the northeast, and PG&E is planning to install even more monitoring wells to make sure we know the current boundary of the plume there. In the past, an agricultural well northeast of MW-62 has sometimes contained chromium above background levels. It is possible that the agricultural well is pulling contaminated water towards it from the area north of the current extraction well network and contaminant capture zone on the Desert View Dairy. PG&E has provided the Water Board a plan for restoring water quality in this area.

History

The PG&E Hinkley Compressor Station compresses natural gas before pumping it through pipelines to central and northern California. The compressor station opened in 1952. Between 1952 and 1966, PG&E used chrome 6 as an anti-corrosion agent in the cooling tower water. From 1952 to 1964, untreated wastewater from the cooling towers went to unlined ponds. Some of this wastewater went through the ground to the groundwater, about 80 feet below the surface. Beginning in 1964, the wastewater was treated prior to discharge to the unlined ponds while other corrosion inhibitors were evaluated. In 1966, phosphate replaced chrome 6 in the cooling tower water. Lined evaporation ponds were built in 1972. But chrome 6 from the old wastewater ponds has affected the groundwater at and north of the compressor station in an area approximately two miles long and more than mile wide.

Final Cleanup Actions Report Coming

The Water Board's Cleanup and Abatement Order No. R6V-2008-0002 requires PG&E to submit a feasibility study by September 1, 2010 that assesses plans to achieve final site cleanup. If cleanup to background chromium levels cannot be achieved, the report must consider factors listed in the State Water Board's Policies and Procedures for Investigation and Cleanup and Abatement of Discharges under Water Code Section 13304 (Cleanup Policy, or Resolution 92-49). Any other proposed chromium level above background must be consistent with the maximum benefit to the people of the state and not unreasonably affect beneficial uses of groundwater. When the Water Board gets the report, we will put it on our website and it will be available at the Barstow Library and our Victorville and South Lake Tahoe offices. Then the public will be able to comment before the Board makes a final decision.

If you want to be added to our mailing list related to the site, or submit questions or comments, please call the Water Board's Victorville office at (760) 241-6583, or call Chuck Curtis at (530) 542-5460 or send an email to ccurtis@waterboards.ca.gov

PUBLIC MEETING

Monday, April 26, 2010, 6:30 – 8:30 PM
Hinkley Elementary School

Water Board staff will host an information meeting about current groundwater investigation and chromium cleanup projects in the area. The meeting will also describe the Final Cleanup Actions report due from PG&E on September 1, 2010 and explain the State Water Board's Cleanup Policy for establishing cleanup levels. Information on nitrate pollution in Hinkley groundwater will also be presented. The meeting will be informal and include a series of poster presentations. Water Board staff will be available to provide information and answer questions. A Spanish language interpreter will be available at the meeting. The public is encouraged to attend the meeting to learn about current remediation projects and the upcoming Final Cleanup Actions report.

REUNIÓN PÚBLICA

Lunes, 26 de Abril, 2010, 6:30 – 8:30 PM
Escuela Primaria Hinkley

El personal de la Junta de Control de Calidad de Agua – Region Lahontan (Junta de Agua) patrocinará una reunión para informar sobre proyectos actuales en el área. La reunión también describirá las Acciones Finales de limpieza general reporteadas debido por PG&E el 1 de septiembre de 2010 y explican la política de zona de limpieza general del Estado para establecer los niveles de limpieza general. La información en la contaminación de nitrato en la agua subterránea de Hinkley también será presentada. La reunión será de carácter informal e incluirá una serie de presentaciones en afiches. El personal de la Junta de Agua estará disponible para entregar información y responder a las preguntas del público. Asimismo, una intérprete en Español estará presente en la reunión. Se le insta al público que asista a la reunión para que se informe respecto a los proyectos en curso y sobre el plan para limpiar la contaminación de cromo. Si desea formular alguna pregunta sobre lo indicado anteriormente, por favor llame al Sr. Chuck Curtis al (530) 542-5460 o por e-mail a: ccurtis@waterboards.ca.gov.

PUBLIC INFORMATION REPOSITORY

Documents related to the PG&E Hinkley Chromium Cleanup Project are available for review at the following locations:

Lahontan Regional Water Quality Control Board

Victorville Office
14440 Civic Drive, Suite 200
Victorville, CA 92392
Open Monday - Friday 8:00 a.m. - 5:00 p.m. (except furlough Fridays)

Phone: (760) 241-6583
Fax: (760) 241-7308

Barstow Branch

San Bernardino County Library
304 East Buena Vista
Barstow, CA 92311
(760) 256-4850

Library Hours:

Monday	12 noon - 8 p.m.
Tuesday	10 a.m. - 6 p.m.
Wednesday	12 noon - 8 p.m.
Thursday	10 a.m. - 6 p.m.
Friday	10 a.m. - 6 p.m.
Saturday	9 a.m. - 5 p.m.
Sunday	Closed

The Water Board's Internet [Website](http://www.waterboards.ca.gov). Here, the public can review the schedule of upcoming meetings, agenda items, adopted minutes, and Board orders. Information related to PG&E can be viewed in Projects in the Water Issues tab on the Home Page or can be accessed directly at: http://www.waterboards.ca.gov/lahontan/water_issues/projects/pqe/index.shtml.

Sign Up to Receive Electronic Notifications of meetings, proposed permits, new documents, and other information on the Water Board's PG&E chromium cleanup project by filling out the email list subscription form on the Water Board's [Website](http://www.waterboards.ca.gov).