Hinkley Community Newsletter[1]

Volume 6 Number 5
October 2020

A NEWSLETTER ISSUED BY THE IRP MANAGER: DISCUSSING ISSUES ASSOCIATED WITH THE HINKLEY VALLEY's Cr(VI) REMEDIATION PROGRAM

Chapter	Content	Draft manuscript	USGS supervisory review	Stakeholder review	USGS specialist review	Revision and response to reviews	USGS supervisory review	DMS review	Editorial review	Submission to California WSC review and approval	Submission to regional review and approval
Chapter A	Introduction	x	x	x	x	x	x	x	-	-	-
Chapter B	Elemental composition of rock, alluvium, and drill cuttings	x	x	x	x	x	x	x	-	-	-
Chapter C	Mineralogy	x	x	x	x	x	x	o	-	-	-
Chapter D	Historical data and Cr(VI) trend analyses	x	x	x	x	x	x	o	-	-	-
Chapter E	Groundwater chemistry	x	x	x	x	x	x	o	-	-	-
Chapter F	Isotope and groundwater age-dating data	x	x	x	x	x	x	o	-	-	-
Chapter G	Summative scale analyses	x	x	x	x	x	o	-	-	-	-
Chapter H	Hydrogeologic data	x	x	x	x	x	o	-	-	-	-
Chapter I	Model particle track results	x	x	x	x	x	o	-	-	-	-
Chapter J	Task 8 experiments (Menlo Park)	x	x	x	-	-	-	-	-	-	-
Chapter K	Summary and conclusions	x	x	x	x	x	-	-	-	-	-

The table above is a Summary of Hinkley Cr(VI) background study report review status, October 2020. The final report is schedule to be released to the public in early 2021.

October Update from the Lahontan Regional Water Quality Control Board

Water Board staff are preparing the Draft Notice of Applicability of General Waste Discharge Requirements for In-Situ Remediation Zones and the Freshwater Injection System (NOA). This NOA will be going out for a 30-day public comment period. Community members will be notified when the Draft NOA is available for public comment. Water Board staff plan to work with the IRP Manager to hold public workshops for community input on the NOA. We encourage all interested persons to attend.

PG&E routinely submits reports and workplans to the Water Board for review and acceptance. There are several documents currently under Water Board staff review (see list to the right). We are prioritizing the review of documents and working with PG&E to address any of our comments or concerns. For a complete list of documents submitted to the Water Board, please visit the State Water Board's GeoTracker webpage for "PACIFIC GAS & ELECTRIC COMPANY HINKLEY" at https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL0607111288 and click on "Site Maps/ Documents," or contact the Water Board staff listed below for assistance

Routine Monitoring Reports Submitted to the Water Board

- Second Quarter 2020 Hydraulic Capture Monitoring Report
- Second Quarter 2020 Monitoring Report for the In-Situ Reactive Zone and Northwest Freshwater Injection Projects
- Second Quarter 2020 Groundwater Monitoring Report and Domestic Well Sampling Results
- Second Quarter 2020 Agricultural Treatment Units Monitoring Report

PG&E Technical Reports and Work Plans Pending Water Board Review and Response

Proposed Modifications to Notice of Applicability of General Waste Discharge Requirements for In-Situ Remediation Zones and the Freshwater Injection System

Action Plan and Alternative Source Demonstration for Total Dissolved Solids Detected in Groundwater Beneath the Community East Agricultural Treatment Unit

Contingency Plan for Chromium Detected at Monitoring Well MW-128S1

Four-Year Comprehensive Cleanup Status and Effectiveness Report (2016 to 2019)

2020 Remedial Timeframe Assessment Action Plan

2019 Annual Agricultural Rate Performance Report

Community members interested in receiving hard copies of items from the Water Board should contact the Water Board staff listed below or let the IRP Manager know. Community members interested in receiving electronic updates on the PG&E chromium cleanup can subscribe to the Water Board's email subscription list by going to https://www.waterboards.ca.gov/resources/email_subscriptions/reg6_subscribe.html and choosing the email list titled "**Pacific Gas & Electric Company, Hinkley Chromium Cleanup**" to sign up.

USGS Background Study

As the USGS background study wraps up and pending release of the final background study report in 2021, Water Board staff plan to hold a public workshop to discuss the final report. At the workshop, Dr. Izbicki will be discussing the background study and answering questions from the public and board members to provide clarification of the findings. We expect the workshop to be held April 2021 or later.

Water Board oversight of the PG&E Hinkley Chromium Cleanup project is provided by staff in the Water Board's Victorville office, which is located at 15095 Amargosa Road, Building 2, Suite 210, Victorville, CA 92394. Your Water Board staff contacts are Jan Zimmerman, Senior Engineering Geologist (jan.zimmerman@waterboards.ca.gov, 760-241-7376), Amanda Lopez, Engineering Geologist (amanda.lopez@waterboards.ca.gov, 760-241-7373), and Shelby Barker, Engineering Geologist (shelby.barker@waterboards.ca.gov, 760-241-7307). Please feel free to contact any of the Water Board staff listed should you need assistance.

Please note, the majority of Lahontan Water Board staff are teleworking due to an Executive Order from Governor Newsom. However, we are available via email and voicemail. We are responding to emails throughout the workday. Responses to voicemail may take more than one business day.

USGS Cr(VI) Background Study Update

Dr. John Izbicki, the lead scientist in charge of the USGS Cr(VI) Background Study (BGS), has completed the final chapter, Task 8, of the draft USGS Cr(VI) BGS Report.

Task 8 is the experimental work that was conducted at the USGS Laboratory in Menlo Park, CA. Hinkley community members requested that Task 8 be included in the BGS to provide a better understanding of the fate of the reduced Cr(III) once the In-Situ Reactive Zones (IRZs) are shutdown.

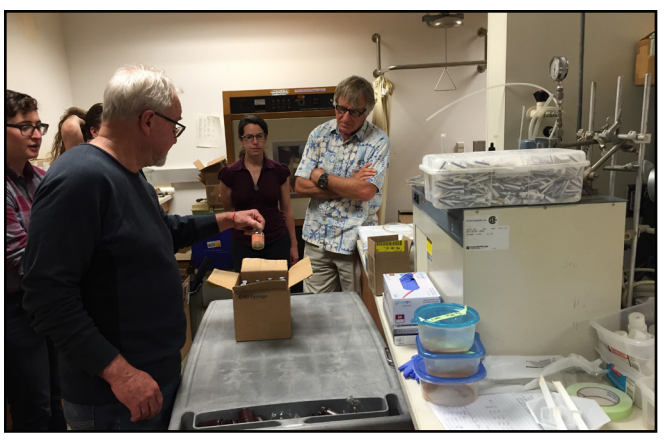
Hinkley community members wanted to know when the IRZs are shutdown if treated chromium could rebound back in groundwater. The IRZs are used to treat the higher concentrations of Cr(VI) near the compressor station.

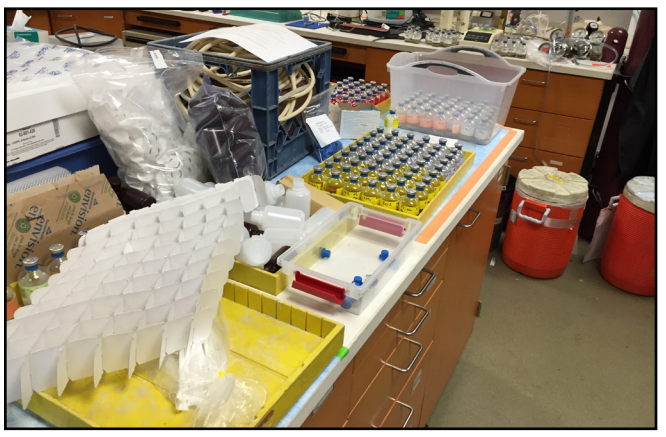
In the IRZs, ethanol is injected into designated injection wells and convert Cr(VI) to Cr(III). PG&E is allowed to inject ethanol into the aquifer by the Water Board, and they are required to follow specific guidelines that are included in permits. Several hundred soil samples (microcosms) were collected to understand the effect of pH, arsenic, manganese, and iron on the oxidation of chromium.

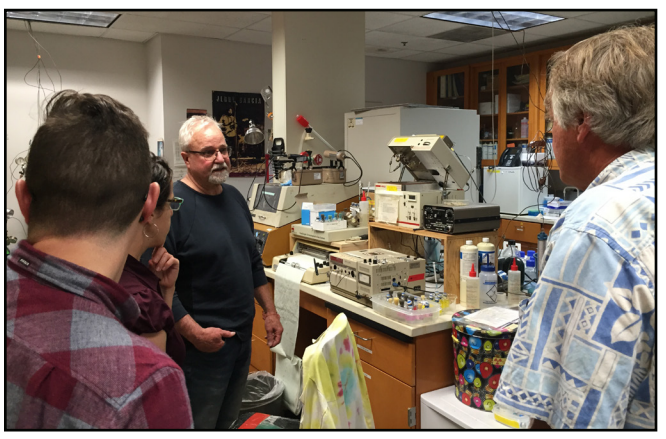
Analyses were performed to evaluate the surface strength of chromium to understand the possible reoxidation of Cr(III) to Cr(VI) back into groundwater after the IRZs are shutdown.

The IRP Manager Team is currently reviewing this chapter and will be hosting a workshop for the Hinkley Community in December to go through the details.

Below are several photos of the USGS Menlo laboratory that was used to complete Task 8.







1 The Independent Review Panel (IRP) Manager is a resource for the Hinkley Community that provides explanations and answers to Community questions regarding PG&E's Hinkley Cr(VI) Remediation Program.

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DIY Solar Oven - old wheelbarrow with glass cover. Picture by Penny Harper

DIY Solar Oven - cardboard box with glass cover. Picture by Margaret DeAngelis

Solar Cooking - Sustainable Living In The High Desert

By Margaret DeAngelis

One of the greatest resources available to us that is completely free is solar energy. With close to 300 days of sunshine here in the High Desert we can harvest solar energy easily. Many people install solar panels and convert their residences to all solar energy households. It is a great idea but the initial cost may be high. A few years ago I came across a very simple and inexpensive device that allows us to cook delicious meals without paying for electricity or gas. It's the solar oven! The solar oven is a great invention and pretty simple technology! It is a completely sun-powered oven that can be used to cook meat, vegetables and even bake bread. It works like a slow cooker.

Basically it is a box that is insulated and it uses reflective surfaces to intensify and direct sun rays inside the box where the heat is collected and trapped under the glass cover causing the temperature to rise (similar to the greenhouse effect). Depending on how sunny or cloudy it is, solar ovens can reach temperatures between 200 to 400 degrees! I like the idea of free energy and cooking meals outdoors especially during summer time when it gets pretty hot in my house.

You can buy a solar oven that is professionally built, or you can make one yourself with very little effort and low cost. The average retail price of a solar oven is about $300, but from my internet searches and some friend's experience I found out that it is very easy and inexpensive to build one from materials that you may already have at home, like cardboard boxes and aluminum foil. There are plenty of instructions on how to build a solar oven on the Internet as well as some great recipes I would like to try. I think it would be a fun project, and I plan on building one in the near future. As always, do your research and use caution since these ovens can get very hot.

If you have 'Sustainable Living In The High Desert' ideas and would like to share them with our community members, please contact me at mdeangelis@projectnavigator.com.

The State of California has slowly begun to reopen for business in phases. The IRP Manager is resuming regular office hours, workshops, and community meetings with some modifications due to the COVID-19 pandemic. In an effort to keep community members, staff, and high risk visitors safe, the IRP Manager must comply with the local government reopening guidelines and procedures. The IRP Manager will implement the following:

- Sanitizing and disinfecting office and surfaces on a regular basis
- 6 ft social distancing
- Require face coverings
- Encourage regular hand sanitizing and hand washing
- Room capacity will be limited to 25%
- Extended or extra office hours, workshops and community meetings
- We are always available to set up phone meetings or to meet with community members one on one

FAQ: What are PG&E's Remedial Targets?

The Water Board's Cleanup and Abatement Order (CAO) No.R6V-2015-0068 ("the Order") issued on November 4, 2015 requires that PG&E meet specific cleanup goals by certain dates to be in compliance with the CAO. These cleanup goals are called "Remedial Targets" and PG&E is required to reduce the Cr(VI)/Cr(T) as specific monitoring wells. The two Remedial Targets include the following:

- Reach and maintain 50 ppb of Cr(VI)/Cr(T) in 90% at specific monitoring wells by December 31, 2025
- Reach and maintain 10 ppb of Cr(VI)/Cr(T) in 80% at specific monitoring wells by December 31, 2032

Figure A: A total of 44 monitoring wells consist of the 50 ppb Remedial Targets Monitoring Wells as shown above. During the 2nd Quarter 2020, 25 Remedial Targets Monitoring Wells were below the 50 ppb threshold and 19 were above the 50 ppb threshold.

Figure B: A total of 49 monitoring wells consist of the 10 ppb Remedial Targets Monitoring Wells as shown above. During the 2nd Quarter 2020, 36 Remedial Targets Monitoring wells were below the 50 ppb threshold and 13 were above the 10 ppb threshold.

The IRP Manager's Function

Project Navigator, Ltd. (PNL) was selected in 2012 as the Independent Review Panel (IRP) Manager by the Hinkley Community Advisory Committee (CAC).

PNL is a project management company based in Tustin, CA, known for its expertise in advising on complex, long-term environmental remediation projects. PNL also specializes in converting complex technical information into easy-to-understand visuals that can enhance communication.

The IRP Manager's Scope of Work (SOW) is detailed in the Water Board November 4, 2015, Cleanup and Abatement Order (CAO). Tasks include the following:

- Reviews all technical documentation regarding PG&E's Cr(VI) Groundwater Remediation Program
- Provides comments and feedback to the Water Board regarding key reports and Water Board orders
- Participates in the planning and implementation of the USGS Cr(VI) Background Study
- Performs outreach to Hinkley residents to explain the different parts of PG&E's Cr(VI) Groundwater Remediation Program (via office hours, quarterly monthly meetings, website, and newsletters)
- This Newsletter is being issued in the spirit of helping fulfill the above technical outreach commitment.

Contact Information

The IRP Manager frequently updates the IRP website dedicated to the Hinkley remediation project. For more up-to-date information, please contact the IRP Manager's office or visit the website at www.HinkleyGroundwater.com. If you would like to speak with the IRP Manager's staff, schedule a meeting, or suggest input on the newsletter, please contact:

Dr. Raudel Sanchez
email: rsanchez@projectnavigator.com

Margaret DeAngelis
(available locally to provide advice)
email: mdeangelis@projectnavigator.com

Roger Killian (Community member)
email: acgeneratorservice008@gmail.com

IRP Manager's Office Hours

36236 Serra Rd., Hinkley, CA 92347

Nov 5: 3:00 PM – 6:00 PM
Nov 12: 3:00 PM – 6:00 PM
Nov 19: 3:00 PM – 6:00 PM

Important Upcoming Date(s)

January 28
4pm - 5pm

Quarterly Hinkley Community Drive-Through Meeting at Hinkley Community & Senior Center

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