



Linda S. Adams
Secretary for
Environmental Protection



Department of Toxic Substances Control

Maureen F. Gorsen, Director
5796 Corporate Avenue
Cypress, California 90630



Arnold Schwarzenegger
Governor

Sent Via Email

July 14, 2008

Ms. Yvonne Meeks
Portfolio Manager – Site Remediation
Pacific Gas and Electric Company
4325 South Higuera Street
San Luis Obispo, CA 93401

MODIFICATIONS TO HYDRAULIC DATA COLLECTION FOR THE INTERIM MEASURES PERFORMANCE MONITORING PROGRAM AT PACIFIC GAS AND ELECTRIC COMPANY (PG&E), TOPOCK COMPRESSOR STATION, NEEDLES, CALIFORNIA (EPA ID NO. CAT080011729)

Dear Ms. Meeks,

The Department of Toxic Substances Control (DTSC) has completed our review of the PG&E 2008 proposal to reduce the collection of hydraulic data from select groundwater monitoring wells under the current performance monitoring plan for Interim Measures in the floodplain area. As a result of our review, DTSC approves the modification except as recommended by the Geological Services Unit (GSU) in the attached memorandum. In addition to the wells to be retained as proposed, PG&E shall also retain the collection of transducer measurements at wells specified by the GSU.

If you have any questions regarding this conditional approval, please contact me at (714) 484-5439.

Sincerely,

Project Manager
Geology, Permitting and Corrective Action Branch

Enclosures

cc: See Next Page

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cc: PG&E Topock Consultative Workgroup Members – Via e-mail
PG&E Topock Geo/Hydro Technical Workgroup Members – Via e-mail
Tribal Representatives in PG&E Contact List – Via e-mail



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TO: Aaron Yue
Project Manager
Geology and Remediation Engineering

FROM: Chris Guerre, CHG 
Senior Engineering Geologist
Geological Services Unit, Cypress Office

DATE: July 9, 2008

SUBJECT: Modifications to Hydraulic Data Collection for the Interim Measures
Performance Monitoring Program. Pacific Gas and Electric (PG&E)
Company Topock Compressor Station, Needles, California
PCA 22120 WP 540015-48/36 WR 740668

INTRODUCTION

The Geological Services Unit (GSU) of the Department of Toxic Substances Control (DTSC) reviewed PG&E's proposals to modify the hydraulic data collection within select wells included in the current Performance Monitoring Plan (PMP) for Interim Measures in the floodplain area. PG&E initially requested to modify the PMP on August 23, 2006 (CH2M Hill, 2006). This request included removing 13 wells from transducer monitoring and conducting transducer data downloads and office processing on a monthly schedule rather than more frequent bi-weekly events. PG&E's 2006 proposal was subsequently updated (CH2M Hill, 2008d and 2008e) and now includes eliminating a total of 18 wells from transducer monitoring in addition to monthly data downloads. Wells that PG&E are proposing to drop from transducer monitoring are summarized in Table 1 at the end of this memorandum along with PG&E's rationale for eliminating transducer data collection at the well.

GSU concerns with PG&E's proposal were discussed with PG&E and CH2M Hill on June 20, 2008 during a weekly technical call. As a result of this discussion, CH2M Hill provided additional information via email on June 26, 27, and July 3, 2008 (CH2M Hill, 2008a, 2008b, and 2008c). The June 26, 2008 correspondence modified the proposal by eliminating well MW-32-20 instead of MW-32-35. CH2M Hill (2008c) indicates that well MW-32-35 is screened predominantly in the shallow zone / upper interval of the aquifer; involves a water level salinity correction of less magnitude than MW-32-20; and tracks well with shallow zone water levels. The June 27 and July 3 submittals included

updated well screen elevations for wells in the PMP area and supporting water level data for wells MW-29 and MW-30-30 (CH2M Hill, 2008a, 2008b).

Recommendations: The GSU concurs with the proposed modifications with the following exceptions or clarifications:

- Retain transducer measurements in well MW-22 as it is used to contour the southern portion of the shallow aquifer (see Figure 2-3 in the 2007 Annual PMP Report (CH2M Hill, 2008e)). Transducer monitoring is also currently conducted at this well as part of hydraulic investigations related to well MW-23.
- Retain transducer monitoring in well MW-29 due to detections of chromium in shallow wells adjacent to MW-29. While the data package indicates that the hydraulic response in MW-29 is muted, groundwater elevation fluctuations still track with the river and nearby wells and the data are not always dropped from contouring (CH2M Hill, 2008a).
- Concur with retaining transducer monitoring in well MW-32-35 instead of well MW-32-20. Well MW-32-35 is screened predominantly in the upper interval and is used for contouring the shallow aquifer (see Figure 2-3 in the 2007 Annual PMP Report (CH2M Hill, 2008e)). During discussions with DTSC, CH2M Hill clarified that there is greater probability of a more accurate water level elevation calculation in wells that are less saline (i.e., well MW-32-35). Well MW-32-20 is also redundant with MW-32-35 as the data from MW-32-20 tracks well with MW-32-35 (see Figure D-1H in the 2007 Annual PMP Report (CH2M Hill, 2008e)). DTSC notes that the transducer data from well MW-32-20 was not recently used for groundwater elevation contouring (see Figure 2-3 in the 2007 Annual PMP Report (CH2M Hill, 2008e)).
- Retain transducer monitoring in well MW-50-95 as the well appears to be used for mid-depth contouring in an area where wells are sparsely located (see Figure 2-4 in the 2007 Annual PMP Report (CH2M Hill, 2008e)).
- Retain transducer monitoring in well MW-46-175 to monitor hydraulics in this contaminated well along the margin of the plume near the river.

In summary, the GSU concurs with dropping 14 of the 18 wells identified in Table 1 of this memorandum along with conducting transducer data downloads and office processing on a monthly schedule. Wells MW-22, MW-29, MW-46-175, MW-50-95, and MW-32-35 should be retained in the PMP transducer program.

Questions regarding this memorandum should be directed to Chris Guerre at (714) 484-5422 or by email at cguerre@dtsc.ca.gov.

Table 1: Wells Proposed by PG&E to be Eliminated from Transducer Measurements (CH2M Hill, April 9, 2008)

Well/Station	PG&E Remarks/ Rationale	Well/Station	PG&E Remarks/ Rationale
1. MW-10	Interior well not needed to demonstrate landward gradients for PMP	10. MW-43-75	Redundant with MW-43-90; screened partially in both MA and LA intervals
2. MW-19	Interior well not needed to demonstrate landward gradients for PMP	11. MW-46-175 _R	Monitors deeper portion of LA-3 interval; not used for LA gradient map
3. MW-22 _R	Very shallow well outside of plume; not needed for PMP gradient contouring	12. MW-46-205	Monitors deeper portion of LA-3 interval; not used for LA gradient map
4. MW-29 _R	Well completion in floodplain silt; not representative or used for UA ¹ contouring	13. MW-49-275	Monitors LA-4 interval; too deep for gradient contouring (LA control provided by MW-49-135)
5. MW-30-30	Well completion in high saline zone; not used for UA contouring	14. MW-49-365	Monitors LA-4 interval; too deep for gradient contouring; very saline groundwater (LA control provided by MW-49-135)
6. MW-32-35 ²	Screened in both UA and MA ³ intervals; redundant well with MW-32-20	15. MW-50-200	Monitors deeper portion of LA-3 interval; not used for LA gradient map
7. MW-42-55	Redundant well with MW-42-65 (screen intervals are equivalent)	16. TW-2D	40-foot well screen (not comparable to other PMP wells); monitors LA-2 interval
8. MW-50-95 _R	Data does not fit Mid-depth contour maps	17. TW-4	40-foot well screen (not comparable to other PMP wells); monitors LA-2 interval
9. MW-33-210	Monitors LA-3 interval; too deep for gradient contouring (LA ⁴ control provided by MW-33-150)	18. TW-5	40-foot well screen (not comparable to other PMP wells); monitors LA-2 interval

¹ UA = Upper Interval

² PG&E proposed to retain MW-32-35 and eliminate MW-32-20 since MW-32-20 is more saline and MW-32-35 tracks well with shallow zone water levels (CH2M Hill, June 26, 2008).

³ MA = Mid-Depth

⁴ LA = Lower Interval

R = Retain well for transducer monitoring as recommended by this memorandum.

Aaron Yue
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REFERENCES

CH2M Hill, July 3, 2008a. Water level data for MW-29 and MW-30-30. Email from Martin Barackman to Chris Guerre.

CH2M Hill, June 27, 2008b. FW: Updated PMP screen graph for Chris G. Email from Jay Piper to Chris Guerre.

CH2M Hill, June 26, 2008c. Topock - Historical hydraulic data for MW-29 and MW-30; MW-32 data collection. Email from Jay Piper to Chris Guerre.

CH2M Hill, April 9, 2008d. Modifications to the Topock Groundwater Monitoring Program and the Interim Measures Performance Monitoring Program, PG&E Topock Compressor Station, Needles, California.

CH2M Hill, March 14, 2008e. Performance Monitoring Report for Fourth Quarter 2007 and Annual Performance Evaluation, February 2007 through January 2008. Interim Measures Performance Monitoring Program, PG&E Topock Compressor Station, Needles, California.

CH2M Hill, August 23, 2006. Proposal for Modifying Hydraulic Data Collection for the IM Performance Monitoring Program. PG&E Topock Compressor Station.