

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



March 17, 2015

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

GI-2015-02-PGE20-15

SUBJECT: General Order 112-E Gas Inspection of PG&E's Willows District

Dear Mr. Singh:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a General Order 112-E inspection of Pacific Gas & Electric Company's (PG&E) Willows District (District) from February 9 through 13, 2015. The inspection included a review of the District's Corrosion Control records for the period of 2012 through 2014, and a field inspection of Gerber and Delevan Compressor Stations and a representative sample of the District's facilities. SED staff also reviewed the District's operator qualification records, which included a 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 inspection.

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 a citation for each violation found during the inspection.

If you have any questions, please contact Alula Gebremedhin at (415) 703-1816 or by email at ag5@cpuc.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Kenneth Bruno" followed by a flourish. To the right of the signature is the date "3/17/15".

Kenneth Bruno
Program Manager - GSRB
Safety and Enforcement Division

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 Inspection Findings

Prior to the start of the inspection, PG&E provided SED its findings from the internal review it conducted of Willows District. 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), §192.605(a). SED is aware that PG&E corrected some of its findings prior to SED's inspection. Table 1 lists all of the violations from PG&E's internal review.

Table 1: PG&E's Internal Review

Code Section	# of Non-Compliance	Finding Description	Corrective Action	Remediation Date
192.605(a) Emergency Valve	58	Power actuated valves missed semi-annual maintenance in 2012 & 2013	Added to schedule and tailboard to the crews on TD-4430P-04 valve maintenance requirements	2012 thru 2014
192.605(a) Station maintenance	9	Relief valves record with incorrect information	Capacity reviewed & data entry corrected	1/20/2015
	1	Relief valve K1-VR940-1 was set 0.2 psig above MAOP in 2012 & 2013	Adjusted the set pressure at the MAOP & created a new form	1/21/2015
	1	Relief valve K2-VR940-1 was set 0.1 psig above MAOP in 2012 & 2013	Adjusted the set pressure at the MAOP & created a new form	1/21/2015
192.605(a) Leak Survey	1	Calibration was not recorded for equipment (RMLD) used during 10/18/13 leak survey on L-401	Tailboard to the crews on proper documentation	10/30/2014
	1	Improper documentation of RMLD calibration during 10/30/14 leak survey	Reviewed and made corrections	2/5/2015
192.605(a) Patrol	3	Records were not documented in the appropriate form	Corrected and tailboard to the crews	2/5/2015
	13	Incomplete inspection forms during 2/25/13, 3/21/13, & 3/29/13 patrol	Populated the correct patrol form and tailboard to the crews	2/5/2015

B. SED Findings

1. Title 49 CFR §192.467(d) states:

“Inspection and electrical tests must be made to assure that electrical isolation is adequate.”

In addition, page 8 of PG&E’s standard O-16, “Corrosion Control of Gas Facilities,” states in part:

“G. Casing Monitoring and Maintenance

Local transmission, backbone transmission pipelines, and gas gathering pipeline cased crossings must be monitored annually (once each calendar year with intervals not to exceed 15 months) and recorded in PLM.”

During a field visit to Line 400 MP 246.49, SED found casing (vent pipe) to soil potentials of -391mV at the south end and -619mV at the north end of what was thought to be a single casing by HWY 16. However, PG&E’s as-built drawing (#385200 sheet # 48 of 58 dated 8-20-71) confirmed the existence of two separate casings. The district has been monitoring only one casing at this location.

Therefore, PG&E is in violation of 192.467(d) for failing to inspect and electrically test its casings to assure electrical isolation is adequate.

II. Areas of Concern / Observations / Recommendations

1. Title 49 CFR §192.469 states:

“Each pipeline under cathodic protection required by this subpart must have sufficient test stations or other contact points for electrical measurement to determine the adequacy of cathodic protection”

In addition, page 6 of PG&E’s standard O-16, “Corrosion Control of Gas Facilities,” states in part:

“B. Pipe-to-Soil Test Locations

...For local transmission, backbone, and gathering lines, approximately one pipe-to-soil potential measurement shall be monitored at one mile intervals (emphasis added). Monitoring points should be located at intervals of less than one mile when evaluations indicate that the monitoring points at one mile intervals may not be adequate to determine cathodic protection effectiveness. Monitoring points may be at intervals greater than one mile when evaluations indicate that they are adequate for determining cathodic protection effectiveness (emphasis added).”

The district did not have any monitoring test locations over an 11-mile pipeline stretch on Line 401 between Mile Points 186.82 (Casing) and 197.84 since installation (A-Form for coupon test station work noted 1970 as an installation year). On October 2013, after exposing this section of the pipe for installation of coupon test stations, the following pipe to soil reads were taken and found less negative than -850mV as shown in Table 2 below:

Table 2: Pipe-to-Soil Readings on L-401

Mile Point	P/S read (mV)	Read Date
189.85	-821	10/07/2013
190.87	-807	10/14/2013
191.86	-776	10/08/2013
193.42	-781	10/02/2013
194.45	-771	10/15/2013

The pipe-to-soil reads at these locations indicate inadequate cathodic protection in accordance with Part 192 Appendix D. Please explain the basis for establishing monitoring points 11 miles apart. In addition, please provide the corrective actions taken to address the above out of compliance pipe-to-soil reads.

2. Title 49 CFR §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.”

In addition, page 8 of PG&E’s standard O-16, “Corrosion Control of Gas Facilities,” states in part:

“G. Casing Monitoring and Maintenance

...The casing is considered to be in electrical contact with the pipeline when the casing-to-soil potential is –800 mV or more negative and/or the difference between the P/S potential and the casing-to-soil potential is less than 100 mV. If one or both of these two conditions are found, further testing as described in Utility Standard D-S0354/S4126 is required.”

SED reviewed the District’s casing monitoring records and found the following 3 locations, shown in Table 3 below, with casing-to-soil potential readings that, according to PG&E’s standard, indicate the presence of pipe-to-casing electrical contacts.

Table 3: Casing Monitoring Records with contact indications

Location	Read type	Read Date	Pipe-to-Soil (PTS) Potential(mV)	Casing-to-Soil (CTS) Potential(mV)
ETS, Potential, L-400. Mile Point 143.60	Gel-Casing	6/15/2012	-1285	-1112
		6/14/2013	-1180	-1176
		6/9/2014	-1160	-1160
ETS, Potential, L-400. Mile Point 143.68	Gel-Casing	6/15/2012	-1238	-1091
		6/14/2013	-1189	-1189
		6/9/2014	-1184	-1184
ETS, Potential, L-401. Mile Point 213.07	Casing	6/17/2013	-1038	-1038
		6/25/2014	-1070	-1070

Please indicate the corrective actions taken to address these conditions, and any testing done to determine the pipeline condition after the discovery of the contacts.

- The atmospheric corrosion monitoring records of Line 400, Spans 043 and 508, at MP 178.8 and 247.55 respectively, indicated poor paint condition during 2013 and 2014 inspections. The corrosion department assigned a priority number 2 for remediation without specifying a timeframe for completion. Please provide an update to address this concern along with expected completion dates.
- On the Gerber Compressor Station Emergency Shut Down (ESD) System Test Record (Test Date: 2/28/2014), the District noted a failure of HMI, which displays station

operations to field personnel, during the "PLC Redundancy Test". Please provide a plan of corrective action to resolve this issue. In addition, please provide a list of other stations that have the same issue along with their planned corrective actions and expected completion dates.