

PUBLIC UTILITIES COMMISSION

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April 9, 2015

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

GA2014-04

SUBJECT: General Order 112-E Gas Audit of PG&E's Sierra 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) Sierra Division (Division) from April 28 through May 2, 2014. The audit included a review of the Division's records for the period of 2011 through May of 2014, as well as a representative field sample of the Division's facilities in the cities of Auburn, Grass Valley, Marysville, Yuba City, and Roseville where facilities were visited. 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 Banu Acimis at (916) 928-3826 or by email at banu.acimis@cpuc.ca.gov.

Sincerely,

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

Kenneth Bruno
4/9/15

Enclosure: Summary of Inspection Findings

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

SUMMARY OF INSPECTION FINDINGS

I. Probable Violations

A. PG&E's Internal Audit Findings

Prior to the start of the audit, PG&E provided SED its findings from the internal review it conducted of Sierra 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). Table 1 lists all of the violations from PG&E's internal review.

Please provide an update to the corrective items which were not complete at the time of the audit along with supporting documents.

Additionally, please provide corrosion monitoring records including the remedial action plan documents for the following CPAs that were still down at the time of the audit:

A- CPA 15-M-002B: Church @ 658 Whiting St., Grass Valley which was down between 02/02/11 and 08/19/11, 08/03/12 – 12/03/12, and 04/02/13 – till May, 2014.

B- CPA 15-B-003A: 807 Dairy Rd. and 1577 Lilac Lane, Auburn, pipe-to-soil (P/S) was down between 03/01/2011 and 05/2012, but went down again in 11/2012 and it's been down since then. CPA follow up recorded on 04/01/2011 stated "possible contact off secondary electric" "Depleted anode". There was no corrosion engineer review after 90 days and nothing till May, 2014. 2013 follow up record stated that "Needs a rectifier & Anode".

Table 1. Results of Sierra Division Internal Review Summary

Item	Title 49, CFR, Part 192 Code Section	Topic-Finding	Number of Violations Identified	Number of Violations Corrected	Pending Corrective Actions	Pending Preventive Actions
1	192.605(a)	Leak Repair: Leaks with late action. 8 Grade 2+, 6 Grade 2 leaks were repaired late	14	14	None	None
2	192.745/192.747	Regulator Stations: inoperable valve > 12 months	1	0	Valve is scheduled for maintenance in 2014	None
3	192.605(a)	Valves: Plug valve were not lubricated in due to grease extension issue	2	1	One valve is pending maintenance, scheduled for 2014	None

Table 1. Continued- Results of Sierra Division Internal Review Summary

Item	Title 49, CFR, Part 192 Code Section	Topic-Finding	Number of Violations Identified	Number of Violations Corrected	Pending Corrective Actions	Pending Preventive Actions
4	192.605(a)	Odorization: Odor intensity test reports were not properly filled out	2	2	None	None
5	192.605(a)	Corrosion Control: 1) Final P/S not taken after restoration(1) 2) CPA Areas down more than 15 months(4)	5	3	2) Maintenance for 3 remaining downed areas are pending completion in 2014	None
6	192.605(a)	Instrument Calibrations: 1) 3-point calibration not done annually for Permanent and Portable mechanical recorded in 2012 2) SCADA missed transducer calibration 2012 3) Missed annual calibration of digital pressure gauge 2013	13	13	None	None
7	192.605(a)	Idle Stubs: 1a) Idle stubs were not reviewed in accordance with the time frames required by TD-9500P-16 "Deactivation and/or Retirement of Underground Facilities"(63) 2a) Unable to review all new business stubs, installed over 10 years ago, due to incomplete inventory of locations.	63	63	2a) A manual, plat-by-plat review, when implementing Pathfinder will be performed to identify and incorporate these service stubs into existing idle stub review process. This is expected to be completed in 2014.	PG&E has recognized system wide inconsistencies of processes and adherence to the procedure for deactivation and/or retirement of underground facilities. As a result, the required idle stub reviews per TD-9500P-16 have lacked proper oversight. PG&E is currently developing a process utilizing SAP automatic notifications and new mapping technology (Pathfinder) to create a uniform, systematic, and automatic method to initiate and complete the idle stub review requirement.

Table 1. Continued- Results of Sierra Division Internal Review Summary

Item	Title 49, CFR, Part 192 Code Section	Topic-Finding	Number of Violations Identified	Number of Violations Corrected	Pending Corrective Actions	Pending Preventive Actions
8	192.743(a)	Relief Valves: Review of relief valve capacity performed late (3 month late)	1	1	None	None
9	192.605(a)	MAOP: MAOP Documentation errors	1	0	The pipe will be pressure tested in May, 2015.	None

B. SED Findings

1. Title 49 CFR §192.605 Procedural manual for operations, maintenance, and emergencies.

§192.605 states in part:

"(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..."

PG&E's Gas Standard O-16, Table 1 – Schedule of Monitoring Intervals defines the schedule for performing corrosion monitoring:

Schedule of Monitoring Intervals

	P/S Monitoring	Rectifier Monitoring
Distribution and Local Transmission	Bimonthly ¹	Annually ²
Backbone and Gathering	Annually ²	Bimonthly ^{1,3}

1 "Bimonthly" means six times each calendar year with intervals not to exceed 2-1/2 months.

2 "Annually" means once each calendar year with intervals not to exceed 15 months.

3 Rectifiers, bonds, and other sources of protective current shall be read bimonthly for transmission (backbone) only.

1.1 SED reviewed Division's rectifier monitoring records and identified four late rectifier reads shown in Table 2.

Table 2. Rectifiers with late reads

CPA	Rectifier	Read Dates	Time Interval (Months)
15-M-006	7	3/3/11 & 11/7/12	20
15-P-001	43	5/30/09 & 10/28/10	17
15-P-005	41	5/10/12 & 10/16/13	17
15-S-005A	49	4/4/12 & 11/7/13	19

1.2 SED also noted that Division did not take readings of Rectifier #1 located in CPA# 15-T-123 in 2013.

1.3 PG&E Standard O-16: Corrosion Control of Gas Facilities, 6. CPA Restoration, A. Cathodic Protection Restoration for Distribution and Local Transmission states in part:

"(3) 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 noted that Division did not create CPA Follow-up Action Plans within 30 days for the following CPAs shown in Table 3.

Table 3. CPAs & Locations with Late CPA Follow-up Action Plans

CPA & Location	Date found below adequate levels of protection
15-M-003 Country Bldg & Willow Valley Rd, Nevada City	12/03/2013
15-P-001A: 230 D Street & 779 D Street, Lincoln	12/03/2013
15-S-003A: Hardning & Douglas Black wire and S/Bridge Galleria, Roseville	09/04/2013
Transmission, L-173: ETS 106042623 Old State Hwy (HPR132) by tunnel, Newcastle:	10/2011, 12/2013
Transmission, L-202 : ETS 107402605 (Squirrel Creek Reg Station):	10/2012, 04/2013, 12/2013
CPA 15-S-004A 6995 Whyte Ave., Roseville	9/4/13*

*Action plan was created on 12/16/13.

Please provide a copy of the action plans created for the CPAs listed in Table 3 along with the remedial actions completed to restore the CPAs.

1.4 PG&E O-16- Corrosion Control of Gas Facilities, 6. CPA Restoration, A. Cathodic Protection Restoration for Distribution and Local Transmission states in part:

“(3)... If the action plan exceeds 90 days, the action plan needs to be reviewed and approved by corrosion engineering personnel, the area superintendent, and the manager of technical services within 120 days. Updates to the action plan shall document the incremental work that has been completed to date, detailed status updates of needed actions that have not had any significant progress from previous updates, and the work that needs to be completed to achieve adequate protection...”

PG&E's O-16, CPA Restoration procedures requires that if the action plan exceeds 90 days, the action plan be reviewed and approved by corrosion engineering personnel, the area superintendent, and the manager of the technical services within 120 days. SED reviewed Division's CP records and identified that PG&E's corrosion engineer did not review or approve the CPA follow-up action plans created for the down CPAs listed below within 120 days.

A- CPA 15-B-008A: Church @ Barton & Brace, Loomis: down from 11/2/11 – 9/5/2012 & 05/02/2013 – 09/03/2013

B- CPA 15-B-009A: 4178 Cavitt-Stalleman Rd., Rocklin: down 05/03/2011 – 07/02/2013

C- CPA 15-B-013A: 6787 Eureka Rd., Granite Bay has been down since 09/04/13 till now.

Please provide a copy of the updated action plans for the CPAs listed above and explain what actions Division has taken to address these deficiencies.

1.5 Division took yearly reading and recorded low P/S on 1/9/13 and then removed the electronic test station (ETS) for this CPA located on 10701 E. Bennet Rd., Grass Valley from its system in April 2013. Division replaced the ETS with a new test location; however, it did not take any reads after that. SED conducted a field visit to the new location and recorded -.734 V on 5/1/14 during the audit.

SED found that the system had been down from 1/9/13 until 5/1/14 when SED and Division took the field reading. SED noted that Division did not take any corrective action after it recorded low P/S on 1/9/13 and did not take any reads after the addition of the new ETS to its system even though the CPA was discovered to be down.

Please inform SED of the preventive and mitigative (P&M) measures taken to address these deficiencies.

1.6 SED found that Division took only four reads in calendar year 2012 and did not record any dates for the reads taken for the CPA 15-S-005A: 802 Elisa Way, Roseville.

Please inform SED of the P&M measures taken to address this deficiency.

1.7 PG&E Utility Work Procedure WP4540-01 states

"Supervisors must review and approve all records for work performed at each district regulator station within 30 days of the completion of maintenance."

SED discovered seven instances where the Division failed to review and approve regulator maintenance within the 30-day interval required by PG&E's Work Procedure WP 4540-01. Table 4 details the regulator stations with supervisor reviews exceeding 30 days after maintenance work has been performed.

Table 4. Regulator Station with Late Supervisor Review

Regulator Station Number	Maintenance Date	Supervisor Review Date
MRC-08	9/7/11	2/9/12
MRC-11	6/6/12	4/10/13

MRC-21	11/17/11	11/15/12
MRC-22	11/17/11	2/9/12
MRC-24	11/18/11	2/9/12
MRC-70	9/6/11	2/9/12
MRC-73	10/18/11	2/9/12

2. Title 49, CFR, §192.481 Atmospheric corrosion control: Monitoring

Section 192.481(c) states that *"If atmospheric corrosion is found during an inspection, the operator must provide protection against the corrosion..."*

2.1 On 5/1/14, SED and PG&E conducted field inspections and noted the exposed span at 6125 Brace Road, Loomis had a condition of generalized rust and scaling. SED also noted that Division identified the same deficiency on 1/3/2012; however, it did not take any corrective actions.

Please inform SED of the P&M measures taken for this deficiency.



Photo 1- Span at 6125 Brace Road, Loomis taken on 5/1/14 showing a condition of bare metal with generalized rust or scaling

2.2 SED reviewed Division's exposed transmission lines and found that Division inspected 8-inch transmission line, L-124B, at mile point (MP): 12.87 on 3/22/12 and noted that there was no wrap

and no paint on the 4-ft. span. Division records also stated that sections of the transmission line have flaked off and transition from exposed to underground was poor.

SED noted that Division did not take any corrective actions for the deficiencies identified during the exposed span inspection.

2.3 On 5/1/14, SED and PG&E visited Regulator Station, MRB-99, located on 6th Street and Walnut Street in Marysville to exercise valves. SED observed Atmospheric Corrosion (AC) on bleed sense part of the regulator station.

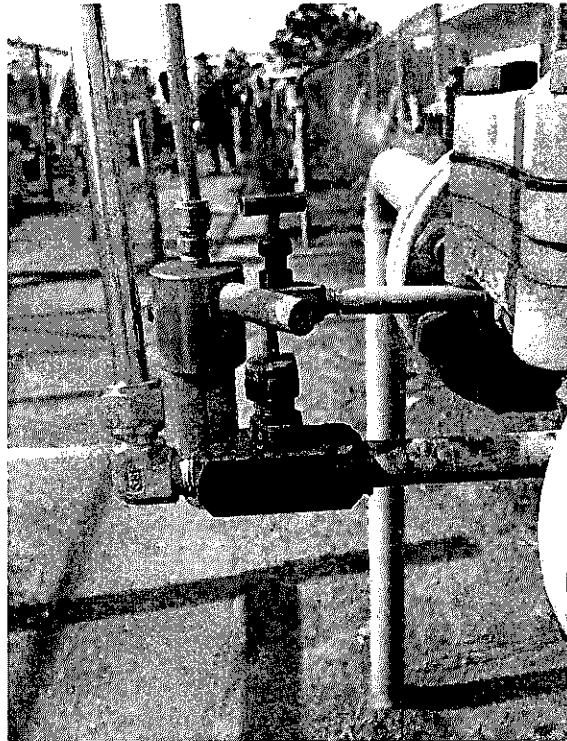


Photo 2- Atmospheric Corrosion observed on Valve 5 located at Regulator Station MRB-99

3. Title 49, CFR, §192.481 Atmospheric corrosion control: Monitoring
 - (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:
Then the frequency of inspection is:
Onshore At least once every 3 calendar years, but with intervals not exceeding 39 months..*
 - (b) *During inspections the operator must give particular attention to pipe at soil-to-air interfaces, under thermal insulation, under disbanded coatings, at pipe supports, in splash zones, at deck penetrations, and in spans over water.*
 - (c) *If atmospheric corrosion is found during an inspection, the operator must provide protection against the corrosion as required by §192.479.*

§192.805 Qualification program.

Each operator shall have and follow a written qualification program. The program shall include provisions to:

- (b) *Ensure through evaluation that individuals performing covered tasks are qualified;*

(e) Evaluate an individual if the operator has reason to believe that the individual is no longer qualified to perform a covered task;

SED reviewed Division's leak repair records and found that Division discovered a Grade 1 leak, Leak No: 11-11-20091-1, on 10/30/11 and repaired it on the same day. Form A indicates that the leak was caused by AC. SED also reviewed the AC inspection records and discovered that the most recent AC inspection was conducted at the leak location on May 6, 2011; however, Division did not identify any AC indications. Approximately, five months after the AC inspection was conducted in the same area, Division discovered the Grade 1 leak caused by AC.

SED determined that Division needs to improve the quality of the AC inspections by providing adequate training and testing for its assigned employees (both company and contractor) to ensure that they are qualified to be able to identify current and potential AC indications and any other AC related abnormal operating conditions (AOCs) and react to them appropriately.

SED also noted that it is very important to capture AC related deficiencies during inspections since the AC evaluations are only conducted once in three years for on-shore facilities and the same area may not be inspected again for AC indications for as long as 39 months after the previous evaluation.

PG&E must train its company or contractor employees properly to perform AC inspections, identify AOCs correctly, and react to them properly and timely.

Please inform SED of the P&M actions taken to address this deficiency.

4. Title 49, CFR, §192.615 Emergency Plans states in part

(a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:

(6) Emergency shutdown and pressure reduction in any section of the operator's pipeline system necessary to minimize hazards to life or property.

SED reviewed Division's Emergency Shutdown Zone binders and noted that Sierra Division Engineering Planner created a new Emergency Shutdown Zone binder for the PG&E's Colusa District in 2013. SED also noted that PG&E was unable to locate the Colusa District Emergency Shutdown Zone binders for years 2011 and 2012.

Per PG&E UO Standard S5000, Gas Distribution Emergency Shutdown Zones, the GD&TS area senior engineers are responsible for the following:

- Establishing and maintaining Emergency Zone Curtailment binder, except for maps.
- Reviewing the Emergency Zone Curtailment binder annually. Reviews are to occur not more than 15 months apart.

SED determined that Division failed to establish an Emergency Shutdown Zone binder for Colusa District prior to 2013.

Please inform SED of the P&M measures taken to address this deficiency.

II. Areas of Concern/ Observations/ Recommendations

1. On 5/1/14, SED and PG&E visited Regulator Stations, MRB-73A and MRB-73 located on Township & Almandra in Yuba City. SED noted the following deficiencies at these regulator stations:
 - Station diagram for both stations shows Valve 13 which no longer exists since PG&E removed it. Division needs to update the station diagram. Please provide SED with a copy of the revised diagram.
 - During the field check, PG&E crews found a fuzz leak on the stand-by (left) side of the monitor (upstream vault) of the Regulator Station MRB-73A and repaired it by removing the old ball valve, shown in Photo 3, and replaced it with ½" ball valve. After the repair, crew soap tested it and did not find any leaks.

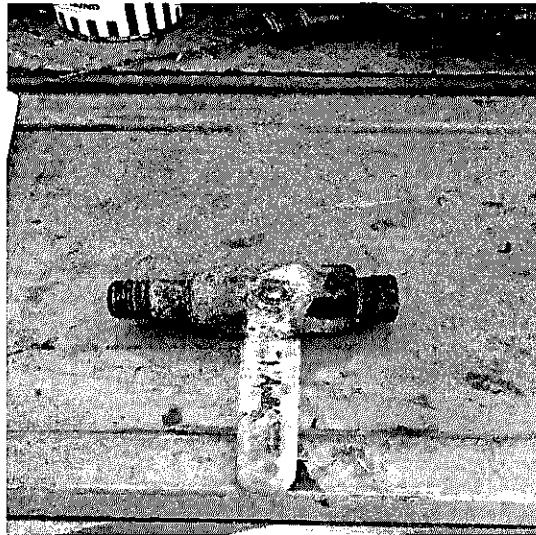


Photo 3- Leaking valve located at the bottom of the filter cylinder that was replaced during field visit on May 1, 2014 at Regulator Station MRB-73A

- SED also observed AC on the upstream side of Regulator Station MRB-73.
2. SED reviewed Division's Pressure Limiting Station records and noted that for multiple stage regulator stations, Division does not have the data sheet for the primary cut regulators to record the design pressure set point for the first stage regulator.

SED is concerned because the field personnel currently rely on the previous pressure set points documented as "As Left" values on the maintenance sheets rather than the calculated pressure set points determined by the Gas Engineering and System Planning. As a result, in cases where previous pressure set point on the maintenance record is not accurate, this may cause to continue the same incorrect setting for the regulator.

Additionally, for new regulator stations which do not have prior maintenance records, technicians will have no reference point to verify and set correct pressure set points during maintenance of the regulators.

SED noted this problem with the following regulator stations:

- R-406 (New station installed on 03/11/2014)
- R-130 (Pilot-Operated)
- R-112 (Last alteration on 09/15/05)

During the audit, PG&E explained that a new standard, TD-4128S, "Station Pressure Set Points" that would be released within one year would resolve these issues.

Please inform SED of the P&M measures to address this deficiency.

3. During a review of regulator maintenance records, SED observed that the Division uses a regulator set point of 34 psig when the recommended range of the installed spring listed 35-80 psig for regulator station, MRC-09. During the audit, Division personnel explained that even though the regulator operated normally at the set point of 34 psig, Division planned to install another regulator spring with a recommended range that matched the set point.

Please provide SED with a status update on the corrective work order to install a new regulator spring.

4. SED conducted a field visit to V-389 (6" Plug Valve) at Douglas & Hardling St., located in Drum District and noted that the field personnel were not able to turn it without greasing it. SED reviewed maintenance records for this valve and found that the valve was last maintained on 3/3/14 which was about two months prior to SED's field visit in May.

SED is concerned because even though the valve, V-389, was recently lubricated and maintained, it did not turn without lubrication.

Please explain any P&M measures taken to address this deficiency.

5. PG&E's Gas Valve Maintenance, Utility Procedure: TD-4430P-04, (Publication Date: 09/25/2013 Rev: 00) states in part:

Procedure Steps

3. Maintenance Record Keeping and Review

"3.3 Maintenance supervisor, upon completion of valve maintenance, will accomplish the following:

1. Review, within 3-working days, each Gas Utility Form TD-4430P-04-F02, "Gas Valve Maintenance Record Form—Service History" for accuracy and completeness. Return Service History Form to personnel that performed maintenance to correct errors and omissions.

2. During review, inspect for any erasures, obliterations, or other document changes.

- Review "Valve Maintenance Record" with personnel who performed the maintenance to ensure required compliance.

SED reviewed PG&E "Valve Maintenance Record Form (F4430-04-1, Rev. 5/13/09)" and noted the following:

- a. Maintenance record of transmission valve V-7 Tap SAP WM NO. 41431641 was incomplete. Division staff didn't check the box on transmission valve type (EMERGENCY or OTHER).
 - b. Maintenance record of transmission valve V - 38.05 SAP WM NO. C-A010 42577652 was incomplete. Division staff didn't fill out the service history completely on 5/28/2013, missing information on columns (OPERATE and VALVE POSITION).
6. On May 2, 2014, during a field visit to a pipe span on Line 124B, SED observed a comprised pipe hanger on the north side of the span, shown in Photo 4. The concrete around the anchor bolts supporting the pipe hanger appeared to be crumbling. Additionally, pipeline markers were not visible at the time of the field visit.

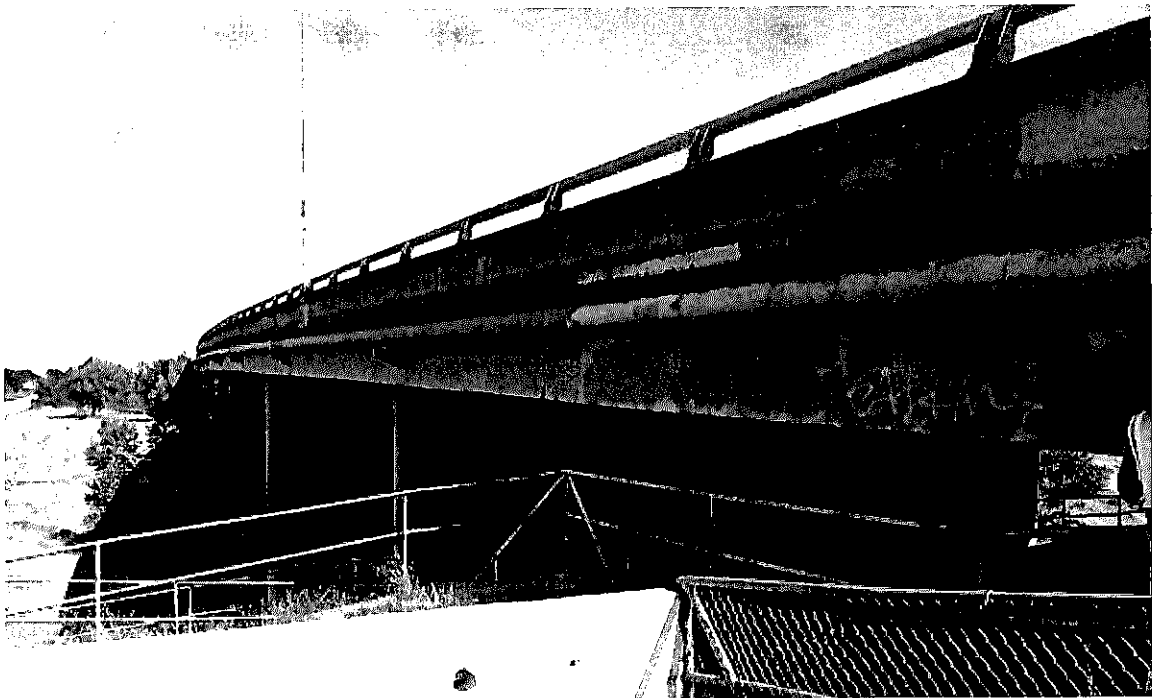


Photo 4- Span L-124B at MP 22.59

Please provide SED with an update on the Division's follow up actions.

7. SED reviewed Division's Leak Repair, Inspection and Gas Quarterly Incident Report (Form "A") and found that Division identified two aboveground Grade 1 leaks which were caused by AC. Table 5 shows the details about these leaks.

Table 5. Aboveground Grade 1 leaks repaired by installing clamp on riser

Leak Number	Discovery Date	% Gas/Grade	Repair type	Root Cause	City
11-11-20091-1	10/30/11	100/ 1	Installed clamp on riser	Atmospheric Corrosion	Yuba City
11-11-20034-1	3/20/11	100/1	Installed clamp on riser	Atmospheric Corrosion	Olivehurst

A Form also indicated that leak surveyor identified these leaks on the risers below service valves and repaired them by installing clamps on the risers. SED noted that even though these leaks were aboveground leaks, repairman marked "heavy rust" under internal inspection under "Metallic Pipe Condition" section on A Form.

SED noted that this may be related to training issue; therefore, PG&E must train its employees not only to be able to perform the covered tasks but also capable of recognizing the AOCs correctly, and recording the indications on the forms accurately.

Please inform SED of the P&M measures taken to address the deficiencies identified above.

8. During the field visits, SED noticed that Division's pipeline markers for underground gas pipeline facilities do not have any One-call or 811 stickers to inform the public about how to learn the location of underground pipelines before excavation activities are begun as per 192.614 (c)(2)(ii).

SED recommends that Division place 811 stickers on the pipeline markers where the public can get more information in addition to the other Public Awareness activities that PG&E currently has.

9. Title 49, CFR, §192.463 External corrosion control: Cathodic protection.

Section 192.463(a) states that "Each cathodic protection system required by this subpart must provide a level of cathodic protection that complies with one or more of the applicable criteria contained in appendix D of this part. If none of these criteria is applicable, the cathodic protection system must provide a level of cathodic protection at least equal to that provided by compliance with one or more of the criteria."

- a. On 5/1/14, SED and PG&E took P/S reading at CPA L-202, Squirrel Creek Regulator Station and recorded -.736 V which did not meet the minimum -850 mV criteria.
- b. On 5/1/14, during a field visit to CPA L-121, SED observed that Division measured a P/S read of -824 mV that did not meet the -850 criteria at the Acacia Street, Rice Dryer meter.

Please provide SED with a status update for the corrective actions for these locations.

10. On 08/03/2012 Division identified that the CPA 15-P-005A: 110 East 8th Street, Lincoln was down due to broken wire on the anode. During the audit, Division personnel explained that the action plan has been created and Division has been working on the corrective action. However, SED noted that at the time of the audit, the area was still down since the discovery of the broken wire in August 2012 which was more than 20 months.

Please inform SED of the P&M measures taken to address this deficiency and explain the reason why it takes PG&E a long time to take remedial actions in order to bring up the CPA into compliance level.

11. On May 1, 2014, during a field visit to CPA L-121, SED observed that Division measured an AC Voltage (ACV) of 127 ACV at Rectifier #120026, which is greater than the 126 ACV limit listed on the maintenance sheet.

Please provide SED with a status update on the AC Voltage condition.

12. On May 1, 2014, during a field visit to CPA 12S008, SED observed that Division measured a ground rod resistance of 92 ohms that exceeds the 25 ohm criteria for a second ground rod to be installed at Rectifier #120036 located at Jefferson e/o Hooper. The Division was aware of the high ground rod resistance and had a corrective work order scheduled.

Please provide SED with a status update on the corrective work order.

13. On May 1, 2014, during a field visit to CPA 12M002, SED observed that Division measured an unusual ground rod resistance fluctuation between 48-56 ohms at Rectifier #120073 located at Ahern St, s/o 24th. The Division was aware of a high ground rod resistance at the location and issued a new corrective work order to troubleshoot the fluctuation.

Please provide SED with a status update on the corrective work order.

18. PG&E's Corrosion Control of Gas Facilities (O-16), Section 4: Impressed Current (Rectified) Cathodic Protection Systems, 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 to exceed the day of the previous read on the 15th month."

- a. SED reviewed Division's Pole Mount/Pedestal Mount Rectifier Test and Site Evaluation Forms (GT&D, 01/09, FO-11.1-A) and found that, several rectifiers with Ground Resistance as found (in ohms) above 25 ohms. If 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 #: 12S008, Rectifier # 120036, located at Jefferson E/O Hooper, Yuba City. High resistance was recorded on 9/16/2013. Division created a work ticket to install a second ground rod on 05/12/14.
- CPA #: 12m002, Rectifier # 120073, located at Ahern St. s/o of 24th, Marysville. The (Ohms) reading was not high from 2011 to 2013. The high reading came during maintenance in 2014. Corrective work form for the installation of a second ground rod is to be completed by Corrosion Mechanic and T&D 2-Man Crew by 5/31/14.
- CPA #: 12m003, Rectifier # 120088, located at 14th and Walnut, Marysville. The (Ohms) reading was not high from 2011 to 2013. The high reading came during

maintenance in 2014. Corrective work form for the installation of a second ground rod is to be completed by Corrosion Mechanic by 5/16/14.

- b. Also on during rectifier maintenance record review, SED found rectifier with CPA # 12S017 has AC Breaker or Fuse size 5A. Fuse should be rated 10% above the maximum amp rating of rectifier or next highest size. The rectifier DC Amps Rating is 5A, which means the AC Breaker or Fuse size should be 10% above, which is 5.5A, or next highest size, 6.25A.

Division informed SED that the fuse was corrected but due to age of the switch box, a corrective work ticket will be issued to replace the switch box and fuse with new one.

Please inform SED when the corrective actions are completed for the deficiencies identified above.

- 19. SED reviewed Division's Meter Protection Program and noted that in March 2013, Division identified a total of 16 hazardous meter locations with pending remedial actions and a total of eight locations with pending inspections as of May 2014.

After the audit, PG&E informed SED that Division resolved 10 of the 16 locations identified during the audit and completed all the remaining inspections. PG&E also stated that Division was still working on resolving the issues at the remaining six locations, shown in Table 6, where remedial actions were necessary but not completed due to customer refusals or not being able to contact the customer.

Please inform SED of the remedial actions taken for the remaining hazardous meter locations in Sierra Division.

Table 6. Locations pending corrective actions in Sierra Division

Identification Date	Last Review Date	Address	City
3/21/2013	6/25/2014	1309 Buchanan St.	Marysville
3/21/2013	7/1/2014	1158 Nadine Dr.	Marysville
3/21/2013	7/8/2014	1126 Brookline Cr.	Roseville
3/21/2013	7/2/2014	1960 Monterey Pines Dr.	Roseville
3/21/2013	7/7/2014	268 B St.	Yuba City
3/21/2013	6/23/2014	1765 Messina Dr.	Yuba City

- 20. SED reviewed Division's equipment calibration records and noted that Division did not calibrate the following pressure recorders on an annual basis as required per its Utility Procedures and Standards such as DCS Standard D-S0456, Recording Pressures in Distribution Systems, effective 4/99, Utility Procedure: TD-4125P-05, Recording Pressures in Distribution Gas Systems, Publication Date: 03/31/2010, UO Standard S5351, District Regulator Station Maintenance, effective date 8/01, Utility Work Procedure WP4540-01, District Regulator Station Maintenance, effective Aug, 2009.

PRC-16, no 2012 and 2013 annual calibration records,

PRC-21, no 2012 annual calibration records.

In response to SED's audit follow-up data request, PG&E explained that these pressure recorders were not used in those years; however, Division's Test Instrument Calibrations sheets PG&E provided did not show any record confirming such statement.

SED recommends that Division should properly document out of service pressure recorders along with the justification for not using them on the calibration records sheet.

Please inform SED of the preventive measures taken to address the deficiency.