To: Macler, Bruce[Macler.Bruce@epa.gov]; Li, Corine[Li.Corine@epa.gov]
From: Maier, Brent
Sent: Thur 7/16/2015 5:10:44 PM
Subject: RE: Senator Boxer's SEPW inquiry re: Hinckley, CA well contamination

Ex. 5 - Deliberative Process

Victor Valley Daily Press: AP story on USGS study that California waters are contaminated. Looking to see if this applies to high desert area.

Brent Maier

Congressional Liaison

U.S. Environmental Protection Agency, Region IX

75 Hawthorne St. (OPA-3)

San Francisco, CA 94105

Ph: 415.947.4256

From: Maier, Brent
Sent: Wednesday, July 15, 2015 3:43 PM
To: Macler, Bruce; Li, Corine
Subject: RE: Senator Boxer's SEPW inquiry re: Hinckley, CA well contamination

Bruce/Corine –

Ex. 5 - Deliberative Process

Deadline extended for providing Hinkley cleanup input

Water board to provide revised draft order in August

By Mike Lamb - Staff Writer - Posted Jul. 2, 2015 at 2:57 PM – Desert Dispatch

LAKE TAHOE — The deadline has been extended for interested parties to submit consensus language for the proposed cleanup and abatement order requiring Pacific Gas and Electric to clean up discharges of chromium into groundwater in Hinkley.

Lahontan Regional Water Quality Control Board Executive Officer Patty Kouyoumdjian announced on June 26 that interested parties have until Wednesday to provide submissions. The original deadline was set at June 19 after the water board held a workshop on May 28.

Members of the Water Board, its advisory and prosecution teams, PG&E, the independent review program manager and members of the Hinkley community discussed six key policy issues during the May workshop held at the Hampton Inn. The board encouraged the parties to work together and develop alternative language for the cleanup and abatement order.

According to Kouyoumdjian's announcement, the water board's advisers will provide a revised draft for the public's consideration in August. A workshop on the new draft is expected during the board's September meeting in Barstow.

After a comment period, the water board will consider adoption of a final cleanup and abatement order at its November board meeting. That meeting also will be held in Barstow.

Mike Lamb can be reached at 760-475-8337 or mlamb@desertdispatch.com. You can also follow him on Twitter @mlambdispatch.

http://www.desertdispatch.com/article/20150702/NEWS/150709972

Proposed consensus language for the proposed cleanup and abatement order for Pacific Gas & Electric in Hinkley has been released.

By Mike Lamb - Staff Writer - Posted Jul. 10, 2015 at 4:13 PM – Desert Dispatch

The Lahontan Regional Water Control Board prosecution team and Pacific Gas & Electric both released documents on Friday. The moves came after the board's executive officer, Patty Kouyoumdjian, extended the deadline for additional consensus in the proposed language to last Wednesday.

According to Sue Genera, Kouyoumdjian's executive assistant, the water board's advisers will now review the proposed language and provide a revised cleanup and abatement order for PG&E.

A workshop on the new draft will be held at the Sept 16-17 board meeting in Barstow. After a public comment period on the new draft, the Water Board plans to consider adoption of a final CAO at its Nov. 4-5 board meeting, which also will be held in Barstow.

A final schedule, including the comment period on the revised draft, will be released with the revised draft in August, Genera said in a written statement. The board is not

requesting comments on newly released documents, but comments will be gathered after the revised draft order is issued in August.

The released report stated that the PG&E facility began operating in 1952 and discharged untreated cooling tower wastewater containing hexavalent chromium, used as a corrosion inhibitor, to unlined ponds until 1964. Wastewater percolated through soil to the water table, approximately 80 feet below, creating chromium contamination in groundwater.

The area beneath the former unlined ponds is also referred to as the "source area" in this order. A different corrosion inhibitor was used between 1966 and 1972, with the latter date being when the unlined ponds were replaced with lined ponds. Chromium has not been used to control corrosion at the facility since 1965.

The report also shows that the release from PG&E's facility is the only known source of anthropogenic chromium in groundwater in the Hinkley upper and lower aquifers.

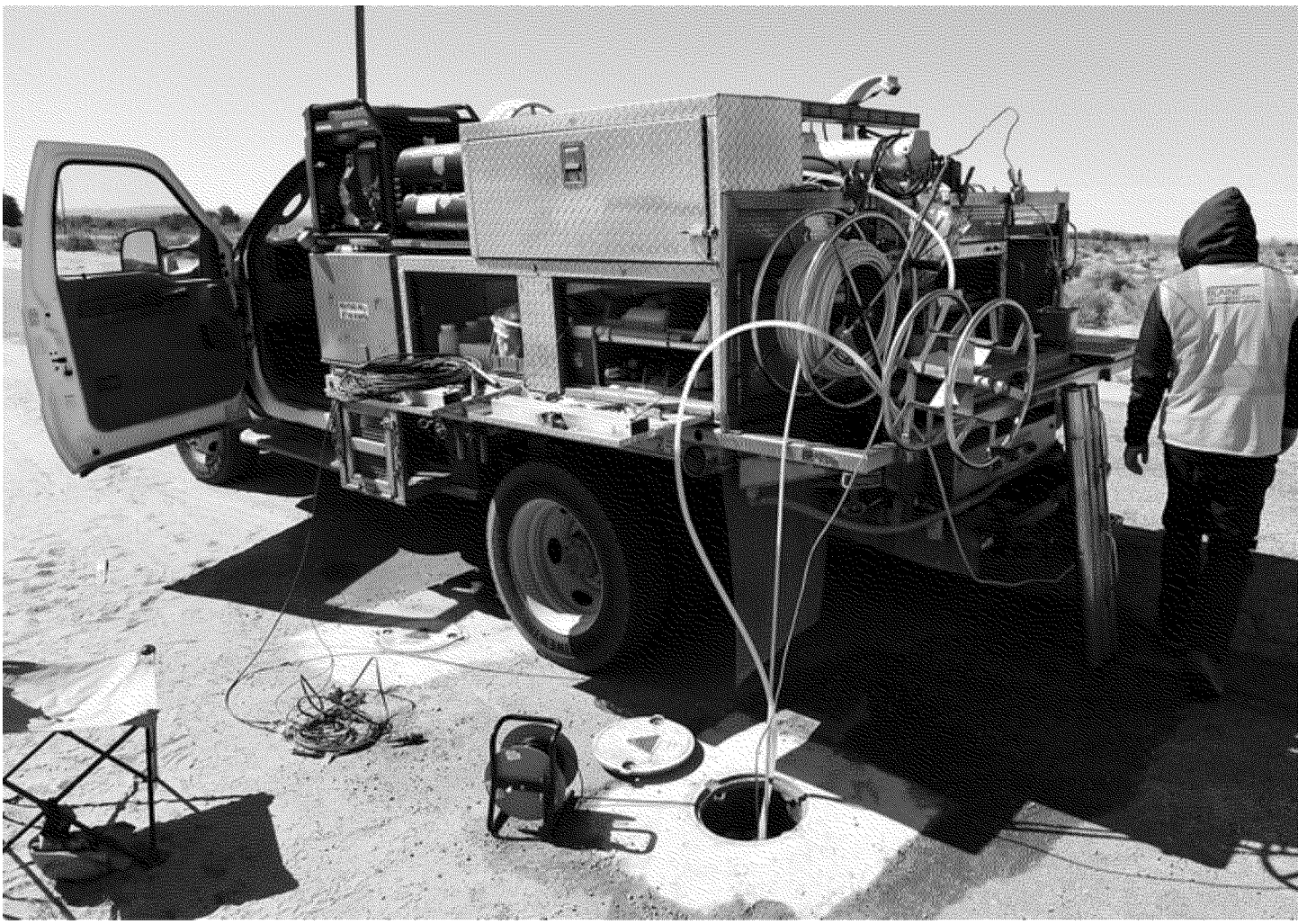
Mike Lamb can be reached at 760-475-8337 and mlamb

http://www.desertdispatch.com/article/20150710/NEWS/150719989

How much of Hinkley's chromium-6 is pollution? USGS study intends to find out

USGS

USGS
14Y 1373



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By Jim Steinberg, The Sun

Posted: 03/05/15, 8:09 PM PST | Updated: on 03/06/2015

U.S. Geological Survey physical scientist Greg Smith collects a water sample from a well in Hinkley Wednesday. Jennifer Cappuccio Maher — Staff photographer

HINKLEY >> By the side of a washboard-rough dirt road, in a garage piled high with rocks neatly stored in pizza-sized boxes, the long-awaited study has begun to determine how much of the world's largest chromium-6 plume is the result of a San Francisco-based utility's operations and how much was put there by nature.

The findings of this pioneering scientific effort that will span five years could add or subtract multiple millions of dollars from the ultimate environmental cleanup cost in this High Desert community.

"There is no question that nothing of this size and scope has ever been done before. ... It's hard to find stuff in the world that has never been done...," said Ian Webster, the scientific adviser to the Hinkley community and a chemical engineering Ph.D. from the Massachusetts Institute of Technology.

• **Photos:** Hinkley: USGS Collects Water Samples For Testing

The $5.4 million study is being conducted by the U.S. Geological Survey.

"This study uses some sophisticated techniques. But what it is, after all, relates to questions generated by the Hinkley community," said John Izbicki, the USGS Ph.D.-level scientist who heads the project.

How “sophisticated” are these techniques?

Well, one of them uses a chemical marker to determine the age of underground water that relies on measurements of tritium, a compound mostly formed as a result of above-ground nuclear tests — which haven’t been conducted for more than 50 years.

No scientific laboratory in the United States — under government or private ownership — has the capability of measuring tritium to the level needed for the study.

So Izbicki plans to air freight those samples to the Institute of Environmental Physics at the University of Bremen in Germany, which has the necessary capabilities.

But tritium alone isn’t sufficient to date water samples.

Izbicki’s study will also look for levels of certain chlorofluorocarbon, or CFC, compounds, widely known by DuPont’s trademark name — Freon.

The important date “marker” aspect of this family of compounds is that some were gradually eliminated under the Montreal Protocol on Substances that Deplete the Ozone Layer, adopted in 1987.

This week, USGS teams began pulling samples from multiple wells drilled years ago by Pacific Gas & Electric Co. to track the migration of the chromium-6 groundwater plume beneath Hinkley.

Advertisement

And separate from that, the core materials from long-ago test well drilling are being X-rayed to precisely determine their chemical composition.

Among the study goals:

• How water flows through the Hinkley Valley.

• How much of the chromium-6 in Hinkley’s groundwater came from the Earth and how much was put there by PG&E.

• By what amount does Hinkley’s chromium-6, which PG&E is chemically treating to become chromium-3, a more benign relative, change back to chromium-6 after several decades.

“PG&E has accumulated years of data from many sources,” Izbicki said Wednesday, as he oversaw some of the water samples carefully being pulled out of Well 79S, one of hundreds drilled by PG&E.

From 1952 until 1964, PG&E discharged untreated chromium-6 into unlined ponds, a common

practice during that era, before the cancer-causing properties of chromium-6 were fully understood.

From the ponds, chromium-6 percolated into the ground.

"Chromium-6 travels very easily and rapidly in water," Izbicki said.

• **Special Report:** Hinkley: A ghost town in the making

Water regulators estimate that the plume is now about 2 miles wide and 8 miles long.

Hinkley's water-contamination problems were thrust globally into public view in 2000 by the film "Erin Brockovich," starring Julia Roberts.

Izbicki's study is one of the few occurrences here widely supported by the community, PG&E and the staff of the Lahontan Regional Water Quality Control Board.

"I have not met anyone in town who has not been supportive of this study," said Webster, who owns Brea-based Project Navigator LTD, which has worked on environmental cleanups on five continents.

"There are no strings attached. No axes to grind," Webster said.

PG&E has funded most of the study, having put up nearly $4.5 million. The USGS has contributed nearly $900,000.

Those funds have been placed into an account controlled by the state of California.

"PG&E is pleased that the United States Geological Society has now officially begun their chromium-6 background study in Hinkley," said Jeff Smith, a company spokesman.

"Dr. John Izbicki has tremendous credentials, and we are confident he will provide an objective view on this critical issue. We look forward to reviewing all his findings once he completes his thorough study and analysis," Smith said.

"Doc Izbicki is the guy who developed many of the testing procedures that are being used in the study," said Daron Banks, a longtime community advocate.

"He basically has the blessing of the community. He's what we have been asking for all these years," said Banks, who initiated discussions with Izbicki four years ago that ultimately led to this ground-breaking study.

The 2007 study that determined the background level of chromium-6 in Hinkley's groundwater is 3.1 parts per billion has been discredited, although state water regulators continue to use that number for defining the plume until a new study is completed.

California law requires polluters to decontaminate down to the level that existed before their operations — or as close as reasonably possible.

http://www.sbsun.com/environment-and-nature/20150305/how-much-of-hinkleys-chromium-6-is-pollution-usgs-study-intends-to-find-out

Brent Maier

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From: Macler, Bruce
Sent: Wednesday, July 15, 2015 3:28 PM
To: Maier, Brent; Li, Corine
Subject: RE: Senator Boxer's SEPW inquiry re: Hinckley, CA well contamination

Brent, Corine,

Ex. 5 - Deliberative Process

Thanks,

Bruce

Bruce A. Macler, PhD

Water Division Toxicologist

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seneca

From: Maier, Brent
Sent: Wednesday, July 15, 2015 2:35 PM
To: Fox, Thomas (EPW)
Cc: Levine, Carolyn; Macler, Bruce; Li, Corine; Keener, Bill
Subject: RE: Senator Boxer's SEPW inquiry re: Hinckley, CA well contamination

Tom –

That works for me. Once I confirm that time works for Bruce, I will send out a calendar invite with a call-in number and access code.

Regards,

Brent Maier

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Ph: 415.947.4256

From: Fox, Thomas (EPW) [mailto:Thomas_Fox@epw.senate.gov]
Sent: Wednesday, July 15, 2015 2:33 PM
To: Maier, Brent
Cc: Levine, Carolyn; Macler, Bruce; Li, Corine; Keener, Bill
Subject: RE: Senator Boxer's SEPW inquiry re: Hinckley, CA well contamination

Thanks Brent. How about 4pm eastern/1pm pacific?

Tom

From: Maier, Brent [mailto:Maier.Brent@epa.gov]
Sent: Wednesday, July 15, 2015 5:31 PM
To: Fox, Thomas (EPW)
Cc: Levine, Carolyn; Macler, Bruce; Li, Corine; Keener, Bill
Subject: RE: Senator Boxer's SEPW inquiry re: Hinckley, CA well contamination

Tom –

As a follow up to your interest in the Region's perspective on the chromium and non-chromium/other constituent contamination in residential wells in Hinckley, CA, I reached out to the manager of our Drinking Water office and she suggested that our Drinking Water Toxicologist, Bruce Macler, would be a good person for us to have on a follow up call to discuss. Bruce has let me know that he would be available for a conference call on Friday, July 17th. Please let me know if you would have some time available for a call. Once a call is confirmed, I can provide a call-in number and access code. We look forward to talking with you.

Regards,

Brent Maier

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Ph: 415.947.4256

From: Levine, Carolyn
Sent: Wednesday, July 15, 2015 11:39 AM
To: Maier, Brent
Cc: Thomas (EPW) Fox (Thomas_Fox@epw.senate.gov)
Subject: Senator Boxer's SEPW inquiry re: Hinckley, CA well contamination

Hi Brent,

I am looping you and Tom Fox, Senator Boxer's senior counsel on SEPW Committee, together. Tom is looking for the region's perspective on the chromium and non-chromium/other constituent contamination in residential wells. Tom is cc'd and his number is 202-224-1373. Let me know if I can be of further assistance.

Carolyn Levine

Office of Congressional and Intergovernmental Relations

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(202) 564-1859

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