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February 5, 2014

Mr. Mike Robertson
Gas Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission
320 West 4th Street, Suite 500
Los Angeles, CA. 90013

Re: State of California – Public Utilities Commission
General Order 112-E Gas Audit – PG&E’s Hinkley District

Dear Mr. Robertson:

The Safety and Enforcement Division (SED) conducted a General Order 112-E audit of PG&E’s Hinkley District from September 9-13, 2013. On December 23, 2013, the SED submitted its audit report, identifying violations and findings. Attached is PG&E’s response to the CPUC audit report.

Please contact Charles Chang at (925) 328-5727 or CYC8@pge.com for any questions you may have regarding this response.

Sincerely,

/S/

ChristiAne Mason

Attachments

cc: Terence Eng, CPUC
Dennis Lee, CPUC
Liza Malashenko, CPUC

Sumeet Singh, PG&E
Larry Deniston, PG&E
Bill Gibson, PG&E
Larry Berg, PG&E

**General Order 112-E Findings
CPUC Inspection Report December 2, 2013
Hinkley District**

INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
September 9-13, 2013	Internal Review	Terence Eng	(415) 703-5326

INSPECTION FINDING

CPUC Finding	<p>A. PG&E's Internal Audit Findings</p> <p>Prior to the start of the audit, PG&E provided SED its findings from the internal review it conducted of the District. Some of PG&E's internal review findings are violations of PG&E's operations and maintenance standards, and are therefore violations of Title 49 Code of Federal Regulations (CFR), §192.13(c).</p> <p>SED is aware that PG&E corrected some of its findings prior to SED's audit. Please provide SED an update on the items that were still pending corrective actions as of October 9, 2013.</p> <p>Table 1: Findings from PG&E's Internal Review</p> <table border="1"> <thead> <tr> <th>Topic</th> <th>Code</th> <th>Finding</th> <th>Instances</th> <th>Corrected?</th> </tr> </thead> <tbody> <tr> <td rowspan="8">Emergency Valves</td> <td>192.13(c)</td> <td>Outdated valve cards were used.</td> <td>Not specified</td> <td>Yes</td> </tr> <tr> <td>192.13(c)</td> <td>Actuator maintenance forms were not being utilized for all valve actuators.</td> <td>Not specified</td> <td>Yes</td> </tr> <tr> <td>192.13(c)</td> <td>Valve cards were missing supervisors' reviews.</td> <td>11</td> <td>Yes</td> </tr> <tr> <td>192.13(c)</td> <td>Additions & corrections were made with no initials.</td> <td>36</td> <td>Yes</td> </tr> <tr> <td>192.605(a)</td> <td>Valves did not get lubed during the annual or semi-annual maintenance.</td> <td>10</td> <td>Yes</td> </tr> <tr> <td>192.745</td> <td>Valves were not operated during annual or semi-annual maintenance, maintenance completely missed, and/or maintenance was completed outside the 15 month window.</td> <td>67</td> <td>Yes</td> </tr> <tr> <td>192.13(c)</td> <td>Valves were listed as hard to operate with no work requests associated with them.</td> <td>6</td> <td>Yes</td> </tr> <tr> <td>192.13(c)</td> <td>Valve cards were missing pressure rating.</td> <td>2</td> <td>To be completed by 11/29/13</td> </tr> <tr> <td rowspan="2">Station Maintenance</td> <td>192.605(a)</td> <td>O&MI Log for Pisgah missing 2011 & 2012 OM&I review documentation.</td> <td>2</td> <td>Yes</td> </tr> <tr> <td>192.605(a)</td> <td>O&MI Log for Mojave Filter Separator has no 2009-2012 O&MI review documentation.</td> <td>4</td> <td>Yes</td> </tr> </tbody> </table>				Topic	Code	Finding	Instances	Corrected?	Emergency Valves	192.13(c)	Outdated valve cards were used.	Not specified	Yes	192.13(c)	Actuator maintenance forms were not being utilized for all valve actuators.	Not specified	Yes	192.13(c)	Valve cards were missing supervisors' reviews.	11	Yes	192.13(c)	Additions & corrections were made with no initials.	36	Yes	192.605(a)	Valves did not get lubed during the annual or semi-annual maintenance.	10	Yes	192.745	Valves were not operated during annual or semi-annual maintenance, maintenance completely missed, and/or maintenance was completed outside the 15 month window.	67	Yes	192.13(c)	Valves were listed as hard to operate with no work requests associated with them.	6	Yes	192.13(c)	Valve cards were missing pressure rating.	2	To be completed by 11/29/13	Station Maintenance	192.605(a)	O&MI Log for Pisgah missing 2011 & 2012 OM&I review documentation.	2	Yes	192.605(a)	O&MI Log for Mojave Filter Separator has no 2009-2012 O&MI review documentation.	4	Yes
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		192.605(a)	O&MI Log for the Hinkley Compressor Station has no 2009-2012 O&MI review documentation.	4	Yes
		192.13(c)	K-10 RV-260J and K-12 RV-260L are missing 2011 normal reset pressure maintenance documentation on the relief valve maintenance forms.	2	Yes
		192.13(c)	K-10 RV-260J and K-12 RV-202L: The 2011 & 2012 maintenance is documented on outdated forms.	4	Yes
		192.13(c)	Victorville B tap 2012 maintenance documents are missing supervisor's review.	1	To be completed by 9/30/13
	Odorization	192.603(b)	Incomplete and/or inaccurate odorization was documented.	40	To be completed by 11/29/13
	Patrols	192.13(c)	Aerial Patrol Report indicates pilot observations with no follow-up actions documented.	1	Yes
	Cathodic Protection	192.603(b)	Annual site evaluation forms for rectifiers HNCPA0480 (carpenter shop) and HNCPA0490 (B-Tower large rectifier) for 2009-2012 are missing.	8	Yes
		192.13(c)	Action Plans for L-300A M.P. 180.64A, L-300B M.P. 175.17B, L-314 M.P. 35.55 and L-300A M.P. 186.09A are out of compliance due to >30 day review periods.	4	Yes
		192.13(c)	Action Plan for M.P. 197.13A BDV is missing the action plan update, review Lan IDs, and initials.	1	To be completed by 10/31/13
	Spans	192.13(c)	L-300A M.P. 120.95 - 146.41 span inspection record has corrections that are not initialed.	1	Yes
		192.13(c)	2011 L-300A M.P. 108.39 - 226.67 & 2012 L-300A M.P. 120.95 - 148.60 span inspection records are missing supervisor's reviews.	2	Yes
		192.603(b)	2009 L-300A span inspections were not documented on the span inspection forms.	9	Yes
		192.603(b)	2011 L-300B span inspection records are missing five inspection forms and the 2012 L-300B span inspection records are missing six inspection forms.	11	Yes

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	Leak Survey	192.13(c)	During 2009 through 2012, leaks were rechecked late.	106	Yes
		192.13(c)	Three leak repairs were missing repair information and/or had incomplete form.	3	To be completed by 11/29/13
	Equipment Calibrations	192.13(c)	Weekly calibration check of flame ionization unit 1500832004 was missing readings in 2009 for Oct, Nov, & Dec with no notes indicating why.	3	To be completed by 11/29/13
		192.13(c)	Unit 1500832005 was missing data in several months in 2009 and 2010 with no notes indicating that it was not in use.	Not specified	To be completed by 11/29/13
		192.13(c)	Unit 9866 has no May-Dec 2012 data and no notes indicating why. Also missing data for Dec 2011, [Sept, Oct & Dec 2010] & [Oct & Dec 2009].	14	To be completed by 11/29/13
		192.13(c)	Unit 9918 has no May-Dec 2012 data and no notes indicating why. Also missing Dec 2009 data & weekly dates for Jan, Feb and March.	12	To be completed by 11/29/13
		192.13(c)	Unit 8000639001 has no Oct-Dec 2010 data. Unit appears to have been taken out of service but there are no notes indicating that.	3	To be completed by 11/29/13
		192.13(c)	No Multi-meter Manufacturer / Model or Serial Numbers on the Calibration Check of Copper-Copper Sulfate Reference Electrodes forms.	8	To be completed by 11/29/13

PG&E RESPONSE

As described below, all corrective actions for PG&E’s internal review findings have been completed as of January 22, 2014, with the exception of recording pressure ratings for two valve cards.

Emergency Valves

PG&E recently completed its MAOP Validation effort and is in the process of communicating asset data to its maintenance organizations to input on appropriate records, including valve maintenance cards. For these two valves, PG&E has not identified records to verify pressure ratings. These valves will be addressed through a corrective action plan that is being developed to determine appropriate risk-based priorities and actions.

Station Maintenance

“Victorville B Tap” was reviewed for accuracy and completeness by the supervisor on

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September 9, 2013 (See Attachment 1).

Odorization

A refresher briefing reviewing odorization reports was given to Hinkley District employees on January 15, 2014. The updated form is now being used (See Attachment 2).

Cathodic Protection

The action plan for M.P. 197.13A BDV has been updated and reviewed (See Attachment 3).

Leak Survey

The three leak repairs forms were updated with repair data on January 31, 2014 (See Attachments 4-6).

Equipment Calibrations

A refresher briefing reviewing calibration and documentation procedures was given to Hinkley District employees on January 14, 2014 (See Attachment 7). Missing multi-meter data was added to appropriate documents on January 22, 2014. To prevent recurrence, the District is dedicating one specific multi-meter to use for the Copper-Copper Sulfate Reference Electrodes calibrations.

ATTACHMENTS

Attachment #	Title or Subject
1	Victorville B Tap Maintenance
2	Refresher Briefing and Form - Odorization
3	Action Plan MP197.13A
4	Leak 98-08-31402-1
5	Leak 98-08-31403-1
6	Leak 98-08-31404-1
7	Refresher Briefing - Forms and Calibration

ACTION REQUIRED

Action To Be Taken	Due Date	Responsible Dept.
Develop action plan to specify pressure rating of valves.	April 30, 2014	Gas T&D Operations

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INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
September 9-13, 2013	NOV-1	Terence Eng	(415) 703-5326

INSPECTION FINDING

CPUC Finding	<p>B. Audit Findings and Violations</p> <p>1 <u>Title 49 CFR §192.13(c) states:</u></p> <p style="padding-left: 40px;"><i>“Each operator shall maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part.”</i></p> <p>1.1 PG&E’s Standard M-50.3 Verifying the Calibration of Portable Combustible Gas Indicators, Hydrogen Flame Ionization Units, Optical Methane Detectors, and Remote Methane Leak Detectors states in part:</p> <p>1.1.1 Page 1: <i>“If the calibration is not within the allowable limits, send the instrument to an approved service provider for adjustment or repair.”</i></p> <p style="padding-left: 40px;">The District recorded a reading of 106 parts per million (ppm) on Detecto-Pak 4 (DP4) Serial number 1500832004 on 04/08/2012, outside of the calibration limit (95-105 ppm). The District failed to send the instrument to an approved service provider for adjustment or repair.</p> <p>1.1.2 Page 1: <i>“Check the calibration of regularly used CGI gas detectors at least once a month while the units are in service. All units not in use for the respective month shall be noted as out of service.”</i></p> <p style="padding-left: 40px;">The District failed to calibrate the following RGI-201 Combustible Gas Indicators (CGI) during the indicated months, as listed in Table 2.</p> <p style="text-align: center;">Table 2: CGIs with Missed Calibration</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Serial Number</th> <th>Month(s)</th> </tr> </thead> <tbody> <tr> <td>1115-060841</td> <td>Aug, Oct, Nov, Dec of 2011</td> </tr> <tr> <td>1120-060996</td> <td>Aug 2011, Apr 2012</td> </tr> <tr> <td>1120-060999</td> <td>Aug 2011</td> </tr> </tbody> </table> <p>1.1.3 Page 3: <i>“Record the weekly calibration checks on the “Weekly Calibration Check of Flame Ionization Unit” form, for OMDs on the “Weekly Calibration Check of Optical Methane Detector” form, or for RMLDs on the “Monthly Remote Methane Leak Detector Daily Self-Test</i></p>	Serial Number	Month(s)	1115-060841	Aug, Oct, Nov, Dec of 2011	1120-060996	Aug 2011, Apr 2012	1120-060999	Aug 2011
Serial Number	Month(s)								
1115-060841	Aug, Oct, Nov, Dec of 2011								
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and Calibration Log” form.

The District failed to calibrate Remote Methane Leak Detector (RMLD) Serial number 8000639001 weekly during the indicated months, as listed in Table 3.

Table 3: RMLD with Missed Calibration

Ye ar	Months
20 09	Jan, Feb, Mar, May, Jun, Sep, Oct, Dec
20 10	Each month except for Oct
20 11	Jan, Feb, Mar, Apr, Jul, Sep

1.2 PG&E’s Standard M-60.2 Mark-and-Locate Instrument Calibration and Repair (Instruments Used For USA Purposes) states in part:

1.2.1 Page 1 (Verification Procedure): *“Perform this procedure and document it on Attachment A:
A. Once each calendar month”*

The District failed to calibrate the following Metrotech 9890 XT line locators during the indicated months listed in Table 4.

Table 4: Line Locators with Missed Calibration

Serial Number	Months
17464	2011: Jun; 2012: Nov, Dec
22128	2011: Jun; 2012: Jun, Oct, Nov
22191	2012: Jun, Nov
22753	2011: Jan, Aug, Sep, Oct, Nov; 2012: Feb, Jun, Nov
23072	2012: Jun, Oct, Nov
23746	2012: Jun, Sep, Nov
50972	2011: Dec; 2012: Jun, Jul, Aug, Sep, Nov
50973	2011: Dec; 2012: Feb, Mar, Jun, Jul, Aug, Sep, Oct, Nov, Dec

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1.2.2 Page 2: *“17. Conduct a three-part test to verify the calibration.*

A. Evaluate the signal strength....

(3) Record the signal strength on Attachment A.”

The District failed to record the baseline signal strength for the following Metrotech 9890 XTs on the line locator forms for the following years listed in Table 5.

Table 5: Line Locators with Missed Baseline Strength

Serial Number	Year(s)
17464	2012
22128	2012
22191	2009, 2012
22753	2009, 2010, 2011, 2012
23072	2012
23746	2009, 2010, 2011, 2012
50972	2012
50973	2012

1.3 PG&E’s Standard O-16, Corrosion Control of Gas Facilities states in part:

1.3.1 Page 7: *“A “Rectifier Test and Site Evaluation” form (Attachment A of Numbered Document O-11.1, Form FO-11.1-A) shall be completed to ensure that rectifiers are functioning correctly and that there are no safety violations.”*

Form FO-11.1-A implies that if PG&E finds the ground resistance to be above 25 ohms, it is required to verify the integrity of all grounding connections.

The District annually documented ground resistance readings of greater than 25 ohms at the following rectifier locations listed below, but failed to verify the integrity of all grounding connections.

- a. Serial # 85J1173 on L-300 @ Milepoint (MP) 214.52 since 03/2009
- b. Serial # 941263 on L-314 @ MP 35.5 since 06/2009
- c. Serial # 941265 on L-300B @ MP 150.01 from 07/2010 to 10/2012.
- d. Serial # 101618 on L-314 @ MP 10.69 since 01/2011
- e. Serial # 962134 on L-314 @ MP 28.00 since 08/2011
- f. Serial # 091292 on L-313 @ MP 21.5 since 08/2011

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1.3.2 Page 7 (Rectifier Monitoring and Maintenance): *“If corrective work is expected to take more than 30 days to complete, a written action plan must be created and kept current using the “CPA Follow-Up Action Plan” form (Attachment B). Active action plans shall be kept with the “Rectifier Test and Site Evaluation” form.”*

- a. The District found that the following 2 rectifiers listed in Table 6 required corrective work expected to take more than 30 days to complete, but failed to create a written action plan for either rectifier.

Table 6: Rectifiers with no Written Action Plan

Facility ID	Milepoint	Inadequate Date	Restore Date
HNCPS0470	130	7/8/2011	3/4/2012
HNCPS0370	160.86	11/2/2011	3/4/2012

- b. The District found Rectifier L-313 MP 21.67 unable to output amperage beginning January 2013. During SED’s field visit, the District confirmed that the rectifier was still down – it recorded the output amperage at 0.001A. The District failed to create an action plan within 30 days of discovery.

1.3.3 Page 11-12 (Cathodic Protection Restoration for Backbone Transmission and Gathering Lines): *“If the CPA restoration work is (or is expected to be) over 60 days, the “CPA Follow-Up Action Plan” form (Attachment B or equivalent) must be used and developed within 60 calendar days from the date the CPA is found below adequate levels of protection, as defined by the current 49 CFR 192, Subpart I.*

- a. The District found Hinkley Comp Station, MP 160.1 (A-intake), to have inadequate levels of cathodic protection in November 2012. The District created an action plan June 2013, failing to meet the 60 day requirement. SED confirmed the area was still down during its field visit – when it observed the District record a pipe-to-reading of -.422V.
- b. The District found that the nine test points listed in Table 7 required remediation, but failed to create an action plan for each Cathodic

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Protection Area (CPA).

Table 7: Test Points in CPA Areas with no Action Plan

Facility ID	Milepoint	Inadequate Date	Restore Date	Interval (days)
HNCPS3350	112.97	11/23/2010	2/15/2011	84
HNCPS4040	170.62	11/26/2011	11/26/2012	366
HNCPS4230	192.31	11/17/2010	1/7/2012	416
HNCPS5730	202.98	11/17/2010	3/28/2011	131
HNCPS5730	202.98	11/28/2011	4/23/2012	147
HNCPS5740	203.06	11/17/2010	3/28/2011	131
HNCPS6000	203.06	11/28/2011	7/23/2012	238
HNCPS5750	203.07	11/17/2010	3/28/2011	131
HNCPS5800	210.64	11/17/2010	3/28/2011	131

- c. The District failed to create action plans within 60 days for CPAs with inadequate levels of cathodic protection as shown in Table 8.

Table 8: Late Creation of Action Plans

Line Number	Milepoint	Inadequate Date	Date of Action Plan	Interval (days)
L-300B	175.17	11/26/2011 ¹	2/1/2012	67
L-300A	180.64	11/9/2008	2/25/2009	108
L-300A&B	180.9	11/9/2008	2/24/2010	472
L-300A	186.09	11/18/2010 ²	2/1/2012	440
L-300A	197.13	11/27/2011	10/4/2012	312

1.3.4 Page 12: *“The action plan shall be updated in intervals not exceeding 60 calendar days by an employee knowledgeable of the restoration work and reviewed by the operating supervisor, until the CPA restoration work is completed and the CPA shows adequate levels of protection. If the action plan exceeds 120 days, the action plan needs to be reviewed and approved by corrosion engineering personnel, area superintendent, and manager of technical services within 150 days.”*

- a. The District created an action plan for a CPA with inadequate levels of cathodic protection. The District failed to review the action plan

¹ Actual date the test point was down was on 11/26/11, not 1/29/12 as shown on the action plan

² Actual date the test point was down was on 11/18/10, not 1/21/12 as shown on the action plan

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within 60 calendar days as indicated in Table 9.

Table 9: Late Action Plan Review

Line Number	Milepoint	Date of Action Plan	Dates Between Updates	Interval (days)
L-300B	175.17	2/1/2012	8/4/12-11/26/12	114

1.3.5 Page 15: *“Aboveground pipeline facilities shall be inspected for atmospheric corrosion annually. The inspection and action taken shall be documented according to the appropriate numbered documents.”*

The District failed to inspect the following L- 300A pipeline spans for atmospheric corrosion in 2012.

- a. MP 222.16
- b. MP 223.79
- c. MP 229.36
- d. MP 226.55

1.4 PG&E’s Standard O-71 Copper-Copper Sulfate Reference Electrodes states in part:

Page 2: *“Check each reference electrode for calibration four times each calendar year, not to exceed 4-1/2 months.”*

The District failed to calibrate the following MCM RE-5C copper-copper sulfate reference electrodes at least four times a year during the years listed in Table 10.

Table 10: Copper-Copper Sulfate Reference Electrodes with Missed Calibration

Identifier	Year
Cruz	2012
Goff	2011, 2012
Schmitt	2012
Segesman	2011, 2012

1.5 PG&E’s Utility Procedure TD-4110P-09, Leak Grading and Response, page 11, states in part:

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	<p><i>“Recheck Grade 3 leaks during the next scheduled survey.”</i></p> <p>Furthermore,</p> <p>Title 49 CFR §192.706 states in part:</p> <p><i>“Leakage surveys of a transmission line must be conducted at intervals not exceeding 15 months, but at least once each calendar year.”</i></p> <p>a. The District checked Grade 3 leak number 10-30035-1 on 4/27/11 and subsequently on 8/10/12, spanning an interval of over 15 months. The District failed to recheck this leak during the leak survey that took place between the two dates.</p> <p>b. The District checked Grade 3 leak number 10-88373-4 on 11/7/10 and subsequently on 8/9/13, spanning an interval of over 15 months. The District failed to recheck this leak during the leak survey that took place between the two dates.</p> <p>1.6 PG&E’s Utility Procedure TD-4412P-07, Patrolling Pipelines and Mains dated August 2012, section 4.2.1.b on Page 11 states in part:</p> <p><i>“Follow-up actions to aerial observations may require additional documentation. See Section 4.2.4.b. for details.”</i></p> <p>4.2.4.b states in part:</p> <p><i>“Investigations of Aerial Observations</i></p> <p><i>When an aerial observation is reported to the M&C supervisor, the M&C supervisor must respond in one of two ways:</i></p> <p><i>EITHER</i></p> <ul style="list-style-type: none"> <i>• The M&C supervisor provides a copy of documentation illustrating that the aerial observation does not require additional follow-up, attaches this documentation to the completed "Aerial Patrol Report," and provides this documentation to the PPPO as soon as practicable,</i> <p><i>OR</i></p> <ul style="list-style-type: none"> <i>• The M&C supervisor dispatches a targeted ground patrol as soon as practicable (given the urgency of the response required) to investigate the area observed by the aerial patrol pilot.</i> <i>• When targeted ground patrols are conducted, they should be sufficient enough in scope to account for the aerial approximation of the observation's location on the ground.</i>
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- *Follow the standard procedure for routine ground patrol within the area determined necessary for patrol.*

While performing an aerial patrol on Nov. 14, 2012, the District noted indications of excavation on its Line 300B right-of-way. The District failed to respond to the observation in accordance with PG&E’s procedure.

1.7 PG&E’s Utility Work Procedure WP4540-01 District Regulator Station Maintenance states in part:

Page 13: *“B. Supervisors must review and approve all records for work performed at each district regulator station within 30 days of completion of maintenance.”*

The District failed to review the following records of maintenance performed at regulator station Barstow “D” 154.70A within 30 days of completion, as shown in Table 11.

Table 11: Late Supervisor Review of a District Regulator

Maintenance Date	Supervisor Review Date	Interval (Days)
11/5/2009	8/21/2013	1385
11/6/2009	11/20/2010	379

1.8 PG&E’s Utility Work Procedure TD4540-04 Pilot-Operated Regulator Station Maintenance (Outlet Pressure > 60 psig) states in part:

- 1.8.1 Page 12: *“E. On the back of Form TD-4540P-04-F02, show any corrective work that was done. This corrective work may include the following: Any regulator, monitor, or relief valve set point changes. Specify the reasons for the changes.”*

According to PG&E’s Form TD-4540P-04-F02 for regulator station Barstow A (Barstow MP 151.06A), the District found the regulator set to operate at 205 psig on 1/13/11. The District subsequently left the regulator to operate at a set-point of 115 psig on the same day, while failing to specify a reason for the change on the form.

- 1.8.2 Page 12: *“F. On the back of Form TD-4540P-04-F02, note the reasons for any maintenance record items whose results are “no,” “poor,” or “fail” on the front of the form.”*

According to PG&E’s Form TD-4540P-04-F02 for regulator station Barstow A (Barstow MP 151.06A), the District noted that the regulator

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	<p>was unable to lockup on 1/13/11, yet failed to note the reason.</p> <p>1.8.3 Page 13: <i>“B. Supervisors must review and approve all records for work performed at each district regulator station within 30 days of completion of maintenance.”</i></p> <p>The District failed to review pilot-operated regulator maintenance records listed within 30 days of completion. Examples are as listed below in Table 12.</p> <p style="text-align: center;">Table 12: Late Supervisor Review of Pilot-Operated Regulators</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Location</th> <th style="text-align: center;">Maintenance Date</th> <th style="text-align: center;">Supervisor Review Date</th> <th style="text-align: center;">Interval (Days)</th> </tr> </thead> <tbody> <tr> <td>Trona Tap MP 180.64A</td> <td style="text-align: center;">8/19/2011</td> <td style="text-align: center;">8/21/2013</td> <td style="text-align: center;">733</td> </tr> <tr> <td>Lucerne Tap</td> <td style="text-align: center;">11/8/2011</td> <td style="text-align: center;">2/6/2013</td> <td style="text-align: center;">456</td> </tr> <tr> <td>Mojave Meter 218.73A</td> <td style="text-align: center;">2/6/2012</td> <td style="text-align: center;">8/21/2013</td> <td style="text-align: center;">562</td> </tr> <tr> <td>Harper Lake</td> <td style="text-align: center;">2/12/2012</td> <td style="text-align: center;">3/22/2013</td> <td style="text-align: center;">404</td> </tr> <tr> <td>Victorville ‘G’</td> <td style="text-align: center;">4/27/2012</td> <td style="text-align: center;">8/25/2013</td> <td style="text-align: center;">485</td> </tr> <tr> <td>N-74 Big Bear “B”</td> <td style="text-align: center;">5/4/2012</td> <td style="text-align: center;">8/21/2013</td> <td style="text-align: center;">474</td> </tr> <tr> <td>Mojave Meter 218.73A</td> <td style="text-align: center;">2/4/2013</td> <td style="text-align: center;">6/13/2013</td> <td style="text-align: center;">495</td> </tr> <tr> <td>Rabbit Spring V.V.”E”</td> <td style="text-align: center;">2/8/2013</td> <td style="text-align: center;">8/21/2013</td> <td style="text-align: center;">194</td> </tr> </tbody> </table>	Location	Maintenance Date	Supervisor Review Date	Interval (Days)	Trona Tap MP 180.64A	8/19/2011	8/21/2013	733	Lucerne Tap	11/8/2011	2/6/2013	456	Mojave Meter 218.73A	2/6/2012	8/21/2013	562	Harper Lake	2/12/2012	3/22/2013	404	Victorville ‘G’	4/27/2012	8/25/2013	485	N-74 Big Bear “B”	5/4/2012	8/21/2013	474	Mojave Meter 218.73A	2/4/2013	6/13/2013	495	Rabbit Spring V.V.”E”	2/8/2013	8/21/2013	194
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PG&E RESPONSE

PG&E’s responses to NOV-1 and corresponding corrective actions are described in the subsections below. Preventative actions that apply to multiple findings are summarized at the end of this section.

1.1.1

PG&E agrees with this finding. The District did not remove this instrument from service. Subsequent calibrations were all within calibration tolerances. To prevent recurrence, refresher briefings were given to Hinkley District employees on September 5, 2013 and January 15, 2014, reviewing the criteria for documenting the calibration of instruments (See Attachment 7).

1.1.2

PG&E agrees that the calibrations of these instruments were not properly documented on the calibration forms. However, PG&E personnel referenced timesheets, as well as

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electronic documentation in the form of Pipeline Maintenance (PLM) reports, to confirm that the work was completed for the instruments in the specified months, except for CGI 1120-060996 in April 2012 (See Attachment 8).

1.1.3

PG&E agrees that the calibration of this instrument was not properly documented. The RMLD (#8000639001) has since been transferred to the Bakersfield Damage Prevention department. Hinkley District has reorganized their calibration records to clearly distinguish and archive records of equipment no longer belonging to the District.

1.2.1a

PG&E agrees with the finding that Instrument 17464 was not calibrated in June 2011 and December 2012. PG&E also agrees that the November 2012 calibration of this instrument was not properly documented on the calibration form. However, PG&E personnel referenced timesheets as well as PLM reports (electronic documentation) of completed and posted work to confirm completion of the November 2012 calibration (See Attachment 9).

1.2.1b

PG&E agrees with the finding that Instrument 22128 was not calibrated in June 2011. PG&E also agrees that the June, October, and November 2012 calibrations of this instrument were not properly documented on the calibration form. However, PG&E personnel referenced timesheets as well as PLM reports (electronic documentation) of completed and posted work to confirm completion of the 2012 calibrations (See Attachment 10).

1.2.1c

PG&E agrees that the calibrations of Instrument 22191 were not properly documented on the calibration form, for the months in Table 4. However, PG&E personnel referenced timesheets as well as PLM reports (electronic documentation) of completed and posted work to confirm completion of the calibrations (See Attachment 11).

1.2.1d

PG&E agrees with the finding that Instrument 22753 was not calibrated in January 2011. PG&E also agrees that the August, September, October, and November 2011 and February, June, and November 2012 calibrations of this instrument were not properly documented on the calibration form. However, PG&E personnel referenced timesheets as well as PLM reports (electronic documentation) of completed and posted work to confirm completion of the calibrations (See Attachment 12).

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1.2.1e

PG&E agrees that the calibrations of Instrument 23072 were not properly documented on the calibration form, for the months in Table 4. However, PG&E personnel referenced timesheets as well as PLM reports (electronic documentation) of completed and posted work to confirm completion of the calibrations (See Attachment 13).

1.2.1f

PG&E agrees that the calibrations of Instrument 23746 were not properly documented on the calibration form, for the months in Table 4. However, PG&E personnel referenced timesheets as well as PLM reports (electronic documentation) of completed and posted work to confirm completion of the calibrations (See Attachment 14).

1.2.1g-h

PG&E agrees with the findings that Instruments 50972 and 50973 were not calibrated for the months listed in Table 4. These instruments are now set up in PLM to be scheduled for calibration on a monthly basis.

1.2.2

PG&E agrees that the baseline signal strength of these instruments was not properly documented on the forms, as noted in Table 5. Prior to October 2013, the Districts documented pipe and cable locating instruments using form F4412-02-1 which defined Baseline Signal Strength as the signal strength when the unit is first put into service. PG&E's current form TD-5811P-205-F01, effective October 2013, further clarifies in Note 1: "If unit is checked on same facility all year with no repairs list the same baseline for the entire year. January baseline is carried over from the previous year."

During the time periods in question, these instruments were calibrated using the baseline signal strength when the unit was first put into service. The current calibration form in use at Hinkley District requires this reading to be input during each monthly calibration.

1.3.1

PG&E agrees with these findings, except in the case of Rectifier Serial # 941263 on L-314 MP 35.5. PG&E's Form FO-11.1-A indicates that if ground resistance is found to be greater than 25 Ohms, the integrity of grounding connections should be verified. This means appropriate grounding wirings and conduits should be checked for adequate connectivity. If the integrity of the grounding connections is found to be satisfactory but ground resistance is still greater than 25 Ohms, then a second ground rod located at least six feet away from the first ground rod should be installed. If two ground rods located at least six feet apart are provided for a rectifier, no further action is required.

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For Rectifier Serial #941263 on L-314 at MP 35.5, PG&E documented the verification of grounding connections for all inspections since June 2009, except for one on July 27, 2012 (See Attachment 15).

Following the audit, the grounding connections for the six rectifiers were verified in the field.

1.3.2

PG&E agrees with these findings, but would like to clarify the applicable requirements, as prescribed in Gas Standard O-16. The section of O-16 quoted in NOV 1.3.2 above applies to “safety hazards” found during annual rectifier site evaluations. However, the three rectifiers noted in the NOV had issues relating to inadequate rectifier current output found during 60-day rectifier inspections. For issues of inadequate current output, PG&E follows Gas Standard O-16 Section 6.A(3) (page 11), which requires restorations or action plans to be completed within 60 days of discovery. Nevertheless, for these three rectifiers, neither restorations nor action plans were completed within 60 days of discovery.

Adequate rectifier current output has been restored for the rectifiers located at L-300 MP 130 and MP 160.68. An action plan for restoration of adequate rectifier current output for the rectifier located at L-313 MP 21.67 was created on September 21, 2013.

1.3.3.a

PG&E agrees with this finding. In October 2013, repairs were made to the wiring for one or more anodes near L-300A MP 160.1, which resulted in the restoration of adequate cathodic protection levels.

1.3.3.b

PG&E agrees with the finding regarding MP 112.97. As noted in Table 7, the CPA was restored on February 15, 2011.

PG&E respectfully disagrees with the findings regarding MP 170.62 and MP 192.31. Inadequate cathodic protection levels at these locations were recognized in early 2010 and thought to be the result of low rectifier current output at L-300A MP 180.9. Thus, an action plan to replace the anode at MP 180.9 was created on February 24, 2010 (See Attachment 16). A new anode was installed in late 2011, which increased rectifier current output. PG&E then determined that poor coating on the mainline valves at L-300A MP 180.64 and MP 175.17 were also contributing to inadequate levels of cathodic protection at MP 170.62. Action plans to re-coat the mainline valves were created and completed in 2012 (See Attachment 17).

Following these actions, monitoring points in the area continued to exhibit inadequate cathodic protection levels, and PG&E determined that the new anode installed at L-300A MP 180.9 was performing poorly. In response, a new rectifier and deep well anode at L-300A MP 180.75 has been installed and will be activated in February 2014. The operation of the new rectifier is expected to provide adequate cathodic protection levels for nearby

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portions of the pipeline, including MP 170.62 and MP 192.31. Additionally, in 2014, PG&E will install a solar panel-powered cathodic protection station at MP 198.92 to further facilitate adequate protection (See Attachment 18).

PG&E acknowledges the complexity of the interrelated issues and actions, but maintains that it complied with Gas Standard O-16 in its continuous efforts to restore and maintain adequate cathodic protection for this area.

PG&E respectfully disagrees with the findings regarding MPs 202.98, 203.06, 203.07, and 210.64. For these locations, PG&E's records indicate that the pipe-to-soil potentials were more negative than -1600 mV for the dates listed in Table 7. This condition is referred to as "overprotection" in Gas Standard O-16. PG&E's Gas Standard O-16 and Bulletin 328 describe how PG&E responds to overprotection (See Attachment 19). There is no requirement in PG&E's procedures to correct overprotection within 60 days or to create action plans for overprotection not corrected within 60 days.

1.3.3.c

PG&E agrees with the findings regarding MP 180.64 and MP 180.9, which exhibited inadequate cathodic protection in 2008. As noted in Table 8, PG&E has created action plans to restore these locations.

PG&E respectfully disagrees with the findings regarding MPs 175.17, 186.09 and 197.13. Each of these locations is within the influence of the rectifier located at L-300A MP 180.9. As indicated in response to NOV 1.3.3(b) above, PG&E acknowledges the complexity of the interrelated issues and actions, but maintains that it complied with Gas Standard O-16 in its continuous efforts to restore and maintain adequate cathodic protection for this area.

1.3.4

PG&E agrees with this finding. To prevent recurrence, PG&E's Operations Specialists and Supervisors will review on a monthly basis the status of cathodic protection issues, and will update action plans as appropriate.

1.3.5

PG&E agrees that the required records for these inspections were missing from the records binder. However, PG&E personnel referenced timesheets as well as PLM reports (electronic documentation) to confirm that the atmospheric corrosion inspections were completed within the compliance timeframe (See Attachment 20). The PLM reports indicated that no remediation work was necessary as a result of the inspections.

1.4

PG&E agrees that the calibrations of the Segesman, Goff, and Schmitt instruments were not properly documented on the calibration forms. However, PG&E personnel referenced timesheets as well as PLM reports (electronic documentation) to confirm that the work was completed for the calibrations of the reference electrode for Segesman in 2012 (See Attachment 21). In addition, the reference electrode for Goff was calibrated within the

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compliance period until the responsible employee transferred to Topock District and this reference electrode was taken out of service on September 1, 2011 (See Attachment 22).

PG&E respectfully disagrees that the calibration of the Cruz instrument was not properly documented on the calibration form. The calibration was completed and documented properly on the form, and also documented electronically on PLM reports (See Attachments 23 and 24).

1.5

PG&E agrees with these findings. Subsequent rechecks of the Grade 3 leaks confirm that this condition did not pose a safety hazard to the public.

A refresher briefing was provided to Hinkley District employees on January 31, 2014 to reinforce the requirements of PG&E procedure TD-4110P-09, “Leak Grading and Response,” and discuss means to prevent recurrence (See Attachment 25). Hinkley District has reworked their process for identified Grade 3 leaks to ensure they are rechecked during leak survey.

When the Mariner project is fully deployed to Gas Transmission (2016), relevant data will be captured by field crews using hand-held electronic devices. From there, it will be transmitted to, stored and organized within a custom-designed SAP system—one integrated, coherent, real-time data source—from which Gas Transmission Districts and organizational leaders can draw to perform comprehensive analysis, planning and decision-making about how best to move forward. Once fully implemented to our field operations, this new technology will improve the accessibility and reliability of our gas distribution and transmission pipeline information.

1.6

PG&E acknowledges that follow-up actions for the aerial patrol observations were not completed in a timely manner. The aerial patrol report of November 14, 2012 indicates that the pilot was unable to make contact with the Supervisor for this concern. The reports were mailed to the Supervisor, who then created Work Request 191327, which was completed on December 29, 2012, and determined that the excavation did not represent a pipeline safety issue (Attachments 26 and 27). Aerial Patrol Reports are now e-mailed to ensure a more timely response to patrol observations.

1.7

PG&E agrees with this finding regarding supervisor reviews of maintenance records. In 2014, PG&E’s Operations Specialists began monthly internal reviews of Gas Transmission’s completed work to ensure future supervisor reviews are timely.

1.8

PG&E agrees with these findings regarding inadequate documentation of corrective work. With regard to regulator station Barstow A, Hinkley District reviewed these forms with the employee who performed the maintenance; a “Class B” inspection had been completed and

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documented in response to the failure to lock-up. Hinkley District also reviewed Work Procedure TD4540-04 with the maintenance and operations employees to prevent future recurrences (See Attachment 28).

Preventative Actions

To mitigate recurrence of late or inadequate maintenance and documentation, refresher briefings were provided to Hinkley District employees to review requirements and reinforce the importance of timely and complete documentation (See Attachments 7, 25, 28, and 29). Furthermore, in 2014, PG&E’s Operations Specialists began monthly internal reviews of Gas Transmission’s completed work, including instrument calibrations, rectifier site evaluations, cathodic protection action plans, and supervisor reviews.

In the longer-term, as part of the Mariner Program, additional controls for proper maintenance documentation will be implemented with the deployment of mobile devices to capture maintenance activities electronically. The mobile devices will directly update the SAP Preventative Maintenance tool. SAP will have validations that will not allow for preventative maintenance to be prematurely or inadvertently closed without proper inputting by maintenance personnel. Backbone transmission assets maintained in transmission districts will first need to convert to SAP for preventative maintenance scheduling before these mobile devices can be used to record transmission district maintenance. The SAP conversion and deployment of mobile devices are expected to be completed for the transmission districts in 2016.

ATTACHMENTS

Attachment #	Title or Subject
8	PLM Reports - Leak Survey Calibration
9	Pipe Locator 17464
10	Pipe Locator 22128
11	Pipe Locator 22191
12	Pipe Locator 22753
13	Pipe Locator 23072
14	Pipe Locator 23746
15	Rectifier 941263
16	2010-02-04 Action Plan
17	2012-02-01 Action Plan
18	2012-10-04 Action Plan
19	Bulletin 328
20	PLM Report - AC Inspections
21	Segesman Calibration
22	Goff Calibration
23	Cruz Form
24	Cruz Calibration
25	Refresher Briefing - TD-4110P-09

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26	Aerial Patrol Report
27	PLM WR191327 - Patrol Follow-Up
28	Refresher Briefing - TD-4540P-01
29	Refresher Briefing - Records

ACTION REQUIRED

Action To Be Taken	Due Date	Responsible Dept.
Replace anodes for rectifier at L-313 MP 21.67.	December 31, 2014	GT O&M
Activate new rectifier and deep well anode at L-300A MP 180.75.	February 28, 2014	GT O&M
Install a solar panel-powered cathodic protection station at MP 198.92.	December 31, 2014	GT O&M
Complete Mariner Program and deploy mobile devices for Transmission Districts.	December 31, 2016	Technology and R&D

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INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
September 9-13, 2013	NOV-2	Terence Eng	(415) 703-5326

INSPECTION FINDING

CPUC Finding	<p>B. Audit Findings and Violations</p> <p>2 <u>Title 49 CFR §192.731(a) states in part:</u></p> <p><i>“Except for rupture discs, each pressure relieving device in a compressor station must be inspected and tested in accordance with 192.739 and 192.743”</i></p> <p>The District failed to evaluate the following regulators listed in Table 13 within the required 15 month interval.</p> <p>Table 13: Late Inspections of Compressor Station Regulators for the Fuel Gas System</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Tag</th> <th>Dates between Inspections</th> <th>Interval (months)</th> </tr> </thead> <tbody> <tr> <td>PCV-201L</td> <td>7/9/2010 - 12/7/2011</td> <td>16+</td> </tr> <tr> <td>PCV-202</td> <td>7/9/2010 - 12/7/2011</td> <td>16+</td> </tr> <tr> <td>PCV-204</td> <td>7/9/2010 - 12/7/2011</td> <td>16+</td> </tr> <tr> <td>PCV-206</td> <td>7/9/2010 - 12/7/2011</td> <td>16+</td> </tr> </tbody> </table>	Tag	Dates between Inspections	Interval (months)	PCV-201L	7/9/2010 - 12/7/2011	16+	PCV-202	7/9/2010 - 12/7/2011	16+	PCV-204	7/9/2010 - 12/7/2011	16+	PCV-206	7/9/2010 - 12/7/2011	16+
Tag	Dates between Inspections	Interval (months)														
PCV-201L	7/9/2010 - 12/7/2011	16+														
PCV-202	7/9/2010 - 12/7/2011	16+														
PCV-204	7/9/2010 - 12/7/2011	16+														
PCV-206	7/9/2010 - 12/7/2011	16+														

PG&E RESPONSE

<p>PG&E agrees that the maintenance for these regulators was not performed in a timely manner, and that the applicable code section should be 49 CFR §192.739(a), since these are regulating devices, and not pressure relieving devices, for the fuel gas system. The PLM settings for the maintenance of these regulators have been updated to require completion within the required 15-month intervals. Furthermore, in 2014, PG&E’s Operations Specialists began monthly internal reviews of Gas Transmission District’s completed work to ensure future maintenance and documentation tasks are performed in a timely manner.</p> <p>In the long-term, as described in the response to NOV 1, the Mariner Program will implement additional controls for proper maintenance documentation through the conversion of maintenance scheduling to SAP and the deployment of mobile devices to capture maintenance activities electronically.</p>
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ATTACHMENTS

Attachment #	Title or Subject
None	

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ACTION REQUIRED

Action To Be Taken	Due Date	Responsible Dept.
No further action required.		

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INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
September 9-13, 2013	NOV-3	Terence Eng	(415) 703-5326

INSPECTION FINDING

CPUC Finding	<p>B. Audit Findings and Violations</p> <p>3 <u>Title 49 CFR §192.743(a) states:</u></p> <p><i>“Pressure relief devices at pressure limiting stations and pressure regulating stations must have sufficient capacity to protect the facilities to which they are connected. Except as provided in §192.739(b), the capacity must be consistent with the pressure limits of §192.201(a). This capacity must be determined at intervals not exceeding 15 months, but at least once each calendar year, by testing the devices in place or by review and calculations.”</i></p> <p>During the Conditional Reduction in Operating Pressure (CROP) at the Hinkley Regulator Station discharge in 2011, the District reduced downstream Maximum Operating Pressure (MOP) from 900 psig to 741 psig. The reliefs for K-1 through K-12 were set to operate at 746 psig during the CROP in 2011. The District failed to perform capacity calculations in 2011 to ensure adequate relief valve capacity at 746 psig.</p> <p>During the audit, the District performed the calculation to show that the relief valves at K-1 through K-10 had adequate capacity to ensure 746 psig downstream during the CROP. However, the District calculated that the relief valves at K-11 and K-12 did not have adequate capacity during the CROP.</p>
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PG&E RESPONSE

<p>PG&E agrees with SED’s finding. On April 26, 2012 the Conditional Reduction in Operating Pressure (CROP) at the Hinkley Compressor Station discharge was removed and the relief valves for K-11 and K-12 were set to operate at 865 psig. Relief calculations at the 865 psig set point show that the relief valves at K-11 and K-12 have adequate capacity. During the period of time K-11 and K-12 reliefs were set to operate at 746 psig PG&E was relying on the following controls and primary OPP devices:</p> <ul style="list-style-type: none"> • 725 psig – The maximum allowable discharge pressure that was communicated to Hinkley Operations. Hinkley Compressor Station has 24/7 manned Operations.

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- 731 psig – The discharge pressure control set point for compressors K1, K3, K4, K7, K10, K11, and K12. The discharge pressure control set point limits the discharge pressure of the compressors listed above to 731 psig. If the discharge pressure goes above 731 psig, the compressors will unload, reducing compressor throughput. If the discharge pressure remains above 731 psig and below the shutdown set point of 736 psig for more than 5 minutes, the compressors will shut down.
- 736 psig – The discharge pressure set point for the compressor fuel gas ESD loop. The compressor fuel gas ESD loop blocks and vents the fuel supply to all of the compressor units, except for K1, K4 and K10. The compressors shut down immediately with loss of fuel gas.
- 736 psig – The high discharge pressure shutdown set point for compressors K1, K3, K4, K7, K10, K11, and K12. If the unit discharge pressure reaches 736 psig, the compressors listed above immediately shut down.

See Part 3, Section 2 of the attached H-70-B forms (See Attachments 30 and 31).

To prevent recurrence, Gas Transmission’s Senior leadership has communicated to all Gas Transmission Supervisors to emphasize that any CROP will require a review of the relief valve calculations. In addition, Gas Standard H-70 was revised on October 9, 2013 to include a secondary Local Engineer Confirmation Review (in addition to the annual review).

ATTACHMENTS

Attachment #	Title or Subject
30	K-11 Capacity Review – 746 psig
31	K-12 Capacity Review – 746 psig

ACTION REQUIRED

Action To Be Taken	Due Date	Responsible Dept.
No further action required.		

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INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
September 9-13, 2013	NOV-4	Terence Eng	(415) 703-5326

INSPECTION FINDING

CPUC Finding	<p>B. Audit Findings and Violations</p> <p>4 <u>Title 49 CFR §192.745(a) states:</u></p> <p><i>“Each transmission line valve that might be required during any emergency must be inspected and partially operated at intervals not exceeding 15 months, but at least once each calendar year.”</i></p> <p>a. The District failed to operate Valve 1 at Barstow D tap in 2011.</p> <p>b. The District failed to operate Valve 222.32A in 2012.</p> <p>c. The District last operated Valves at PLS 2AX and 2BX on 5/23/2012. The District failed to operate the valves within 15 months in 2013.</p> <p>d. The District last operated Valve 192.36A on 2/10/2012. The District failed to operate the valves within 15 months in 2013.</p>
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PG&E RESPONSE

<p>NOV 4.a</p> <p>PG&E agrees with this finding. Valve 1, at Barstow D tap, was operated in 2011 when it was flushed and greased on February 1, 2011, as noted on PLM Work Request 147065 (See Attachment 32). However, this maintenance was not documented on the valve maintenance card. It was not operated again until November 16, 2012, beyond the 15-month compliance timeframe. Refresher briefings were given to the Hinkley crew on September 15, 2013 and January 15, 2014, reviewing the requirements of PG&E’s valve maintenance procedures (See Attachment 33).</p> <p>NOV 4.b</p> <p>PG&E respectfully disagrees with this violation. Valve 222.32A was maintained and partially operated on February 10, 2012, per the attached valve card (See Attachment 34).</p> <p>NOV 4.c</p> <p>The maintenance and operation of these valves was not recorded on the valve cards as required by PG&E’s valve maintenance procedure. However, PLM reports (electronic documentation), as well as employees’ timesheets, document that the valves were maintained in 2013 within the compliance timeframe (See Attachment 35). A refresher</p>

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briefing was provided to Hinkley District employees to reinforce the importance of timely and complete documentation. Furthermore, in 2014, PG&E's Operations Specialists began monthly internal reviews of Gas Transmission's completed work, including valve maintenance.

NOV 4.d

PG&E respectfully disagrees with this violation. Valve 192.36A was maintained and partially operated on February 19, 2013, per the attached valve card (See Attachment 36). Note that a separate finding for this valve was reported as part of the internal review findings provided at the beginning of the 2013 Hinkley District Audit, as noted in the excerpt below. The valve was maintained on February 10, 2010 and subsequently on August 31, 2011, beyond the 15-month compliance timeframe.

Topic	Code	Finding	Instances	Corrected?
Emergency Valves	192.745	Valves were not operated during annual or semi-annual maintenance, maintenance completely missed, and/or maintenance was completed outside the 15 month window.	67	Yes

ATTACHMENTS

Attachment #	Title or Subject
32	PLM WR 147065
33	Refresher Briefing - Valves Maintenance
34	Maintenance Record - Valve 222.32A
35	PLM Reports - Valve Maintenance
36	Maintenance Record - Valve 192.36A

ACTION REQUIRED

Action To Be Taken	Due Date	Responsible Dept.
No further action required.		

Definitions: NOV – Notice of Violation
 AOC – Area of Concern

**General Order 112-E Findings
CPUC Inspection Report December 2, 2013
Hinkley District**

INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
September 9-13, 2013	AOC-1	Terence Eng	(415) 703-5326

INSPECTION FINDING

CPUC Finding	<p>C. Observations and Concerns</p> <p>1 Although PG&E’s procedures do not explicitly state a timeframe for when supervisors are required to conduct reviews for rectifiers, it is logical to assume that the review should be conducted prior to the next inspection. The District performed annual inspections of the six rectifiers listed above in 1.3.1 as far back as 2009, but failed to perform supervisor reviews until 2013. Please provide an explanation.</p>
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PG&E RESPONSE

<p>PG&E agrees with this concern. In 2014, PG&E’s Operations Specialists began monthly internal reviews of Gas Transmission’s completed work to ensure future supervisor reviews are completed in a timely manner.</p> <p>In the long-term, as described in the response to NOV 1, the Mariner Program will implement additional controls for proper maintenance documentation through the conversion of maintenance scheduling to SAP and the deployment of mobile devices to capture maintenance activities electronically.</p>

ATTACHMENTS

Attachment #	Title or Subject
None	

ACTION REQUIRED

Action To Be Taken	Due Date	Responsible Dept.
No further action required.		

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**General Order 112-E Findings
CPUC Inspection Report December 2, 2013
Hinkley District**

INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
September 9-13, 2013	AOC-2	Terence Eng	(415) 703-5326

INSPECTION FINDING

CPUC Finding	2 During SED's field visit to L-300A MP 197.13, the District recorded a pipe-to-soil of -0.719V. Please advise SED on the status of the cathodic protection at this location.
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PG&E RESPONSE

PG&E agrees with this concern. As stated in our response to NOV 1.3, PG&E has recognized low levels of inadequate cathodic protection along this section of pipe since 2011, and has taken several steps to restore adequate protection:

- In 2011, a new anode was installed at L-300A MP 180.9
- In 2012, the mainline valves at L-300A MP 180.64, L-300A MP 186.09, and L-300B MP 175.62 were re-coated.
- In February 2014, a new rectifier and anode at L-300A MP 180.75 will be activated.
- In 2014, PG&E will install a solar panel-powered cathodic protection station at MP 198.92. The installation of this new cathodic protection station is specifically intended to assure that an adequate level of cathodic protection is restored around L-300A MP 197.13.

ATTACHMENTS

Attachment #	Title or Subject
None	

ACTION REQUIRED

Action To Be Taken	Due Date	Responsible Dept.
Activate new rectifier and deep well anode at L-300A MP 180.75.	February 28, 2014	GT O&M
Install a solar panel-powered cathodic protection station at MP 198.92.	December 31, 2014	GT O&M

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**General Order 112-E Findings
CPUC Inspection Report December 2, 2013
Hinkley District**

INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
September 9-13, 2013	AOC-3	Terence Eng	(415) 703-5326

INSPECTION FINDING

CPUC Finding	3 During SED's field visit to pipeline span L-300B MP 222.25, SED discovered what appeared to be a longitudinal weld approximately four inches in length that was missing a cover bead; the weld was approximately flush with the pipe. Please provide an explanation.
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PG&E RESPONSE

The weld crown had been ground in 2012 as part of a Weld Seam Characterization and Weld Assessment performed by the NDE Services Group of PG&E's Applied Technology Services (ATS) Division. The assessment was performed in accordance with a procedure developed by ATS and consistent with industry standards, which includes grinding approximately four inches of the weld crown to determine seam weld characteristics.

ATTACHMENTS

Attachment #	Title or Subject
None	

ACTION REQUIRED

Action To Be Taken	Due Date	Responsible Dept.
No further action required.		

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**General Order 112-E Findings
CPUC Inspection Report December 2, 2013
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INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
September 9-13, 2013	AOC-4	Terence Eng	(415) 703-5326

INSPECTION FINDING

CPUC Finding	4. During SED's field visit to L-314 MP 35.55, the District recorded a pipe-to-soil potential of -2.417V (more negative than -1.600V due to interference from a SoCal Gas rectifier) and an Instant off of -1.783V (more negative than -1.200V). Please provide an explanation.
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PG&E RESPONSE

The Electrolysis Test Station (ETS) and Coupon Test Station (CTS) located at L-314 MP 35.55 are located near a cathodic protection rectifier and anode operated by Southern California Gas Company. This means pipe-to-soil potential measurements taken at the ETS and CTS may contain large IR (current/resistance) drop errors if the Southern California Gas Company rectifier is turned on, resulting in excessively negative pipe-to-soil potential measurements like those obtained during SED's field visit. Taking an instant-off pipe-to-soil potential measurement at the ETS or CTS does not eliminate the IR drop error resulting from the nearby Southern California Gas Company rectifier and anodes. Only the IR drop error from PG&E's cathodic protection rectifier and anodes can be eliminated with instant-off pipe-to-soil potential measurements.

On January 15, 2014, pipe-to-soil potential measurements were made at both the ETS and CTS located at L-314 MP 35.55. The nearby Southern California Gas Company rectifier was turned off while the pipe-to-soil potential measurements were made. The results were as follows.

ETS - Pipe-to-soil potential: -1.061 V

CTS

Native potential: -0.213 V

Pipe-to-soil potential: -1.141 V

Instant off pipe-to-soil potential: -1.111 V

The pipe-to-soil potential measurements above demonstrate adequate cathodic protection at this location. The District technicians have been instructed to request Southern California Gas Company to turn off the nearby rectifier whenever pipe-to-soil potential measurements are made at L-314 MP 35.55.

**General Order 112-E Findings
CPUC Inspection Report December 2, 2013
Hinkley District**

ATTACHMENTS

Attachment #	Title or Subject
None	

ACTION REQUIRED

Action To Be Taken	Due Date	Responsible Dept.
No further action required.		

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**General Order 112-E Findings
CPUC Inspection Report December 2, 2013
Hinkley District**

INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
September 9-13, 2013	AOC-5	Terence Eng	(415) 703-5326

INSPECTION FINDING

CPUC Finding	5 During SED's field visit to the Hinkley Compressor Station control room, access into the control room required no identification or security check. Please provide an explanation.
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PG&E RESPONSE

PG&E agrees with SED's concern and has several measures in place to ensure effective security at Hinkley Compressor Station: slide card access is required to enter the station, perimeter fencing is equipped with intrusion protection, and PG&E's Fairfield Security Control monitors the station grounds via security cameras throughout the station.

With regard to PG&E's station control room operations, the four manned stations (McDonald Island Storage Field, Los Medanos Storage Field, Hinkley Compressor Station, and Topock Compressor Station) have been determined not to meet the criteria for defining a "control room" per 49 CFR 192.631 (See Attachment 37). Manned Station Operators/Operator Mechanics only have access limited to remotely operate their system inside of the station fence lines.

ATTACHMENTS

Attachment #	Title or Subject
37	Manned Station Control Room Analysis

ACTION REQUIRED

Action To Be Taken	Due Date	Responsible Dept.
No further action required.		

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**General Order 112-E Findings
CPUC Inspection Report December 2, 2013
Hinkley District**

INSPECTION INFORMATION

Inspection Dates	Finding	CPUC Contact	CPUC Phone #
September 9-13, 2013	AOC-6	Terence Eng	(415) 703-5326

INSPECTION FINDING

CPUC Finding	6 During SED's field visit to the Hinkley Compressor Station control room, the control room was unmanned during normal working hours. Please provide an explanation.
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PG&E RESPONSE

<p>During SED's field visit to the Hinkley Compressor Station control room, Operator Mechanics were on shift. Job Duties of an Operator Mechanic require them to perform work outside of the station control room. Audible alarms throughout the station grounds alert the Operators when they are needed in the station control room.</p> <p>Please refer to PG&E's response to AOC 5 for additional details regarding station control room operations.</p>
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ATTACHMENTS

Attachment #	Title or Subject
None	

ACTION REQUIRED

Action To Be Taken	Due Date	Responsible Dept.
No further action required.		

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