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

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3298

December 30, 2013

GA2013-15

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

SUBJECT: General Order 112-E Gas Audit of PG&E's Topock District

Dear Ms. Yura:

On behalf of the Safety and Enforcement Division (SED) of the California Public Utilities Commission, Terence Eng, Alin Podoreanu, Fred Hanes, Nathan Sarina, and Molla Mohammad Ali conducted a General Order 112-E audit of Pacific Gas & Electric Company's (PG&E) Topock District (District) from August 5-9, 2013. The audit included a review of the District's operation and maintenance records for the years 2009 through 2012, as well as a representative field sample of the District'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 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. 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 or by email at terence.eng@cpuc.ca.gov.

Sincerely,

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

Enclosure: Summary of Inspection Findings

cc: Frances Yee, PG&E Gas Engineering and Operations
Larry Berg, PG&E Gas Regulatory Support
Larry Deniston, PG&E Gas Regulatory Support
Dennis Lee, SED
Aimee Cauguiran, SED
Terence Eng, SED

SUMMARY OF INSPECTION FINDINGS

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 Topock District (District). 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 August 5, 2013.

Table 1: Findings from PG&E's Internal Review Dated July 2013

Topic	Code Violation	Findings	Instances	Completed
Emergency Valves	192.13(c)	Valve maintenance cards were not properly filled out (missing valve data) and are not latest version of form	117	Yes
	192.13(c)	Valve actuator maintenance record not fully complete	33	Yes
Station Maintenance	192.13(c)	PLS 2 Operating and Maintenance Instructions (OMI) was out of date (annual review)	1	Yes
	192.13(c)	CGT Station Maintenance Report, UO Standard S4432 Form Field Transducers 3-Point Check incorrectly labeled Diff Pressure.	1	Yes
	192.13(c)	Instances that the supervisor review was not documented	3	Yes
	192.13(c)	Relief valve was identified with two unique tag numbers	2	Yes
Odorization	192.13(c)	Lan ID was not recorded	1	Yes
Cathodic Protection	192.13(c)	Supervisor review was not documented	3	Yes
	192.465(a)	Missed ETS reads	11	Yes
	192.13(c)	Action plan not on file on CP issue over 60 days	1	Yes
Leak Survey	192.13(c)	Leak Survey log was missing the Lan ID review and date	1	Yes

Table 1: Findings from PG&E's Internal Review Dated July 2013, Continued

Topic	Code Violation	Findings	Instances	Completed
Spans	192.13(c)	Missing mile point stencil	4	Yes
	192.13(c)	Instances of coating (paint and wrap) failure	270	No; Pending
	192.13(c)	Exposed pipe/wrap from erosion	3	No; Pending
	192.13(c)	Instances of support footing erosion	2	No; Scheduled 2014
	192.13(c)	Initials entered on records, when Lan ID should have been entered	13	Yes
A-Forms	192.13(c)	USA# was left blank	3	Yes
	192.13(c)	Mapping Review Lan ID/date missing	4	Yes
	192.13(c)	Above ground/below ground not identified	2	Yes
	192.13(c)	Incomplete documentation: welded by, inspected by, Lan ID/date missing	2	Yes
Equipment Calibrations	192.13(c)	Documentation of HFI/Flame Pak was incomplete	1	Yes
	192.13(c)	Odorometer annual calibration late	2	Yes
	192.13(c)	Calibration of instrument did not meet minimum requirements	1	Yes

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 PG&E's Standard O-16, Corrosion Control of Gas Facilities, page 7, 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."

1.1.1 The District failed to verify that the arc flash sticker was installed at Rectifier at 145453 National Trails Hwy, mile point (MP) 0.24 (Serial number 121130) in 2012.

1.1.2 The District failed to verify that the polyvinyl chloride (PVC) service riser was free of separations, defects, and securely strapped, that the AC disconnect switch enclosure was locked, and that the AC disconnect switch handle can be and was locked in the "on" position at the following rectifiers during each annual maintenance performed from 2009-2013:

A. Rectifier #0.24, Serial #942522
B. Rectifier R-111, Serial #93J1392
C. Rectifier R-110, Serial #71058

SED understands that not all items are applicable to each and every rectifier. SED recommends the District provide an indication or explanation on the form for each unchecked item.

1.2 PG&E's standard M-53.3 Verifying the Calibration of Portable Combustible Gas Indicators, Hydrogen Flame Ionization Units, Optical Methane Detectors, and Remote Methane Leak Detectors, page 1, states in part:

"Verifying Calibration of Portable Gas Detectors

...

If the calibration is not within the allowable limits, send the instrument to an approved service provider for adjustment or repair."

In addition,

Form FM-53.3-D, Monthly Verification of the Calibration of Personal Air Monitors states that the acceptable calibration limit for Mine Safety Appliances (MSA) testing at 50% LEL is a reading of 47 to 55% LEL.

MSA Serial Number: BO-40160-66 failed its calibration with a reading of 43% LEL in January 2010. The District did not send the instrument to an approved service provider for adjustment or repair.

1.3 PG&E's Utility Procedure TD-4110P-09, Leak Grading and Response, page 11, states in part:

"Recheck Grade 3 leaks during the next scheduled survey."

The District rechecked leak number 09-30008-1 on 8/31/10 and subsequently on 12/13/11, spanning an interval of 15 months and 13 days. The District failed to recheck this leak during the last leak survey it conducted.

1.4 PG&E's Utility Procedure TD-4110P-09, Leak Grading and Response, page 8, states in part:

"6.1 Actions to Take for Grade 2+ Leaks
Take the following actions for a Grade 2+ leak:
...

2. Repair or clear the leak, as designated by the operating department, in a time period not to exceed 90 days, to the date, from the date reported or before the ground freezes or other adverse changes in venting conditions occur."

The District failed to repair or clear leak number 10-30018-1 within 90 days. The District discovered the Grade 2+ leak on 10/18/10, but did not subsequently repair or clear the leak until 2/17/11, 122 days later.

1.5 PG&E's Standard S4350-TD-4350D Odorization of Natural Gas, section 4.6 states in part:

"Gas odor must be readily detectable at a concentration of 0.6% gas-in-air or less."

PG&E's Form 62-3480 expands on the requirement, stating:

"If the odor intensity reading is over 0.6% gas in air (too weak) or below 0.1% gas in air (too strong), a confirmation test with a different operator will be performed and the System Gas Control supervisor, or GT&D district supervisor, shall be notified immediately."

The District documented odor intensity readings of greater than 0.6% on the following dates listed in **Error! Reference source not found.**, but provided no documentation of a confirmation test or supervisor notification.

Table 2: Odorization Test Locations requiring remedial action

Date	Line 300A Discharge Odorometer Reading	Line 300B Discharge Odorometer Reading	TW Odorometer Reading
8/30/2012	48%	50%	48%
9/26/2012	40%	49%	42%
10/23/2012	42%	39%	54%
11/8/2012	36%	37%	33%
12/26/2012	31%	40%	50%

1.6 PG&E's Work Procedure WP4540-01 District Regulator Station Maintenance, page 12, states in part:

"On the back of Form 62-6321 or Form 62-6321A, show any corrective work that was done. This corrective work may include the following:

1. *Any regulator, monitor, or relief valve set point changes. Specify the reasons for the changes.*
2. *Replacement of failed parts. Specify the reason for the replacement.*
3. *Component replacement (e.g., replaced filters, regulators, pilots, and valves). Specify the reason for the replacement."*

1.6.1 On 5/14/08, the District set Thermo-Electric Generator (TEG) Regulator at MP 6.93A, 2nd run to operate at 40 psig. On 5/21/09, the District discovered the As Found pressure setting of the regulator to be 224 psig, before subsequently adjusting the setpoint back to 40 psig. The District failed to specify the reason for the regulator set point change.

1.6.2 On 5/8/08, the District set TEG Regulator at MP 72.00A, 2nd run to operate at 40 psig. On 5/19/09, the District discovered the As Found pressure setting of the regulator to be 225 psig, before subsequently adjusting the setpoint back to 40. The District failed to specify the reason for the regulator set point change.

2. Title 49 CFR §192.225(a) states, in part:

"Welding must be performed by a qualified welder in accordance with welding procedures qualified under section 5 of API 1104 (incorporated by reference, see §192.7) or section IX of the ASME Boiler and Pressure Vessel Code " Welding and Brazing Qualifications" (incorporated by reference, see §192.7) to produce welds meeting the requirements of this subpart."

The District failed to ensure a qualified welder repaired leak number 10-88794-3 in 2012.

3. Title 49 CFR §192.241 states in part:

"(a) Visual inspection of welding must be conducted by an individual qualified by appropriate training and experience to ensure that:
(1) The welding is performed in accordance with the welding procedure"

2.1 The District failed to visually inspect the weld performed in 2011 to repair leak number 09-30008-1.

2.2 The District failed to visually inspect the weld performed in 2012 to repair leak number 10-88794-3.

Please provide a status report on the welds and if and when the District plans to visually inspect them.

4. Title 49 CFR §192.327(a) states:

(a) Except as provided in paragraphs (c), (e), (f), and (g) of this section, each buried transmission line must be installed with a minimum cover as follows:

Location	Normal Soil	Consolidated Rock
	Inches (Millimeters)	Inches (Millimeters)
Class 1 locations	30 (762)	18 (457)
Class 2, 3, and 4 locations	36 (914)	24 (610)
Drainage ditches of public roads and railroad crossings	36 (914)	24 (610)

4.1 The Leak Repair, Inspection, and Gas Quarterly Incident Report (Form A) for leak number 10-88794-3 on PLS-1B 40.49B, indicated the pipe cover as 0 inches. The District verbally indicated that buried piping had been exposed and reburied, but could not provide further documentation to indicate the pipe was reburied with the minimum cover required by §192.327(a). Please provide SED with a status report on this issue.

4.2 Form A for Project Management (PM) #41497332, Line 300-B, MP 0.2235, 2011 pressure test at Topock Compressor Station, Location B did not specify a value to indicate the pipe was reburied with the minimum cover required by §192.327(a).

4.3 Form A for PM #41497332, Line 300-B, MP 0.1557, 2011 pressure test at Topock Compressor Station, Location C did not specify a value to indicate the pipe was reburied with the minimum cover required by §192.327(a).

5. Title 49 CFR §192.481(c) states:

"If atmospheric corrosion is found during an inspection, the operator must provide protection against the corrosion as required by §192.479."

In addition,

PG&E's Utility Procedure TD-4430P-02 Gas Station Facilities Inspection, Testing, and Maintenance Procedures, Attachment 7, Table 1, states that if pipe integrity is not OK, i.e. pitting is present, the depth of pitting must be recorded.

5.1 The District noted pitting on the Fuel Gas Header K-Units during its inspection on 5/2/13. The District did not record the depth of pitting. SED noticed that the pitting was still evident during its field inspection of the facility on 8/8/13. The District did not provide protection against the corrosion as required by CFR §192.479.

5.2 The District noted pitting on the P-Unit Fuel Gas Regulators during its inspections on 6/2/11 and 5/2/13. The District did not record the depth of pitting. The District did not provide protection against the corrosion as required by CFR §192.479.

C. Observations and Concerns

1. PG&E Gas Station Facilities Maintenance Report, TD-4430P-02-F02, requires the transducer operating pressure to be recorded in psig. The District recorded the transducer operating pressure in millivolts rather than in psig for the following line rupture control valves.

   A. LRCV – MP 21.23A, May 4, 2010 & May 21, 2011
   B. LRCV – MP 20.84B, May 4, 2010 & May 24, 2011

   Please provide an explanation for the discrepancy.

2. The American Public Gas Association (APGA) Glossary defines "Pressure Limiting Station" as: *Equipment installed for the purpose of preventing the pressure on a pipeline or distribution system from exceeding some maximum pressure by restricting the flow of gas.*

   Topock District maintains six pressure limiting stations (PLS) that meet this definition: PLS 1A, PLS 1B, PLS 2A, PLS 2B, Amboy Station, and Needles Tap. The District's Statistical Report for the Calendar Year Ending December 31, 2012 states that only four pressure limiting stations meet the definition.

   Please provide an explanation for the discrepancy.

3. During SED's field inspection on 8/8/13, the District recorded a pipe-to-soil reading (-730mV) that did not meet the -850mv criteria on Line 300A, MP 21.23. Please provide SED a status report on the cathodic protection at this location.