

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



May 26, 2015

GI-2015-04-PGE10-02A

Mr. Sumeet Singh, Vice President
Pacific Gas and Electric Company
Gas Asset and Risk Management
6111 Bollinger Canyon Road, Room 4590-D
San Ramon, CA 94583

SUBJECT: General Order 112-E Gas Audit of PG&E's Sonoma Division

Dear Mr. Singh:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a General Order 112-E audit of Pacific Gas & Electric Company's (PG&E) Sonoma Division (Division) from April 6 through April 10, 2015. The audit included a review of the Division's records for the period of 2014, as well as a representative field sample of the Division's facilities in the cities of Ukiah, Cloverdale, Sonoma, Santa Rosa, Petaluma and Sebastopol. SED staff also reviewed the Division's operator qualification records, which included field observation of randomly selected individuals performing covered tasks.

SED's findings are noted in the Summary of Inspection Findings (Summary) which is enclosed with this letter. The Summary reflects only those particular records and pipeline facilities that SED inspected during the audit.

Within 30 days of your receipt of this letter, please provide a written response indicating the measures taken by PG&E to address the violations and observations noted in the Summary. Pursuant to Commission Resolution ALJ-274, SED staff has the authority to issue citations for each violation found during the audit.

If you have any questions, please contact Sikandar Khatri at (415) 703-2565 or by email at Sikandar.Khatri@cpuc.ca.gov.

Sincerely,

Kenneth Bruno
Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division

Kenneth B
5/26/15

Enclosure: Summary of Inspection Findings

cc: Larry Berg, PG&E Gas Regulatory Support
Larry Deniston, PG&E Gas Regulatory Support
Mike Falk, PG&E

SUMMARY OF INSPECTION FINDINGS

I. Probable Violations

A. PG&E's Internal Audit Findings

Prior to the start of audit, PG&E provided SED its finding from the internal review it conducted of Sonoma Division (Division). Some of PG&E's internal review findings are violations of PG&E's standards, and are therefore violations of Title 49 Code of Federal Regulations (CFR), §192.13(c) or §192.605(a). SED is aware that PG&E corrected some of its findings prior to SED's audit.

Table 1 lists all of the violations from PG&E's internal review.

Table 1: PG&E's Internal Review

Code Section	Year: # of Non-Compliance(s)	Finding Description	Corrective Action	Remediation Date
192.605 (a)	2014: 0	Leak Survey Distribution: No findings		
192.605 (a)	2014: 0	Leak Survey Transmission: No findings		
192.605 (a)	2014: 1	Leak repair: Grade 2 ⁺ leak #109590115 was found 10/23/14 with a due date of 1/21/15	Upon site visit to determine actions, Mechanic identified "Fuzz leak on outlet of Farm tap HPR. Old 3/4" SVC pipe badly corroded, needs service re-ran to make safe". Estimate started 1/17/15, Job started 1/16, but not completed. Not discovered until past due date. Leak repaired 1/26/15 5 days late	1/26/2015
192.605 (a)	2014: 0	Regulator Station: No findings		
192.605 (a)	2014:0	Valves: No findings		
192.605 (a)	2014: 0	Major Gas Facilities: No findings		
192.605 (a)	2014: 0	Instrument Calibrations: No findings		

192.605 (a)	2014: 21	<p>Corrosion – Annual P/S Reads not Read Once Each calendar Year or Exceed 15 Months CPA# 634-22 Sonoma Ave and South EST. Test location at 735 BRENTWOOD, SANTA ROSA</p> <p>CPA# 377-01, 5 locations 43599476; 43599460; 43599482; 43600366; 43600370</p> <p>CPA# 504-05A 43164159</p> <p>CPA# 566-04 3 locations 43600241; 43600243; 43600245</p> <p>CPA# 633-04 3 locations (RW's 43599034; 43599036; 43599039)</p> <p>CPA# 634-01A: 43600250</p> <p>CPA# 634-03 2 locations 43599050; 43599053</p> <p>CPA# 634-16 3 locations (RWs 43600235; 43600237; 43600239)</p> <p>CPA# 636-01 2 locations (RW's 43600279 43600282)</p>	<p>RW 107920778 created 3/26/14. Read on 3/15/14 by FIA1.</p> <p>RW's created and Reads taken upon identification</p>	<p>3/15/2014</p> <p>4/1/2015</p>
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192.605 (a)	2014: 48	<p>Corrosion – Yearly Reads Not Read Once Each Calendar Year</p> <p>CPA# 377-01 10 Locations 43599484; 43599485; 43599486; 43599487; 43599468; 43599469; 43599490; 43600150 43600151; 43600152</p> <p>CPA#504-03 5 Locations 43599022; 43599023; 43599024; 43599025; 43599026</p> <p>CPA# 566-04 6 Locations 43600270; 43600271; 43600272; 43600273; 43600274; 43600275</p> <p>CPA# 632-06 4 locations 43600374; 43600375; 43600377; 43600378</p> <p>CPA# 633-04 5 locations 43599041; 43599042; 43599043; 43599045; 43599046</p> <p>CPA#634-03 3 locations 43599057; 43599058; 43599059</p>	<p>Reads taken upon identification and RW created to add to SAP and capture reads.</p> <p>RWs complete.</p>	04/01/2015
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		<p>CPA# 634-10 42758346</p> <p>CPA# 634-16 4 locations 43600404; 43600405; 43600407; 43600408</p> <p>CPA 768-02 43600383</p> <p>CPA#768-03 42800550</p> <p>CPA#768-06 2 locations 43600399; 43600401</p> <p>CPA# 768-12 2 locations 43600276; 43600277</p> <p>CPA# 636-01 (RW's: 43600354; 43600356; 43600283; 43600281)</p>		
192.605 (a)	2014: 9	<p>Corrosion – Bimonthly Reads Not Read 6 Times a Year not to exceed 2 ½ Months</p> <p>CPA# 21-E 41387789; 41387796; 41387803; 41387810; 41387817; 41387824; 41387831; 41387838; 41387845</p>	RWs created and reads taken upon identification	3/19/2015
192.605 (a)	2014: 12	<p>Corrosion – Casings</p> <p>Action Plan generated late for out of tolerance data: (5)</p>	<p>1. Engineer Confirmed on casings to be worked CE Risk Rank 17505</p> <p>2&3. Engineer to</p>	10/16/2014

		<p>EQ41397654; EQ41419746; EQ41367915; EQ41386545; EQ 4196747</p> <p>Action Plan not generated for out of tolerance data: (3) EQ41396660 EQ41387979 EQ41388036</p> <p>Missed assessments: (4) EQ41396763 EQ43225631 EQ43222580 1303-03 MP 0.00</p>	<p>have Felix Enriquez add to casings to be worked CE Risk Ranking</p> <p>4. Engineer confirmed on casings to be worked list CE Risk Rank 20893</p>	
192.605 (a)	2014: 0	Pipeline Patrolling – No findings		
192.605 (a)	2014: 0	Odorization – No findings		

B. SED Findings

1. Title 49 CFR §192.605 states in part:

(a) *General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response...*

(b) *Maintenance and normal operations.*

The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.

(1) Operating, maintaining, and repairing the pipeline in accordance with each of the requirements of this subpart and Subpart M of this part...

1.1 Internal surface not inspected

Title 49 Code of Federal Regulations §192.475 (b) states that:

"Whenever any pipe is removed from a pipeline for any reason, the internal surface must be inspected for evidence of corrosion..."

PG&E procedure O -16, Section 9(A) states:

"Whenever steel pipe is removed from a pipeline, it and the adjacent pipe must be inspected and evaluated to determine the presence and extent of any internal corrosion..."

(a) SED staff reviewed construction records for three distribution projects: PM#s 31030425, 31053456 and 310996140. SED found that no internal surface inspections were performed when the pipe was exposed during the construction projects with PM# 31053456.

(b) In addition, an internal surface inspection was not performed during the repair on steel pipeline for leak at 525 Healdsburg Avenue, Healdsburg (CPA 504-03 REC).

(c) Copies of the A-forms provided for leak #s 4414103611, 4414000021 and 4414000341 show that the 'internal inspection' part of the forms was not filled.

1.2. P/S locations not monitored

PG&E procedure O -16, Section 4(C), Table 1 'Schedule of Monitoring Intervals' requires that:

"Pipe-to-Soil (P/S) readings on Distribution and Local Transmission test locations should be taken bimonthly with intervals not to exceed 2 ½ months."

SED found that P/S reads at following locations were taken at intervals greater than 2 ½ months.

- (a) CPA 130-02-U, 2780 Broggi Ln, Talmadge: Reads were taken on 05/02/14 and then on 07/19/14.
- (b) CPA 252-01, ETS Vent Stack W/O RRXing HWY 175 Hopland and 314 St Mary's Ave Hopland: Reads taken on 05/02/14 and then on 07/19/14.

1.3. Missing CPA Follow-up Action Plan

PG&E's Standard O-16 (Rev. # 14), Corrosion Control of Facilities Section 6 (A) (3) states that:

"If the CPA restoration work is (or is expected to be) over 30 days, the "CPA Follow-Up Action Plan" form (Attachment B) must be used and developed within 30 calendar days from the date the CPA is found below adequate levels of protection, as defined by the current 49 CFR 192, Subpart I."

SED reviewed cathodic protection area (CPA) records and found that the Division did not develop a "CPA Follow-Up Action Plan" within 30 calendar days from the date the CPA was found to have below adequate levels of protection. These locations are:

- (a) CPA 70402 – at Cotati Plaza Reg. Sta., ETS 41418343: low P/S values were recorded on 3/3/14 and 5/9/14. No action plan was generated.
- (b) 566-01 CPA - at 2907 Fulton Road, Santa Rosa, Annual ETS: a low P/S reading of -440 mV was recorded on 12/06/2104. No action plan was developed until it was pointed out during this audit. On the last day of audit, 04/10/2015, PG&E informed that they have created an action plan and remedial actions started. The relevant documents were provided.

1.4. Weld Repair

Title 49 Code of Federal Regulations §192.245(b) states that:

"Each weld that is repaired must have the defect removed down to sound metal and the segment to be repaired must be preheated if conditions exist which would adversely affect the quality of the weld repair. After repair, the segment of the weld that was repaired must be inspected to ensure its acceptability."

The A-form provided for the leak # 4414103611 shows the "Repair Remarks" as "Welded over weld". Similarly, the A-form for the leak # 4413109461 shows the "Repair Remarks" as "Welded over bad weld". This indicates that the code required procedure was not followed for the weld repairs.

II. Areas of Concern/ Observations/ Recommendations

1. CP criteria not met for 10%ers – field visit

PG&E procedure O-16 states in section 3(A) that:

“Cathodic protection systems will be considered adequately protected when the lowest P/S potential is -850 mV or more negative, with reference to a copper-copper sulfate electrode, with cathodic protection current applied...”

PG&E procedure TD-4181S, section 6.4, part (3) states that:

“To ensure facilities are protected until the next monitoring cycle, a driveable anode must be installed if the P/S potentials are less negative than -950 mV with reference to a copper-copper sulfate electrode, with cathodic protection current applied.”

SED during field visit found that the following locations had low P/S values. However, PG&E staff took corrective measures and new P/S values were provided which were above the required values. :

City	Address	Field P/S Reading (mV)	New P/S Reading (mV)
Ukiah	660 Dora Avenue	-740	-1515
Ukiah	1600 Lockwood Drive	-909	-1520
Ukiah	580 N Spring St.	-946	-1060

2. Service Line valve not locked or capped

Title 49 Code of Federal Regulations §192.727 (d) states:

(d) Whenever service to a customer is discontinued, one of the following must be complied with:

- (1) The valve that is closed to prevent the flow of gas to the customer must be provided with a locking device or other means designed to prevent the opening of the valve by persons other than those authorized by the operator.*
- (2) A mechanical device or fitting that will prevent the flow of gas must be installed in the service line or in the meter assembly.*
- (3) The customer's piping must be physically disconnected from the gas supply and the open pipe ends sealed.*

SED during the field visit observed that house at 1092 Helen Avenue in the city of Ukiah was under construction. The service riser valve was turned off, but it was neither locked nor capped. On an inquiry from PG&E staff, it appears that is not the practice in field. On closing day of the audit, PG&E staff informed and provided picture to confirm that riser was capped off.

3. During the field visit, the following observations were made. Please provide status update on these:

(a) Atmospheric corrosion was observed on meter set at a duplex unit located at 469 W. McArthur Street, Sonoma, ETS 41389183. The corrosion mechanic said that he would submit a corrective work order for it;

(b) Surface rust was observed at exposed span R-180 (MP1: 7.85 and MP2: 7.86). PG&E staff mentioned that a paint request would be submitted for the same.

4. An isolated meter without any service connection was located at 29533 River Road, Cloverdale. Atmospheric corrosion was observed at the meter set. PG&E staff on the closing day informed that the meter has been removed and capped. A picture was provided.
5. The meter at the Baptist church located at 31000 Cooley Lane was faded being exposed to water. PG&E staff informed that the meter has been changed and raised from the ground. A picture was provided.
6. Title 49 Code of Federal Regulations §192.467(a) states:

"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."

PG&E procedure O-16, Section G, Casing Monitoring and Maintenance states that:

"...Cased pipeline crossings that are found to be contacted (the casing is in electrical contact with the pipeline) shall be reported to corrosion engineering personnel within 30 days of discovery of the contact. Contacted casing reported to corrosion engineering personnel will be remediated as part of the contacted casing remediation program administered by corrosion engineering personnel. Once included in the contacted casing remediation program, the cased crossing will be evaluated and assigned a priority number and listed on the current list of contacted cased crossings. Contacted cased crossings will be remediated as resources become available. An action plan for contacted cased crossings shall be maintained by the local maintenance organization and shall consist of a standard contacted cased remediation plan, a description of the contacted case remediation program, and confirmation from corrosion engineering personnel that the particular casing is in the contacted casing program. In the year that a contacted casing is scheduled for remediation, the project manager responsible for the remediation work will prepare an individualized action plan for the work to attempt to clear the casing contact, anticipated to be performed during the year. The project manager will forward a copy of the action plan to the local maintenance organization to be included in the action plan for the contacted casing. The project manager shall update the action plan every 30 days and forward a copy of the most recent version of the action plan to the local maintenance organization to be included in the action plan for the contacted cased crossing."

SED observed that for casing NCC147050, 2771-F5 (L-021A, MP 24.49), the casing-to-soil reading was -1.067 mV and pipe-to-soil reading was -1.097 mV. This indicates a potential contact at this location. On further inquiry, PG&E provided documentation showing that the contact at this location is known at least from 02/08/2010, and the job

will be performed as per procedure outlined in PG&E's document WP4133-04. However, for this location, it has been more than five years and no remediation action has taken place. It is expected that remedial measures for casing issues for this case and others should be implemented within a reasonable timeframe.

7. SED observed that the "internal findings" provided by PG&E did not contain all of the corrosion areas subjected to inspection, for example, exposed sections, meter set corrosion, CPA re-surveys, rectifier maintenance and others.