LAHONTAN REGIONAL WATER QUALITY CONTROL BOARD
14440 CIVIC DRIVE, SUITE 200
VICTORVILLE, CA 92392

Status of Groundwater Cleanup Projects at Pacific Gas and Electric Company (PG&E) Hinkley Compressor Station

Esta hoja informativa está disponible en Español. Por favor llame a la Mesa Directiva del Agua al (760) 241-6583.

California Environmental Protection Agency

In 2006, there was much activity in Hinkley to address groundwater contaminated with hexavalent chromium from PG&E's Compressor Station. More activities are planned for 2007, and are described in this Fact Sheet.

In-situ Cleanup Projects

In 2006, the California Regional Water Quality Control Board, Lahontan Region (Water Board) adopted waste discharge requirements for two in-situ (below ground) groundwater cleanup projects. Requirements for the first project, a pilot study for chromium treatment in the central plume area located south of Highway 58, were adopted at a public hearing in June. Requirements for the second project, full-scale chromium treatment at the source area on the Compressor Station property located on Community Boulevard, were adopted at a November public hearing.

For both projects, PG&E proposed to inject food-grade reagents such as lactate, vegetable oil, whey, or ethanol into groundwater, to create a reducing environment to convert hexavalent chromium into trivalent chromium. As trivalent chromium precipitates out of groundwater and binds to soil particles, it reduces the chromium concentration in the aquifer. A monitoring and reporting program was adopted by the Water Board for both projects to prevent the possibility of creating water quality problems beyond the project areas. In addition, each project was evaluated in accordance with the California Environmental Quality Act (CEQA), and found not to pose a significant risk to the environment when mitigation measures are incorporated.

The two in-situ projects required that additional wells be installed. Injection, extraction, and monitoring wells are being installed in phases using drilling rigs.

Groundwater Cleanup and Control using the Ranch Land Treatment Unit

For 2007, the Water Board plans to hear PG&E's proposal to enhance groundwater control and cleanup using the Ranch Land Treatment Unit. This project, located between Highway 58 and the Santa Fe Railroad, is intended to provide further containment of polluted groundwater at the plume's northwest end. The project is similar to operations at the Desert View Dairy, where extracted water is applied to fields through a subsurface drip irrigation system, thereby preventing the possible creation of aerosols. Many of the extraction wells have already been installed on property west of the Ranch Land Treatment Unit project. Extracted water will be piped underground to the treatment area. Crops, such as grasses and alfalfa, will be grown on the fields and harvested several times a year.

The Ranch Land Treatment Unit project is intended to supplement plume containment being implemented at the Desert View Dairy, located north of Santa Fe Railroad. The latter project, in operation since 2004, has been successful at controlling plume migration to the north, and reducing chromium concentrations in groundwater to below the state drinking water standard of 50 micrograms per liter (or parts per billion). The public will have an opportunity to provide comments on the Ranch Land Treatment Unit project when the Water Board releases a draft permit and CEQA document later this year.

Residents may also have noticed drilling and testing activities in the northern plume area, south of the Santa Fe Railroad. A pipeline is being installed underneath the Railroad to bring water north and south of the Railroad as needed for ground water cleanup and control. New wells were installed in this area to evaluate aquifer conditions in the north, where bedrock is shallower (160 feet) than at the Compressor Station (300 feet).

History

The PG&E Hinkley Compressor Station compresses natural gas before transporting it through pipelines to central and northern California. Operation began at the compressor station in 1952. Between 1952 and 1966, PG&E used hexavalent chromium as an anticorrosion agent in the cooling tower water. From 1952 to 1964, untreated wastewater from the cooling towers was discharged into unlined ponds at the compressor station. Some of the wastewater in the unlined ponds percolated to the groundwater. Beginning in 1964, the wastewater was treated prior to discharge to the unlined ponds while alternative corrosion inhibitors were evaluated. In 1966, phosphate replaced hexavalent chromium as the anti-corrosion agent in the cooling tower water. Lined evaporation ponds were constructed in 1972. Nevertheless, hexavalent chromium from the former wastewater ponds has affected the groundwater north of the Compressor Station, in an area approximately two miles long and one mile wide.

IN THIS NOTICE:

PUBLIC INFORMATIONAL MEETING
TUESDAY, MARCH 6, 2007, 7:00 - 9:00 PM
HINKLEY ELEMENTARY SCHOOL

Water Board staff will host a meeting to present information about current and new projects planned at the site. The meeting will be informal, and will include a series of poster presentations. Water Board staff will be available to provide information and answer questions. Spanish language interpreters will be available at the meeting.

The public is encouraged to attend the meeting, to learn about the cur-rent and planned projects, and to express comments. If you have any questions about the meeting, please contact Mike Plaziak at (760) 241-7404 or mplaziak@waterboards.ca.gov.

AVISO DE UNA REUNION INFORMATIVA
MIERCOLES, 6 DE MAYO 2007, 7:00 - 9:00 PM
ESCUELA PRIMARIA HINKLEY

Personal de la Mesa Directiva del Agua tendrá una reunión para pre¬sentar información sobre proyectos actuales y nuevos planificados para el sitio. La reunión será informal e incluirá una serie de presentaciones estáticas. El personal de la Mesa Directiva del Agua estará disponible para proporcionar información y para contestar sus preguntas. Intérpre¬tes de español estarán disponibles en esta reunión.

Se anima al público asistir a la reunión para conocer los proyectos actuales y previstos y también para expresar sus comentarios. Si usted tiene alguna pregunta sobre la reunión, por favor llame a Mike Plaziak al (760) 241-7404 o mplaziak@waterboards.ca.gov.

BACKGROUND CHROMIUM STUDY

PG&E has completed the collection of water samples from well locations beyond the chromium plume boundary, to evaluate naturally-occurring chromium concentrations in groundwater. Background sampling was conducted approximately every three months throughout 2006. A total of 48 wells were sampled as part of the background study. Sampling took place on private parcels, after gaining access from property owners.

The Water Board will consider the background study results when determining requirements for further plume definition. The Background Chromium Study proposal is currently available for public review at the Water Board office and the Barstow Library. The Background Study report will be released for public review in March 2007.

GLOSSARY

Aquifer: A water-bearing layer of rock or sediment that is capable of yielding usable amounts of water.

Groundwater: Water beneath the earth's surface that flows through soil and rock openings, and often serves as a source of drinking water in aquifers.

Hexavalent chromium: A form of chromium, a metal naturally found in rocks, soil, and the tissue of plants and animals. Used in industrial products and processes. Hexavalent chromium is a known carcinogen when inhaled.

Land Treatment Unit: A permitted waste treatment unit that uses land application methods to treat waste to acceptable levels. The treatment of wastes at the Hinkley site is achieved through natural soil chemistry and biological processes.

Water Board: Lahontan Regional Water Quality Control Board – A California agency that sets and enforces water quality standards for a specific geographic jurisdiction, and enforces state water quality laws. It is part of CalEPA.

Pilot Study: Operation of a small-scale version of a potential larger system, for the purpose of verifying that the test itself is feasible and will work in the field as designed. Pilot test results are typically used to design and optimize a larger system.

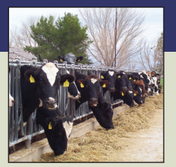
Plume: A body of contaminated groundwater flowing from a specific source. The movement of groundwater is influenced by such factors as local groundwater flow patterns and pumping activity, the character of the aquifer in which the groundwater is contained, and the density of the contaminants.

Remediation: Cleanup or other methods used to remove or contain a spill or potentially hazardous materials at a site.

Total chromium: The additive of all chromium concentrations, mainly comprising hexavalent and trivalent forms. The only drinking water standard for chromium in California is 50 micrograms per liter (or parts per billion) as Total Chromium.

Trivalent chromium: A form of chromium that is not toxic at low levels. Unlike hexavalent chromium, trivalent chromium is not very soluble in water, and often occurs as an oxidized metal in a solid form.






PUBLIC INFORMATION REPOSITORY

Information repositories maintain hard copies of documents that are available to the public. A local information repository is located at the Barstow Public Library. The purpose of the repository is to provide easier access for local residents to view recent documents. Selected project reports are found in the Barstow Information Repository located at:

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

California Environmental Protection Agency
Lahontan Regional Water Quality Control Board (Water Board):

Victorville Office
14440 Civic Drive, Suite 200
Victorville, CA 92392
Phone: (760) 241-6583
Fax: (760) 241-7308
Open Monday-Friday 8 a.m. to 5 p.m.

The Water Board's Internet web site at: *www.waterboards.ca.gov/lahontan* allows the public to review the schedule of upcoming Board meetings, agenda items, adopted minutes and Board orders. In addition, the website contains press releases, Executive Officer's reports and how to contact Board staff. If you have questions concerning the website, contact the Board's Victorville office at (760) 241-6583.

COMMENT AND MAILING LIST FORM FOR INFORMATION ABOUT FUTURE ACTIVITIES AT PG&E'S HINKLEY COMPRESSOR STATION

If you would like to be added to, or taken off, the distribution list for mail related to the site, or to submit questions or comments, please either fill out this form, call the Water Board at (760) 241-6583, or send an email to mplaziak@waterboards.ca.gov. If filling out the form below, mail to Mike Plaziak, Lahontan RWQCB, 14440 Civic Drive, Suite 200, Victorville, CA 92392.

Name: _____

Address: _____

City/State/Zip: _____

Phone/E-mail: _____

Affiliation (if any): _____

Comments/Questions: _____

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Water Board mailings are solely for the purpose of keeping persons informed of activities. Mailing lists are not routinely released to outside parties. However, they are considered public records and, if requested, may be subject to release.