STATE OF CALIFORNIA EDMUND G. BROWN JR., *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

January 16, 2014

Ms. Jane Yura, Vice President
Pacific Gas and Electric Company
Gas Operations – Standards and Policies
6121 Bollinger Canyon Road, Office #4460A
San Ramon, CA 94583

GA2013-11

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

Dear Ms. Yura:

On behalf of the Safety and Enforcement Division (SED) of the California Public Utilities Commission, Terence Eng, Quang Pham, and Sikandar Khatri conducted a General Order 112-E audit of Pacific Gas and Electric Company's (PG&E) Central Coast Division (Division) from June 17-21, 2013. The audit included a review of the Division's operation and maintenance records for the years 2010 through 2012, as well as a representative field sample of the Division's facilities. SED's findings are 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 in the Summary. Pursuant to Commission Resolution ALJ-274, SED staff has the authority to issue citations for each violation found during the audit. SED will notify PG&E of the enforcement action it plans to take after it reviews PG&E's audit response.

If you have any questions, please contact Terence Eng at (415) 703-5326.

Sincerely,

Michael Robertson
Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division

Enclosures: Summary of Inspection Findings
A. PG&E's Internal Audit Findings
B. Audit Findings and Violations
C. Observations and Concerns

cc: Frances Yee, PG&E Gas Engineering and Operations
Larry Berg, PG&E Gas Regulatory Support
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SUMMARY OF INSPECTION FINDINGS

A. PG&E's Internal Audit Findings

Prior to the start of the June 17-21, 2013 audit, PG&E provided SED its findings from the internal review it conducted of the Division. Some of PG&E's internal review findings are violations of PG&E's operations and maintenance standards, and are therefore violations of Title 49 Code of Federal Regulations (CFR), §192.13(c). Table 1 lists all of the violations that PG&E noted.

SED is aware that PG&E corrected some of its findings prior to SED's audit. Please provide SED an update on the items that were still pending corrective actions as of June 21, 2013.

Table 1: Findings from PG&E's Internal Review dated 6/13/13

Topic	Code Violation	Finding	Instances	Completion Date
Leak Survey Distribution	192.723(b)(2)	5-year maps leak surveyed in 2010 exceeded compliance due date of more than 63 months (between 1 and 4 months late)	22	2010
	192.723(b)(1)	Annual maps leak surveyed in 2010 exceeded compliance due date of more than 15 months (between 1 and 4 months late)	10	2010
	192.723(b)(2)	3-year maps leak surveyed in 2011 exceeded compliance due date of more than 39 months (between 3 and 5 months late)	10	2011
Leak Survey Transmission	192.706	Annual and semi-annual leak survey exceeded compliance due date	101	2011, 2012
Transmission Patrols	192.13(c)	Late follow-up on aerial report noting potential excavator encroachment in 2011	1	2011
Regulator Stations	192.805(b), 192.739(a), 192.745(a)	Annual A inspection and fire valve maintenance was performed by an operator (MAK3) that had an operator qualification discrepancy resulting in late maintenance. The issue was remediated promptly in 2011. A Inspection: 10 instances; Fire valve maintenance: 7 instances	17	2011
	192.181(b), 192.13(c)	An inlet fire valve did not have adequate separation	1	Pending 2014

Table 1 (continued): Findings from PG&E's Internal Review dated 6/13/13

Topic	Code Violation	Finding	Instances	Completion Date
Valves	192.805(b), 192.745(a)	Annual valve maintenance was performed by an operator that had an operator qualification discrepancy (MAK3) resulting in late maintenance	38	2011
Odorization	192.625(f)(2), 192.13(c)	Weekly odor intensity tests not conducted	19	2011,2012
Instrument Calibrations	192.13(c)	5-year Leak Survey maps missing a record of calibration for various dates	20	2013
	192.13(c)	Operator error inputting instrument on calibration paper log - #5003 was out for repair	2	2013
	192.13(c)	June, July 2012 instrument calibration paper log missing for instrument #1019	7	2013
	192.13(c)	Missing record of calibration for instruments	60	2013
Leak Repair	192.13(c)	No record of USA number on a below ground leak repair during working hours	5	N/A
	192.13(c)	Leaks with late action noted in Section 192.703 of the Statistical Report	205	2010, 2011, 2012
Corrosion Control	192.13(c)	Missing pre and/or post restoration rectifier reads in 2010	33	2010, 2011, 2012
	192.465(a)	Annual pipe to soil read missed	2	2010, 2012
	192.13(c)	Rectifier output not within interference test results	17	Various Dates
	192.13(c)	Late readings of casings	2	2011, 2013
	192.13(c)	CPA Not Resurveyed Within a 6-Yr Interval	7	2010, 2011
	192.465(a)	10%er not read within 10 Years to-the-date in 2011	1	2011
	192.465(a)	Less than 10% of the total 10%er population monitored in 2010: (571 total, 46 monitored)	12	2012
MAOP	192.553(b)	Small section (5% of total) was added to the Marina 56-psig MAOP system from a neighboring 15-psig MAOP system to increase capacity to a commercial sector. The pressure testing performed at the time of transfer tested to 50 psig, but the system is missing documents that the final required uprate stage of testing to 60 psig was performed @ Marina #56 (DM01)	1	Pending 2013

Table 1 (continued): Findings from PG&E's Internal Review dated 6/13/13

Topic	Code Violation	Finding	Instances	Completion Date
Emergency Zones	192.181(a)	Locations requiring new valves to properly isolate zones. The zone was previously mitigated by noting dig up and squeeze points in an emergency	9	Pending 2014
Emergency Plan	192.13(c)	Missing rosters from 2010 training exercises	1	2013

B. Audit Findings and Violations

1 Title 49 CFR §192.13(c) states:

"Each operator shall maintain, modify as appropriate, and follow the plans, procedures, and programs that it is required to establish under this part."

1.1 The instructions on Pole-Mount/Pedestal-Mount Rectifier Test and Site Evaluation Form FO-11.1-A, requires Division employees to check a box for each item inspected. One of the items requires that if the ground resistance is above 25 ohms, Division employees are required to verify the integrity of all grounding connections.

The Division documented ground resistance readings of greater than 25 ohms at the following locations listed below in Table 22, but provided no documentation of verification of the integrity of all grounding connections.

Table 2: Locations requiring verification of the integrity of all grounding connections

Location	CPA	Rectifier	Maintenance Year(s) out of Compliance
Inter-Garrison Rd, Fort Ord	3899-55	FO155	2010, 2011, 2012
Goodwin & Phoenix, Seaside	3897-62	S5142	2010, 2011, 2012
Euclid and Ramona	3896-98	M141	2012
Imjin Rd and Neeson, Marina	3836-99	FO 156 Tap	2010, 2011, 2012
Luxton and Grandview, Seaside	3897-52	S5137	2010, 2011, 2012

1.2 PG&E's Standard O-16, Corrosion Control of Gas Facilities, page 8, states in part:

"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."

The Division did not include suspected contacts CCR157700 4-3896-H7 (discovered in 2010) and CCR217800 (last checked on10/26/2012) in the contacted casing remediation program.

1.3 PG&E's Standard O-16, Corrosion Control of Gas Facilities, page 11, states in part:

"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. Please note that action plans shall

also be established and maintained for short-term remedial actions that are in place for over 30 days. The action plan shall list and document the extenuating circumstance(s) to the extent known, the cause of the CPA problem (to the extent the cause is known), the desired solution(s), the actions needed to implement the solution, the estimated time to take those actions, and the employees who will perform those actions."

The Division did not use or develop a Cathodic Protection Area (CPA) Follow-Up Action Plan form within 30 days from the date the CPA was found below adequate levels of protection at the following bi-monthly locations listed in Table 3:

Table 3: CPAs Without Follow-up Action Plans

CPA	Date Inadequate Levels Discovered	Date Action Plan Created	Restoration Date
3964-75	8/3/2012	none	9/5/2012
3839-44	7/15/2010	9/16/2010	12/7/10
3782-11	5/3/2012	6/18/2012	5/8/13
3598-02	3/8/2012	4/16/2012	4/18/2012
3598-03	3/8/2012	4/16/2012	4/18/2012
3674-04	1/12/2012	2/16/2012	3/14/2012
3675-05	7/11/2012	none	8/24/2012

1.4 PG&E's Standard O-16, Corrosion Control of Gas Facilities, page 11, states in part:

"The action plan shall be updated in intervals not exceeding 30 calendar days by an employee knowledgeable of the restoration work and reviewed by the operating supervisor, until the CPA restoration work is completed and the CPA shows adequate levels of protection."

The Division did not update the CPA Follow-Up Action Plan form within intervals not exceeding 30 calendar days until the CPA restoration work was completed and the CPA showed adequate levels of protection in the following instances:

1.4.1 CPA 3647-56 (bimonthly) – The Division updated the Plan at intervals exceeding 30 calendar days on multiple occasions.

Updated 7/9/12 and subsequently on 8/15/12 (37 day interval)
Updated 2/22/12 and subsequently on 4/5/12 (43 day interval)
Updated 6/13/11 and subsequently on 7/18/11 (35 day interval)

1.4.2 CPA 3782-03 (bimonthly) – The Division updated the Plan at intervals exceeding 30 calendar days on multiple occasions.

Updated 12/15/11 and subsequently on 1/19/12 (35 day interval)
Updated 2/22/12 and subsequently on 4/5/12 (43 day interval)
Updated 7/9/12 and subsequently 8/15/12 (37 day interval)

1.4.3 CPA 3782-11 (bimonthly) - The Division updated the Plan at intervals exceeding 30 calendar days on multiple occasions.

Updated 08/15/12 and subsequently on 09/20/12 (36 day interval)
Updated 11/21/12 and subsequently on 12/26/12 (35 day interval)
Updated 12/26/12 and subsequently on 01/29/13 (34 day interval)

1.4.4 CPA 3782-02 (bimonthly) – The Division updated the Action plan on 7/1/11 and subsequently on 8/2/11, exceeding 30 calendar days.

1.5 PG&E's Standard O-72 Approved Multimeters, page 2. states in part:

"If the multimeter reading is ***not*** *within ±1% of the VC-1 calibrator setting, then check the VC-1 calibrator with another multimeter and take appropriate action."*

The Division performed a calibration of Multimeter Serial Number "Donald" on 5/18/12 and documented results on Form FO-72/73-A. On the form, the Division defined ±1% of the VC-1 calibrator as 1.485-1.515. The potential meter reading was 1.48, outside of the calibration requirement, yet the Division did not check the calibrator with another multimeter or take appropriate action.

1.6 PG&E's Work Procedure WP4540-01 District Regulator Station Maintenance states in part:

1.6.1 On Page 4: *"Operational and diagnostic testing for a Class A Inspection must follow the instructions below.*

1. Before disassembling any equipment components, document all "as found" information, including filter differential pressure, regulator and monitor set points, and the ability of the monitor and regulator to lock-up."

The Division did not check the ability of the regulator to lock-up at Regulator Station J-24 at 255 Fieldbrook, Wall Map 3678-G3 during its annual maintenance performed on 6/23/10.

1.6.2 On Page 4: *"Operational and diagnostic testing for a Class A Inspection must follow the instructions below.*

3. Using an approved analog or digital differential pressure gauge, perform a filter differential pressure test and record the pressure reading."

On 4/16/13, the Division did not perform a filter differential pressure test or record the pressure reading during its annual maintenance of Regulator Station J-25, Poplar and Water Street (Single Stage).

1.6.3 On Page 12: *"The lead qualified mechanic on the crew and the supervisor must sign and date all maintenance records, including pressure recordings,*

with their printed LAN ID and initials. All entries and signatures must be made with non-erasable ink. Maintenance records must be filed in the district regulator maintenance folder."

The Division failed to sign and date the following regulator station maintenance records listed in Table 4 below.

Table 4: Regulator Stations

Station	Stage	Wall Map	Location	Date	Missing Signature
H-72	2nd	3845 E-5	Location 1568 Murphy Rd. Paicines Town Set	5/17/2012	Supervisor
H-79	1st, 2nd, 3rd	3909 E-5	Wattis Ranch S/O Panoche Rd (16 miles E/O Hwy 25) Panoche Valley	6/16/2010	Supervisor
H-76	3rd	3846 J-4	Callen Ranch Enter 6868 Panoche Rd, N. Side	8/22/2012	Mechanic
J-76	Single	3752-E8	2652 San Juan Rd	12/14/2011	Supervisor

1.7 PG&E's Work Procedure WP4430-04 page 4 states in part:

"Gas transmission valves classified as "emergency," gas distribution "critical" main valves, and district regulator station valves, including upstream and downstream fire valves, must be inspected, serviced/lubricated (where required, see the paragraph above), and operated (see Paragraph 3.A., "New Valves") at intervals not exceeding 15 months to the date, but at least once each calendar year. If a valve requiring lubrication (all plug valves and ball valves if a positive shutoff cannot otherwise be obtained. Gate valves do not require lubrication.) is not lubricated regularly, it may become inoperable, not shut off adequately when necessary, or develop external valve stem leakage."

The Division did not lubricate plug valve SCV-B57-4 (V-4) at Regulator Station J-83 as required in 2011 or 2012.

2 Title 49 CFR §192.475(b) states in part:

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

The Division's Leak Repair, Inspection, and Gas Quarterly Incident Report (A-Form) at San Juan Road 2400' Northwest of San Miguel Road, Aromas for the replacement of pipeline L-181A dated 3/21/12, lists the reason for inspection as "Pipe replacement" yet the Division did not document the performance of an internal inspection.

3 Title 49 CFR §192.481 states in part:

"(a) Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:"

If the pipeline is located:	*Then the frequency of inspection is:*
Onshore	*At least once every 3 calendar years, but with intervals not exceeding 39 months*

The Division last inspected exposed main pipeline D55 at Moosehead Dr. and Winfield/Aptos Circle, Watsonville District, on 12/16/09. On 11/15/11, the Division discovered that the water level was too high over the main pipeline; therefore, it did not perform an inspection. The Division did not perform an inspection between 2009 and the start of this 2013 audit, an interval of over three calendar years.

4 Title 49 CFR §192.745(a) states:

"Each transmission line valve that might be required during any emergency must be inspected and partially operated at intervals not exceeding 15 months, but at least once each calendar year."

The Division did not inspect fire valve SCV-A07-10 of regulator station K-15 in 2012.

5 Title 49 CFR §192.805 states in part:

"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"

The Division did not ensure through evaluation that employee MAK3 was qualified to perform regulator station maintenance at station SRS60 on 2/8/11.

C. Field Review

During our field visits on June 20, SED discovered inadequate levels of cathodic protection as outlined by Appendix D to Part 192 at the following locations.

1. 1160 Olympia, Seaside; Pipe-to-soil potential: -526mV
2. 77 Via Chualar, Monterey; Pipe-to-soil potential: -826mV

Please provide a status report on the cathodic protection at these two locations.

D. Recommendations and Areas of Concern

1. The Division listed Valves V-B51-1 and V-B51-2, Santa Cruz District, Kearney St. and Walker St at Regulator Station J68 as being Distribution valves in 2010 and 2011. The Division listed the valves as Transmission valves in 2012 with no apparent change in pressure or operation. Please provide an explanation for the discrepancy.

2. On the Valve Maintenance Record Form for V-X02-1 and V-X02-2 at Regulator Station J55, Tuttle Ave and East Lake, Santa Cruz District, the Division marked the valves as both Distribution and Emergency valves in 2010 and 2011. PG&E's WP4430-04 Attachment 1, Valve Maintenance Record Instructions, page 1 explains that distribution valves should be marked as a 'station valve' or 'critical main valve', implying that it cannot be marked as an 'emergency valve'. Please provide an explanation for the discrepancy.