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December 30, 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 Audit – PG&E's Sacramento Division

Dear Mr. Bruno:

The Safety and Enforcement Division (SED) of the CPUC conducted a General Order 112 audit of PG&E's Sacramento Division from September 21-25, 2015. On November 30, 2015, the SED submitted their audit report, identifying violations and findings. Attached is PG&E's response to the CPUC audit report.

Please contact Larry Berg at (925) 328-5758 or lmb5@pge.com for any questions you may have regarding this response.

Sincerely,

/**S**/ Michael Falk

Attachments

cc: Banu Acimis, CPUC Aimee Cauguiran, CPUC Dennis Lee, CPUC Larry Deniston, PG&E Sumeet Singh, PG&E

	2015 Sacramento Division CPUC Audit Responses				
CONFIDENTIAL	– Provided P	ursuant to P.U. Code §583			
Finding Type [Internal, NOV, AOC]	Finding #	<b>Finding</b> Prior to the start of the inspection, PG&E provided SED its findings from the internal review it conducted for	<b>Response</b>		
Internal Findings		Sacramento Division (Division). Some of PG&E's internal review findings from the internal review it conducted for Sacramento 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), §192.605(a). Table 1 lists all of the violations from PG&E's internal review. Please provide an update to the pending corrective and preventative actions that are highlighted in red including the items listed as "TBD" which were not complete at the time of the audit along with supporting documents.	See attached "2015 Sacramento IRS 12-30-2015_CONF.pdf" PG&E will update SED in the first quarter a outstanding corrective and preventative actions.		
NOV	1	<ol> <li>Title 49 CFR §192.605 Procedural manual for operations, maintenance, and emergencies. §192.605 states in part:</li> <li>"(a) Each operator shall prepare and follow for each pipeline, a manual of written procedures for conduction operations and maintenance activities and for emergency response"</li> <li>PG&amp;E's Utility Standard: TD-41815 Publication Date: 03/26/2014 Rev: 0 External Corrosion Control of Gas Facilities, Section 2. Distribution and Local Transmission Lines states in part:</li> <li>b. Yearly P/S Monitoring</li> <li>In addition to required bimonthly monitoring points, yearly P/S potential monitoring points must be established on impressed current distribution and local transmission piping CPAs as described below.</li> <li>Monitoring Frequency: Yearly read locations must be monitored at least once each calendar year, but with intervals not exceeding 15 months to the date.</li> <li>Monitoring Locations:</li> <li>Where the failure of a locating wire or bond will cause a section of steel main to become isolated and undetected by bimonthly monitoring.</li> <li>At regulator stations where the station is tied to a CPA via a wire.</li> <li>That provide additional verification of cathodic protection effectiveness within the CPA.</li> <li>PG&amp;E's O-16 Corrosion Control Procedure for Corrosion Control of Gas Facilities, issued 3/27/09, was superseded by Utility Standard: TD-4181S. O-16 requirement for yearly reads was the same as the new Standard.</li> <li>SED reviewed Division's corrosion records and noted that Division added a new yearly Electrolysis Test Station (ETS), CPA-S-028, located at NE Corner of Capitol Ave. &amp; 5th Street, West Sacramento to the SAP Asset registry (RW: 106852949) in 2013 and recorded -947 mV at this location as the initial read; however, Division did not take any reads at this location in 2014. Division explained that it added the ETS to its maintenance plan on 2/2/15.</li> </ol>			

	Associated Attachment (File Name)
arter 2016 on the	2015 Sacramento IRS 12-30-2015_CONF.pdf NOV-1 2014 CPA S-28 Ann Rpt_CONF.pdf
2014 pipe-to-soil Ws) in Sacramento interval is missed.	

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Finding Type [Internal, NOV, AOC]	Finding #	Finding	Response	
NOV	2	<ul> <li>2. According to PG&amp;E Standard O-73, (valid from 11/4/2008-06/01/2015): Digital potential meters must be calibrated once per calendar year, not to exceed 15 months.</li> <li>SED reviewed Division's Digital Potential Meters (DPM) calibration records for Miller equipment with Model # 4110 and noted the following:</li> <li>Equipment with serial numbers CB-05, CB-020, CB-021, CB-022, CB-026, CB-039, CB-043, and CB-044 were not calibrated for calendar year 2014.</li> <li>Equipment with serial number CB-050 was not calibrated in calendar year 2014 and time between calibrations exceeded 15 months. Calibration dates found: 12/16/13 and 3/05/15.</li> </ul>	In 2014 when the accuracy checks for the Digital Potential Meters (DPMs) was centralized by sending PG&E's Applied Technology Services (ATS) in San Ramon, many of these units were sent too late to b within the 2014 calendar year. All of these units, with the exception of CB-05 which is no longer in se been put into the SAP maintenance plan and were sent off to ATS within the 2015 calendar year.	
NOV	3	<ul> <li>3. §192.465 states in part</li> <li>"(a) – "Each pipeline that is under cathodic protection must be tested at least once each calendar year, but with intervals not exceeding 15 months, to determine whether the cathodic protection meets the requirements of §192.463"</li> <li>In a review Division's CP records, SED noted that Division did not have any reads taken in 2013 and 2014 for five read points located in CPA 06-S-024 in the Folsom, Blue Ravine in 2013 and 2014.</li> <li>Similarly, SED also noted that there are a total of 118 corrosion control test points listed in 2013 and 2014 records with "No CPA" tab name which did not have any P/S reads for both years. These locations appear to be located in Sacramento Division.</li> <li>Please provide SED with P/S reads taken at these locations and explain why Division did not take or record these P/S reads in 2013 and 2014.</li> </ul>	soil reads. The "No CPA" tab on the file provided to the CPUC during the audit is believed to consist of assets in not required to be maintained to meet §192.465. PG&E continues to research each of these assets to determination and will provide results to SED in the first quarter 2016.	

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Finding Type [Internal,	<b>F</b> ind <b>1</b>		
NOV, AOC]	Finding #	Finding	Response
NOV	5	<ul> <li>4. Title 49 CFR §192.475 Internal corrosion control: General.</li> <li>§192.475 states in part:</li> <li>"(a) Corrosive gas may not be transported by pipeline, unless the corrosive effect of the gas on the pipeline has been investigated and steps have been taken to minimize internal corrosion.</li> <li>(b) Whenever any pipe is removed from a pipeline for any reason, the internal surfacemust be inspected for evidence of corrosion.</li> <li>(1) The adjacent pipe must be investigated to determine the extent of internal corrosion:</li> <li>(2) Replacement must be made to the extent required by the applicable paragraphsof §§ 192.485, 192.487, or 192.489; and,</li> <li>(3) Steps must be taken to minimize the internal corrosion"</li> <li>SED reviewed Leak repair, inspection and Gas Quarterly Incident Reports (A-Form) of the leaks caused by corrosion and noted that Division did not perform the internal inspection of the pipes during the following leak repairs: <ol> <li>Leak #: 50-13-55034-B, Grade 1 leak was discovered and repaired on 5/1/13 by cutting out 4-ft of 2-in gas main and installing a new 2-inch steel pipe.</li> <li>Leak #: 50-13-35061-1, originally Grade 1 leak was discovered on 1/31/13 and downgraded to 2+ on the same day. Leak was in the street on the mainline and repaired by cutting out 4-ft of 2-inch steel gas main and replacing with steel pipe on 5/1/13.</li> <li>Leak #: 50-13-25061-1, originally Grade 1 leak was discovered and downgraded to 2+ on 12/2/11 and it was repaired by cutting out an existing steel service line by installing 37-ft of 1-inch plastic on 2/17/12. However, no internal inspection was checked or recorded.</li> <li>SED determined that Division should have inspected the internal surface of the pipes for evidence of internal corrosion when they were removed from a pipeline. §192.475 (b) (2) and (3) accordingly.</li> <li>Please explain PG&amp;E's mitigative and preventive measures taken to ensure that Division's assigned personnel inspect the internal surface of the pipeline for</li></ol></li></ul>	Minute Meeting was issued on August 10, 2015. Refer to the attached "5MM A Form Internal Inspection_CONF.doc". In addition, the mobile data entry of the A-form prompts the repair person to answer the question w Internal Surface of the pipe is visible. The repair person must answer this question before completin A-form. PG&E has also revised the paper ("Tech DOWN") version of the A-form and the A-Form Job Instructions (see attached A-Form Job Aid.pdf) which specifies that answering this question is a requ completed.
NOV	5	<ul> <li>5. Title 49 CFR §192.481 Atmospheric corrosion control: Monitoring.</li> <li>§192.481 (c) states in part:</li> <li>"(c) If atmospheric corrosion is found during an inspection, the operator must provide protection against the corrosion as required by §192.479."</li> <li>SED reviewed Division's atmospheric corrosion (AC) inspections conducted in 2011-2012 and remedial actions taken for the meter set assemblies (MSAs) that were identified to have AC indications during the surveys and noted that Division did not generate a work order for the MSAs located at following addresses:</li> <li>7800 Florinda, Sacramento</li> <li>308 Vandenberg, Sacramento</li> <li>195 Vernon St, Roseville</li> <li>Please provide SED with remedial action records for the AC issues identified above.</li> </ul>	Please see the two attachments "NOV-5 7300 Florinda Way Sac_CONF.pdf" and "NOV-5 308 Vander Roseville_CONF.pdf". These are the completed atmospheric corrosion remediation field orders for 7 Way Sacramento, and 308 Vandenburg Circle Roseville. Please note there is no 7800 block of Florin Sacramento, and there is no 195 Vernon Street, Roseville.

	Associated Attachment (File Name)
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enburg Circle 7300 Florinda nda Way,	NOV-5 7300 Florinda Way Sac_CONF.pdf NOV-5 308 Vandenburg Circle Roseville_CONF.pdf

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NOV, AOC]	Finding #	Finding	Response	(File Name)
AOC	2	Finding         1. Title 49 CFR \$192.465 External corrosion control: Monitoring.         \$192.465 (d) states in part:         "Each operator shall take prompt remedial action to correct any deficiencies indicated by the monitoring."         On 9/23/15, SED and Division visited the locations given in Table 2 and recorded the following P/S reads which did not meet the minimum85 Volts (V) criteria.         Location       P/S Reading (mV)         630 Elm Street, Woodland (SAP# 42699507)       -730 mV at Riser         23 East Main Street, Winters (SAP# 42729911)       -839 mV at Riser         24 East Main Street, Vinters (SAP# 42699507)       -780 mV Yearly ETS         9080 Elm Avenue, Orangeval, Yearly ETS       -780 mV Yearly ETS         9080 Elm Avenue, Orangeval       -740 mV Yearly ETS         9080 Elm Avenue, Orangeval, Yearly ETS       -780 mV Yearly ETS         912 Elex Streed and general corrective actions for the deficiencies identified above.       2.P6&K <sup>+</sup> S procedure, Cathodic Overprotection, TD-4181P-202 Publication Date: 04/09/2014 which describes the criteria and general corrective actions for overprotection of cathodically protected gas pipelines states in part:         "Inperies - tooli (IP/S) potential of cathodically protected pipelines with impressed current systems:       1. The pipe-to-soil (P/S) potential of cathodically protected pipelines with impressed cathodic protection current applied (rectifiers on) must be less negative than -1600 mV, GR         2. The P/S potential of cathodically protected pipelines with impresse	Please see attachments "AOC-1 630 Elm St Woodland_CONF.pdf", "AOC-1 23 East Main St Winters_CONF.pdf",         "AOC-1 Blue Ravine Riley St Folsom_CONF.pdf", and "AOC-1 Elm Central Orangeval_CONF.pdf" for the status of the         low pipe-to-soil potentials taken on September 23, 2015 during the audit. The CP Area with 630 Elm Street         Woodland_continues to be "down" and is being worked under notification 111063329. The partially buried meter         at 23 East Main Street Winters has been corrected. Please see attached picture "AOC-1 23 East Main St Winters         Pic.jpg"         Please see the attachment "AOC-2 Instant Off Reads for CPA S-041_CONF.pdf" which shows the "on" and "instant off" reads taken on December 17, 2015. Per TD-4181P-202, the "instant-off" reading is less negative than -1200 mV, therefore no further action is required.	AOC-1 630 Elm St Woodland_CONF.pdf

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Finding Type [Internal, NOV, AOC]	Finding #	Finding	Response		
AOC	3	3. Standard Cathodic Protection Maintenance Report for CPA S-804D showed that Division recorded -450 mV o P/S read at 3040 Freeport & Bidwell Way in Sacramento on 8/12/14 and determined that a deep well anode needed to be installed. Last P/S read of -713 mV was recorded on 8/12/15 since the CPA was still down even though Division has installed a new deep well anode according to the latest action plan dated 9/17/15. Please provide SED an update for the actions taken for CPA S-804D and provide P/S reads taken after the remedial actions are completed.	f The deep well anode for CPA S-804D has been installed as of August 10, 2015, and the area has been October 23, 2015. Please see attachment "AOC-3 2015 CPA S-804D Ann Rpt_CONF.pdf".		
AOC	4	SED reviewed Distribution Exposed Spans Inspection Forms and determined that the forms that were filled out as a result of following inspections performed in 2014 were incomplete since they were not signed by the inspector. Sac/Sol: Nightengale Dr. e/o Swan Way (PR107410551); 11/19/13 Sac/Sol: Railroad Ave w/o Sunset Ave (PR107410553); 11/26/13	Both of these inspections were performed by the same employee and recorded in the SAP maintena attachments "AOC-4 2013 Exposed Span Inspection Documentation.pdf" and "OQ Records for HXD8. The Sacramento Division Corrosion Department has been reminded of the importance to completely maintnance documentation, particularly name and Lan ID of the person completing the maintenance		
AOC	5	Please inform SED of the actions taken for this deficiency. Title 49 CFR §192.467 External corrosion control: Electrical isolation. § 192.467 (a) states in part: "(a) 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." Additionally PG&E's WP4133-04(4.C.) states:"Conduct test or reviews when the difference between the casing and the carrier pipe pipe-to-soil (P/S) potentials are less than 100 millivolts (mV) and/or when casing P/S potentials are greater than 800mV." SED reviewed corrosion control monitoring records and noted that on 07/21/2014, Division recorded a casing- to-soil potential read as -806 mV for casing of DFM 0618-03 at Mile Point (MP) 1.55, SAP #41388177. SED did not find any additional testing to determine whether there was any contact between the casing and pipeline. After the audit, Division provided SED with follow up actions planned for this contacted casing by stating: "For DFM 0618-03 MP 1.55, SAP# 41388177, the remediation plan is to expose the casing ends, remove 3' from each side attempting to clear the short and then gel fill. It's scheduled for May 2016." Please provide SED status update of this contacted casing and inform SED when the corrective action is completed.	This contact casing remediation project, CC-038, on DFM 0618-03 mile point 1.55 is scheduled in the 2016. PG&E will provide SED results of the remediation upon completion.		

Associated Attachment (File Name)
AOC-3 2015 CPA S-804D Ann Rpt_CONF.pdf
AOC-4 2013 Exposed Span Inspection
Documentation.pdf OQ Records for HXD8_CONF.xls

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Finding Type [Internal,			
NOV, AOC]	Finding #		Response
AOC	6	<ul> <li>SED reviewed Division's CP records and noted its concerns regarding the intermittent nature of the CP for its system CPA S-218.</li> <li>Division records show the following: <ul> <li>On May 14, 2013 P/S reads taken within the CPA did not meet the CP requirements. On May 21, 2013 Rectifier #261 was found tripped off and again on June 11 it was found tripped off.</li> <li>On July 8, 2014 P/S reads taken at 3 ETS locations within S-218 did not meet CP requirements. On July 11, 2014 Rectifiers #332 and #261 were found tripped off.</li> <li>On September 5, 2014 P/S reads taken at 3 ETS locations within S-218 did not meet CP requirements. On September 15, 2014 Rectifiers #261 and #260 were found tripped off.</li> <li>On November 6, 2014 P/S reads taken at 3 ETS locations within S-218 did not meet CP requirements. On November 24, 2014 Rectifier #332 was found tripped off.</li> <li>On May 4, 2015 P/S reads taken at 3 ETS locations within S-218 did not meet CP requirements. On May 8. 2015 Rectifiers #332 and #261 were found tripped off.</li> <li>On July 3, 2015 P/S reads taken at 3 ETS locations within S-218 did not meet CP requirements. On May 8. 2015 Rectifiers #332 and # 261 were found tripped off.</li> </ul> </li> <li>Please provide SED with an update on Division's actions to ensure consistent CP for CPA S-218.</li> </ul>	Please see attachment "AOC-6 2015 Ann Rpt CPA S-218_CONF.pdf". A faulty shunt connection on Re discovered on July 14, 2015. The rectifier was replaced and none of three rectifiers in the CP Area has another trip. The CP Area has not had a need to troubleshoot since July 2015.
AOC	7	<ul> <li>7. During the audit, SED requested additional corrosion control records and reviewed PG&amp;E's responses to the items provided; however, as of 10/30/15, PG&amp;E was unable to provide all responses to the requests. SED will review PG&amp;E's responses to the outstanding items listed below and will determine if Division complied with all applicable rules and regulations:</li> <li>SED requested the following PMs concerning the exposed spans listed below on 9/21/15. PG&amp;E was unable to provide copies of the PMs. On 10/2/15, PG&amp;E stated "These locations are scheduled to be inspected." Please provide SED with copies of all PMs that were created along with the corrective action records.</li> <li>a. PM# 42049201, Yolo, e/s Sycamore Ln, n/o Quail Ave: 120 feet, 6" pipe</li> <li>b. PM# 42049126; Power Inn Rd n/o 43rd Ave: 150 ft, 4" pipe</li> <li>c. PM# 42049127; San Simeon Way e/o Mariposa Ave, 60 feet, 2" pipe</li> <li>d. PM# 42049250; Elverta Rd w/o 28th Street.</li> <li>f. PM# 42051521; Dry Creek Rd s/o St.</li> <li>g. PM# 42051522; Elkhorn Bkd &amp; 6th St, 170 feet, 4" pipe.</li> <li>h. PM# 42051523; s/end of 22 St 150' w/o Bldg 1080. 30 feet.</li> <li>i. PM# 42051523; s/eid Dean St 400' e/o Kilzer, 40 ft span.</li> <li>k. PM# 42051526; s/side Dean St 400' e/o Kilzer, 40 ft span.</li> <li>k. PM# 42051527; w/side W. Bailey Blvd 500' n/o Dudley, 410 ft span.</li> <li>n. PM# 42051527; s/s baired Wy /o Mariposa Ave.</li> <li>o. PM# 42051632; Rear Bidwell St, 200' e/o Blue Ravine. 110 ft, 10" pipe.</li> <li>q. PM# 42051632; Andre Ln. n/o Gerber Rd.</li> <li>r. PM# 42051634; Reese Rd n/o Gerber Rd. 145 feet 4" pipe.</li> <li>s. NO PM NUMBER: Work ticket shows span needs paint. Curved Bridge Rd w/o Cherry, 600 ft, 3" pipe (11/21/13).</li> </ul>	PG&E's Corrosion Engineering Department is completing its system-wide inspections of local transm distribution spans which include these 19 Sacramento Division spans in 2015. Prioritization of neces: remediation work will be completed in the first quarter of 2016, with remediation jobs created and starting in the second quarter of 2016. PG&E will provide expected remediation timeframes for thes during the 2nd quarter 2016.

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NOV, AOC]	Finding #		Response	(File Name)	
AOC	8	8. SED requested the following PMs concerning the exposed spans listed below on 9/21/15. PG&E was unable	PG&E's Corrosion Engineering Department is completing its system-wide inspections of local transmission and		
		to provide copies of the PMs. On 10/2/15, PG&E stated "These locations are scheduled to be inspected."	distribution spans which include these 21 Sacramento Division spans in 2015. Prioritization of necessary		
		Please provide SED with copies of all PMs that were created along with the corrective action records.	remediation work will be completed in the first quarter of 2016, with remediation jobs created and executed		
		a. PM# 42051639; Sibley St. n/o Blue Ravine	starting in the second quarter of 2016. PG&E will provide expected remediation timeframes for these spans to SED		
		b. PM# 42049208; Buck Ave e/o Alamo	during the 2nd quarter 2016.		
		c. PM# 42049209; Foothill Pkwy e/o Paradise Valley Rd (Manuel Campos)			
		d. PM# 42049210; Clubhouse Dr e/o Paradise Valley Rd			
		e. PM# 42049211; Nut Tree Rd s/o Marshall Rd; 150 ft, 4" pipe.			
		f. PM# 42049128; Marysville Blvd at Arcade Creek; 140 ft, 3" pipe.			
		g. PM# 42049129; Verano St n/o Catskill Wy, 100 ft, 6" pipe.			
		h. PM# 42049130; El Camino e/o Wright Ave; 80 ft, 4" pipe.			
		i. PM# 4204913; [PM missing a digit] Howe Ave at Chicken Ranch Slough; 240 ft, 4" pipe			
		j. PM# 42049132; Winding Wy w/o Winding Ridge Ct, 40 ft, 4" pipe.			
		k. PM# 42049135; Whitney Ave e/o Walnut Ave, ¾" pipe.			
		I. PM# 42049134; Sunrise Blvd at American Bridge; 1300 ft, 6" pipe.			
		m. PM# 42049135; Gloria Dr s/o Cedar River Wy; 100 ft, 4" pipe.			
		n. PM# 42049136; Windbridge Dr s/o Cutting Wy; 60 ft, 4" pipe.			
		o. PM# 42049139; Franklin Blvd n/o "A" Pkwy; 10 ft, 6" pipe.			
		p. PM# 42049200; Franklin Blvd n/o "A" Pkwy, 540 ft, 6" pipe			
		q. PM# 42051628; STL Hung on Greenback Lane; 150ft, 6" pipe.,			
		r. PM# 42051626; Hung on Greenback Ln at American River Bridge; 280 ft, 8"pipe			
		s. PM# 42049207; 21841 County Rd 103, Davis.			
		t. NO PM NUMBER; Norris Ave s/o Pounds; 50 ft, 2" pipe.			
		u. NO PM NUMBER; East Bidwell w/o Woodsmoke Wy			