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November 26, 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 of PG&E’s Yosemite Division

Dear Mr. Bruno:

The Safety and Enforcement Division (SED) of the CPUC conducted a General Order 112-E audit of PG&E’s Yosemite Division from October 21 through 29, 2013. On October 23, 2014, the SED submitted their audit report, identifying violations and findings. Attached is PG&E’s response to the CPUC audit report¹.

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

Sincerely,

/S/
Bill Gibson

Attachments

cc: Banu Acimis, CPUC
Aimee Cauguiran, CPUC
Dennis Lee, CPUC

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

¹ To the extent, if at all, that SED’s Yosemite Division Audit Report pertains to matters that may be determined to be within the scope of the Commission’s November 20, 2014 Order Instituting Investigation and Order to Show Cause directed to PG&E, PG&E reserves the right to supplement its response in the course of that proceeding.

**2013 Yosemite Division Audit Attachment
PG&E Responses**

CPUC Letter Finding #	Findings	PG&E Response	Associated Attachment (File Name)	Future Action Date
PG&E Internal Review Findings				
	<p>1. Transmission leak survey was completed when wind speed above 15 mph. System will be completed in 2nd quarter of 2014</p> <p>4. Inlet MAOP of regulator station does not equal downstream MAOP of regulator and monitor. (RC-05; RD-05; RB-53). Inlet valves scheduled to be replaced 6/30/2014.</p> <p>7. Abandonment procedure was not followed for regulator station (MOHP-93). Three of five remaining valves are scheduled for removal on 6/30/2014.</p> <p>8. Regulator station corrective work was identified but no action was taken. Corrective work scheduled on 6/30/2014.</p> <p>13. Inoperable valves were not restored within 12 months. 2 valves have been scheduled to be removed from service in Q4 2014.</p>	<p>1. Leak surveys of these 4 maps were subsequently performed in April 2014 with wind speeds recorded below the 15 mph limitations. No leaks were discovered.</p> <p>4. PG&E respectfully disagrees with this is a violation of CFR, §192.619(a). These regulator station valves do not operate at a pressure above the equipment manufacturer's rating. PG&E's desire has been to retrofit pre-1970 regulator station downstream valves to be rated for the station upstream MAOP. These 3 remaining station valve replacements were listed in PG&E's Internal Review findings because they were not replaced within the committed timeframe. These three remaining stations will be rebuilt by the end of the 1st quarter of 2015.</p> <p>7. Complete deactivation of this station, including the three remaining valves and associated piping will be complete by 12/31/14.</p> <p>8. Corrective work at regulator stations has been completed or is planned as shown below: RA-08 : leak repaired 7/2/2014 (see attached) OAKHP-04: rebuilt 12-28-2012 (see attached) RB-13: Valve -2 to be replaced by 6/30/15 RC-04: Bypass valve to be removed in 1st Qtr. 2015 (see attached) TOHP-01: VM cards created and pressure recorder calibrated in 2014 (see attached) RA-73: lids to be replaced 1st Qtr. 2015 (see attached)</p> <p>13. V-1 at Reg Station OAK LP-02 was replaced on November 7, 2013. The second valve, V-5 at Reg Station OAK-LP-03, was replaced on November 6, 2013. (see attached)</p>	<p><i>Station RA-08_CONF.pdf</i> <i>Station OAKHP-04_CONF.pdf</i> <i>Station RC-04_CONF.pdf</i> <i>Station TOHP-01_CONF.pdf</i> <i>Station RA-73_CONF.pdf</i> <i>Station OAK LP-02 V-1_CONF.pdf</i> <i>Station OAK LP-03 V-5_CONF.pdf</i></p>	<p>4. March 30, 2015</p> <p>7. December 31, 2014</p> <p>8. June 30, 2015 March 30, 2015</p>
CPUC Findings				

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<p align="center">NOV-1.1</p>	<p>I-1. SED reviewed Division's instrument calibration records and noted that Division did not perform a total of 118 instrument calibrations of gas leak survey and detection instruments. Table 2 shows the missing instrument calibrations records for gas leak detection equipment that Division personnel used during the gas leak surveys in 2012. According to PG&E's document, M-53.3, Verifying the Calibration of Portable Combustible Gas Indicators, Hydrogen Flame Ionization Units, Optical Methane Detectors, and Remote Methane Leak Detectors which was effective in 2012, hydrogen flame ionization units (HFI) are required to be calibrated at least once a week and combustible gas indicators (CGI) are required to be calibrated once a month. As part of PG&E internal review audit, Division identified some of the missing calibration records for gas detection equipment that were used in gas leak surveys in 2010, 2011, and 2012. However, the list PG&E provided did not capture the missing calibration records for the leak detection equipment listed in Table 2. As a result of SED's review, SED noted the following additional missing calibration records for the identified instruments in 2012. SED also noted that Division must tag the units as "out of service" when they are not in service.</p> <p>Table 2. Missing Leak Detection Equipment Calibrations by Month in 2012.</p> <p>Instrument Type, Serial Number, Missing Calibration, Months, Location, Number of Missing Calibrations</p> <p>Heath DP-4*, 1003, Jan. through Aug., Merced, 32 Heath DP-4*, 7008, Nov., Dec., Modesto, 8 Heath DP-4*, 7011, July through Dec., Modesto, 24 Heath DP-3*, 0258, Nov., Dec., Modesto, 8 Heath DP-3*, 9561, Sep., Dec., Modesto, 8 Heath DP-3*, 9567, Sep. through Dec., Modesto, 16 CGI**, 0318-054079, Apr. through Dec., Merced, 9 CGI**, 4108, Jan. through July, & Nov., Dec., N/A, 9 CGI**, 59186, Sep. through Dec., Modesto, 4</p> <p>Total: 118</p> <p>Please inform SED of the preventive and mitigative (P&M) measures taken to address the deficiency.</p>	<p>Two parallel processes have been put in place . The first process, initiated in early 2013, is an organized backup binder that is reviewed on a weekly basis by supervisor to ensure the records are readily available. The second process, initiated in mid-2014, is the system-wide process to generate weekly work notification tickets in SAP for the calibration of each instrument. Along with the inputting of calibration completion, mapping cannot close the completion of leak survey on each map without calibrations record inputted into SAP for the instrument(s) used to leak survey that map. SAP also tracks units being out of service.</p>	<p align="center">None</p>	<p align="center">Not Applicable</p>
<p align="center">NOV-1.2</p>	<p>I-2. As required by several of PG&E's Utility Procedures and Standards such as DCS Standard D-S0456, Recording Pressures in Distribution Systems (effective date 4/1999), Utility Procedure: TD-4125P-05, Recording Pressures in Distribution Gas Systems (publication date 3/31/2010), UO Standard S5351, District Regulator Station Maintenance (effective date 8/2001), Utility Work Procedure WP4540-01, District Regulator Station Maintenance (effective date 8/2009), all permanent and portable mechanical and electronic recorders are required to be calibrated on an annual basis. SED reviewed Division's Test Instrument Calibration records for pressure recorders and identified the following missing calibration records for pressure recorders shown in Table 3.</p> <p>Table 3. Missing Annual Calibrations for Pressure Recorders</p> <p>Pressure Recorder Serial Number Missing Annual Calibration</p> <p>1909466 2007, 2008, 2010, 2011, 2012 2129206 2008 2129222 2008, 2010, 2011</p> <p>During the audit, PG&E representatives explained that when the Division plans not to use a pressure recorder, it tags it out of service so that employees will not use it. SED noted that Division must properly document out of service pressure recorders along with the justification for not using them in the calibration records. Please inform SED of the P&M measures taken to address the deficiency.</p>	<p>All portable pressure recorders are being entered into the SAP work management system to ensure annual calibration is being performed. The new Gas Design Standard L-01 (attached - effective 12/1/14) requires all tools to have a calibration sticker attached to the tool to prevent employees utilizing a tool that has not been calibrated as required before use. TD-4125P-05 specifies the annual calibration requirement for portable pressure recorders. There is no requirement to document whether a portable recorder is out of service, since the nature of being portable means that they are put into and taken out of service on a regular basis.</p> <p>Permanent pressure recorders are required to be annually calibrated per TD-4125P-05 and TD-4540P-01. Documentation of permanent recorders is kept with the regulator station maintenance documentation.</p>	<p align="center">Gas Design Standard L-01 Calibration Identification Stickers <i>(Gas Std L-01 Attachment 1-2_CONF.pdf)</i></p>	<p align="center">Not Applicable</p>

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<p align="center">NOV-1.3</p>	<p>I-3. PG&E's Utility Work Procedure WP4540-01, District Regulator Station Maintenance, issued in August 2009 describes work activities for PG&E's district regulator stations, including inspecting, testing, maintenance, and recordkeeping states in part: "II. Instructions for Conducting Inspections, Testing, and Maintenance A. Class A Inspection – Diagnostic Operational and diagnostic testing for a Class A Inspection must follow the instructions below. As Found Information 1. Before disassembling any equipment components, document all "as found" information, including filter differential pressure, regulator and monitor set points, and the ability of the monitor and regulator to lock-up. ... SED reviewed Division's District Regulator Station Maintenance record for Regulator Station RA-37 located on Highway 99 and Childs Avenue in Merced and noted that PG&E did not perform the filter differential pressure test for the years 2010, 2011, 2012, and 2013. Please inform SED of the corrective actions and P&M measures taken to address the deficiency.</p>	<p>PG&E technicians performed a pressure differential test and an internal inspection on both station filters on November 14, 2014 (see attached). To prevent recurrence, the entering of maintenance activities using mobile device will have validations for each required maintenance task to be entered prior to completion of the annual regulator station maintenance. This technology will be deployed system-wide in the second half of 2015.</p>	<p align="center">Reg Station RA 37 maintenance record (NOV 1-3_RA37 maintenance record_CONF.pdf)</p>	<p align="center">Mobile technology deployment to document regulator station maintenance by December 31, 2015</p>
<p align="center">NOV-1.4</p>	<p>I-4. PG&E's Utility Work Procedure WP4540-01, District Regulator Station Maintenance also states in part: "...Operating Tests for Regulator Runs 7. Test the regulator for lock-up using the long/short line technique..." SED reviewed Division's District Regulator Station Maintenance record of Regulator Station RC-10 located on Shain Avenue and Brannon Avenue in Merced and noted that the Division did not test the regulator for lock-up during the regulator maintenance performed in 2010 and 2011. SED also noted that the Division identified by-pass valve #4 inoperable and could not turn it during the maintenance performed in 2010, 2011, and 2012. Please inform SED of the corrective actions and P&M measures taken to address the deficiencies.</p>	<p>Regulator lock up test was performed and documented in 2013 and 2014. (see attached). A work order has been created for the removal of the bypass valve, and is scheduled for the first quarter in 2015. The HPR-type regulator station will not have a solid bypass. To automate the creation of corrective orders, PG&E will be deploying mobile devices throughout division operations capture regulator station maintenance activities electronically. The entering of maintenance activities using the mobile device will have validations that will not allow for preventative maintenance to be prematurely or inadvertently closed when corrective actions are required, and will not allow completion of the annual station maintenance without all required tasks completed and documented. This technology will be deployed system-wide in the second half of 2015.</p>	<p align="center">Reg Station RC-10 maintenance record (NOV 1-4_RC10 maintenance record_CONF.pdf)</p>	<p align="center">Mobile technology deployment to document regulator station maintenance by December 31, 2015</p>

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<p align="center">NOV-1.5</p>	<p>I-5. (See SED letter for language in Gas Standard O-16 Section 4.G.) SED reviewed Division's casing monitoring and maintenance records and noted that Division identified the following locations shown in Table 4 where casing-to-soil (C/S) potential readings were not in compliance with PG&E's Standard, O-16, Corrosion Control of Gas Facilities. SED also reviewed 2012 casing records recorded at location F-01 Brinks @2331 (Service /RR tracks), and noted that pipe-to-soil (P/S) reading was -943 mV and C/S reading was -877 mV in 2012 which were not included in Table 4. SED determined that Division did not take required follow-up action such as conducting further testing and/or reporting to corrosion engineering within 30 days in order to take remedial actions to bring the system into compliance when it identified these contacted casings where C/S potential readings were equal to or more negative than -800mV and/or the difference between the P/S potential and the C/S potential is less than 100 mV. SED also noted that at the locations where Division did not record P/S potential readings due to missing wires, PG&E should have taken P/S readings at other locations near casings to ensure that there are no contacted casings. Therefore, Division must take the P/S potential readings at or near all casings and take necessary corrective action if there are no wires to read the P/S potentials. The Division must follow its Standard O-16 by reporting locations to corrosion engineering within 30 days of discovery of the contacted casings and it must also take remedial actions in a timely manner. Table 4 shows some instances where Division did not take remedial actions in a timely manner; therefore, contacts existed for more than four years. Please inform SED of the corrective actions and P&M measures taken to address these deficiencies. Table 4- P/S and C/S Readings By Year Test Location Oct./2007 Oct./2008 Sep.-Oct./2009 Oct.-Nov./2010 Oct./2011 P/S (mV) C/S (mV) P/S (mV) C/S (mV) P/S (mV) C/S (mV) P/S (mV) C/S (mV) P/S (mV) C/S (mV) P/S (mV) C/S (mV)o MTR027030 3295-J6, 7217-01 MP 0.13, CA Aqueduct @ Sperry Rd., W side -852 -881 -1105 -874 -1052 -974 -1004 -935 -1075 -937</p>	<p>With SAP as new system of record, Corrosion Engineering is auto-notified about a possible contact once the data is entered in SAP and the maintenance notification is closed. Once Corrosion Engineering is notified, the lead engineer places location on risk based mitigation tracker for further investigation, prioritization and mitigation. With regards to table 4, all locations were on the contacted casing mitigation tracker. See last two columns in attached table for more information. All contacted cased locations are risk ranked, prioritized and mitigated / scheduled to be mitigate based on highest risk. PG&E respectfully disagrees with the portion of this finding that states that PG&E should have taken readings at other locations where potential readings could not be taken due to a missing vent or missing lead wires. This is not a required step and does not ensure electrical isolation on transmission pipelines with large current demands. Per O-16 - G. Casing Monitoring and Maintenance, a single read at a cased crossing is acceptable: ...If possible, both of the described tests above must be performed on each casing, but as a minimum each casing must comply with one of the established criterion in order to be considered electrically isolated from the pipeline. This has been improved upon and the new casing monitoring procedures will specify required tests to check for electrical isolation per 49CFR192.467 based on available test facilities present at a cased crossing.</p>	<p align="center">List of Contact Casings (NOV 1-5 Table of Contacted Casings.pdf)</p>	<p align="center">Not Applicable</p>
<p align="center">NOV-1.6</p>	<p>I-6. SED reviewed Division's Cathodic Protection (CP) records and noted that Division failed to take either P/S or C/S potential readings due to lack of test points at the following nine casing locations shown in Table 5. Records showed "No Vent, No ETS" for these locations. For example, at location Bar ID: MRR037230, there were no vents or Electrolysis Test Station (ETS) to take potential readings from 2007 through 2011. Therefore, PG&E could not take any C/S potential reading at this location to determine if there was any electric contact between the pipe and casing for more than four years. In addition, SED did not find any records to verify that Division has taken necessary remedial actions for the deficiencies identified at these locations. Table 5- Locations With No Vents and No ETS Bar ID Line No/ CPA MP Location Description MRR037230 118-T400 0.01 Hwy 99 S/O Lingard xing 99 (3/4") MRR037030 118-T400 0.09 Hwy 99 and Childs southbound on ramp MRR087110 186 6.85 N/E of V-6.66 MRR087100 186 8.2 MP 8.2 MRR087090 186 8.61 7th St. S/O Santa Fe Grade @ RR xing MRR057040 134A-T100 11.14 Between Rd 24 and Rd 23 N/O San Joaquin River @ Canal MRR067060 134A-T200 26.82 Arbios Reg. Sta. @ Hwy 33 xing MRR047440 118-T500 59.69 V St. bet. W 15th & V. 16th St. @ RR xing MRR047070 118A 62.57 Hwy 99 N/O Franklin Please inform SED of the corrective actions and P&M measures taken to address the deficiencies identified at these locations.</p>	<p>PG&E respectfully disagrees with this finding. PG&E has had a program in place since 2007 to test casing locations without vents or lead wires. As locations with no vents or no lead wires became known to the Corrosion Engineering Department, they were scheduled for the specialized testing techniques. In 2012, the program went system-wide and now tests all casings without test facilities utilizing advanced testing techniques. Please see the available testing data for casings listed in the attached table. Locations that have been determined to have an electrical contact have been put into PG&E's contacted casing remediation program. PG&E's new casing monitoring and mitigation procedures will further clarify required testing based on available test facilities and proper asset identification in SAP. The new procedures will be implemented system-wide starting in 2015.</p>	<p align="center">Testing of Casing Location with No Vents and No Lead Wires (NOV-1-6 Table: Testing of Locations with No Vents and No Lead Wires.pdf)</p>	<p align="center">Not Applicable</p>

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NOV-1.7	<p>I-7. SED reviewed Division's corrosion records and found that for Cathodic Protection Area (CPA) 3177-04, there were two yearly monitored locations: 1411 G Street and 717 16th Street in Modesto, with no CP maintenance records. The 2009 CPA resurvey map dated 9/24/09 shows that the pipelines installed at these locations existed since 2009. However, the Division did not have any CP maintenance records other than 2012 records. Please inform SED of the corrective actions and P&M measures taken to address these deficiencies.</p>	<p>Attached is the 2013 CPA Annual Report for 3177-04, which documents the two yearly locations and their respective PR Notification numbers from the SAP maintenance plan. The Cathodic Protection Resurvey process is currently being redesigned, and checks are being put in place in the engineering design review process to ensure Corrosion visibility to pipeline replacement jobs. This will help the Corrosion Department to identify, in pre-construction phase, locations that will need to be placed into a Yearly or Annual maintenance plan in SAP.</p>	<p>2013 Standard Cathodic Protection Maintenance Report (CPA 3177-04 2013_CONF.pdf)</p>	<p>Not Applicable</p>
NOV-1.8	<p>I-8. PG&E's Utility Procedure, TD 4110P-09, Leak Grading and Response, which was published on 1/6/2012, Section 5.1 "Grade 1 Leak Criteria" states in part: "...Any gas reading on subsurface facilities in, at, or under a building; within 5ft of a building; or in a tunnel..." Division identified Leak No. 91-07-30001-1 and classified as a Grade 3 leak on 1/10/2007 and 3/1/2012 even though it recorded the location as "5 feet from the riser". According to PG&E's effective procedure TD 4110P-09, PG&E should have graded and remediated this leak as a Grade 1 on 3/1/2012. On 3/8/2012, PG&E re-checked this leak, graded it as Grade 1, and repaired it on the same day. Please inform SED of the P&M measures taken to address this deficiency.</p>	<p>In reviewing this leak in March 2012, the supervisor caught this mis-grading and sent the leak surveyor and another qualified employee out to re-grade the leak. It was re-graded as a Grade 1 leak and repaired on March 8, 2012. The leak surveyor attended a refresher leak grading course to ensure all subsurface leaks within 5 feet of a building are graded a Grade 1.</p>	<p>None</p>	<p>Not Applicable</p>
NOV-2.1	<p>§192.481 states in part: "(a) Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows: If the pipeline is located onshore, then the frequency of inspection is at least once every 3 calendar years, but with intervals not exceeding 39 months..." II-1. SED reviewed Division's Stanislaus 2011 atmospheric corrosion (AC) records and found that Division failed to conduct AC monitoring of three areas listed below in 2011. Division conducted the previous AC monitoring in 2008 and did not monitor AC for more than five years; therefore, it exceeded the 39-month interval for inspecting these three locations for AC. • Division did not inspect exposed piping for evidence of AC in the area located on the lower right hand corner on Plat 3120A6 in 2011, • Similarly, SED found services on Black Pine Way on Plat 3122G5 that Division did not check for AC in 2011, • SED also found two "Cannot Get In" locations on Plat 3120D6 that Division did not monitor for AC in 2011. After the audit, Division informed SED that it inspected all three locations for AC on 1/17/14. Please inform SED of the P&M measures taken to address this deficiency.</p>	<p>As noted, the locations listed were inspected for atmospheric corrosion on January 17, 2014 and communicated with SED on January 24, 2014, with no atmospheric corrosion observed. PG&E is improving the AC inspection and remediation program through updated procedures and processes. Regarding AC inspection, PG&E is migrating toward inspection tracking at the meter level in order to track inspection compliance for each individual meter. Regarding AC remediation, while the regulations are not prescriptive on remediation timeline requirements, PG&E is implementing procedures and processes to ensure conditions requiring remediation are addressed prior to the next scheduled inspection. In addition, PG&E is in the process of developing and implementing major improvements to its corrosion control programs as described in the Feb 11, 2014 self report update to the CPUC (see attached). The goal of this improvement effort is to mitigate corrosion control issues by addressing root causes at a programmatic level.</p>	<p>February 11, 2014 Self-report Update -Corrosion.pdf</p>	<p>Not Applicable</p>
NOV-2.2	<p>§192.481... II-2. On 10/23/13, SED and PG&E visited Regulator Station, N-HP 24 located on Prune Avenue and Elm Street in Patterson and observed AC problem on the secondary cut, and there was a pipeline marker with outdated information. SED also noted that Regulator Station folder for district regulator N-HP 24 does not have the District Regulator Data Sheet for the primary cut regulator. On 10/24/13, Division informed SED that it took remedial actions to correct AC and replaced the pipeline marker.</p>	<p>Further evaluation by an operator qualified employee after the audit field visit determined there was no pitting or metal loss of the exposed piping. The station piping was wire-brushed and painted. 2014 station maintenance records indicate piping condition as good. (see attached). Although it was determined that the corrosion present was only light surface rust, the Yosemite Division I&R Department has been reminded to initiate a work order when the piping condition is observed to be poor. This will ensure that poor piping condition is scheduled for remediation. Pipeline marker stickers have since been removed.</p>	<p>2014 Regulator Station Maintenance Record N-HP-24 (NOV_2-2 N HP 24 2014 Maintenance record_CONF.pdf)</p>	<p>Not Applicable</p>

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NOV-2.3	<p>§192.481... II-3. On 10/23/13, SED and PG&E visited Regulator Station TUR HP-11 located Linwood Avenue and Walnut Road in Turlock and observed AC problem on the downstream piping of the secondary cut. Division took remedial actions for the AC on 10/25/13. SED also noted that Regulator Station folder for TUR HP-11 did not have the data sheet for the primary cut regulator.</p>	<p>PG&E respectfully disagrees with this finding. Prior inspections of the station piping during the station annual maintenance did not indicate that atmospheric corrosion was present. (see attached) Remedial action for the corrosion observed on the station piping was completed on October 25, 2013, and again on March 25, 2014. A Regulator Data Sheet for the primary cut is not required for this station. This station utilizes working monitors, with all required data indicated on the existing data sheets (see attached).</p>	<p>TUR HP-11 Maintenance Records (NOV_2-3 TUR HP-11 Maintenance Records_CONF.pdf) TUR HP-11 Regulator Station Data Sheet and Operating Diagram (NOV_2-3 TUR HP-11 data sheet_CONF.pdf)</p>	Not Applicable
NOV-3.0	<p>III. Title 49, CFR, §192.707 Line markers for mains and transmission lines. §192.707 states in part: "(c) Pipelines above ground. Lime 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. (d) Marker warning. The following must be written legibly on a background of sharply contrasting color on each line marker: (1) The word "Warning," "Caution," "Danger" followed by the words "Gas (or name of gas transported) Pipeline" all of which, except for markers in heavily developed urban areas, must be in letters at least 1 inch (25 millimeters) high with 1/4 inch (6.4 millimeters) stroke. (2) The name of the operator and the telephone number (including area code) where the operator can be reached at all times." SED reviewed Division patrolling records for gas distribution mains and services that are normally exposed to the atmosphere. SED noted that on 9/17/13, Division identified locations E36 and E41 that require pipeline stickers; however, Division did not take the necessary corrective actions. On 10/29/13, SED and PG&E visited exposed distribution pipelines and identified that the aboveground spans E36 and E38, shown in Table 6, did not have pipeline markers as required by CFR § 192.707 (c). SED also noted that the pipeline marker for the exposed span E41 did not have a complete pipeline sticker that shows the necessary information required by CFR § 192.707 (d). Table 6- Missing or Incomplete Pipeline Markers For Exposed Spans Gas FM No. Location Pipe Diameter Plat # E36 Gold/Harding, Turlock 3" 3301-J2 E38 Sperry/Taylor, Denair 2" 3301-B6 E41 Service/Moore, Ceres 2" 3236-G5 Please inform SED of the corrective actions and P&M measures taken to address these deficiencies.</p>	<p>On November 17, 2014, PG&E installed pipeline markers at spans E36, E38, and E41. (see attached) PG&E's web-based training for exposed span inspection includes the requirement to ensure warning markers are present for exposed pipelines. The personnel in Yosemite Division responsible for Exposed Span inspections have been reminded of this requirement.</p>	Work Tickets for marker installations (NOV-3 Line Marker tickets_CONF.pdf)	Not Applicable
NOV-4.0	<p>§192.743... SED reviewed PG&E's District Regulator Station Maintenance record of Regulator Station RA-47, located on Pioneer Road and Highway 99 and noted that even though Division replaced the regulator during station inspection on 7/10/06, it did not review the relief valve capacity until 7/10/2008. Additionally, Division did not show any changes made in 2006 in the relief valve capacity review record, GS&S H-70 form, for relief device A-47 for in Regulator Station RA-47. Please inform SED of the corrective actions and P&M measures taken to address these deficiencies.</p>	<p>As noted, the relief valve capacity was completed in July of 2008. At the time, an automated system was not in place to alert the engineer responsible for relief valve calculations that a change had occurred at the regulator station. PG&E's SAP work management tool is now automatically generates an email to the responsible engineer when any change is made within a regulator station that has the potential to affect the over-pressure protection of that station.</p>	None	Not Applicable
NOV-5.0	<p>§192.745 Valve maintenance (a) 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. SED reviewed Division's District Regulator Data Sheet for District Station No. TUR HP 08 located on Faith Home Road and Kaiser Road in Ceres, and noted that Division did not maintain the station fire valve, V-3.37 in 2010, 2011, and 2012. Please inform SED of the corrective actions and P&M measures taken to address this deficiency.</p>	<p>PG&E respectfully disagrees with this finding. V-3.37 is not a station fire valve for station TUR-HP-08. V-3.37 is a main line valve for DFM-7223-01. Annual maintenance of V-3.37 has been performed and documented for 2010, 2011 and 2012 (see attached). The station fire inlet valves are V-4 and V-5. See attached station operating diagram. V-4 & V-5 have also been maintained, per §192.745 and PG&E Utility Procedure TD-4430P-04 each year from 2010 to present (see attached).</p>	<p>Valve Maintenance Record for V-3.37 (NOV 5 V 3 37 valve card_CONF.pdf) Valve Maintenance Records for V-4 & V-5 inlet valves to TUR-HP08 (NOV_5 TUR HP08 V-4 and V-5 2010-2012_CONF.pdf) Station Diagram and Data Sheet (NOV_5 TUR HP08 Op Diag Data Sheet_CONF.pdf)</p>	Not Applicable

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NOV-6.0	<p>§192.615 (b)(2) Train the appropriate operating personnel to assure that they are knowledgeable of the emergency procedures and verify that the training is effective. (b)(3) Review employee activities to determine whether the procedures were effectively followed in each emergency.</p> <p>SED reviewed PG&E's training emergency response training records and they appear to be complete based on PG&E's standard EMER-6010S, published on 12/19/11, Rev:1. However, PG&E did not provide SED with any records to verify that the following training was effective. 192.615... • GAS-9006, GAS-9007, GAS-9008, and TECH-0038 Please provide SED with these records for 2011, 2012, 2013 related to verification that training was effective.</p> <p>In addition, the EMER-6010S, section 5.2, number 2 & 4, states the following: 2. Each of PG&E's 18 divisions that provide gas service to customers must conduct an annual exercise involving PG&E first responders, gas control or gas dispatch, and relevant agency first responders. 4. For each exercise, an after action report (AAR) must be completed. The AAR must evaluate if the exercise objectives were met, what worked well, what needs improvement, and assign follow-up actions where appropriate.</p> <p>Based on records provided to SED related to these annual exercises no records to date have been located for 2010 & 2011. Please provide copies to SED as soon as records are located. Based on records provided for 2012 and 2013, SED is satisfied that PG&E has successfully taken the appropriate corrective actions based on centralizing emergency response records in 2012, revision of Emergency Response Standards in 2011, and revisions included in Version 3.0 of the Gas Emergency Response Plan dated August 30, 2013 (i.e. Training and Exercises Evaluation Program) to ensure records are provided to SED more timely. SED understands that PG&E writes after action reports for each annual emergency response training exercise to satisfy this section of the code. SED is satisfied with these records for 2012 & 2013. However, SED encourages PG&E to include external first responders in every annual emergency response exercise per the PG&E Standard EMER-6010S, section 5.2, number 2 as stated above. The 2012 exercise included internal PG&E field crews only.</p>	<p>Attached are the requested records for 2012 and 2013.</p> <p>PG&E conducts exercises to ensure the employees use the Gas Emergency Response Plan (GERP) during the exercise, review the training aids, and use the principles located in the GERP. An After Action Review (AAR) is conducted after the exercise to ensure all of these aspects were used during the exercise.</p> <p>An exercise is held for each division each year and the scenario includes exercising the GSR, gas control and gas dispatch processes. Starting in 2013, PG&E invites external first responders to the exercises.</p>	<p>2012 Yosemite Division Emergency Exercise Sign-Up Sheet (2012 Yosemite Sign In_CONF.pdf)</p> <p>2012 Table Top Exercise After-Action Reviews-All Divisions (2012 Division TTX AAR_CONF.pdf)</p> <p>2013 Yosemite Division Emergency Exercise Sign-In Sheet (2013 Yosemite Sign In_CONF.pdf)</p> <p>2013 Yosemite Division Table Top Exercise After-Action Review (2013 Yosemite TTX AAR_CONF.pdf)</p>	Not Applicable
Field Observations, Concerns, and Recommendations				
AOC-1.0	<p>SED reviewed Emergency Isolation Zone Review Log for Division North, Zone 91-NWM1-A and noted that distribution zone Valve Z-03 was one of the emergency isolation valves listed for Zone 91 in 2012 and 2013. However, Division valve maintenance record form for Valve Z-03 was removed from service on 11/13/12. SED found that Division did not update this valve in the Emergency Isolation Zone's Sequence of Operations in 2012 and 2013 after it was removed in 2012. During the audit, Division removed Valve Z-03 from its Sequence of Operations and revised the list. Division also ran the flow model to make sure that no additional isolation zone valve was needed. SED also noted that it is important to have good communication between the field personnel and the planning engineer to ensure that the emergency isolation zones are reviewed and revised based on the changes identified or performed in the field.</p>	<p>PG&E will be enhancing the process of administering the valve maintenance and required updates to distribution shutdown zones due to changing conditions by making revisions in 2015 to its valve maintenance work procedures and in Utility Standard S5000 <i>Gas Distribution Emergency Shutdown Zones</i>.</p>	None	31-Dec-15
AOC-2.0	<p>SED reviewed Division's Idle Stub list and did not find the idle stubs located on Plat # 312013 in the North idle stub list. Division personnel explained that Division mapping department and local engineers populate and update the list as they become aware of the unlisted stubs. Please explain how the mapping department and the local engineers populate and maintain the idle stub list? Please provide reference or copy of the applicable PG&E standard, if any. SED would like to point out that the maintenance records are readily available for local Division engineers to use in order to identify idle stubs in the distribution system. SED recommends that PG&E use readily available records to identify additional measures needed as a result of field personnel observations while performing maintenance on the system.</p>	<p>Division engineering gathered individual, manual records maintained by the Associate Distribution Engineer (ADE) and by the estimators. This resulted in the list reviewed by the auditors during the 2013 audit. We recognized that a plat-by-plat review would be required to ensure the stub list captured all the stubs contained in the plats that were not yet contained in the stub list. The review of the plats was completed by mapping in 2014, and validation of the list by engineering will be completed by February of 2015. Engineering has begun the process of reviewing the stub list, and will be an ongoing process to ensure all locations have been reviewed within a 5 year period. Utility Procedure TD-9500-P16 governs the tracking and review of stubs.</p>	None	Not Applicable

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AOC-3.0	<p>SED reviewed Plat # 3178G1 and noted that even though one location on Morene St. was recorded as “overbuild”, Division did not list it in the overbuilt list. Later, Division informed SED that it added the location to the overbuilt list. Please explain how PG&E identifies and populates its overbuilt list? How is PG&E currently addressing identified overbuilt locations for both transmission and distribution systems? Similarly, SED recommends that Division utilize readily available records, such as the maintenance records, to identify areas where additional monitoring or action may be needed.</p>	<p>The overbuild location in question is actually at 1600 Coolidge in Modesto, the residence being located at the corner of Coolidge and Morene and was identified during the 2011 leak survey of the area.</p> <p>The overbuild in question was corrected under PG&E PM 31030628 on June 4, 2014.</p> <p>Individual overbuild are identified during the course of day-to-day maintenance activities or inspections, and are entered in SAP as a corrective notification, with work type appropriate to identify the notification as a potential overbuild, per Procedure TD-9510-01. Gas Service Representatives also utilize their field computer systems to identify the potential overbuild as a “Code 32” for the service location. The code 32 locations are periodically communicated to local engineering via email.</p> <p>Upon receipt of a location that is potentially overbuilt, local engineering ensures a SAP notification in accordance with PG&E Procedure TD-9510P-01 (approved January 2014) has been created. The potential overbuild is fielded by estimating personnel to validate the overbuild, and if valid, a PM order is created to resolve the overbuild. Resolution of the overbuild is governed by Procedure TD-9510-01.</p> <p>Transmission overbuilds are identified as a result of routine transmission line patrolling. In addition, PG&E has embarked on the “Pipeline Pathways” initiative, which has involved a systematic review of the Transmission System Pipeline to identify easement encroachments, including overbuilds. Remediation of Transmission System overbuilds is governed by PG&E Gas Standard S-4490S.</p>	None	Not Applicable
AOC-4.0	<p>4. On 10/30/13, SED and PG&E visited Regulator Station, RA-24, located on Ashby Road and Fern Street in Merced. SED noted the following deficiencies at this regulator station:</p> <ul style="list-style-type: none"> • Division personnel could achieve lock up of neither the worker regulator (set point 40 psig) nor the stand-by regulator (set point 35). • SED also observed that one of the vaults cover was damaged; therefore, Division crew could not fully open the vault but opened the other lid to get into the vault to perform maintenance. Division later informed SED that the Division repaired the vault cover and installed protection around the regulator site. • Station inlet fire valve located in the ditch beside the road was graded over; therefore, it was not accessible and the crews could not turn the valve. <p>After the field visit, Division took the following corrective actions and P&M measures for the deficiencies SED identified:</p> <ul style="list-style-type: none"> • Rebuilt the left and right regulators and maintained the station to achieve lock up on 10/30/13, • Installed three 4-in barrier posts and straightened the vault lid on 11/22/13. • Re-installed the grader marker and bollards, cleared the debris from valve, and turned the valve on 10/30/13. <p>Additionally, Division engineer had a meeting with the County of Merced on 12/3/13 to inform the County and prevent similar occurrences in the future.</p>	<p>While identified remedial work (lock-up test performed, lid repaired, and inlet valve uncovered and maintained) has been completed, a complete rebuild and relocation of the station is scheduled in Q4 2014 PM#30878928.</p>	None	31-Dec-14
AOC-5.0	<p>5. On 10/29/13, SED and PG&E visited rectifier #16-281 located on Alley N/O Durant Street in Modesto and observed 1 amp and 48 volts for current and voltage readings, respectively. Standard Cathodic Protection Maintenance Report (CP report) for CPA System 3177-09 shows that the last rectifier readings taken at this location on 7/27/13 were 3 amps and 18.4 volts with a base data of 1.3 amps and 9.6 volts for current and voltage readings, respectively.</p> <p>On 10/29/13, Division also took P/S reading of -639 mV at a test point located at 1013 Hawthorne at Elmhurst in Modesto which is part of the same CPA. The CP report shows low P/S readings recorded in January, July, and September 2013, with -360 mV, -383 mV, and -565 mV, respectively. Corrosion records show that the Division requested a deep well anode bed replacement on 11/26/12 but no action has been taken since then. Division also created a CPA follow-up action plan on 10/3/13 and submitted for new deep well anode.</p> <p>Division informed SED that it installed a new deep well anode on 3/28/14 for rectifier #16-281 which serves the CPA 3177-09. Division set the rectifier at 2.0 amps and 4.7 volts and also took P/S readings on 4/1/14 and recorded -1035 mV at 1013 Hawthorne Avenue in Modesto.</p>	<p>As noted in SED's letter, PG&E installed a new deep-well anode on March 28, 2014 and restored adequate levels of cathodic protection to CPA 3177-09 on April 1, 2014</p>	None	Not Applicable

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AOC-6.0	<p>6. On 10/29/13, SED and PG&E took P/S read of -443 mV at test location 1113 Saint Frances Ave., in Modesto in CP System # 3177-01A. The CP report shows that this CP System has been down since November 2012. The CPA follow up action plan which was created on 12/3/12 shows that Division waited for a crew to tie in wires to remedy the problem for about six months; however, it did not resolve the problem. Then Division decided to install a deep well anode in June 2013. Division informed SED that it restored and brought up the system into compliance on 1/14/14 by installing a deep well anode at this location.</p>	As noted in SED's letter, PG&E restored adequate levels of cathodic protection to CPA 3177-01A on January 14, 2014.	None	Not Applicable
AOC-7.0	<p>7. On 10/29/13, SED and PG&E took P/S read of -843 mV at test location 381 W. Hawkeye Ave., Building N, in Turlock. Upon discovery of the P/S reading below adequate level of -850 mV, Division created a work ticket with notification # 107210122, to correct the CP deficiency in CP System # 3300-01. Division informed SED that it created a repair tag to bond the galvanic annual into the adjoining rectifier CPA 3300-03 and completed the job on 10/30/13. Division was also in the process of updating its records to change this asset from a Galvanic Annual to a rectifier yearly read.</p>	As noted in SED's letter, PG&E restored adequate levels of cathodic protection to CPA 3300-01 on October 30, 2013.	None	Not Applicable
AOC-8.0	<p>8. On 10/29/13, SED and PG&E took P/S read of -325 mV at test location 5730 Chenault Dr., Modesto, and -841mV at 3101 Geer Rd., Turlock that are 10%er test locations which are separately protected short section of main or services not in excess of 100 ft. Upon discovery of the inadequate P/S readings, Division created work ticket to take remedial action to bring up the system into compliance.</p> <p>Division informed SED that it reattached the drivable anode to the isolated steel riser on 4/21/14 to bring up the CP protection levels back up. Division also took P/S readings on the same day and recorded -1100 mV.</p>	As noted in SED's letter, PG&E restored adequate levels of cathodic protection to the isolated riser (10%er) on April 21, 2014.	None	Not Applicable
AOC-9.0	<p>9. SED reviewed Division's CP report for CPA 3435-10 and noted that Division recorded the following bi-monthly P/S reads:</p> <p>Table 7- P/S Readings By Date</p> <p>Address P/S Reading (mV) By Date 6/4/13 8/2/13 8/13/13 10/4/13 288 S. P Street, Merced -650 -620 -620 -622 488 E. Childs, Merced -777 -766 -766 -759</p> <p>Division created a CPA follow-up action plan on 6/4/13 to replace the depleted anode. Division's action plan shows that Division is currently waiting for the new anode and there is no funding until 2014. Division stated that it had scheduled to install anode bed in the first quarter of 2014.</p> <p>Division informed SED that it installed a new deep well anode on 1/23/14 for rectifier #185 which serves the CPA 3435-10. Division took P/S readings on the same day and recorded -991 mV and -949 mV for the locations listed in Table 7 respectively.</p>	As noted in SED's letter, PG&E restored adequate levels of cathodic protection to CPA 3435-10 on January 23, 2014.	None	Not Applicable

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<p align="center">AOC-10.0</p>	<p>10. SED reviewed District Regulator Station Operating Diagrams and noted that Division did not have most up-to-date data sheets, station diagrams, or complete maintenance folders to show the changes made for the following regulator stations:</p> <p>A. RA-25 located on 16th Street and Ashby Road in Merced: The regulator station diagram showed a regulator with relief valve configuration, but the station was changed to a regulator with monitor configuration on 02/29/2012. Division updated the map during the audit.</p> <p>B. RA-08 located on Frontage Road and Grove Avenue in Atwater: District Regulator Station Data Sheet did not show the regulator and relief valve pressure set points. Division typed the missing information on the data sheet and updated the regulator station maintenance folder during the audit.</p> <p>C. RA-27 located on Cooper Avenue and Highway 59: There was no station diagram in the maintenance folder. Division updated the map and folder during the audit.</p> <p>D. SED reviewed District Regulator Data Sheet for District Station No. HP 25 located on Howard Road and Stark Road in Westley and noted that Division did not show the inlet MAOP data on the data sheet.</p> <p>Division needs to update the data sheet with the MAOP data.</p> <p>E. On 10/30/13, SED and PG&E conducted a site visit to District Regulator Station, RB-36, located on Pecan and Highway 145, in Madera. Division crews performed regulator maintenance of the regulator station. SED observed that regulator and monitor setting were 35 psig and 40.6 psig, respectively, in the field with an MAOP of 42 psig. Even though Division changed the regulator and monitor set points to 37 psig and 40 psig, respectively, it did not update the District Regulator Data Sheet for RB-36 because the data sheet still shows the previous regulator and monitor settings of 39 psig and 44 psig, respectively.</p> <p>Division needs to update the data sheet for RB-36 to reflect the changes made to the pressure settings.</p>	<p>Items A, B, and C were corrected during the audit</p> <p>D. Corrections for HP-25 data sheet was corrected on 11/12/2014 with an MAOP of 135</p> <p>E. Data sheet has been updated to reflect current operating pressures of 37 and 40 psig, respectively.</p>	<p align="center">None</p>	<p align="center">Not Applicable</p>
<p align="center">AOC-11.0</p>	<p>11. SED reviewed Transmission Leak Survey records for Pipeline Group 1908, and noted that Division leak surveyor marked the following leak surveys incomplete on 5/12/12 indicating that the plats below were not fully completed.</p> <ul style="list-style-type: none"> • Plat # 3498-D08, Sequence # 65 • Plat # 3499-E01, Sequence # 67 <p>Even though Division personnel explained that these maps were leak surveyed, again SED did not find any other follow up leak survey records indicating the date of leak survey, surveyor name, and type of instrument used to demonstrate that Division completed the leak surveys of these plats on a later date.</p> <p>SED recommends that Division add another line item to the leak survey and field inspection stamp to indicate surveyor's name, date of leak survey, equipment used etc., if Division completes the leak survey of the remaining portions of pipeline map on a later date.</p> <p>SED also recommends PG&E modify its Leak Survey Program and related procedures in order to provide clear instructions to its personnel on how to document leak surveys on different dates since neither Utility Procedure: TD-4110P-01, Leak Survey Process, publication Date: 5/22/13 Rev: 0 nor Utility Standard: TD-4110S Gas Leak Survey and Detection Program, publication date: 5/8/2013 Rev: 0 clearly specifies the described deficiency.</p> <p>Please inform SED of the corrective actions and P&M measures taken to address this deficiency.</p>	<p>Transmission Leak Survey Maps now include a stamp for the back, and transmission logs have been updated to be specific to indicate the Time, Date, Lan Id of each individual performing the leak survey. They also include space for multiple entries for leak survey of the map being completed on multiple days or different personnel.</p>	<p align="center">None</p>	<p align="center">Not Applicable</p>