

Topock Review

Remediation

MARCH 2009 Issue 2

TOPOCK TICKER:

Mark Your calendar for these important dates.

March 12 – Topock Leadership Partnership Meeting, Palm Springs, CA

May 20 – CWG meeting Boulder City, NV

FOR MORE INFO:

Visit DTSC's Topock Project Website: www.dtsc-topock.com

UPCOMING REPORTS:

Groundwater RFI/RI Volume 2 Addendum – March 18

Final Groundwater Risk Assessment – May

Final Groundwater CMS/FS – May

THE TOPOCK REMEDIATION REVIEW is dedicated to enhancing stakeholder understanding of technical and regulatory information, encouraging participation in decision making forums, and fostering timely and effective project management and decisions for the Topock Compressor Station project final remedy.



DEPARTMENT OF TOXIC
SUBSTANCES CONTROL



State of
California



California
Environmental
Protection Agency

Draft Corrective Measures Study/Feasibility Study for Chromium in Groundwater Delivered to Agencies, Consultative Working Group, and Tribal Governments

On January 27, 2009, Pacific Gas & Electric (PG&E) submitted the Draft Corrective Measures Study/Feasibility Study (CMS/FS) for chromium in groundwater to the Department of Toxic Substances Control (DTSC), the U.S. Department of Interior (DOI), the Consultative Working Group (CWG), and Tribal Governments. This key document evaluates various remedial alternatives to clean up groundwater contamination associated with the historic discharge of wastewater to Bat Cave Wash.

The Draft CMS/FS includes a description of current conditions, remedial action objectives, identification and screening of remedial technologies, and development and evaluation of remedial action alternatives. The nine remedial alternatives identified in the document are listed below:

ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D	ALTERNATIVE E	ALTERNATIVE F	ALTERNATIVE G	ALTERNATIVE H	ALTERNATIVE I
No Action	Monitored Natural Attenuation	High Volume In-Situ Treatment	Sequential In-Situ Treatment	In-Situ Treatment with Freshwater Flushing	Pump and Treat	Combined Floodplain In Situ/Pump and Treat	Combined Upland In-Situ/Pump and Treat	Continued Operation of Interim Measure

The nine alternatives were compared using seven of the nine criteria required by the RCRA Corrective Action (1996 Corrective Action Consent Agreement) and CERCLA (40 CFR Part 300.430). The remaining two criteria (state and community acceptance) will be evaluated after receipt of comments on the Draft CMS/FS.

Based on the comparative analysis, PG&E proposes in the Draft CMS/FS that **Alternative E – In-Situ Treatment with Fresh Water Flushing** be the preferred option among the alternatives evaluated. DTSC and DOI will evaluate the draft CMS/FS concurrent with stakeholders and nominate an agency preferred alternative after the CMS/FS is finalized, which may be the same or different from PG&E's recommendation. The agency preferred alternative will be subject to review and comment by all stakeholders and other members of the public. **Alternative E** would be performed in two phases:

• Phase 1: Floodplain Cleanup.

This phase involves *in-situ* treatment of that portion of the groundwater plume nearest the Colorado River. The *in-situ* treatment converts Cr(VI) to insoluble Cr(III), thereby removing Cr(VI) chromium from groundwater.

• Phase 2: Interior Plume Cleanup.

This phase starts after floodplain cleanup and involves the injection of potable water "upstream" of the plume to more rapidly flush the groundwater with elevated Cr(VI) through a zone of in-situ treatment located across the direction of flow. The injection of fresh water would shorten the overall time to achieve treatment time, as compared to the time required under conditions of natural groundwater flow.

Next Steps

DTSC and DOI will review the draft CMS/FS concurrent with the stakeholders. Review comments on the Draft CMS/FS are due by February 26, 2009. Final CMS/FS is targeted for May 2009, with agencies approval in June 2009.

After the CMS/FS is finalized, both agencies will propose a preferred alternative for public review and comment. Following public review and comment, the agencies will prepare decision documents for the groundwater remedy. The groundwater remedy selection schedule is shown on the right.

GROUNDWATER REMEDY SELECTION SCHEDULE	
DTSC (LEAD RCRA AGENCY)	DOI (LEAD CERCLA AGENCY)
Public Comment on Statement of Basis • August – October 2009	Public Comment on Proposed Plan • August – October 2009
Response to Comments • October – November 2009	Response to Comments • October – November 2009
Approval of Final Remedy • February 2010	Issue Record of Decision • March 2010

Preparation of the Programmatic Environmental Impact Report is Underway

KEY EIR TIMELINE
Draft EIR • Fall 2008 through mid-Summer 2009
Public Review/Comment on Draft EIR • Summer 2009
Comments Response • Fall 2009
Final EIR • Fall through Winter 2009
EIR Certification/NOD filing • February 2010

Parallel with the preparation of the CMS/FS and as required by the California

Environmental Quality Act (CEQA), DTSC is preparing a programmatic Environmental Impact Report (EIR) to assess the potential environmental and cultural effects of the remedial alternatives. CEQA is a state law that requires DTSC, as the lead RCRA agency for the environmental investigation and cleanup project at the Topock Site, to consider and disclose the environmental effects of proposed actions before approving them.

The Draft EIR will describe existing conditions in the project area, analyze potential effects by proposed actions, and identify measures to avoid, reduce, or mitigate adverse impacts from the cleanup program.

2011

- Complete Construction of GW Remedy
- RFI/RI Volume 3: Soil

2010

- Complete GW Corrective Measure Implementation Work Plan/Design
- Obtain Approvals for implementation of GW Remedy
- Start Phase 2 Soil Investigation (if required)
- Conduct public review of EIR, Certify EIR (DTSC)
- Issue GW ROD (DOI)

2009

- Complete East Ravine Groundwater Investigation
- Complete RFI/RI Vol. 2 and Addendum
- Complete GW Risk Assessment
- Complete GW CMS/FS
- Complete Phase 1 Soil Data Gaps Evaluation
- Start Phase 2 Soil Investigation Work Plan (if required)
- Public Comment on Proposed Plan (DOI) for Groundwater Remedy
- Public Comment on Statement of Basis (DTSC) for Groundwater Remedy

2008

- Started Groundwater (GW) CMS/FS
- Started EIR
- Started GW Risk Assessment
- Completed Phase 1 Soil Investigations

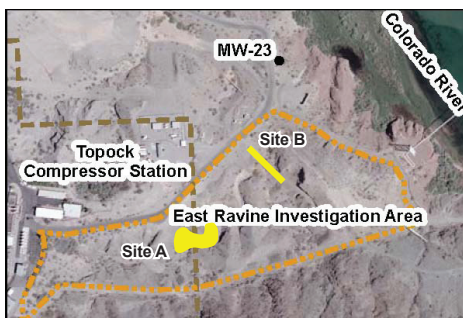
Moving Towards a Milestone on Groundwater Investigation

Historical discharges of wastewater from the Topock Compressor Station to Bat Cave Wash necessitated groundwater investigation activities in the wash and surrounding area, an area also known as the Solid Waste Management Unit No. 1 (SWMU 1)/Area of Concern No. 1 (AOC 1) and SWMU 2. The investigation results for groundwater are documented in the RCRA Facility Investigation/Remedial Investigation (RFI/RI) Volume 2 Report and its Addendum. The agencies' approvals of the RFI/RI Volume 2 Report marked a major milestone for the Topock cleanup project after more than two decades of investigative work. These approvals will enable the CMS/FS process to move forward.

KEY INVESTIGATION REPORT MILESTONES

- RFI/RI Volume 1**
Site Background and History
 • Approved by agencies – 2007
- RFI/RI Volume 2**
Results of Groundwater and Surface Water Investigation
 • Approved by agencies – February 2009
- Addendum to RFI/RI Volume 2**
 • Anticipate final – March 2009

With major portions of the groundwater investigation now complete, PG&E, under the direction of DTSC and DOI, has embarked on an investigation of groundwater in the vicinity of East Ravine (also known as AOC 10), and nearby bedrock monitoring well MW-23. Approval to implement the field work was received from the DOI in November 2008, and a site kick-off meeting was held on January 13, 2009. Fieldwork at the two primary sites (A and B) is anticipated to be completed in March 2009.



Approximate Boundary of the East Ravine Investigation Area

Progress Made on Groundwater Risk Assessment

Groundwater investigation results presented in the RFI/RI Volume 2 Report and its Addendum were used in the risk assessment to evaluate the potential risks to human health or the ecological environment. The Draft Groundwater Risk Assessment Report was submitted to the agencies, CWG, and tribal governments on February 9, 2009.

This report provides information about potential health threats and ecological risks posed by chemically-affected groundwater, and it will assist in risk management decision making. The timeline associated with the Groundwater Risk Assessment Report is shown below.

GROUNDWATER RISK ASSESSMENT REPORT TIMELINE

- Draft**
 • February 2009
- Agencies/CWG Review**
 • Mid-February – Mid-March 2009
- Response to Comments/Revise RA**
 • March 2009
- Agencies/CWG Review**
 • April 2009
- Final RA**
 • May 2009
- Agencies Approval**
 • Early June 2009

Phase 1 of Supplemental Soil Investigation Complete, Data Gaps Evaluation Begins

The first phase of the supplemental soil investigation program at the Topock Site was completed in October 2008. This phase of the program (also known as Part A Phase 1) encompassed ten SWMUs/AOCs located outside of the Topock Compressor Station. Of the ten areas, one area (UA-1 – Potential Pipe Disposal Area) was not investigated, and the technical scope for its investigation is currently being re-evaluated.

More than 700 soil samples were collected from August through October 2008. Data from these samples will be combined with existing soil data to assist in the evaluation of the: (1) nature and extent of contamination in soil, (2) adequacy of data for use in soil risk assessment, (3) potential for impacts to groundwater, and (4) remedial approaches for areas potentially requiring remediation. An outcome of this evaluation will be the identification of "data gaps", if any, that would need to be filled in **Part A Phase 2**.

The **data gaps evaluation** will start in the 1st half of 2009 and will be conducted through several face-to-face meetings. Announcements will be made ahead of time to offer the opportunity to participate and to encourage participation of stakeholders. Results of the data gaps evaluation will be summarized in a Data Gaps Evaluation Technical Memorandum.



Soil Sampling with Direct Push Drill Rig

QUESTIONS REGARDING THIS NEWSLETTER OR THE TOPOCK PROJECT SHOULD BE DIRECTED TO:

Aaron Yue
 DTSC Project Manager
 Phone: (714) 484-5439
 Email: ayue@dtsc.ca.gov

Jeanne Matsumoto
 DTSC Public Participation Specialist
 Phone: (714) 484-5338
 Email: jmatsumo@dtsc.ca.gov