



Mr. Robert Perdue
Executive Officer
California Regional Water Quality Control Board
Colorado River Basin Region
73-720 Fred Waring Drive, Suite 100
Palm Desert, California 92260

Transmitted via email

Subject:

Clarification for the In-Situ Hexavalent Chromium Reduction Pilot Test Work Plan, Upland Plume Treatment, Pacific Gas and Electric Company Topock Compressor Station.

Dear Mr. Perdue:

On behalf of Pacific Gas and Electric Company (PG&E), ARCADIS is submitting this clarification for the *In-Situ Hexavalent Chromium Reduction Pilot Test Work Plan, Upland Plume Treatment (Work Plan)*, dated September 29, 2006. This letter provides clarification to the in situ monitoring program for your convenience, and documents a telephone conversation between Mr. Jose Cortez of the California Regional Water Quality Control Board (Water Board) and Ms. Jessica Ely of ARCADIS held on February 9, 2007. This clarification is applicable to the Waste Discharge Requirements (WDRs) to be issued by the Water Board. The new WDRs will apply to the upland in-situ pilot test only.

As stated in the Work Plan, groundwater samples collected during the two baseline monitoring events will be analyzed for hexavalent chromium, total chromium, total and dissolved iron, calcium, total and dissolved manganese, dissolved arsenic, sodium, nitrate, nitrite, phosphorous, bicarbonate alkalinity, nitrate, total organic carbon (TOC), sulfide, and sulfate. Field parameters, ph, temperature, specific conductance, dissolved oxygen, and oxidation reduction potential (ORP), will also be recorded during the baseline monitoring events. The monthly monitoring events will be identical to the baseline monitoring events. Table 1 presents the monitoring schedule in a concise, summary form.

Groundwater samples collected during the weekly and bi-weekly monitoring events will be analyzed for hexavalent chromium, total chromium, TOC, total and dissolved iron, sulfide and sulfate, rhodamine, and fluorescein. Field parameters, ph, temperature, specific conductance, and ORP will also be recorded during the weekly monitoring events.

ARCADIS-U.S., Inc.
155 Montgomery Street
Suite 1500
San Francisco
California 94104
Tel 415 374 2744
Fax 415 374 2745
www.arcadis-us.com

ENVIRONMENT

Date:

12 February 2007

Contact:

Alison Jones

Phone:

415.374.2744 ext 20

Email:

Alison.Jones@arcadis-us.com

Our ref:

RC000689.0001

If you have any questions regarding the proposed sampling parameters, please call Yvonne Meeks of PG&E at (805) 546-5243, or me at (415) 374-2744 ext 20.

Sincerely,

ARCADIS G&M, Inc.



Alison Jones, PhD, PE
Senior Project Manager
Principal Engineer

Enclosures:

Table 1 Summary of Primary Results

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Mr. Jose Cortez, Water Board
Ms. Liann Chavez, Water Board
Mr. Tom Vandenberg, Water Board
Mr. Christopher Guerre, DTSC

Table 1
Summary of Primary Analytical Parameters
 PG&E Topock
 Needles, California
 Upland Groundwater Monitoring Event Clarification

Parameter	Units	Type of Sample	Baseline	Weekly	Bi-weekly	Monthly
pH	s.u.	Field	x	x	x	x
Temperature	°C	Field	x	x	x	x
Specific Conductance	µS/cm	Field	x	x	x	x
Oxidation Reduction Potential	mV	Field	x	x	x	x
Dissolved Oxygen	mg/L	Field	x			
Reagent: Daily and Total Monthly	gallons	Field		x	x	x
Fluorescein	µg/L	Grab		x	x	x
Rhodamine	µg/L	Grab		x	x	x
Cr(VI)	µg/L	Grab	x	x	x	x
Cr(Total)	µg/L	Grab	x	x	x	x
Arsenic	µg/L	Grab	x			x
Calcium	mg/L	Grab	x			x
Iron (Total)	mg/L	Grab	x	x	x	x
Iron (Dissolved)	mg/L	Grab	x	x	x	x
Manganese (Total)	µg/L	Grab	x			x
Manganese (Dissolved)	µg/L	Grab	x			x
Potassium	mg/L	Grab	x			x
Sodium	mg/L	Grab	x			x
Chloride	mg/L	Grab	x			x
Nitrate	mg/L	Grab	x			x
Nitrite	mg/L	Grab	x			x
Phosphorous (as phosphate)	mg/L	Grab	x			x
Sulfate	mg/L	Grab	x	x	x	x
Sulfide	mg/L	Grab	x	x	x	x
Bicarbonate alkalinity	mg/L	Grab	x			x
Total organic carbon	mg/L	Grab	x	x	x	x

Notes:

s.u. standard unit
 °C degrees Celsius
 µmhos/cm microsiemens per liter
 µg/L micrograms per
 mg/L milligrams per
 mV millivolts