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April 22, 2015

Mr. Kenneth Bruno
Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission
320 W. Fourth Street, Suite 500
Los Angeles, CA 90013

Dear Mr. Bruno:

The staff of the Safety and Enforcement Division (SED) conducted a General Order (GO) 112-E compliance inspection of Southern California Gas Company's (SoCalGas) South Desert Area Transmission facilities on January 26-30, 2015. The inspection included a review of the cathodic protection and odorant records for calendar years 2013 and 2014 and random field inspections of pipeline facilities in the Beaumont and Blythe Transmission districts. SED also reviewed SoCalGas' Operator Qualification records, which included field observation of randomly selected individuals performing covered tasks.

SED staff identified three potential violations of GO 112-E Reference Title 49 Code of Federal Regulations, Part 192 and issues of concern, making recommendations associated with these issues. Attached is SoCalGas' written response and corrective actions.

Please feel free to contact me at (213) 305-8660 if you have any questions or need additional information.

Sincerely,

W. Jeff Koskie

Attachments

Attachment 1 Response to Audit Observations

- **A.** Audit Identified a Probable Violation of Subpart M, Maintenance, G.O. 112-E, Title 49 CFR Part 192, §192.707(a) Line Markers for Mains and Transmission Lines: Buried Pipelines states
 - (a) "Buried pipelines. Except as provided in paragraph (b) of this section, a line marker must be placed and maintained as close as practical over each buried main and transmission line:
 - (1) At each crossing of a public road and railroad; and
 - (2) Wherever necessary to identify the location of the transmission line or main to reduce the possibility of damage or interference

SCG Gas Standard 223.0075 Pipeline Markers, Section 4.1.8 requires that line markers be installed where pipelines cross perpendicular or diagonal to the street.

During the field inspection of SCG Cathodic Protection (CP) facilities, SED staff observed that SCG pipelines had missing line marker(s) at the following locations where the pipelines crossed streets or Right of Ways perpendicularly or diagonally. SCG had previously inspected the pipelines, and did not note any abnormal conditions on the inspection records:

- 1. L2001 at Limonite Ave., and Etiwanda
- 2. L1027 at Menifee/Route 74 near a gas station
- 3. L6900 at Simpson Rd and Lindenberger Rd
- 4. L6900 at Cresta Dr. and Lindenberger Rd
- 5. L6906 along Merrill Ave crossing several streets between Box Elder Ct and Pepper Ave

SCG failed to identify and install/replace line markers at the aforementioned locations that are near pipeline segments with missing line markers. SED found SCG in violation of G.O. 112-E, Reference Title 49 CFR Part 192, Section 192.707(a).

Response To Item A

SoCalGas disagrees with the determination by SED. SCG Gas Standard 223.0075: Pipeline Markers, Section 4.1.8 specifies under section 4.1.8.1 only "[r]ecommended installation guidelines for curb type markers." Section 4.1.8.1 simply recommends placing curb markers where pipelines cross perpendicularly or diagonally to the street. This is a recommendation, not a requirement under SoCalGas standards.

SED observed five locations that had issues with pipeline markers, and SoCalGas has reviewed the issues. Location 1 had a pipeline marker at both sides of the public road crossing at the time of the inspection. Locations 2 and 3 both had a pipeline marker at the public road crossing at the time of the inspection, yet were cited by SED for not having a line marker on both sides of the street.

CFR Part 192 Section 192.707(a) states, "[A] line marker must be placed and maintained as close as practical over each buried main and transmission line...[a]t each crossing of a public

road and Railroad." This code section calls for "a line marker" (singular), and, thus, SoCalGas believes one line marker at each crossing is compliant.

Pipeline markers are continuously removed and found missing because of the actions of the general public and are consistently replaced when issues are identified, as observed at Location 4. This issue at Location 4 was promptly remediated when identified by SoCalGas and presented to the inspectors before the conclusion of the inspection on January 30, 2015.

Varying types of conditions were found at the sites identified by Location 5, observed along L-6906. Markers were found bent, broken, and/or vandalized. Six pipeline markers were replaced between Pepper Ave. and Box Elder Ct. in order to be more visible. Additional markers were also modified, replaced, or added along additional parts of this pipeline to properly remediate all identified sites.

B. Audit Identified a Probable Violation of Subpart M, Maintenance, G.O. 112-E, Title 49 CFR Part 192, §192.707(d) Line Markers for Mains and Transmission Lines: Marker Warning states:

"The following must be written legibly on a background of sharply contrasting color on each line marker.

(1) The word "Warning," "Caution," or "Danger" followed by the words "Gas (or name of gas transported) Pipeline" all of which, except for markers in heavily developed urban areas, must be in letters at least 1 inch (25 millimeters) high with ½ inch (6.4 millimeters) stroke."

During the field inspection of SCG Transmission pipelines, SED staff observed line markers at the following locations that contained font size smaller than the requirements:

- 1. Line 2000: MP 127.99
- 2. Line 2000: MP 126.06
- 3. Line 2001: Intersection of Pan Am Blvd and Cottonwood Ave
- 4. Line 2001: Intersection Hildegarde St and Cottonwood Ave
- 5. Line 2001: Intersection of Barbara St and Cottonwood Ave

SCG failed to install the proper size line markers on its pipelines, SED found SCG in violation of G.O. 112-E reference Title 49 CFR Part 192, Section 192.707(d).

Response to Item B

SoCalGas disagrees with the determination by SED. Although Locations 1 and 2 had curb markers displayed on legacy monument posts, line markers were still visible by line of site independent of the monuments.

SoCalGas, at the time of observing the pipeline marker conditions, promptly remediated both sites identified by the inspectors with possible issues regarding font size according to Title 49 CFR Part 192, Section 192.707(d). Proof of the changes to the pipeline markers on Line 2000 was provided to the inspectors before the end of the inspection on January 30, 2015.

Locations 3, 4, and 5 did contain proper curb markers, yet were cited by SED. Title 49 CFR Part 192, Section 192.707(d)(1) permits operators to use less-than-standard letter size on line markers in heavily developed urban areas; these locations are residential class 3 locations.

C. Audit Identified a Probable Violation of Subpart L, Operations, G.O. 112-E, Title 49 CFR Part 192, §192.605 Procedural manual for operations, maintenance, and emergencies

Each operator shall include the following in its operating and maintenance plan:

- (a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least one each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.
- (b) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.
 - (8) Periodically reviewing the work done by operator personnel to determine the effectiveness and adequacy of the procedures used in normal operation and maintenance and modifying the procedure when deficiencies are found.

SCG Gas Standard 189.0001 Odorization, Section 9.2 states, "The results of Odorometer/Odorator tests performed by Transmission district and Distribution Operations region personnel are recorded on Form 3991, Odor intensity Test Report or equivalent electronic form. Odor Intensity Test Reports data is reviewed by the EAC Chemical Section on a quarterly basis."

SED reviewed Odor Intensity Test Reports for 2013 and 2014, and observed that odor intensity test reports, SCG Form 3991 for August 2014, September 2014, October 2014 and December 2014 recorded greater than normal level of the percentage of gas in air (as high as 4.5% gas in air) when the odor of gas was first readily detectable. The regulation required that at a concentration in air of one-fifth of the lower explosive limit (LEL), the gas odor should be readily detectable by a person with a normal sense of smell. Some of the Odor Intensity test data recorded in form 3991implied that the concentration of the gas in air when the gas odor was first readily detectable was greater than the lower explosive limit. SED noted this inaccurate data in previous inspections records of other SCG districts and made recommendations but this issue has not been remedied. There was no evidence that SCG performed routine quality assurance and quality control (QA/QC) of this process and the activities to determine the effectiveness of its procedure and its personnel work product. SCG failed to review the effectiveness of its procedure and its personnel work product. In addition, SCG failed to implement a QA/QC program to prevent recurrence. SCG is in violation of G.O. 112-E Reference Title 49 CFR Part 192, Section 192.605(b)(8)

Response to Item C

SoCalGas disagrees with the determination by SED. The odor intensity reports observed by SED that recorded greater than normal level of the percentage of gas in air when the

odor of gas was first readily detectable was determined to have been an isolated clerical error at the time of the inspection. The actual odor intensity tests for August 2014, September 2014, October 2014, and December 2014 that were found to be out of compliance were completed properly and within regulation required limits. The operator personnel incorrectly filled out the SCG Form 3991, when, in fact, the odor intensity test was at a percentage lower than one-fifth of the lower explosive limit. The instrument used to measure odor intensity requires operators to take the field data read and correlate it to the correct measurement on a chart to convert the instrument read to % gas in air. The technician recorded the data read and not the converted chart measurement. The reads records correlated with a compliant odor intensity test. Once the error on the test report was discovered, it was promptly remediated and sent to the inspectors before the end of the inspection on January 30, 2015.

The SoCalGas Transmission department is in the process of making improvements to its current procedures for gathering data for odor intensity reports that will help reduce errors to the current clerical forms. The new process will include quality assurance and quality control improvements to makes sure that all Transmission data is properly gathered as observed by the operator personnel. SoCalGas has noted and reviewed the issues found from the work done by operator personnel according to Title 49 CFR Part 192, Section 192.605(8) and is currently modifying the procedures to diminish inaccuracies within the required periodic review timetable.

Attachment 2 Response to Areas of Concern

A. Areas of Concern Identified with ETS wire terminations

SCG Gas Standard 186.0075, Electrical Test Station & Bond Assembly, Figures 6 and 7, depicts the SCG's ETS wire installations standard. During the field inspection, SED staff observed that several ETS wire terminations were in non-conformance with SCG Gas Standard 186.0075. SED recommends that SCG follow its Gas Standard and ensure that its employees maintain the ETS wire terminations in accordance with SCG's Gas Standard 186.0075

Response To Item A

SCG Gas Standard 186.0075 contains only suggestions as to type of test stations and installation details for specific applications, as shown on Figures 6 and 7. Therefore, the wire terminations are under the discretion of the operator personnel installing the wires. In addition, reads on the wires were not hindered because of the difference in ETS wire terminations. There are no issues with the current Gas Standard 186.0075 and the procedure used by SoCalGas' employees to install the ETS wires.

B. Areas of Concern Identified with Bell-hole inspection documentation

SCG Gas Standard 223.0095, External and Internal Transmission Pipeline Inspection, Section 6 states, "Pipeline and coating information for transmission pipelines operated by the Gas Transmission Organization (Transmission and Storage) is documented on Form 677-1Pipeline Condition and Maintenance Report, and.....". Gas Standard 223.0095 required employees to document pipeline and coating information on SCG Form 677-1 during a bell-hole inspection. Since 2012, SCG Form 677-1 has undergone several revisions, including last revision in April 2013. However, some of the SCG's bell-hole inspections are not correctly and completely documented on Form 677-1. SCG must verify that all employees are trained and qualified to complete the latest revision of Form 677-1 correctly and completely.

Response to Item B

SCG Form 677-1's last revision was in November 2014, not April 2013. Training is currently underway to make sure that all operator personnel who use SCG Form 677-1 are knowledgeable about the new revision.