



Larry Deniston
Manager
Regulatory Compliance
Gas Operations

6111 Bollinger Canyon Rd.
San Ramon, CA 94583
Phone: 925.328.5756
E-mail: LCD1@pge.com

June 19, 2015

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 Sonoma Division

Dear Mr. Bruno:

The Safety and Enforcement Division (SED) of the CPUC conducted a General Order 112-E audit of PG&E’s Sonoma Division from April 06 through April 10, 2015. On May 26, 2015, the SED submitted their audit report, identifying violations and findings. Attached is PG&E’s response to the CPUC audit report.

Please contact Glen Allen at (925) 244-3388 or gmad@pge.com for any questions you may have regarding this response.

Sincerely,

/S/
Larry Deniston

Attachments

cc: Aimee Cauguiran, CPUC
Dennis Lee, CPUC

Mike Falk, PG&E
Sumeet Singh, PG&E

2015 Sonoma Division Audit Findings and Responses

| Finding Type [Internal, NOV, AOC] | Finding # | Finding | Response | Associated Attachment (File Name) |
|---|-----------|--|---|--|
| NOV Internal Findings | 1 | Prior to the start of audit, PG&E provided SED its finding from the internal review it conducted of Sonoma Division (Division). Some of PG&E’s internal review findings are violations of PG&E’s standards, and are therefore violations of Title 49 Code of Federal Regulations (CFR), §192.13(c) or §192.605(a). SED is aware that PG&E corrected some of its findings prior to SED’s audit. | All corrective actions associated with the Internal Review findings provided for the Sonoma Division CPUC audit have been completed. Attached, please find Attachment 1 -Internal Inspection Findings and Attachment 2 - Sonoma Division Internal Review, indicating the findings, corrective actions taken, and the closure date. | Att 1_Internal Inspection Findings_CONF.pdf Att 2_Sonoma Division Internal Review_CONF.pdf |
| NOV | 1.1 | <p>Internal surface not inspected</p> <p>Title 49 Code of Federal Regulations §192.475 (b) states that: “Whenever any pipe is removed from a pipeline for any reason, the internal surface must be inspected for evidence of corrosion....”</p> <p>PG&E procedure O -16, Section 9(A) states: “Whenever steel pipe is removed from a pipeline, it and the adjacent pipe must be inspected and evaluated to determine the presence and extent of any internal corrosion...”</p> <p>(a) SED staff reviewed construction records for three distribution projects: PM#s 31030425, 31053456 and 310996140. SED found that no internal surface inspections were performed when the pipe was exposed during the construction projects with PM# 31053456.</p> <p>(b) In addition, an internal surface inspection was not performed during the repair on steel pipeline for leak at 525 Healdsburg Avenue, Healdsburg (CPA 504-03 REC).</p> <p>(c) Copies of the A-forms provided for leak #s 4414103611, 4414000021 and 4414000341 show that the ‘internal inspection’ part of the forms was not filled.</p> | <p>a) PM 31053456: At the corner of Haman Drive and Village Side in Santa Rosa, a 2" side tap was cut out and replaced. If a piece of pipe is removed, an internal inspection is required, which was not documented to be completed on this A Form. See attachment 3 - "A-Forms PM31053456". To prevent reoccurrence, tailboards were held throughout the Division on 5/5/15, 5/8/15 and 6/4/15 with crew leads which reinforced that any pipe that is removed must be inspected for internal corrosion and the inspection results indicated on the hard copy A-Form or in Mariner under Pipe Condition. See attachment 8 - "Tailboard" for Tailboard documentation.</p> <p>In addition, PG&E published new internal corrosion guidance documents (consisting of one new internal corrosion control standard and five new internal corrosion control procedures) in July 2014 with an effective date of January 1, 2016. Please see attachment 9 - "TD-4186S_CONF.zip" for a copy of PG&E’s internal corrosion standard ("TD-4186S_CONF.pdf") and the five associated procedures ("TD-4186P-100_CONF.pdf" through "TD-4186P-500_CONF.pdf").</p> <p>PG&E is currently revising the existing internal corrosion inspection instructions (Job Aids), which will be completed by September 2015 and implemented by December 2015. This will improve the internal processes used for reviewing internal corrosion inspection data and for making future improvements. PG&E is currently evaluating potential changes to the A-Form to improve work processes.</p> <p>b) After review of the A-Form for 525 Healdsburg Avenue, it has been determined that the work performed at this leak resulted in installing two (2) skinner clamps on the 2" main on the west side of Healdsburg Avenue. Although the CPA Annual Report for CPA 504-03 shows that a 2" steel service was repaired, this is incorrect as per review of the A-Form inspection report (the clamps were installed on the main). Also, no pipe was replaced on this leak repair. Since no pipe was removed, an internal inspection is not required. See attachment 4 -"A-Form 525-Healdsburg".</p> <p>c) Leak 4414103611 - After review of the A-Form it has been determined that no pipe was removed on this leak repair. A weld repair was performed. Since no pipe was removed, an internal inspection is not required. See attachment 5 -"A-Form Leak No 44-14-10361-1".</p> <p>Leak 4414000021 - After review of the A-Form it has been determined that no pipe was removed on this leak repair. A weld repair was performed. Since no pipe was removed, an internal inspection is not required. See attachment 6 -"A-Form Leak No 44-14-00002-B".</p> <p>Leak 4414000341 - After review of the A-Form it has been determined that no pipe was removed on this leak repair. A weld repair was performed. Since no pipe was removed, an internal inspection is not required. See attachment 7 -"A-Form Leak No 44-14-00034-B".</p> | Att 3_A-Forms PM31053456_CONF.pdf Att 4_A-Form 525-Healdsburg_CONF.pdf Att 5_A-Form Leak No 44-14-10361-1_CONF.pdf Att 6_A-Form Leak No 44-14-00002-B_CONF.pdf Att 7_A-Form Leak No 44-14-00034-B_CONF.pdf Att 8_Tailboard_CONF.pdf Att 9_TD-4186S_CONF_CONF.zip |
| NOV | 1.2 | <p>P/S locations not monitored</p> <p>PG&E procedure O -16, Section 4(C), Table 1 ‘Schedule of Monitoring Intervals’ requires that: “Pipe-to-Soil (P/S) readings on Distribution and Local Transmission test locations should be taken bimonthly with intervals not to exceed 2 ½ months.”</p> <p>SED found that P/S reads at following locations were taken at intervals greater than 2 ½ months:</p> <p>(a) CPA 130-02-U, 2780 Broggi Ln, Talmadge: Reads were taken on 05/02/14 and then on 07/19/14. (b) CPA 252-01, ETS Vent Stack W/O RRKing HWY 175 Hopland and 314 St Mary’s Ave Hopland: Reads taken on 05/02/14 and then on 07/19/14.</p> | The following actions to prevent reoccurrence have been taken. Personnel changes have been made and the Sonoma Corrosion Control team, utilizing Corrosion Mechanics, are now performing the monitoring at all locations within the division. In addition, mobile devices are now being used to manage and record compliance work, including pipe-to-soil reads, which will help to ensure compliance dates are met. See attachment 10 - "NOV 1.2", showing compliance with all remaining reads at these locations. | Att 10_Nov 1.2_CONF.pdf |

2015 Sonoma Division Audit Findings and Responses

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|---|---------------------|--|---|--|------------------------|----------------------|-------|-----------------|------|-------|-------|---------------------|------|-------|-------|------------------|------|-------|---|--|
| NOV | 1.3 | <p>Missing CPA Follow-up Action Plan</p> <p>PG&E’s Standard O-16 (Rev. # 14), Corrosion Control of Facilities Section 6 (A) (3) states that: “If the CPA restoration work is (or is expected to be) over 30 days, the “CPA Follow-Up Action Plan” form (Attachment B) must be used and developed within 30 calendar days from the date the CPA is found below adequate levels of protection, as defined by the current 49 CFR 192, Subpart I.”</p> <p>SED reviewed cathodic protection area (CPA) records and found that the Division did not develop a “CPA Follow-Up Action Plan” within 30 calendar days from the date the CPA was found to have below adequate levels of protection. These locations are:</p> <p>(a) CPA 70402 – at Cotati Plaza Reg. Sta., ETS 41418343: low P/S values were recorded on 3/3/14 and 5/9/14. No action plan was generated.</p> <p>(b) 566-01 CPA - at 2907 Fulton Road, Santa Rosa, Annual ETS: a low P/S reading of -440 mV was recorded on 12/06/2104. No action plan was developed until it was pointed out during this audit. On the last day of audit, 04/10/2015, PG&E informed that they have created an action plan and remedial actions started. The relevant documents were provided.</p> | <p>a) CPA 70402, Cotati Plaza Reg. Sta: On 3/3/2014, the monitoring point on CPA 704-02, "Cotati Reg Sta", had a pipe-to-soil recorded to be -820 mV. There was no recorded up read until 7/7/2014 (-885 mV). All subsequent reads have been above -850 mV and no corrective order was required (see attachment 11, page 1, "NOV 1.3 Work Orders". An action plan was not completed for the deficient read within 30 days. On 4/10/2015, a subsequent action plan was generated to be used as a placeholder in the CPA folder. See attachment 12, page 1, "Nov 1.3 Action Plans".</p> <p>To prevent reoccurrence, action plans are now managed in the work management system, SAP. Automatic notifications are generated and sent to appropriate parties, alerting them if the need arises to initiate action plans and to make any subsequent updates to the action plans in a timely manner.</p> <p>b) 566-01 CPA, 2907 Fulton Road, Santa Rosa: On 12/6/14, a low pipe-to-soil read of -440 mV was recorded. An action plan was not completed for the deficient read within 30 days. On 4/10/15, a subsequent action plan was generated as well as corrective order 42386474. A ETS was installed on 5/12/15 and a CP read of -1228 mV was recorded. See attachment 11, pages 2-7, "NOV 1.3 Work Orders" and attachment 12, page 2, "Nov 1.3 Action Plans".</p> <p>To prevent reoccurrence, action plans are now managed in the work management system, SAP. Automatic notifications are generated and sent to appropriate parties, alerting them if the need arises to initiate action plans and to make any subsequent updates to the action plans in a timely manner.</p> | <p>Att 11_Nov 1.3 Work Orders_CONF.pdf Att 12_Nov 1.3 Action Plans_CONF.pdf</p> | | | | | | | | | | | | | | | | |
| NOV | 1.4 | <p>Weld Repair</p> <p>Title 49 Code of Federal Regulations §192.245(b) states that:</p> <p>“Each weld that is repaired must have the defect removed down to sound metal and the segment to be repaired must be preheated if conditions exist which would adversely affect the quality of the weld repair. After repair, the segment of the weld that was repaired must be inspected to ensure its acceptability.”</p> <p>The A-form provided for the leak # 4414103611 shows the “Repair Remarks” as “Welded over weld”. Similarly, the A-form for the leak # 4413109461 shows the “Repair Remarks” as “Welded over bad weld”. This indicates that the code required procedure was not followed for the weld repairs.</p> | <p>See attachments 13 and 14 for the A-forms for the referenced leak repairs. Welding over leaking welds with weld metal as a means to repair leaks is not permitted per PG&E repair standard TD-4100P-05, "Selection of Steel Gas Pipeline Repair Methods", Appendix J. See attachment 15 - "TD-4100P-05".</p> <p>To prevent reoccurrence, tailboards were held throughout the Division on 6/8/15, 6/10/15 and 6/11/15 with crew leads which reinforced that welding over leaking welds is not permissible. See attachment X, "Welding Tailboard" for Tailboard documentation.</p> | <p>Att 13_A-Form_LeakNo_44-14-10361-1_CONF.pdf Att 14_A-Form_LeakNo_44-13-10946-1_CONF.pdf Att 15_TD-4100P-05_CONF.pdf Att 16_Welding Tailboard_CONF.pdf</p> | | | | | | | | | | | | | | | | |
| AOC | 1 | <p>CP criteria not met for 10%ers – field visit</p> <p>PG&E procedure O-16 states in section 3(A) that: “Cathodic protection systems will be considered adequately protected when the lowest P/S potential is -850 mV or more negative, with reference to a copper-copper sulfate electrode, with cathodic protection current applied...”</p> <p>PG&E procedure TD-4181S, section 6.4, part (3) states that: “To ensure facilities are protected until the next monitoring cycle, a drivable anode must be installed if the P/S potentials are less negative than -950 mV with reference to a copper-copper sulfate electrode, with cathodic protection current applied.”</p> <p>SED during field visit found that the following locations had low P/S values. However, PG&E staff took corrective measures and new P/S values were provided which were above the required values.</p> <table border="1" data-bbox="354 1532 1025 1653"> <thead> <tr> <th>City</th> <th>Address</th> <th>Field P/S Reading (mV)</th> <th>New P/S Reading (mV)</th> </tr> </thead> <tbody> <tr> <td>Ukiah</td> <td>660 Dora Avenue</td> <td>-740</td> <td>-1515</td> </tr> <tr> <td>Ukiah</td> <td>1600 Lockwood Drive</td> <td>-909</td> <td>-1520</td> </tr> <tr> <td>Ukiah</td> <td>580 N Spring St.</td> <td>-946</td> <td>-1060</td> </tr> </tbody> </table> | City | Address | Field P/S Reading (mV) | New P/S Reading (mV) | Ukiah | 660 Dora Avenue | -740 | -1515 | Ukiah | 1600 Lockwood Drive | -909 | -1520 | Ukiah | 580 N Spring St. | -946 | -1060 | <p>Ukiah 660 Dora Avenue: On 4/9/2015, a Corrosion Mechanic installed an anode at this location and took a final pipe to soil reading of -1515 mV.</p> <p>Ukiah 1600 Lockwood Drive: On 4/9/2015, a Corrosion Mechanic installed an anode at this location and took a final pipe to soil reading of -1520 mV.</p> <p>Ukiah 580 N Spring St.: On 4/9/2015, a Corrosion Mechanic installed an anode at this location and took a final pipe to soil reading of -1060 mV.</p> <p>See attachment 17 - "AOC 1 Work Orders".</p> | <p>Att 17_AOC 1 Work Orders_CONF.pdf</p> |
| City | Address | Field P/S Reading (mV) | New P/S Reading (mV) | | | | | | | | | | | | | | | | | |
| Ukiah | 660 Dora Avenue | -740 | -1515 | | | | | | | | | | | | | | | | | |
| Ukiah | 1600 Lockwood Drive | -909 | -1520 | | | | | | | | | | | | | | | | | |
| Ukiah | 580 N Spring St. | -946 | -1060 | | | | | | | | | | | | | | | | | |

2015 Sonoma Division Audit Findings and Responses

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|---|-----------|---|--|---|
| AOC | 2 | <p>Service Line valve not locked or capped</p> <p>Title 49 Code of Federal Regulations §192.727 (d) states: (d) Whenever service to a customer is discontinued, one of the following must be complied with: (1) The valve that is closed to prevent the flow of gas to the customer must be provided with a locking device or other means designed to prevent the opening of the valve by persons other than those authorized by the operator. (2) A mechanical device or fitting that will prevent the flow of gas must be installed in the service line or in the meter assembly. (3) The customer's piping must be physically disconnected from the gas supply and the open pipe ends sealed.</p> <p>SED during the field visit observed that house at 1092 Helen Avenue in the city of Ukiah was under construction. The service riser valve was turned off, but it was neither locked nor capped. On an inquiry from PG&E staff, it appears that is not the practice in field. On closing day of the audit, PG&E staff informed and provided picture to confirm that riser was capped off.</p> | <p>The meter set at 1092 Helen Ave, Ukiah was been removed and the line capped on 04/9/2015. See attachment 18 - "Field Order 3920637632" and accompanying photograph, attachment 19 - "1092 Helen Ave Ukiah".</p> | <p>Att 18_Field Order 3920637632_CONF.pdf Att 19_1092 Helen Ave Ukiah_CONF.pdf</p> |
| AOC | 3 | <p>During the field visit, the following observations were made. Please provide status update on these: (a) Atmospheric corrosion was observed on meter set at a duplex unit located at 469 W. McArthur Street, Sonoma, ETS 41389183. The corrosion mechanic said that he would submit a corrective work order for it; (b) Surface rust was observed at exposed span R-180 (MP1: 7.85 and MP2: 7.86). PG&E staff mentioned that a paint request would be submitted for the same.</p> | <p>a) 469 W. McArthur Street, Sonoma: A gas corrective form was completed and submitted for corrective work. An employee visited the site and repainted the meter set on 4/14/15. See attachments 20 and 21, before and after installation photographs. b) Exposed span R-180 (MP1: 7.85 and MP2: 7.86): Corrective Notification 110176767 (PM 42368106) has been created by the Sonoma T&R department to have this span recoated. See attachment 22 - "AOC 3b Work Order". Estimated completion in 2016.</p> | <p>Att 20_Meter set before.pdf Att 21_Meter set after.pdf Att 22_AOC 3b Work Order_CONF.pdf</p> |
| AOC | 4 | <p>An isolated meter without any service connection was located at 29533 River Road, Cloverdale. Atmospheric corrosion was observed at the meter set. PG&E staff on the closing day informed that the meter has been removed and capped. A picture was provided.</p> | <p>On 4/10/15 the meter at 29533 River Rd, Cloverdale (agricultural site) was removed. See photo, attachment 23, previously provided to the CPUC during the audit. The idle service was cut-off per PM 31147338 on 4/29/15. See attachment 24 - "PM 31147338" and attachment 25 - "PM 31147338-As-Built".</p> | <p>Att 23_Meter at 29533 River Rd_CONF.pdf Att 24_PM 31147338_CONF.pdf Att 25_PM 31147338-As-Built_CONF.pdf</p> |
| AOC | 5 | <p>The meter at the Baptist church located at 31000 Cooley Lane was faded being exposed to water. PG&E staff informed that the meter has been changed and raised from the ground. A picture was provided.</p> | <p>The meter at the Baptist church located at 31000 Cooley Lane was replaced on 4/9/15 per Order 3317821336. See attachment 26 - "Field Order 3317821336" and the photo provided in attachment 27.</p> | <p>Att 26_Field Order 3317821336_CONF.pdf Att 27_Church Meter 31000 Cooley Ln_CONF.pdf</p> |

2015 Sonoma Division Audit Findings and Responses

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|--------------------------------------|-----------|--|--|--|
| AOC | 6 | <p>Title 49 Code of Federal Regulations §192.467(a) states:</p> <p>“Each buried or submerged pipeline must be electrically isolated from other underground metallic structures, unless the pipeline and the other structures are electrically interconnected and cathodically protected as a single unit.”</p> <p>PG&E procedure O-16, Section G, Casing Monitoring and Maintenance states that:</p> <p>“...Cased pipeline crossings that are found to be contacted (the casing is in electrical contact with the pipeline) shall be reported to corrosion engineering personnel within 30 days of discovery of the contact. Contacted casing reported to corrosion engineering personnel will be remediated as part of the contacted casing remediation program administered by corrosion engineering personnel. Once included in the contacted casing remediation program, the cased crossing will be evaluated and assigned a priority number and listed on the current list of contacted cased crossings. Contacted cased crossings will be remediated as resources become available. An action plan for contacted cased crossings shall be maintained by the local maintenance organization and shall consist of a standard contacted cased remediation plan, a description of the contacted case remediation program, and confirmation from corrosion engineering personnel that the particular casing is in the contacted casing program. In the year that a contacted casing is scheduled for remediation, the project manager responsible for the remediation work will prepare an individualized action plan for the work to attempt to clear the casing contact, anticipated to be performed during the year. The project manager will forward a copy of the action plan to the local maintenance organization to be included in the action plan for the contacted casing. The project manager shall update the action plan every 30 days and forward a copy of the most recent version of the action plan to the local maintenance organization to be included in the action plan for the contacted cased crossing.”</p> <p>SED observed that for casing NCC147050, 2771-F5 (L-021A, MP 24.49), the casing-to-soil reading was -1.067 mV and pipe-to-soil reading was -1.097 mV. This indicates a potential contact at this location. On further inquiry, PG&E provided documentation showing that the contact at this location is known at least from 02/08/2010, and the job will be performed as per procedure outlined in PG&E’s document WP4133-04. However, for this location, it has been more than five years and no remediation action has taken place. It is expected that remedial measures for casing issues for this case and others should be implemented within a reasonable timeframe.</p> | <p>PG&E has a centralized program for investigating possible contacted cased pipeline crossing and remediation of those crossings that are confirmed to have contacted casings. See attachment 28 - "TD-4181P-601", which describes the process for confirming a casing contact, and attachment 29 - "TD-4181P-602", which describes the steps that are taken to remediate contacted cased pipeline crossings.</p> <p>Since there are a number of suspected contacted cased pipeline crossings throughout PG&E’s natural gas pipeline transmission system, PG&E evaluates and prioritizes the investigation and remediation of these casings. The investigation and remediation of a particular cased crossing may take several years.</p> <p>The casing located at 21A MP 24.49, equipment 41386523, has the following history:</p> <p>9/7/2010: Local mechanics, while performing annual maintenance, recorded a casing to soil read of -961mV. This indicated a possible contacted casing. Additional testing was requested for contact verification and classification.</p> <p>2012: Contractor performed additional field testing to verify contact but found no contact. Even so, this casing was added to the contacted casing master list, based on the previous contacted reading. However, due to no contact being found, it was not prioritized for remediation.</p> <p>2013: Additional Contractor field testing was performed and again found no contact.</p> <p>2014: Additional Contractor field testing was performed and found metallic contact. This information was updated into the contacted casing master list and was reprioritized based on the known metallic contact.</p> <p>2015: Corrosion Engineer scheduled this casing project for construction in 2016 to remediate the casing contact.</p> <p>As noted above, the casing located at 21A MP 24.49 was not prioritized and scheduled for construction due to 2012 and 2013 readings which indicated there was no contacted casing. When additional Contractor testing in 2014 indicated a potential metallic contact, this casing was re-prioritized and scheduled for remediation in 2016.</p> | <p>Att 28_TD-4181P-601_CONF.pdf Att 29_TD-4181P-602_CONF.pdf</p> |
| AOC | 7 | <p>SED observed that the “internal findings” provided by PG&E did not contain all of the corrosion areas subjected to inspection, for example, exposed sections, meter set corrosion, CPA re-surveys, rectifier maintenance and others.</p> | <p>Currently PG&E’s "Internal Review Findings", provided for Divisions by the Quality Management Group, do not contain all of the information listed on attachment 30 - "CPUC-prepared audit checklist - Corrosion Control". PG&E is in the process of reviewing the CPUC checklist and is considering adding additional items related to Corrosion to the "Internal Review Findings".</p> | <p>Att 30_CPUC-prepared audit checklist - Corrosion Control.pdf</p> |