

ChristiAne Mason Manager Regulatory & Field Compliance Gas Operations 6111 Bollinger Canyon Rd. San Ramon, CA 94583 **Phone:** 925.328.5795 **E-mail:** c6mw@pge.com

May 23, 2014

Mr. Ken Bruno
Gas Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: State of California – Public Utilities Commission

General Order 112-E Audit – PG&E's North Valley Division

Dear Mr. Bruno:

The Safety and Enforcement Division (SED), Gas Safety and Reliability Branch (GSRB) of the CPUC conducted a General Order 112-E audit of PG&E's North Valley Division, from September 23 - 27, 2013. On April 3, 2014, the SED submitted their audit report, identifying violations and findings. Attached is PG&E's response to the CPUC audit report.

Please contact Larry Berg at (925) 328-5758 or <u>LMB5@pge.com</u> for any questions you may have regarding this response.

Sincerely,

/S/ ChristiAne Mason

Attachments

cc: Banu Acimis, CPUC Willard Lam, CPUC Dennis Lee, CPUC Liza Malashenko, CPUC Larry Berg, PG&E Larry Deniston, PG&E Bill Gibson, PG&E Sumeet Singh, PG&E

INSPECTION INFORMATION

| Inspection Dates | Finding | CPUC Contact | CPUC Phone # |
|-------------------------|-----------------|--------------|---------------------|
| September 23 - 27, 2013 | Internal Review | Willard Lam | (415) 703-1327 |

INSPECTION FINDING

CPUC Finding

A. PG&E's Internal Audit Findings

PG&E provided SED an Internal Findings Summary of the North Valley Division (Division) prior to the CPUC audit. Some internal findings are violations of PG&E's operations and maintenance standards, and are therefore violations of Title 49 Code of Federal Regulations (CFR), §192.605(a). The violations identified in PG&E's internal summary of the Division are noted in Table 1.

Table 1. PG&E North Valley Division Internal Findings Summary

| Item | Code Violation | Topic | Finding | Instances | Corrective Status |
|------|---------------------------|---|---|-----------|----------------------|
| 1 | 192.723(a) | Leak Survey Distribution | Services missed compliance dates due to restricted access locations | 9 | Completed |
| 2 | 192.706(a), 192.706(b) | Leak Survey Transmission | Semi-annual maps out of compliance | 21 | Completed |
| 3 | 192.605(a) | Leak Repair | Leaks with late action | 2 | Completed |
| 4 | 192.739(a) | Regulator Stations | HPR set with 3 services, not maintained as district regulator station | 1 | Pending |
| 5 | 192.747(a) | Valves | Valve missed maintenance | 1 | Completed |
| 6 | 192.605(a) | Odorization | Weekly odor intensity tests not conducted | 2 | Completed |
| 7 | 192.605(a) | Transmission Patrols | Missing OQ for employee performing foot patrols | 11 | Completed |
| 8 | 192.161(a) | Atmospheric Corrosion on Exposed Spans | Corrective action for pipeline supports not completed in timely manner | 1 | Pending |
| 9 | 192.605(a) | | CPA not resurveyed within a 6-year Interval | 6 | Completed |
| 10 | 192.605(a) | Corrosion Control | CPA Action plans created or updated late | 70 | Completed |
| 11 | 192.465(d) | Control | CPA down for more than 15 months | 3 | Pending |
| 12 | 192.605(a) | | 10%er location found low | 1 | Pending |

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| Table 1 (cont'd). PG&E North Valley | Division Internal Finding Summary |
|-------------------------------------|-----------------------------------|
|-------------------------------------|-----------------------------------|

| Item | Code Violation | Topic | Finding | Instances | Corrective Status |
|------|-------------------|---------------|---|-----------|----------------------|
| 13 | 192.605(a) | Instrument | Missing Distribution Leak Survey calibration records | 5 | Completed |
| 14 | 192.605(a) | Calibrations | Missing Transmission Leak Survey calibration records | 40 | Completed |
| 15 | 192.743(a) | | Stations missing relief valve calculations | 2 | Completed |
| 16 | 192.739(a)(3) | Relief Valves | Stations with incorrect relief valve set points | 1 | Completed |
| 17 | 192.743(a) | | Stations using incorrect MAOP in relief valve calculation | 1 | Completed |
| 18 | 192.603(b) | МАОР | System did not have complete documentation establishing MAOP | 3 | Pending |

SED is aware that the Division may have been completed some of the items by the time of this letter. Please provide an update on the corrective status on the items that were pending as of September 27, 2013.

PG&E RESPONSE

An update of the pending items noted in Table 1 above is as follows:

Item 4: Gas service to the third customer fed from this High Pressure Regulator (HPR) was terminated December 29, 2012 as a result of a structure fire. The service pipe was cut off under job order PM 42105798 on May 14, 2014. Therefore, this HPR-type regulator set will continue to be maintained as specified in TD-4540S *Gas Pressure Regulation Maintenance Requirements* as a farm tap regulator set. Item 8: The original plan to correct the pipe supports with atmospheric corrosion was to replace the pipe supports. However, the pipe was located too low on the bridge to provide sufficient attachment length for supports, and submersion of the pipe during portions of the year would continue to be a concern. PG&E has decided to bore under the bridge, and eliminate the need for pipe supports. The boring job is planned for construction in mid-2015 under job order PM 31076284. A calculation based on the current, measured deflection and the stress in the pipe for the full span was determined to be less than 30%, indicating that the existing pipe span is sufficiently supported. The span will be monitored in the interim, to ensure that the deflection does not increase.

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Item 11: CPA down for more than 15 months:

CPA 12B003. The cathodic protection from an abandoned gasoline station was interfering with the cathodic protection at the yearly monitoring location at 191 Hazel. On May 14, 2013, PG&E replaced the gas steel pipe with plastic pipe under PM #30916076, removing the need to provide cathodic protection at this location. (See Attachment 1)

CPA 10P001. This cathodic protection area was below adequate levels of cathodic protection for two months – from September 10, 2012, until November 7, 2012. (See Attachment 2). On November 7, 2012, it was tied in with, and continues to be tied in with a neighboring CPA and both areas have consistently read up.

CPA 1770-01 – Local corrosion mechanic added three bi-monthly test point locations on August 17, 2012 to better monitor cathodic protection and a new rectifier and anodes were added to this cathodic protection area in October 2013. However, one location continues to have pipe-to-soil potentials below the -850 mV criteria for adequate cathodic protection. As a result of the inadequate cathodic protection, the section of L-177A from MP 94.81-95.05 will be replaced under job order PM 30966292, which is scheduled to start construction in July 2014. See Attachment 3 for details.

Item 12: An isolated steel riser (10%er) was found below -850 mV at 6708 Belleview, Paradise. The entire gas service was replaced under job order PM 31022286 on October 10, 2013, eliminating this location as a 10%er. See Attachment 4

Item 18: Incomplete distribution MAOP documentation

- a) The job as-built package for the installation of Regulator Station R-207 did not specify a pressure test. The Gas T&R Department performed a pressure test of this piping on September 20, 2013, qualifying it for an MAOP of 60 psig. See Attachment 5.
- b) ORB-20 and Gridley West distribution systems MAOP documentation needs to be completed per work procedure TD-4125P-01 and included in the Distribution Systems MAOP Binder for these two distribution systems. Local Engineering will complete this effort by July 31, 2014. PG&E will notify SED upon completion.
- c) Distribution Systems MAOP Binder New records (TD-4125P-01 Attachments 1 & 3)

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for various distribution systems require signatures, and distribution system MAOP maps require updating. Local Engineering will complete this effort by July 31, 2014. PG&E will notify SED upon completion.

ATTACHMENTS

| Attachment # | Title or Subject | | |
|--------------|------------------------------------|--|--|
| 1 | Deactivate steel pipe – CPA 12B003 | | |
| 2 | CPA 10P001 Maintenance Reports | | |
| 3 | CPA 1770-01 Maintenance Reports | | |
| 4 | Service Replacement 6708 Belleview | | |
| 5 | Pressure Test Documentation | | |

ACTION REQUIRED

| Action To Be Taken | Due Date | Responsible Dept. |
|---|--------------------|---|
| Replace portion of L-177A with inadequate cathodic protection | August 31, 2014 | Corrosion Engineering |
| Complete distribution MAOP Documentation | July 31, 2014 | North Valley Division Local Engineering |

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INSPECTION INFORMATION

| Inspection Dates | Finding | CPUC Contact | CPUC Phone # |
|------------------------|---------|---------------------|---------------------|
| September 23- 27, 2013 | NOV – 1 | Willard Lam | (415) 703-1327 |

INSPECTION FINDING

CPUC Finding

1. <u>Title 49 CFR §192.605(a) states:</u>

"Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response."

1.1. PG&E Utility Work Procedure WP4540-01 states:

"Supervisors must review and approve all records for work performed at each district regulator station within 30 days of the completion of maintenance."

SED discovered many instances where the Division failed to review and approve regulator maintenance within the 30-day interval required by PG&E's Work Procedure WP4540-01. Since there were a significant number of instances, SED did not itemize each instance but instead recognizes this is a common issue in the Division. A representative sample of late supervisor reviews is listed in Table 2.

Table 2. Regulator Stations with Late Supervisor Review

| Regulator Station Number | Maintenance Date | Supervisor Review Date |
|--------------------------|------------------|------------------------------|
| | 8/30/2010 | 10/15/2010 |
| 91 | 10/24/2012 | 12/18/2012 |
| | 11/5/2012 | 12/18/2012 |
| 76 | 6/14/2011 | 7/20/2011 |
| 90 | 3/16/2010 | 4/27/2010 |
| D.R. 26 | 7/24/2013 | 9/24/2013 |

1.2. PG&E Form FO-11.1-A states:

"Check box for all items inspected and Record AC/DC voltage and DC amperage measurements leave blank if not applicable."

Form FO-11.1-A Pole Mount/Pedestal Mount Rectifier Test and Site Evaluation Form requires the fusible AC disconnect switch rating to be recorded on the form during rectifier maintenance. SED found that the Division failed to record the Fusible AC disconnect switch rating for Rectifier #100002 during the 2010 to 2013 annual maintenance.

1.3. PG&E Standard M53.3 Leak Survey Calibration states:

"Check the calibration of HFI gas detectors before the first field use in any given week. If

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the unit is not used and its calibration not checked for any given week, record that the particular unit was out of service for that week. Record this on the "Weekly Calibration Check of Flame Ionization Unit" form, for [Optical Methane Detectors] on the "Weekly Calibration Check of Optical Methane Detector" form"

SED discovered two instances, shown in Table 3, of the Division not documenting leak survey calibration records in accordance with the PG&E M53.3 Standard.

Table 3. Missing Leak Survey Instrument Documentation

| Instrument Description | Issue | |
|-----------------------------------|--------------------------------------|--|
| | Missing weekly notes after May | |
| Optical Methane Detector #1186 | 2013 indicating if the unit has been | |
| | used or calibrated | |
| | Missing weekly notes from | |
| Flame Ionization Unit #1500914008 | September 17, 2012 to December | |
| | 31, 2012 indicating if the unit has | |
| | been used or calibrated | |

Please verify if the Division used the Optical Methane Detector #1186 for gas leak surveys, gas leak rechecks, gas leak investigations, or any other use during the period identified as missing records of calibration or indication of use. Please provide the record(s) showing when the Division used the instrument without proper calibration records, and follow up actions the Division has taken to ensure that the gas leak surveys it performed were with calibrated instruments.

1.4. PG&E UO Standard S5000 states:

"GD&TS area senior gas engineers are responsible for...Reviewing the Emergency Zone Curtailment binder annually. Reviews are to occur not more than 15 months apart"

SED found that the Division failed to review all three Emergency Zone Curtailment binders during the 2011 calendar year.

Table 4. Missing Emergency Shutdown Zone Reviews

| Emergency Shutdown Zone Location | 2010 Annual Review Date | 2011 Annual Review Date | 2012 Annual Review Date |
|---|----------------------------|----------------------------|----------------------------------|
| Hamilton City, Orland, Willows | 5/4/2010 | Missing | 10/4/2012 |
| Durham, Paradise, Oroville, Gridley, Biggs | 5/10/2010 | Missing | 10/4/2012 |
| Chico | 5/4/2010 | Missing | 10/4/2012 |

PG&E RESPONSE

1.1: PG&E agrees with this finding. For the six instances noted in Table 2 above, the supervisor, who has since retired, failed to document his review on the Regulator Station Maintenance Report within 30 days of the maintenance. The current supervisor has been

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reminded of this responsibility. As a preventative measure, with the migration of maintenance documentation recorded electronically via a mobile device by technicians in the field, documentation of the supervisor review will no longer be necessary. See the attached bulletin TD-4001B-003 (Attachment 6). This effort to convert to an electronic mobile platform to record maintenance will continue in the divsions throughout 2014.

- **1.2**: PG&E agrees with this finding. PG&E has observed that the sticker containing the switch rating information, normally attached to the inside of the rectifier cover, has occasionally fallen off the rectifier cover. Going forward, when the sticker is not present, the corrosion mechanic will verify that no changes have been made to rectifier disconnect and complete the form using data from previous inspection where rating was correctly documented. See Attachment 7 for the briefing with Corrosion Mechanics on how to complete the Rectifier Test and Site Evaluation Form.
- 1.3: PG&E agrees with this finding. North Valley Division has reviewed its leak survey and calibration records for these two leak survey instruments and verified that for the weeks with missing calibration check records, the instruments were not in use. PG&E acknowledges that it failed to properly document that the instruments were not in use for those weeks. PG&E has confirmed that the earliest calibration check records subsequent to these missed weeks show that both instruments were within acceptable limits. The supervisor has given a tailboard briefing of the need to complete the instrument calibration records, including documenting when the units are out of service. (Attachment 8). In addition to prevent recurrence, leak survey instrument calibration checks are now being tracked in the SAP work management system to improve visibility and timeliness of required calibration checks.
- **1.4**: PG&E agrees with this finding. To prevent recurrence, the local Gas Planning Engineer has been instructed in the correct way to record the official review of the distribution shutdown zone binders, and has established a follow-up plan to ensure the review is scheduled on time each year.

ATTACHMENTS

| Attachment # | Title or Subject | |
|--------------|--|--|
| 6 | TD-4001B-003 | |
| 7 | Corrosion Mechanic Tailboard Briefing | |
| 8 | Documentation of Instrument Calibration Check Briefing | |

ACTION REQUIRED

| Action To Be Taken | Due Date | Responsible Dept. |
|--------------------|-----------------|-------------------|
|--------------------|-----------------|-------------------|

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INSPECTION INFORMATION

| Inspection Dates | Finding | CPUC Contact | CPUC Phone # |
|-------------------------|---------|--------------|----------------|
| September 23 - 27, 2013 | NOV - 2 | Willard Lam | (415) 703-1327 |

INSPECTION FINDING

CPUC Finding

2. General Order 112-E Section 143.1 states:

"A gas detector survey must be conducted in business districts and in the vicinity of schools, hospitals and churches, including tests of the atmosphere in gas, electric, telephone, sewer and water system manholes, at cracks in pavement, and sidewalks, and at other locations providing an opportunity for finding gas leaks, at intervals not exceeding 15 months, but at least once each calendar year"

SED discovered the following two instances of the Division failing to perform a gas detector survey in the vicinity of a school at least once each calendar year:

Table 5. Missing Gas Detector Surveys

| Plat Map Location | Service Type | Year Gas Detector Survey Missed |
|-------------------|--------------|------------------------------------|
| 1715H7 | School | 2011 |
| 1899C3 | School | 2012 |

PG&E RESPONSE

PG&E agrees with this finding. Gas facilities in the vicinity of these two schools were subsequently leak surveyed (2012 and 2013, respectively) and no leaks were found. The annual leak survey locations, stored electronically as a layer in the electronic mapping database, did not identify these two locations in 2011 and 2012 on the hardcopy maps sent to field personnel. To prevent recurrence, North Valley Division Mapping personnel have been instructed when preparing the annual leak survey maps, that each location on the maps printed out from the electronic mapping system are to be compared to previous years' annual leak survey locations to ensure all locations are identified for the annual leak survey..

ATTACHMENTS

| Attachment # | Title or Subject |
|--------------|------------------|
| None | |

ACTION REQUIRED

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

Definitions: NOV – Notice of Violation

INSPECTION INFORMATION

| Inspection Dates | Finding | CPUC Contact | CPUC Phone # |
|-------------------------|-----------------|--------------|----------------|
| September 23 - 27, 2013 | Field Audit – 1 | Willard Lam | (415) 703-1327 |

INSPECTION FINDING

| CPUC | 1. Title 49 CFR §192.707(c) states: |
|---------|--|
| Finding | "Line markers must be placed and maintained along each section of a main and transmission line that is located above ground in an area accessible to the public" During a field visit, SED discovered that the Division failed to install line markers for the above ground main located on the East Gridley bridge span. |
| | |

PG&E RESPONSE

PG&E agrees with this finding. Decals were installed on this exposed span on September 26, 2013. To ensure pipeline markers or pipeline warning decals are present at exposed spans, the North Valley Division employees responsible for conducting exposed span inspections have been briefed on the need to inspect and install pipeline markers or decals. Please see Attachment 7 for the briefing documentation

ATTACHMENTS

| Attachment # | Title or Subject |
|--------------|---------------------------------------|
| 7 | Corrosion Mechanic Tailboard Briefing |

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 23 - 27, 2013 | Field Audit – 2 | Willard Lam | (415) 703-1327 |

INSPECTION FINDING

CPUC Finding 2. During a field visit to various Cathodic Protection Areas (CPAs), SED observed the following pipe-to-soil readings did not meet the -850 mV criteria:

Table 6. Inadequate Pipe-to-Soil Readings

| Location | Address | Pipe-to-Soil Reading, millivolts (mV) |
|-------------|--------------------------------|--|
| CPA 1011-02 | ETS N/W Corner Lassen Ave and | -759 |
| | Shasta Dam Blvd | |
| | 13593 Beacon Ave | -720 |
| CPA 1070-01 | Kirkwood Dehydrator, Hall Road | -808* |
| CPA 1079-11 | 918 Placer Street | -709** |

^{*} PG&E identified the inadequate read on August 6, 2013

Please provide a status update on the corrective action taken to restore cathodic protection at these locations.

PG&E RESPONSE

Please see the three attachments noted below containing the 2013 maintenance records for the three CP Areas, including the restoration of adequate cathodic protection. Please note that the CP Area containing the reading at Kirkwood Dehydrator is CP Area 1770-01, and not CP Area 1070-01 as shown in Table 6 above.

ATTACHMENTS

| Attachment # | Title or Subject |
|--------------|--------------------|
| 9 | CPA 1011-02 – 2013 |
| 10 | CPA 1770-01 – 2013 |
| 11 | CPA 1079-11 - 2013 |

ACTION REQUIRED

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

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^{**} PG&E identified the inadequate read on July 10, 2013

INSPECTION INFORMATION

| Inspection Dates | Finding | CPUC Contact | CPUC Phone # |
|-------------------------|-----------------|---------------------|---------------------|
| September 23- 27, 2013 | Field Audit – 3 | Willard Lam | (415) 703-1327 |

INSPECTION FINDING

| CPUC |
|---------|
| Finding |

3. The Division's records of prior casing-to-soil potential readings for DREG-5476 MP 0.24 shown in Table 7 indicate potential contact in 2010 and 2011. It appears that the Division remediated the contacts in 2012 and 2013. However, on September 25, 2013, SED observed the Division record a casing-to-soil potential of -945 mV, which meets the -800 mV criteria stated in PG&E Utility Standard O-16 indicating contact between the casing and pipe. Please provide SED with a status update on the remediation of this contacted pipe casing.

Table 7. Casing-to-Soil Potentials at DREG-5476 MP 0.24

| Date | Casing-to-Soil Reading (mV) | |
|-----------|-----------------------------|--|
| 9/8/2010 | -1003 | |
| 6/13/2011 | -1089 | |
| 6/15/2012 | -569 | |
| 7/19/2013 | -753 | |
| 9/25/2013 | -945 | |

PG&E RESPONSE

This casing location continues to be on PG&E's Contacted Casing listing. It has a low priority ranking relative to other contacted casings on the list because of its location (non-HCA), and that it has been determined to be an electrolytic contact. PG&E's plan to remediate contacted casings, as requested in the 2015 Gas Transmission and Storage Rate Case filing, is for the end of 2017.

ATTACHMENTS

| Attachment # | Title or Subject | |
|--------------|------------------|--|
| None | | |

ACTION REQUIRED

| Action To Be Taken | Due Date | Responsible Dept. |
|--------------------|----------|-------------------|
| | | |

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INSPECTION INFORMATION

| Inspection Dates | Finding | CPUC Contact | CPUC Phone # |
|-------------------------|---------|--------------|---------------------|
| September 23- 27, 2013 | AOC – 1 | Willard Lam | (415) 703-1327 |

INSPECTION FINDING

CPUC Finding

D. Observations and Concerns

On 8/28/2013, the Division performed exposed pipe and span inspections for the Pentz span and Ophir span. The Division identified issues with deteriorating paint on the pipe. Under the "Action" description of the inspection form, the individual who performed the inspection noted "none taken" because the individual was not qualified to remove or repaint the pipeline. Even though the individual notified the pipe coating group of the condition of the pipe for remediation, the comment "none taken" on the pipeline inspection form implies that no corrective action was necessary. SED recommends that the "Action" column should clearly reflect the action taken by either the Division or the individual to correct the deficiency found during the inspection. In this case, the inspection record should reflect that the Division or individual doing the inspection notified the pipe coating group to perform the remediation work. Furthermore, the inspection record should also reflect completion of remediation work.

PG&E RESPONSE

PG&E agrees with this concern. The North Valley Division Corrosion Mechanics are the employees assigned to inspect exposed spans. They have been instructed that deficiencies in pipeline conditions need to be followed up with a corrective notification, and that observations not requiring remediation will be noted as such. (See Attachment 7) In this case, the Corrosion Mechanic confirmed that the flaking of paint was a cosmetic issue and not a deficiency that required corrective action. PG&E will continue to monitor this location, and will file a corrective notification if the condition requires remediation.

ATTACHMENTS

| Attachment # | Title or Subject | |
|--------------|---------------------------------------|--|
| 7 | Corrosion Mechanic Tailboard Briefing | |

ACTION REQUIRED

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

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