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May 26, 2016

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 Audit – PG&E’s Rio Vista and Los Medanos Districts

Dear Mr. Bruno:

The Safety and Enforcement Division (SED) of the CPUC conducted a General Order 112 audit of PG&E’s Rio Vista and Los Medanos Districts from September 21-25, 2015. On May 3, 2016, 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) 278-3462 or gmad@pge.com for any questions you may have regarding this response.

Sincerely,

/S/  
Michael Falk

Attachments

cc: Quang Pham, CPUC  
Aimee Cauguiran, CPUC  
Dennis Lee, CPUC

Susie Richmond, PG&E  
Larry Deniston, PG&E  
Sumeet Singh, PG&E

**2015 Rio Vista and Los Medanos Districts Audit Findings and Responses**

<b>CONFIDENTIAL – Provided Pursuant to P.U. Code §583</b>										
<b>Finding Type [Internal, NOV, AOC]</b>	<b>Finding #</b>	<b>Finding</b>	<b>Response</b>	<b>Associated Attachment (File Name)</b>						
NOV - PG&E's Internal Review Findings	1	<p>Prior to the start of the audit, PG&amp;E provided SED its findings from the internal review it conducted of Rio Vista and Los Medanos Districts (Districts). Some of PG&amp;E's internal review findings are violations of PG&amp;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&amp;E corrected some of its findings prior to SED's inspection. Table 1 lists all of the violations from PG&amp;E's internal review.</p> <p>Please provide SED a status update on the internal findings that remediation were not completed as of September 25th, 2015.</p>	<p>Attached, please find Attachment 1 - "Internal Review Findings", indicating that there are two pending items which have been highlighted in yellow. Both of these pending items are related to span remediation projects. Attached, please find Attachment 2 - "Span Remediation Updates", indicating the status of each project.</p>	<p>Att 1_Internal Review Findings.docx Att 2_Span Remediation Update_CONF.xlsx</p>						
NOV	2	<p>Title 49 CFR §192.605(a) states in part: "Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response."</p> <p>Gas Standard O-71, Calibration of Crystal and Gel Electrodes, states in part: "Check each reference electrode for calibration four times each calendar year, not to exceed 4-1/2 months..."</p> <p>SED reviewed the Districts' Copper-Copper Sulfate electrode calibration records and found that the Districts did not check each of following reference electrodes for calibration four times each calendar year in accordance with Gas Standard O-71. PG&amp;E is in violation 49 CFR §192.605(a).</p> <p><b>Table 1: Reference electrodes not checked for calibration</b></p> <table border="1"> <thead> <tr> <th>Equipment ID</th> <th>Missing Calibration</th> </tr> </thead> <tbody> <tr> <td>Concord-10</td> <td>June 2013</td> </tr> <tr> <td>Concord-22</td> <td>December 2012 and September 2013</td> </tr> </tbody> </table>	Equipment ID	Missing Calibration	Concord-10	June 2013	Concord-22	December 2012 and September 2013	<p>Reference electrode Concord-10 missed its required quarterly calibration in the 2nd quarter of 2013 and reference electrode Concord-22 missed its required quarterly calibration in both the 4th quarter of 2012 and the 3rd quarter of 2013. Attached, please find Attachment 3 - "Cal Docs Concord 22 and 10". The reference electrodes were each calibrated the following quarter and were found within acceptable calibration limits.</p> <p>To prevent reoccurrence, the corrosion group has created maintenance plans in SAP for each reference electrode in use in the District. SAP will automatically generate a "compliance task reminder" when calibration is nearing its due date. In addition, a tailboard was held on 12-18-15 to reinforce the need to perform quarterly calibrations of reference electrodes in use within the District. Attached, please find Attachment 4 - "DICP Calibration Tailboard 12-18-15".</p> <p>PG&amp;E Gas Standard O-71 has been superseded by TD-4180P-202. The new procedure also requires calibration of the reference electrodes four times each calendar year, not to exceed 4-1/2 months. Attached, please find Attachment 5 - "TD-4180-202". A new calibration form has also been created in order to more easily track the completion of required calibration. Attached, please find Attachment 6 - "TD-4180P-202-F01".</p>	<p>Att 3_Cal Docs Concord 22 and 10_CONF.pdf Att 4_DICP Calibration Tailboard 12-18-15_CONF Att 5_TD-4180P-202.pdf Att 6_TD-4180P-202-F01.docx</p>
Equipment ID	Missing Calibration									
Concord-10	June 2013									
Concord-22	December 2012 and September 2013									
NOV	3	<p>Title 49 CFR §192.605(a) states in part: "Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response."</p> <p>Gas Standard O-16, Section 6.B.3, Cathodic Protection Restoration for Backbone Transmission and Gathering Lines, states in part: "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..."</p> <p>SED reviewed the Districts' corrosion records and found that the Districts did not develop a "CPA Follow-up Action Plan" for a low read found on ETS RVEMR0710 L-108 Eight Mile Road PLS during maintenance on 05/22/2014 in accordance with Gas Standard O-16. The next compliant read at this location was on 01/20/2015, a period extending beyond the 60 days requirement. PG&amp;E is in violation of 49 CFR §192.605(a).</p>	<p>On 5/22/2014, a read of -815 mV was recorded at ETS RVEMR0710 located on L-108 at Eight Mile Road PLS. PLM Work Request 204156 was generated that same day in response to the low read. A read of -850 mV is required to remain in compliance. On 10/28/2014, the PLM work request was completed and documents that a jumper was installed and the area is back up. However, no up read was recorded at this time. The next read at this location was recorded on 01/20/2015 with a compliant reading of -1139 mV. This CPA was not restored within 60 calendar days from the date the CPA was found below adequate levels of protection and a "CPA Follow-up Action Plan" was not created. Attached, please find Attachment 7 - "L-108 Low Read-PLM Work Request".</p> <p>PG&amp;E Gas Standard O-16 has been superseded and PG&amp;E has published a new external corrosion control standard, TD-4181S, Rev 1 "External Corrosion Control of Gas Facilities". Attached, please find Attachment 8 - "TD-4181S Rev 1".</p> <p>To prevent reoccurrence, with the publication of TD-4181S, Rev 1 on 2/24/16, paper action plans are essentially obsolete and restoration activities are now managed in the work management system, SAP. Weekly email notifications are sent to corrosion operations from the Asset Strategy department, showing how long each CPA has been down. This will aid the appropriate parties to make any subsequent updates in a timely manner in the long text of the Notification whenever there is a milestone, including scheduling of work requests and completion of work. The local corrosion mechanics have been tail-boarded on these changes to action plans. Attached, please find Attachment 9 - "TD-4181S Rev 1 Guidance Document", Attachment 10 - "TD-4181S Rev 1 Tailboard" and Attachment 11 - "Crew Tailboard".</p> <p>Since publication of TD-4181S, Rev 1, an additional enhancement has been identified for SAP to supplement the CPA Down Report. The intent of this new SAP Change Request (CR 111617004) will be to automatically track one notification per CPA, alerting them of the need to update the notification long text, even for complex CPAs with significant preventative and corrective activity. Once the new CR is ready for release, impacted personnel will be trained on how to use the enhanced SAP tracking tool to be used in conjunction with the CPA Down Report. The goal is to improve the timeliness of CPA restoration while providing the best visibility possible with current technology. Implementation is estimated to be completed in the 4th quarter of 2016.</p>	<p>Att7_L-108 Low Read-PLM Work Request_CONF.pdf Att 8_TD-4181S Rev 1.pdf Att 9_TD-4181S Rev 1 Guidance.pdf Att 10_TD-4181S Rev 1 Tailboard.pdf Att 11_Crew Tailboard_CONF.pdf</p>						

**2015 Rio Vista and Los Medanos Districts Audit Findings and Responses**

Finding Type [Internal, NOV, AOC]	Finding #	Finding	Response	Associated Attachment (File Name)
NOV	4	<p>Title 49 CFR §192.605(a) states in part: "Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response."</p> <p>Gas Standard O-16, Section 9.A, states in part: "Whenever the presence of corrosive liquid is confirmed, or corrosometer probe reads are out-of-specification, a mitigation plan shall be developed."</p> <p>SED reviewed the Districts' Corrosometer Probe data and found the probe at Thornton Rd L-196 has been giving faulty Check Reference Readings dating back to 2009. The Districts did not develop a mitigation plan nor did the Districts remove the faulty probe from service as required in Gas Standard O-16. PG&amp;E is in violation of 49 CFR §192.605(a).</p>	<p>The corrosometer (Electrical Resistance Probe) located at Thornton Road on L-196 was functioning until 5/5/2014 when a dial reading of greater than 1000 was read, indicating that the probe required replacement. Prior to this, there were intermittent high "Check Reference" reads recorded, however, the corresponding "Dial Readings" were normal. Attached, please find Attachment 12 - "Corrosometer L-196 Reads".</p> <p>The measurements on corrosometers in the area in the past 3 years have shown no significant corrosion rates (far less than 1 mil per year) due to the gas PG&amp;E is transporting. These units were historically installed for monitoring the corrosiveness of non-tariff gas in producing or gathering fields. As PG&amp;E now transports tariff quality gas with little moisture or corrosive constituents throughout its transmission system, the continued use of corrosometers to measure corrosion rates in this area is currently under evaluation by the corrosion engineering group. The failed corrosometer is currently scheduled for replacement per PSRS 412290 and Order 4266978. The project has been estimated and has been assigned to the Project Management Organization (PMO) with an estimated completion in the 4th quarter of 2016. The replacement requires a clearance since the corrosometer is located in the gas stream.</p> <p>PG&amp;E Gas Standard O-16 has been superseded. PG&amp;E published a new internal corrosion control standard and five new internal corrosion control procedures in July 2014, with an effective date of January 1, 2016. The requirement to develop a mitigation plan when a corrosometer is out of specification is no longer required. Corrosion mitigation plans are required if corrosion values exceed pre-determined limits as defined in the new standard and procedures. Attached, please find Attachment 13 - "TD-4186S.zip" for a copy of PG&amp;E's Internal Corrosion Standard ("TD-4186S.pdf"), the five associated procedures ("TD-4186P-100.pdf" through "TD-4186P-500.pdf") and the evaluation and Mitigation Plan for Internal Corrosion Assessment form ("TD-4186P-400-FO1.docx").</p>	<p>Att 12_Corrosometer L-196 Reads_CONF.pdf Att 13_TD-4186S.zip</p>
NOV	5	<p>Title 49 CFR §192.475(b) states: "Whenever any pipe is removed from a pipeline for any reason, the internal surface must be inspected for evidence of corrosion."</p> <p>SED reviewed the Districts' Leak Repair records and found that the Districts did not perform an internal pipeline inspection for a section of pipe that was exposed during the leak repair process. Leak 96-13-23003-1 was discovered on 10/23/2013 and was repaired on 10/27/2013 by removing the leaking valve and replacing a short section of the steel main. During the leak repair, the Districts failed to inspect the internal surface of the sections removed and the adjacent pipe. PG&amp;E is in violation of 49 CFR §192.475(b).</p>	<p>Whenever any pipe is removed from a pipeline for any reason, or whenever the interior surface of the pipeline is exposed, the internal surface must be inspected for evidence of corrosion. This inspection was not documented on the A-Form for the referenced leak repair 96-13-23003-in which a leaking valve was removed and replaced with a small section of new 10 inch steel pipe. See attachment 14 - "A-Form Leak 96-13-23003-1".</p> <p>To prevent reoccurrence, PG&amp;E published a 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 13 - "TD-4186S.zip" for a copy of PG&amp;E's internal corrosion standard ("TD-4186S.pdf") and the five associated procedures ("TD-4186P-100.pdf" through "TD-4186P-500.pdf").</p> <p>In addition, PG&amp;E revised the existing internal corrosion inspection instructions (Job Aids) on 7/16/2015. The new revision will enhance the internal processes used to review internal corrosion inspection data. See attachment 15 - "A-Form Job Aid". PG&amp;E is also currently evaluating potential changes to the A-Form to improve work processes.</p> <p>A Corrective Action Program (CAP) Notification (7012817) was also generated to develop a 5 Minute Meeting to reinforce to personnel in all Divisions and Districts of the requirement to fill out the Internal Inspection portion of the A-form whenever the inside surface of the steel pipe is visible, and also to reinforce that all employees qualified for 03-05, ("Pipe Inspection"), are qualified to perform this inspection. This 5 Minute Meeting has been completed and was issued on 8/10/2015. In addition, three tailboards were held for the area's Gas Transmission &amp; Distribution Construction personnel to reinforce the requirement to perform the internal corrosion inspections. These tailboards have been included with the 5 Minute Meeting. See attachment 16 - "SMM A Form Internal Inspection and Tailboards".</p>	<p>Att 14_A-form Leak 96-13-23003-1_CONF.pdf Att 15_A-Form Job Aid.pdf Att 16_SMM A Form Internal Inspection and Tailboards_CONF.pdf</p>

**2015 Rio Vista and Los Medanos Districts Audit Findings and Responses**

Finding Type [Internal, NOV, AOC]	Finding #	Finding	Response	Associated Attachment (File Name)
NOV	6	<p>Title 49 CFR §192.491(c) states: "Each operator shall maintain a record of each test, survey, or inspection required by this subpart or inspection required by this subpart in sufficient detail to demonstrate the adequacy of corrosion control measures..."</p> <p>SED was unable to verify the calibration of equipment used by Rio Vista District prior to April 2014. Rio Vista District could not locate the binder containing the calibration records and noted the binder is currently missing. Rio Vista District must adhere to recordkeeping requirements and maintain calibration records to confirm equipment used was properly calibrated. PG&amp;E is in violation of 49 CFR §192.491(c).</p>	<p>The binder containing the calibration records of equipment used by Rio Vista District between January 2013 through April 2014 cannot be located. In response to this, the district has compiled a record utilizing PLM indicating the preventative maintenance orders which calibrated the equipment. Attached, please see attachment 17 - "Calibration PM Orders". These records indicate the PM number, name and serial number of the equipment, calibration frequency, date the instrumentation was calibrated, Lan ID of the technician performing the calibration and the hours spent performing the calibration.</p> <p>To prevent reoccurrence, the District calibrations are now documented electronically utilizing the AMBBS (Asset Maintenance Backbone and Stations) software system and additionally stored as a hard copy in the calibration binders. The AMBBS system was designed for Gas Transmission preventative and corrective maintenance work and data management. Having the electronic documentation as well as the secondary hard copies ensures that data is traceable and verifiable.</p>	Att 17_Calibration PM Orders_CONF.pdf
AOC	1	During SED's field verification of pipe-to-soil read location RVCP52590 L-401E MP 281.56, SED noted the label on the valve actually indicated MP 281.59. Please update SED with confirmation if either the PLM or field read point location description is the correct information and actions taken to update the information.	Attached, please find Attachment 18 - "CPUC Rio Vista Audit Data Requests 24-27", confirming that the read is taken at the valve corresponding to MP 281.59. This information was previously supplied to the CPUC on 10/26/15 in response to Data Request 24. PLM has been updated to reflect the correct mile point as MP 281.59. Attached, please find Attachment 19 - "ETS L-401 MP 281.59".	Att 18_CPUC Rio Vista Audit Data Requests 24-27.msg Att 19_ETS L-401 MP 281.59_CONF.pdf
AOC	2	During SED's field verification, SED noted rectifier #344 L-144 MP 3.10 produced an open loop (OL) reading for the ground resistance measurement. Please provide SED with an update on the remedial actions to address the OL reading at this rectifier.	Attached, please find Attachment 18 - "CPUC Rio Vista Audit Data Requests 24-27", indicating that a second ground rod was installed and the ground resistance measurement was reading normal. This information was previously supplied to the CPUC on 10/26/15 in response to Data Request 27. In addition, attached, please find Attachment 20 - "Rectifier Maintenance Form" indicating that the second ground rod was installed on 10/12/15. Also included are the results of the latest maintenance performed on 1/15/16.	Att 20_Rectifier Maintenance Form_CONF.pdf
AOC	3	During SED's field verification, a pipe-to-soil read was mistakenly taken at L-130W V-137 when the requested read was actually on L-130W V-48. Please provide SED with the most recent pipe-to-soil read at the correct location: RVCP600890 L-130W MP 1 V-48.	Attached, please find Attachment 18 - "CPUC Rio Vista Audit Data Requests 24-27", indicating a read of -1050 mV taken at valve 48, ETS Line 130W on 10/11/15. This information was previously supplied to the CPUC on 10/26/15 in response to Data Request 25. Attached, please find Attachment 21 - "Index 6832 ETS Line 130W 1 valve 48 read". In addition, attached, please find Attachment 22 - "V-48 read 3-7-16" indicating the latest read of -1108 mV performed on 3/7/16.	Att 21_Index 6832 ETS Line 130W 1 valve 48 read_CONF.pdf Att 22_V-48 read 3-7-16_CONF.pdf
AOC	4	During SED's field verification, SED noted a low pipe-to-soil read of -811mV at location RVCC52600 L-401E MP 281.63 Creed Station. SED has been provided with a restored read of -865mV taken on 10/02/2015. There is no follow-up response required for this observation.	Attached, please find Attachment 18 - "CPUC Rio Vista Audit Data Requests 24-27", indicating a read of -865 mV taken at L-401E, MP 281.63 on 10/2/15. As stated, this information was previously supplied to the CPUC on 10/12/15 and on 10/26/15 in response to Data Request 26, and no follow-up response is required for this observation.	