

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



December 21, 2012

Ms. Jane Yura
Vice President, Gas Operations, Standards and Policies
Pacific Gas & Electric Company
P.O. Box 770000, Mailcode N15F
San Francisco, CA 94177

GA2012-08

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

Dear Ms. Yura:

On behalf of the California Public Utilities Commission's Consumer Protection and Safety Division (CPSD), Terence Eng, Isaiah Larsen, and Alula Gebremedhin conducted a General Order 112-E audit of Pacific Gas & Electric Company's (PG&E) Sonoma Division (Division) from June 4-8, 2012. The audit included a review of the Division's operation and maintenance records for the years 2008 through 2011, and field inspections of some of the Division's facilities. CPSD'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 CPSD 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 noted in the Summary. Pursuant to Commission Resolution ALJ-274, CPSD staff has the authority to issue citations for each violation found during the audit. CPSD 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,

A handwritten signature in blue ink that reads "Michael Robertson".

Michael Robertson
Program Manager
Gas Safety and Reliability Branch
Consumer Protection and Safety Division

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

cc: Bill Gibson, PG&E Director, Regulatory Compliance
Frances Yee, PG&E Gas Engineering and Operations
Larry Berg, PG&E Gas Regulatory Support
Larry Deniston, PG&E Gas Regulatory Support
Dennis Lee, CPSD
Terence Eng, CPSD
Alula Gebremedhin, CPSD

SUMMARY OF INSPECTION FINDINGS

A. PG&E's Internal Audit Findings

Prior to the start of the June 4-8, 2012 audit, PG&E provided CPSD with findings from internal audits of its Sonoma Division. Some of PG&E's internal audit 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). CPSD also identified other violations of Title 49 CFR 192 within PG&E's internal audit findings. The violations are listed in Table 1.

CPSD is aware that several of PG&E's findings had been corrected by the time of CPSD's audit, or were to be addressed during the next scheduled maintenance (e.g. annual leak surveys, key valve maintenance) or were of a nature requiring continuous monitoring. Please provide CPSD an update on the items that were still pending corrective actions as of June 8, 2012. Also, CPSD has follow up questions related to a number of internal audit findings. Those follow up questions are listed following Table 1.

Table 1. Sonoma Division Internal Review Summary

Item	Title 49 CFR Part 192	Topic - Finding	# of Violations	# of Violations Corrected	# of Pending Corrections (as of June 8, 2012)
1	192.13(c)	Leak Survey - Grade 2 leaks checked late	56	56	0
2	192.13(c)	Leak Survey - Grade 0 leaks checked late	41	41	0
3	192.13(c)	Leak Survey - Missing calibration check records	435	TBD	TBD
4	192.743(a)	Station Maintenance - Missing relief valve calculation review record	1	1	0
5	192.747(a)	Emergency Valves - Late maintenance	2	2	0
6	192.747(b)	Emergency Valves - No action plan for inoperable emergency valve	1	1	0
7	192.13(c), 192.465(d)	Corrosion Control - Action plans either missing or completed late	24	24	0
8	192.13(c), 192.465(a)	Corrosion Control - Pipe-to-soil reads were late	15	15	0
9	192.383(b)	Leak Repair - Excess flow valve not installed	1	1	0

Table 1. Sonoma Division Internal Review Summary (continued)

Item	Title 49 CFR Part 192	Topic - Finding	# of Violations	# of Violations Corrected	# of Pending Corrections (as of June 8, 2012)
10	192.13(c)	Leak Repair - Leak repaired late	12	12	0
11	192.13(c)	Leak Repair - Missing leak test info	1	1	0
12	192.13(c)	Leak Repair - Leaks rechecked late	106	106	0
13	192.13(c)	Leak Repair - Leak response late	3	3	0
14	192.13(c)	Deactivation - Stubs were not completed	15	15	0
15	192.13(c)	Deactivation - Need layer in electronic mapping	Multiple	Unknown	Multiple
16	192.13(c), 192.625(f)	Odorization - Sniff tests missed	4	4	0
17	192.805(b)	Odorization - Employee not operator qualified to conduct sniff test	1	1	0
18	192.805(b)	Patrols - Patrol performed by non-OQ'ed inspector	33	33	0
19	192.13(c)	Emergency Zones - Zone binder reviewed late	1	1	0

Follow up questions:

1. Item 3 in Table 1, Leak Survey: What is being done about the 42 leak survey plat maps missing calibration check records? Are the results being discarded? When are the next surveys scheduled?
2. Item 10 in Table 1, Leak Repair: The internal audit findings revealed, "*PG&E identified 2 Grade 1 leaks not repaired within 3 days in Sonoma.*" What is the 3 day timeframe and how was it established?
3. Item 15 in Table 1, Deactivation: What is the status of the input of the deactivation layers? What is PG&E's process for identifying facilities deactivated long ago?

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.”

- i.) PG&E’s WP4430-04 Attachment 1, Gas Valve Maintenance Requirements and Procedures, states: *“Ensure that all natural gas block valves (2” and greater for gas transmission district-maintained facilities) requiring maintenance per this work procedure and ball or plug valve regulators have a completed ‘Valve Maintenance Equipment Card.’”*

CPSD reviewed the Valve Maintenance Record Forms and discovered that a number of cards (e.g. V-1 at R-060, V-2 at R-396, V-1 at R-420) were missing information including the pressure rating. The Division did not follow PG&E’s Work Procedure WP4430-04 Attachment 1; therefore, the Division is in violation of Title 49 CFR §192.13(c).

- ii.) PG&E’s UO Standard S4110 – Attachment 1, states that Grade 2+ leaks are to be repaired or cleared not exceeding 90 calendar days from the date reported.

CPSD reviewed the Division’s leak reports and found five Grade 2+ leaks (shown in Table 2) that were repaired outside of PG&E’s required timeframe. The Division did not follow PG&E’s procedures for repairing these Grade 2+ leaks within 90 days; therefore, the Division is in violation of Title 49 CFR §192.13(c).

Table 2. Grade 2+ leaks repaired exceeding 90 days from found date

Leak Number	Found Date	Repaired Date
4409002081	1/20/2009	8/31/2011
4409001151	1/6/2009	9/4/2009
4409001751	1/15/2009	9/21/2009
4410000061	1/4/2010	10/9/2010
4410000431	2/8/2010	9/22/2010

- iii.) Regarding Cathodic Protection Area (CPA) restoration work, PG&E’s O-16, p. 11 states: *“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.”*

CPSD reviewed the cathodic protection maintenance records and found multiple cases in which approvals were required by corrosion engineering personnel, the area superintendent, and/or the manager of technical services, but were not obtained as in the examples noted below. The Division failed to follow PG&E’s standard O-16; therefore, the Division is in violation of Title 49 CFR §192.13(c).

- CPA 634-12, Initial Discovery: 12/16/2011, Restored: 5/10/2012.
- CPA 564-01, Initial Discovery: 11/22/2008, Restored: 10/13/2009.

- CPA 568-01, Initial Discovery: 1/13/2011, Restored: 12/14/2011.

iv.) PG&E's O-16, p. 9 regarding "annuals" states: "Any P/S potential that is found to be less negative than -850 mV must be restored within 30 calendar days from the day it was discovered. If the CPA restoration work is expected to require more than 30 days to complete, a written action plan must be created and maintained current using the 'CPA Follow-Up Action Plan' form." The same written action plan requirement applies to "10%ers" and "yearlys" as described on page 10 of O-16.

The following types of facilities are defined by PG&E. **Annuals** are defined as isolated gas distribution piping segments that are over 100 feet long or equal to eight blocks of steel main or one mile. **Yearlys** are defined as where the failure of a locating wire will cause a section of steel main to become isolated or where a regulator station is tied to a CPA via a wire. **10%ers** are defined as individual isolated sections of steel pipeline that must be monitored for cathodic protection once every ten years.

CPSD found multiple cases of cathodic protection deficiencies in which the Division did not restore the cathodic protection within 30 days of discovery or prepare a Follow-Up Action Plan Form. Table 3 provides examples of these cathodic protection deficiencies.

Table 3. CPA deficiency locations w/ no Follow-Up Action Plan Form

Address	City / Plat	Last Read (mV)	Last Read Date
Avila Annuals & Yearly			
420 Flynn	Sebastopol	-648	Feb-12
1029 Yuba Dr.	Santa Rosa	-754	May-12
3167 Ross Rd	Graton	-560	Dec-12
Harris Annuals & Yearly			
Ormsby Ln #300	Petaluma	-788	May-12
10%ers			
1160 Emily Ave	2704-C7/27	-804	Mar-11
1158 Emily Ave	2704-C7/27	-805	Mar-11
289 Alexandria Ct	2504-C1/49	-518	Apr-12
416 East St.	2504-D1/51	-816	May-12
4250 Sebastopol Rd	2633-E5/2	-348	Aug-04
3400+3420 Chanate Rd (So.Co. Health Dept.)	2567-J5/2	-475	Dec-06
1511 Petaluma Hill Dr.	2634-F5/15	-820	Feb-02
2337 Heidi Pl	2634-A1/17	-815	Aug-04

The Division failed to follow PG&E's Standard O-16; therefore, the Division is in violation of Title 49 CFR §192.13(c).

2. Title 49 CFR §192.145(c) states:

"Each valve must be able to meet the anticipated operating conditions."

CPSD reviewed the Division's Valve Maintenance Record Forms and found a number of cards that were missing the pressure rating value. The Division indicated that pressure ratings for its valves are currently being researched as part of PG&E's MAOP validation project; therefore, the Division could not determine if each valve was able to meet its anticipated operating condition. As a result, the Division is in violation of Title 49 CFR §192.145(c). CPSD requests an update on PG&E's MAOP validation project with respect to valves at this Division.

3. Title 49 CFR §192.509(b) states:

"Each main that is to be operated at less than 1 psi (6.9 kPa) gage must be tested to at least 10 psi (69 kPa) gage and each main to be operated at or above 1 psig must be tested to at least 90 psi (621 kPa) gage."

CPSD found a segment of pipe, identified on PM Number 30668899, CPA 504-05, Plat 2503-D8 that was listed as having a Normal Operating Pressure of 50 psig. Records indicated that in 2010, the pipe was pressure tested to 10 psig at the time of its installation. The Division did not test the pipe to at least 90 psig as required; therefore, the Division is in violation of Title 49 CFR §192.509(b).

4. Title 49 CFR §192.747(a) states:

"Each valve, the use of which may be necessary for the safe operation of a distribution system, must be checked and serviced at intervals not exceeding 15 months, but at least once each calendar year."

Valve V-1 at 2981 Bowen St., Graton was not operated in 2010. Therefore, the Division is in violation of Title 49 CFR §192.747(a).

C. Observations/Concerns

1. CPSD reviewed the Division's District Regulator Data Sheets and noted several typos or inadequacies. Several examples are shown below in Table 4.

Table 4. District Regulator Data Sheets with typos

Location	Parameter	Listed Specification	Reason it is inadequate
R-420, 1526 Gravenstein Hwy	Vault Size	17" x 30"	Missing 3rd dimension
R-069, Grants School Rd & Old Redwood Hwy	Monitor (psig)	270155	Meant to state 270/155
R-069, Grants School Rd & Old Redwood Hwy	Vault Size	4x5x5, 80 cu. Ft	Meant to state 100 cu. ft.

2. In 2002, 10%ers at 4129 Stony Point Rd (Plat 2634J1) and 693 Hunter Ln (Plat 2634J7) were noted as having pipe-to-soil reading values of -938 mV and -1192 mV, respectively. In 2010, Division maintenance noted that these locations had pre-fabricated anodeless risers and that pipe-to-soil readings were unnecessary. As-built maps confirmed that the service lines at 693 Hunter Ln and 4129 Stony Point Rd were replaced with plastic in 1975 and 1994, respectively. Please advise CPSD how readings taken in 2002 indicated that the individual sections of pipe were cathodically protected.
3. On June 6, 2012, CPSD observed that cathodic protection at 110 Cloverdale Blvd (-770 mV) and 127 Commercial St. (-840 mV) in Cloverdale had inadequate readings that did not meet the required -850 mV criteria. Please provide CPSD a status report on the cathodic protection at these two locations.
4. On June 7, 2012, CPSD observed the Division perform an A-Type inspection at Regulator Station R-212, Stony Point Rd & West 3rd St. in Santa Rosa. During the inspection, the regulator was unable to lock up due to sulfur on the diaphragm. Please advise CPSD on the status of the regulator and why there was sulfur on the regulator diaphragm.
5. On June 7, 2012, CPSD observed a Division mechanic attempt to operate Valve V-1 at 2981 Bowen St. in Graton. The mechanic was unable to operate the valve with the valve key. Please provide CPSD on the status on Valve V-1 and why the valve was not operable.
6. PG&E's UO Standard S4110 under the Leak Grading Section, included under each Grade (i.e. 1, 2+, 2) lists the following statement.

"Downgrade to a Grade 0 leak if the leak is not a valid leak or if no leakage is found. Action taken or the reasoning behind the downgrade shall be noted on the leak record. Note that any such downgrade on a suspected low pressure facility (emphasis added) will be checked again within 6 months not to exceed the last day of the seven month."

Since the consequence of leaks from high pressure facilities may be equal or greater than those from low pressure facilities, CPSD recommends performing the biannual check of leaks downgraded to Grade 0 on suspected low **and high pressure** facilities, and to update the Standard to reflect as such.