

Bill Gibson
Director
Compliance
Gas Operations

6111 Bollinger Canyon Rd. San Ramon, CA 94583 Phone: 925.328.5799 E-mail: WLG3@pge.com

November 20, 2014

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

Re: State of California – Public Utilities Commission

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

Dear Mr. Bruno:

The Safety and Enforcement Division (SED) of the CPUC conducted a General Order 112-E audit of PG&E's Stockton Division from December 02 through December 09, 2013. On October 21, 2014, the SED submitted their audit report, identifying violations and findings. Attached is PG&E's response to the CPUC audit report.

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

Sincerely,

/S/ Bill Gibson

Attachments

cc: Aimee Cauguiran, CPUC
Terence Eng, CPUC
Dennis Lee, CPUC
Liza Malashenko, CPUC

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

	Subtotal =	#REF!		
Finding Type [Internal, NOV, AOC]	Finding #	Finding	Response	Associated Attachment (File Name)
Internal Finding	6	Regulator Station Corrective work not documented in 2011: 3 3a) MAHP-46(Mylnar & Yosemite) 3b) SAHP-08( L-197 & Toyon Valley Springs & San Andreas 3c) STHP-27(Swain & El Dorado) Pending correctives in Q1 2014.	·	6-3A.pdf 6-3B.pdf 6-3C.pdf
Internal Finding	7	Valve card is missing 2011: L108 @ MP 48.20 LO-HP-03 Kile. Recreate missing valve card.	MLV @ M.P. was identified as not being requred for service and was deactivated in place and removed from the SAP-WM maintenance plan. The valve is inoperable and has been identified as deactivated on the station operating diagram. This valve is not associated with station LO-HP-03.	LOHP-03.pdf Map Correct.pdf
Internal Finding	13	1. Stub services not cut-off within timeframe: 2 1a) 3123 Country Club Blvd 1b) 4932 Waterloo Rd. Completed: 1a) 01/01/12 1b) 2015	Stub-1: Stub at 3123 Country Club Blvd was reviewed on 9/12/11; however, it was not cut off until 12/10/12 which exceeds the 12 month timeframe.  Corrective Action: Gas Engineering and Design (GDED) updated the Stub Review Process system-wide in 2012, which allows us to monitor and track deactivated plastic services per TD-9500P-16, to establish consistency and process ownership.  Stub-2: Stub at 4932 Waterloo Road was incorrectly included as a finding – it was cut off within the time frame required by procedure.	4932 Waterloo Road.pdf
Internal Finding	14	1. Incomplete supporting documentation for preMAOP systems: 2 1a) TYHP-44 (Swanson farms) 1b) MARHP-01, MARHP-03 (Jackson / Sutter Creek) Place chart and leak survey. Pending: 1a) 1st Q 2014 1b) 2nd Q 2014		TYHP-44 MARHP-01 & 03
NOV	1-1	PG&E's Utility Work Procedures WP4540-01 District Regulator Station Maintenance states:  "At the completion of the recording period, download, print, graph and review the pressure data and ensure that it is filed in the district regulator station file folder."  SED noted that PG&E did not file the 2010 pressure record chart for Regulator Station MAR-HP-04.	PG&E agrees with this finding. The pressure recording was unavailable due to battery failure on electronic pressure recorder. The distribution SCADA project will address these concerns moving forward with the installation of remote transmitting unit. Thus, with SCADA, we won't be subject to battery failure on individual pressure recorders since the SCADA system will provide on-going, real time information.	
NOV	1-2	PG&E's Utility Work Procedures WP4540-01 Attachment 5: Establishing Pressure Set Points and Check state: "Record results of monitor lockup test on [Test Gauge 2]. (yes/no)" SED found that Division did not record the results of the monitor lockup test on the District Regulator Station Maintenance record when it conducted the annual maintenance of its Regulator Station, ST-LP-04 on 12/6/11.	PG&E agrees with this finding. While the maintenance lock-up results did not indicate yes/no as required per WP-4540-01, the maintenance records did indicate 11.4"wc as the as-left lock up pressure reading which is in the acceptable pressure range. New mobile technology will help to prevent employees from missing required fields on maintenance documentation.	1-2.pdf

Finding				
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[Internal,				Associated Attachment
NOV, AOC]	Finding #	Finding	Response	(File Name)
NOV		PG&E's Utility Work Procedures WP4540-01 District Regulator Station Maintenance states:	·	1-3.pdf
NOV		"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 noted that PG&E did not record as found (AF) or as left (AL) filter differential readings on the maintenance records of the following District Regulator Stations:  Table 2- Regulator Stations that were maintained without recording AF and AL filter differentials Regulator Station Maintenance Date  ST-LP-01 6/24/13  ST-LP-13 8/12/13  ST-LP-14 4/4/13		1-5.pui
		ST-LP-47 4/3/13 TY-HP-71* 2/16/12 TY-HP-77* 1/28/12 *Dual run system, filter differentials were not recorded for either run		
NOV	1-4	A. Supervisors are responsible for the proper completion of all district regulator station inspection, testing, and	PG&E agrees with this finding. Local supervision has been instructed to perform required review and sign off of all maintenance documentation within the time limits prescribed in applicable work procedures.  All required reviews and sign offs have been completed.  Note- ST-LP-36 was misidentified. The correct station is ST-HP-36	1-4.pdf
NOV	1-5-A	PG&E's Utility Work Procedures WP4430-04 Division personnel identified a greasing problem with inlet fire valve V-1, located at regulator station LO-HP-01 and created a work ticket to correct the problem in June 2010 when the crews could not grease it during regular maintenance. SED reviewed related valve maintenance records and noted that V-1 still has the same problem because Division has not taken corrective action since June 2010. Therefore, Division failed to lubricate valve V-1 in 2010, 2011, 2012, and 2013.	i i	1-5-A.pdf
NOV		PG&E's Utility Work Procedures WP4430-04 SED reviewed District Regulator Station maintenance records for LOHP-100 located at 20440 Acampo Road, in Clements and noted that Division did not lubricate the plug type of inlet fire valve, V-1, during the maintenance on 6/12/13.	49CFR192.745. PG&E's Failure to lubricate the valve was due to a inaccesabilty to the grease	1-5-B.pdf

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NOV	1-6	PG&E's Utility Work Procedure WP4430-04 Attachment 1: Valve Maintenance Record with Instructions: "Use this portion of the "Valve Maintenance Record" to document the maintenance performed on the valve, as well as to document any required repairs and action taken."  SED found that PG&E did not perform the annual valve maintenance for Fire Valve #2 at Regulator Station ST-LP-01 in 2012. Valve maintenance record form shows that Division personnel visited the valve on 6/15/12; however, they did not document any of the required information on the maintenance record such as verification of valve number, inspection, lubrication, operation, and valve position for Valve #2.	, ,	1-6_Stockton.pdf
NOV	1-7	PG&E's Utility Procedure: TD-4412P-07, Patrolling Pipelines and Mains, which describes the patrolling procedure states in part the following:  "3.3.Frequency of Patrol- Table 1 below displays the minimum Company standards for patrol frequency: Gas transmission lines, gathering lines, and/or line segments (exposed or buried) are required to be patrolled quarterly"  SED reviewed Division Pipeline Patrol records and noted that Division did not patrol the Transmission line L-112, Pipeline No: FM# P-20, from Compressor Station to Mixing Station in the first and fourth quarters of 2010. Please inform SED of the preventive and mitigative (P&M) measures taken to address this deficiency.	PG&E agrees with this finding. As a mitigative measure, jurisdiction of L-112 was transferred from Stockton Division ground patrol to the centrally-administered aerial patrol of Tracy District in the first quarter of 2011. Similarly, the vast majority of PG&E's pipeline patrol inventory was gradually migrated to the centrally-administered aerial patrol program, which now monitors patrol compliance for all of PG&E's pipelines and reports and tracks the completion of aerial patrol observations reported to the local work centers for ground follow-up as appropriate. As a preventative measure, PG&E also currently patrols its pipelines more often than required, both to support compliance and to serve patrol's underlying role as an activity to support public safety, asset integrity, and damage prevention.	
NOV	1-8	PG& Standard O-16- Corrosion Control of Gas Facilities, 4. Impressed Current (Rectified) Cathodic Protection Systems states in part  "Maintain impressed current (rectified) cathodic protection systems according to the following procedures:  G. Casing Monitoring and Maintenance Local transmission, backbone transmission pipelines, and gas gathering pipeline cased crossings must be monitored annually (once each calendar year with intervals not to exceed 15 months) and recorded in PLM. Adequate annual monitoring at cased crossings includes a measurement of the P/S potential of the pipeline and the casing-to-soil potential of the casing. The casing is considered to be in electrical contact with the pipeline when the casing-to-soil potential is less than 100 mV. If one or both of these two conditions are found, further testing as described in Utility Standard D-So354/S4126 is required."  "Cased pipeline crossings that are found to be contacted (the casing is in electrical contact with the pipeline) shall be reported to corrosion engineering personnel within 30 days of discovery of the contact. Contacted casing reported to corrosion engineering personnel will be remediated as part of the contacted casing remediation program administered by corrosion engineering personnel." [Emphasis added]  SED reviewed Division's casing monitoring and maintenance records and noted that Division did not record casing to soil (C/S) potential readings in 2010 for the locations shown in Table 3.  SED also noted that for some lines, Division failed to take C/S readings in 2010 through 2012. SED determined that in order for Division to confirm that there are no contacted casings, Division needs to demonstrate that C/S potentials are in compliance with PG&E's Standard, O-16- Corrosion Control of Gas Facilities. Please inform SED of the corrective actions and P&M measures taken to address these deficiencies.	PG&E acknowledges this finding for 3 of the 25 locations listed in the table (1603-03 MP 0.42, 1608-01 MP 1.10, and L-197B MP 4.65). PG&E did not record C/S potential readings nor % LEL readings for these locations from 2010 to 2012.  PG&E respectfully disagrees with this finding for the remaining 22 locations listed in the table. The attached documentation shows that the C/S potential reads were performed and maintained for those locations, except for 2 of those locations in 2010 (1619-01 MP 0.47, and 1601-09 MP 0.42); these 2 locations had %LEL reads taken in 2010, which constitutes compliance with PG&E Standard 0-16, which states, "In addition to the P/S measurement and the casing-to-soil measurement, an approved hazardous atmosphere test instrument must be used to sample the atmosphere of casing vent(s) or the ground near the end of the casing if no vents are present. The as-found natural gas concentration inside the vent(s) or on the ground must be reported in %LEL 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."  Going forward, casing locations without vents or read points will be monitored annually through improved alternative inspection and testing techniques to check for electrical isolation. Any identified issues will be mitigated as appropriate in accordance with PG&E Standard 0-16, "Corrosion Control of Facilities" and PG&E Work Procedure WP4133-04, "Remediating Casing Contacts." Furthermore, PG&E is developing new procedures for monitoring casing locations, which will include guidance for using the alternative techniques to check for electrical isolation. These new procedures will be implemented over the next two years.  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. The goal of this	2010 Casing PLM Data.pdf 2010 PLM.pdf

Finding Type [Internal, NOV, AOC]	Finding #	Finding	Response	Associated Attachment (File Name)
NOV	1-9	PG&E Standard O-16: Corrosion Control of Gas Facilities SED noted that Division did not create CPA Follow-up Action Plans in 30 days for the following CPAs: Table 4- CPAs which were restored beyond 30-days without creating follow up action plans CPA Location Date found below adequate levels of protection Date Restored 3061-6 7/17/12 8/28/12 3061-7 7/17/12 8/24/12 3061-8A 7/17/12 greater than 30 days	PG&E agrees with this finding. Division Corrosion personnel failed to create and maintain these Action Plans per the Standard in O-16. As a preventative measure, Action Plans have been moved into SAP for scheduling and compliance monitoring.  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. The goal of this improvement effort is to mitigate corrosion control issues by addressing root causes at a programmatic level.	(inc ivaline)
NOV	1-10-A	SED reviewed Division's Standard Cathodic Protection Maintenance Report (CP report) and noted that Division did not take annual P/S reading in 2011 for CP System 2946-4, at location ETS S/E C/O Bridge @ Davis Road, Stockton S/O Eight Mile Road.	PG&E agrees with this finding. This annual read location was created in 2011, with no read entered into SAP. The current Request for Work process for Asset Creation requires a P/S read when entering the asset into a maintenance plan in SAP. The reads have been completed in subsequent years. Attached are the 2012, 2013 and 2014 SAP CPA Annual Maintenance Reports for this location.  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. The goal of this improvement effort is to mitigate corrosion control issues by addressing root causes at a programmatic level.	2946-4.pdf
NOV	1-10-B	SED reviewed Division's corrosion control records and noted that Division recorded -423 mV at 224 S. Elm St., Ripon, located at CPA #: 3118-1B, on 8/9/13. SED found that Division did not create a written action plan to for the deficiency identified.  Division informed SED that it took another P/S reading on 11/12/13 and recorded -686 mV; however, it did not create any action plan. On 2/3/14, Division brought the system up to the compliance level and recorded P/S	PG&E agrees with this finding. Division Corrosion personnel failed to create and maintain this Action Plan per the Standard in O-16. As a preventative measure, Action Plans have been moved into SAP for scheduling and compliance monitoring.  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. The goal of this improvement effort is to mitigate corrosion control issues by addressing root causes at a programmatic level.	
NOV	1-10-C	SED also found that CP report CP System 3118-1A, P/S annual reading (galvanic system) at location 245 N. Locust St., Ripon, shows that Division personnel recorded P/S reading -711 mV on 3/19/13 and -493 mV on 9/19/13; however, it created the CPA follow-up action plan on 6/20/13, approximately 90 days after the initial discovery and did not update the plan in October 2013 to show the work progress.  Please inform SED of the corrective actions and P&M measures taken to address these deficiencies.	PG&E agrees with this finding. Division Corrosion personnel failed to create and maintain this Action Plan per the Standard in O-16. As a preventative measure, Action Plans have been moved into SAP for scheduling and compliance monitoring.  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. The goal of this improvement effort is to mitigate corrosion control issues by addressing root causes at a programmatic level.	

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NOV	1-11	the "Standard Cathodic Protection Maintenance Report," Attachment D, or in PLM" Division identified the CPA 3113-4A below adequate level of protection on 6/14/10 and restored it on 7/9/10. SED noted that PG&E did not record after the post-restoration as required by its standard until it resurveyed the area on 7/30/10.	PG&E agrees with this finding. The post restoration reads were not recorded for CPA 3113-4A in July of 2010. Instead the restoration reads were combined with the resurvey data later that month. The current computer tickets generated through SAP and completed in the field with the Mobile Application do not allow for a ticket to close without the post restoration read data.  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. The goal of this improvement effort is to mitigate corrosion control issues by addressing root causes at a programmatic level.	
NOV	1-12			1-12_Stockton.pdf Stockton Instrument List.xlsx

Finding Type [Internal, NOV, AOC]	Finding #	Finding	Response	Associated Attachment (File Name)
NOV		Fluke 289 F-101 22750162 289 N/A	and removal of calibrated instruments. Attached are the calibration records for three of the	Fluke 27 SN 4310163.pdf Fluke 289 SN 10010110.pdf Fluke 289 SN 22750162.pdf
NOV	1-14	On 10/20/10, during the regulator station maintenance of MAHP44, located Airport Way and Lathrop in Lathrop, Division discovered a leak at Inlet Fire Valve 1 and created a corrective work ticket on 10/25/10. However, Division neither graded the leak nor did it generate a leak number. Therefore, Division failed to follow PG&E's Utility Procedure: TD-4110P-09, for Leak grading and response. On 5/20/11, Division rechecked the leak but could not find it.  Please inform SED of the P&M measure taken to address this deficiency.	PG&E agrees with this finding. On 11/14/2014, Local employees were provided a refresher briefing by PG&E supervision covering TD-4110-P09, emphasizing the requirement to stand by until qualified employees can be dispatched to grade below ground leaks. See attached Training roster.	1-14.pdf
NOV			now been confirmed to be scheduled and tracked correctly for compliance in SAP.	

Finding Type [Internal, NOV, AOC]	Finding #	Finding	Response	Associated Attachment (File Name)
NOV	3	provide the previous records to show the compliance of corrosion checks conducted in the last 10 years. Division explained that it could not locate records for some of the isolated mains and services due to the migration of paper records into PG&E's FM system. Division also stated that the user transferring this	PG&E agrees with this finding. The Isolated steel monitoring program is now in SAP for scheduling and compliance monitoring. Annual Reports are printed documenting the read history of the Isolated Steel Assets.  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. The goal of this improvement effort is to mitigate corrosion control issues by addressing root causes at a programmatic level.	
NOV	4	Table 7- Inadequate P/S readings recorded by location and date Location Date P/S Readings 821-19 Golden Gate Ave, Stockton 12/9/2010 -360mV 2101 E Church St, Stockton 12/9/2010 -634mV 83 Dennis St, Sutter Creek 5/17/2012 -778mV Although Division indicated that it addressed the low readings, it did not have any records of post restoration	PG&E agrees with this finding. Post restoration reads, and corrective work follow up was not completed as required. These were sent out for field verification on 11/12/2014. Results are attached. The new process for Corrective work requires follow up data in order to close the work order. These types of work tickets require Corrosion to complete the post read information.  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. The goal of this improvement effort is to mitigate corrosion control issues by addressing root causes at a programmatic level.	Finding IV.xlsx

Finding				
Type [Internal,				Associated Attachment
NOV, AOC]	Finding #	Finding	Response	(File Name)
NOV	5-1	Title 49, CFR, §192.475 Internal corrosion control  SED reviewed Division's Leak Repair, Inspection and Gas Quarterly Incident Reports (Form A), and noted that Division personnel marked the "Internal Corrosion" box on the forms to indicate the leak cause. Table 8 shows the leak numbers and whether or not Division personnel replaced any pipe during the leak repair. SED found that even though Division recorded that the leak cause was internal corrosion (IC), Division did not conduct any investigation for the adjacent pipe to determine the extent of IC, any replacements, and necessary steps to minimize IC as required by §192.475 (b).  SED also reviewed PG&E's O-16 Corrosion Standard and related forms and noted that O-16 does not have any clear direction or guidance for employees on how to perform IC inspections and investigations. According to O-16, Section 9, Internal Corrosion requirement, PG&E is required to record IC inspection and evaluation which is performed to determine the presence and extent of any internal corrosion on PG&E's form F4110-7, 'CGT Leak Survey, Repair, Inspection, and Gas Quarterly Incident Report' referenced in the standard. SED reviewed the form and determined that it does not have any place to record investigation of internal inspection of adjacent pipe if IC is found on the removed pipe section. PG&E must provide specific direction to its employees for IC investigations of removed and adjacent pipe and provide necessary forms to record IC findings as a result of investigations.  SED determined that PG&E must have provisions in its procedures on inspecting adjacent piping to determine the extent of IC when IC indications are found. SED reviewed PG&E's Evaluation and Mitigation Plan for Internal Corrosion Assessment, form GT&D 08/2008 FO-16-G; however, SED could not find any guidance in PG&E's procedures to specify when PG&E personnel need to fill out the form and how to process it in order to comply	PG&E agrees with the finding. In order to mitigate this, PG&E will review its applicable procedures and forms and revise as necessary to provide guidance on inspecting adjacent pipe when internal corrosion is found. PG&E expects to complete this review and revision process by September, 2015.	
NOV		with §192.475 (b).  Title 49, CFR, §192.475 Internal corrosion control	PG&E agrees with the finding. To prevent recurrence, PG&E will conduct a refresher briefing with the Stockton and Yosemite division employees and reviewed the A form manual on the	-
		SED reviewed Form As and found that Division identified IC indications during the repair of the following leaks shown in Table 9. SED noted that Division personnel indicated "rust and/or pitting" as a result of internal inspections of the pipe segment during repair process of these leaks; however, SED did not find any follow up actions that Division took in order to inspect the adjacent piping to determine the extent of IC, any replacements, and necessary steps to minimize IC as required by §192.475 (b).	proper process for filling out the A form and how to correctly identify and document the cause of the leak on the A form. PG&E believes this is a training issue and we will use a refresher briefing and A form manual for our corrective action. These refresher briefings were conducted the week of 11/3 and 11/10/2014. In addition, PG&E will review its applicable procedures and forms and revise as necessary to provide guidance on inspecting adjacent pipe when internal corrosion is found. PG&E expects to complete this review and revision process by September, 2015.	Merced Tailboard.pdf
NOV		"Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows: Onshore, at least once every 3 calendar years, but within intervals not exceeding 39 months."  Division inspected the exposed span X-31 located at E/S of Jacktone Road and north of Patty Creek for evidence of atmospheric corrosion in March 2010. During the audit, SED noted that Division has not inspected the span from March 2010 until December 2013 which exceeded the 39 month required inspection interval. On 12/5/13,	its corrosion control programs as described in the Feb 11, 2014 self report update to the	

Finding Type [Internal,				Associated Attachment
NOV, AOC]	Finding #	Finding	Response	(File Name)
NOV	7-1	Title 49, CFR, §192.481 Atmospheric corrosion control  VII-1 SED reviewed Division's atmospheric corrosion (AC) records and noted that as a result of the last AC survey conducted in 2011, Division identified a total of 1,890 meters set locations with AC inspection matters and completed the corrective actions at 1,885 locations. At the time of SED audit, there were a total of five locations with pending work that are listed in Table 10.  Table 10- Pending AC corrective actions by address identified during Division's 2011 AC survey Address; AC survey date; Corrective Action Date  679 W Sonoma Ave., Stockton 95204; 7/5/11; Still pending  1830 S Argonaut St., Stockton 95206*; 7/21/11; 1/3/14  240 Doak Blvd., Ripon 95366; 3/14/11; Still pending  1331 S Ham Ln., Lodi 95242; 3/15/11; Still pending  7500 W Linne Rd., Tracy 95304*; 3/14/11; 12/17/13  *After the audit, Division informed SED that it took remedial actions for the AC issues for these two locations Please inform SED of the corrective actions taken for the AC issues at the above addresses.	PG&E has taken corrective actions at all addresses listed in Table 10. All meter sets have been painted. Please see attached spreadsheet listing the dates and the corrective action taken at the addresses.  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. The goal of this improvement effort is to mitigate corrosion control issues by addressing root causes at a programmatic level.	AC Audits.xlsx
NOV		Title 49, CFR, §192.481 Atmospheric corrosion control  VII-2 SED also reviewed Division's 2011 AC survey maps and requested to obtain the remedial actions for 25 locations in the City of Stockton that SED randomly selected from the maps which were identified by Division personnel and PG&E's contractors during the surveys. SED found that out of the 25 locations, Division has not completed remedial actions for 17 locations shown in Table 11.  Since SED chose only 25 locations from the AC maps, there may be more locations with AC problems identified on the 2011 survey maps that have not been incorporated in PG&E's databases; therefore, they have not been remediated.  Division personnel explained that identified locations as a result of AC surveys are first recorded in AMP system and then transferred to Field dispatching (FAS) program so that PG&E's Gas Service Representatives (GSR) take remedial actions.  SED is concerned about how Division tracks these locations in its system to be remediated since even a small sample of these locations showed that more than half of these locations do not appear to be in PG&E's system for remediation. Additionally, Division initially reported that there were a total of five locations where the AC deficiencies were not remediated as of December 2013, see Table 10. However, when SED randomly picked locations to confirm the AC remedial actions, out of the 25 locations, SED located 17 metersets which have not been remediated.  SED determined that Division failed to properly record findings from the AC surveys and it failed to take corrective actions for AC problems. SED noted that this may be a system wide issue in PG&E's system to properly record AC survey findings and take timely AC corrective actions.  Although neither §192.481 nor §192.479 specify any timeframe to complete remedial actions for AC findings, SED would like to point out that code sections should not be interpreted that operators should take up to 39 months to complete corrective actions. For example, Division ide	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	AC Audits Rev1.xlsx

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NOV 8	Title 49, CFR, §192.615 Emergency Plans  SED reviewed PG&E's training emergency response training records and found 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 trainings were effective.  • GAS-9006, GAS-9007, GAS-9008, and TECH-0038  Please provide SED with these records for 2011, 2012, and 2013 related to verification that training was effective.  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.  Based on records provided to SED related to these annual exercises, SED did not find any records to date for 2011. Please provide copies to SED as soon as records are located. Based on records provided for 2010, 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 2010, 2012 & 2013; however, SED noted that the 2010 & 2012 exercises included internal PG&E field crews only. 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, and number 2 as	requested records for 2012 and 2013.  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.  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.	2012 Stockton Sign In.pdf 2013 Tracy-Stockton_Exercise_Sign-In.pdf 2012 Division TTX AAR.XLS 2013 Stockton-Tracy FE AAR.XLSX

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	Title 49 CFR §192.743(a) states:  "Pressure relief devices at pressure limiting stations and pressure regulating stations must have sufficient capacity to protect the facilities to which they are connected. Except as provided in §192.739(b), the capacity must be consistent with the pressure limits of §192.201(a). This capacity must be determined at intervals not exceeding 15 months, but at least once each calendar year, by testing the devices in place or by review and calculations."  SED noted that Division did not perform the capacity review for the relief valve at Regulator Station IO-HP-04 in 2012.	PG&E agrees with this finding. This HPR type district regulator station (IOHP-04) missed its annual relief capacity verification in 2012 due to a data entry issue during the SAP stabilization effort.  In 2012 the review process moved to SAP and was to be completed based on input from T&R during their maintenance. For this particular station IOHP-04 (SAP functional location GD.STAT.HPRS.00422.STA1.RUN1) the incorrect equipment type had been input during SAP	

Finding Type [Internal, NOV, AOC]			Response	Associated Attachment (File Name)
NOV	10	Title 49 CFR §192.745, Valve maintenance: Transmission lines 49 CFR §192.747, Valve maintenance: Distribution systems Division conducted regulator maintenance of District Regulator Station, TY-HP-01, located at Grantline & Alameda Co. Line in Tracy on 4/7/11 and identified the following issues:  1	TYHP-01 with the overall distribution system and the station has been deactivated along with the associated fire valves (work done under 31047298 completed 4/24/14).  To prevent recurrence, PG&E has streamlined work flow process for corrective tickets issued from the field by implementing the Mariner Tool in SAP (entered into Mariner either directly through GD8200 mobile device or manually entered from paper ticket by clerical). These tickets are reviewed by the appropriate field supervisor for compliance issues in accordance with the Work & Compliance Matrix to establish the appropriate corrective action and due date.	31047298AsBuiltDWG2.pdf
NOV	11-1	Title 49, CFR, §192.805 Qualification program.  SED reviewed Division's Odor Intensity Reports and found that Roger Morshead, Division supervisor, took multiple odor intensity readings in 2009 and 2010; however, Mr. Morshead was not qualified to perform the covered task, OQ19-02 to conduct sampling of odorant.  PG&E must ensure that only qualified personnel perform covered tasks. Please inform SED of the P&M measures taken to address this deficiency.	PG&E agrees with this finding. The Division supervisor is no longer in the I&R supervisor position. To prevent such occurrences, all supervisors are included in PG&E's annual training (GAS-0134), which clearly states it to be the responsibility of all employees to know that OQ-covered work cannot be solely performed by personnel who are not qualified to do so.  In 2010, OQ's were tracked in "training server" for which limited employees had access. PG&E has recently migrated OQ data into SAP, enabling all employees to run their respective OQ report on their own at any time. This allows employees to have greater visibility of the OQ's they are currently qualified for.	
NOV	11-2	Title 49, CFR, §192.805 Qualification program.  SED reviewed operator qualification (OQ) records for Jerry Anderson, pilot, who conducted aerial patrols for PG&E's transmission lines and noted that PG&E accepted Niska Gas Storage's evaluations documented by Niska's February 13, 2007 letter for Mr. Anderson to be a qualified person to perform the patrolling covered task.  SED reviewed Niska Gas Storage OQ records which indicated that Mr. Anderson was qualified on 2/13/2007 and the qualification was valid for three years. Mr. Anderson obtained the subsequent qualification from PG&E on 4/5/2010. Since the first qualification was valid for 3 years, there was a gap between February and April 2010. PG&E did not identify any OQ records showing that Mr. Anderson was qualified for aerial patrols between February 2010 and April 2010.  As a result of SED's transmission pipeline patrol records, SED found that Mr. Anderson conducted patrols in Vacaville for L-108, L-148, L-197 A&B, and L-197C on March 2, 2010 when his qualification for pipeline patrol expired.  Please inform SED of the P&M measures taken to address this deficiency.	PG&E agrees that the absence of Mr. Anderson's Operator Qualifications (OQs) between February 14, 2010, and April 4, 2010, is a violation of §192.805. As acknowledged in the finding, Mr. Anderson was subsequently evaluated for and earned the necessary OQs for aerial patrol on April 5, 2010, and has since patrolled the identified pipelines multiple times in accordance with PG&E's patrol and OQ work procedures. To prevent recurrence of this issue, PG&E hired a third-party vendor, Veriforce, in June 2013 to track and manage OQs for its contractors. PG&E also established a separate OQ for aerial patrol in July 2014 that is tracked in SAP for internal employees and via Veriforce for contractors.	

Finding			
Туре			
[Internal,			Associated Attachment
NOV, AOC]	 ·	Response	(File Name)
AOC	Title 49 CFR §192.745(b) states: "Each operator must take prompt remedial action to correct any valve found inoperable, unless the operator designates an alternative valve."  SED reviewed valve maintenance records and noted that Division found multiple valves as hard-to-turn during the annual maintenance.  For example, Division crews identified Valve K-15 on transmission line L-197 to be inoperable since 6/11/2010, requiring 2 men to operate the valve. The valve has not been remediated as of this audit. If Division found this valve inoperable, it must take remedial action timely manner. If the problem is only hard to turn, then the work ticket must clarify the deficiency and Division must take remedial action accordingly.  SED noted that the use of the terms "inoperable" and "hard-to-turn" can be subjective depending on the maintenance personnel. The difference between an inoperable valve and the limitations of forced used to exercise a valve must be clearly defined. SED also noted that PG&E must differentiate inoperable valves from hard to turn valves and also must provide guidance to its employees on how to create and take corrective action accordingly.  PG&E should consider creating a system-wide guidance regarding the use of these terms and the remedial actions necessary for each type of deficiency.	PG&E agrees with this concern. The clarification on remedial actions will be addressed in the planned bulletin (TD-4430B-005) to be published in November 2014 and will be included in the next revision of the Valve Maintenance Standard TD-4520S in 2015 (the current Valve Maintenance Procedure TD-4430P-04 will be moved into TD-4520S).	
AOC	points of regulator and monitor on the data sheet after the station was installed. After SED identified this issue, Division conducted regular maintenance of the station on 12/9/13 and recorded all pressure set points along	PG&E agrees with this concern. The District Regulator Station Datasheet must be filled out in its entirety during installation of the station. The datasheet is required for each stage of regulation as specified in TD-4540P-01, step 6.1.3. The Methods and Procedures group has committed to updating TD-4540S to include an A inspection during installation which will include filling out the datasheet. The target date for publishing the revised version of TD-4540S is July 2015.	
AOC	PG&E reported a Safety Related Condition (SRC) report to the CPUC on 1/9/13 when the distribution pressure reached a peak of 81 psig with an MAOP of 60 psig in a small distribution system fed by pressure regulating station LO-HP-97, at the intersection of Turner Road and WID Canal in Lodi.  As a result of PG&E's investigation of the condition that was discovered on 1/2/13 and PG&E took remedial actions by removing the pressure regulating station from service and purging gas to bring the pressure below 60 psig. After PG&E had conducted an internal inspection of the regulator station and determined the cause of the problem was water in both regulators and their pilots, it drained the remaining water from the upstream pipeline and returned the regulating station to normal service. As part of the corrective actions, PG&E also conducted a special leak survey which included one service and a portion of the main line on 1/3/13 and did not find any leaks.  During the audit, SED reviewed the details of the gas leak survey with maps and found that the regulating station LO-HP-97 actually serves a total of three customers.  Division conducted a gas leak survey of all three customers on 12/4/13 after SED asked Division to conduct the gas leak survey for all services which are directly served by this regulating station.  SED noted that Division must ensure that special leak surveys include services that are located in the close proximity and may be affected by over-pressurization events.  Please inform SED of the P&M measures taken to address this deficiency.	PG&E agrees with this concern. PG&E plans to publish Utility Procedure TD-4800P-01 "Immediate Actions to be Taken After an Over-Pressure Event," which will include a requirement that, if a leak survey is required, then Local Engineering and/or Distribution Integrity must determine the scope of the facilities to be leak surveyed after consulting with distribution planning engineering to establish the effect on the system and impacts to customers given the magnitude and extent of the over-pressure on the affected system. It is estimated that this procedure will be published by March, 2015.	

Finding Type [Internal, NOV, AOC]	Finding SED reviewed Division's Form As and noted that Division personnel marked "Internal Corrosion" as the leak	Response PG&E agrees with this concern. To prevent recurrence, PG&E will conduct a refresher	Associated Attachment (File Name) Stockton Tailboard.pdf
	cause for leaks 09-00023-1, 06-01133, 93-11-06102-1, 0201112; however, SED believes that the actual leak cause should have been "External Corrosion"; therefore, Division personnel incorrectly recorded the leak causes on the forms.  SED noted that Division personnel may require additional training on how to identify leak causes and fill out PG&E forms properly.  Please inform SED of the P&M measures taken to address this deficiency.	' '	Modesto Tailboard.pdf Merced Tailboard.pdf
AOC	reviewed the OQ codes for this covered task but did not find it under any repair method categories under the OQ program. PG&E must list this covered task under metallic pipe repair methods and train its personnel for this covered task accordingly.	PG&E agrees with this concern. PG&E has reviewed the Mechanical repair OQ ( OQ 02-01 ) and determined that Soap Tapes identified in GDS A-68 should be governed by this qualification. We have updated both the Record of Evaluation and Associated Evaluation Script to include criterion on Soap Tapes.  Attached are proposed changes to OQ 02-01	02-01 Evaluator Script.docx Initial-Sub Eval-Inst 02-01.docx
AOC	Part E. Rectifier Monitoring and Maintenance states in part: "A "Rectifier Test and Site Evaluation" form (Attachment A of Numbered Document O-11.1, Form FO-11.1-A) shall be completed to ensure that rectifiers are functioning correctly and that there are no safety violations. Forms must be filed in the CPA file or equivalent, each calendar year and retained for 5 years, with intervals not	locations. Attached are the SAP work tickets for these jobs. The ground rods for rectifier 16-59 were installed on a capital order to replace the deep well anode.	PM 16-294.pdf PM 16-59.pdf

Finding Type [Internal, NOV, AOC]	Finding #		Response	Associated Attachment (File Name)
AOC	7	ground resistance readings higher than 25 ohms. O-16 standards requires that if the ground resistance is above 25 ohms, 2nd ground rod should be installed 6' apart.  Division informed SED that it has created work tickets for the corrective actions for the following rectifiers:  CPA #: L-108D, Rectifier # 16-52, located at S/E Hazelton & Stanislaus, Stockton. High resistance was recorded on 10/2/2012 and 8/19/2013. Division created a work ticket to install a second ground rod on 12/18/13.	Division created corrective orders and completed work to install 2nd ground rods at these location. Attached are the SAP work tickets for these jobs.  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. The goal of this improvement effort is to mitigate corrosion control issues by addressing root causes at a programmatic level.	PM 42042826 Rectifier 16-52 PM 42042836 Rectifier 16-65 PM 42042838 Rectifier 16-446 PM42042827 Rectifier 16-445
AOC	8	On 12/6/13, SED and PG&E visited District Regulator Station, MAHP-02, located Yosemite and Pacific Avenues in Manteca and observed that the regulator did not lock up. After Division personnel replaced the stem in pilot, it achieved lock up at 118 psig. SED also noted that there was a leak discovered on pilot filter which Division personnel repaired on site.	As indicated in the observation all corrective work was completed on site during the SED field observation at MAHP-02.	
AOC	9	SED reviewed Division Form As and noted that Division did not record the reasoning behind the downgrade for	PG&E agrees with this concern. To prevent recurrence, PG&E has upgraded the A form process to an electronic format. This will prevent users from being able to downgrade a leak without indicating the reason for the downgrade on the form.	