

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



August 18, 2016

Jimmie Cho, Senior Vice President  
Gas Operations and System Integrity  
Southern California Gas Company  
555 West 5<sup>th</sup> Street, GT21C3  
Los Angeles, CA 90013

GI-2015-02-SDG48-01A

**Subject: General Order (G.O.) 112-E Operation and Maintenance Inspection of San Diego Gas and Electric Company's (SDG&E) Transmission Pipelines Cathodic Protection Facilities in San Diego and Riverside Counties**

Dear Mr. Cho:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a G.O. 112-E Operation and Maintenance Inspection of SDG&E's Transmission Pipelines Cathodic Protection (CP) Facilities in San Diego and Riverside Counties (Inspection Unit) on February 23 thru 27, 2015. The inspection included a review of the Inspection Unit's cathodic protection and odorant records for calendar years 2013 and 2014. In addition, SED selected pipeline facilities for field inspections in the San Diego transmission district. SED staff also reviewed the Inspection Unit's Operator Qualification records and field observations of randomly selected individuals performing covered tasks.

SED staff identified two probable violation of G.O. 112-E, Reference Title 49 Code of Federal Regulations (CFR), Part 192. SED also made few recommendations during the inspection. The probable violations are noted in the attached "Summary of Inspection Findings".

Please provide a written response within 30 days of receipt of this letter indicating any updates or corrective actions taken by SDG&E. Pursuant to Commission Resolution ALJ-274, SED staff has the authority to issue citations for each violation discussed during the inspection. SED will notify SDG&E of the enforcement action it plans to take after it reviews SDG&E's inspection response.

If you have any questions, please contact Mahmoud (Steve) Intably, at (213) 576-7016.

Sincerely,

A handwritten signature in blue ink that reads "Kenneth A. Bruno".

Kenneth Bruno  
Program Manager  
Gas Safety and Reliability Branch  
Safety and Enforcement Division

CC: Dennis Lee, Program Supervisor, Safety and Enforcement Division, CPUC  
Kan Wai Tong, Senior Utilities Engineer Supervisor, Safety and Enforcement Division, CPUC  
Mahmoud (Steve) Intably, Senior Utilities Engineer, Specialist, Safety and Enforcement Division, CPUC

**Summary of Inspection Findings  
2015 SDG&E Transmission Inspection  
February 23-27, 2015**

**I. SED Identified Probable Violations**

**1). Title 49 CFR, Part 192 §192.707 Line markers for mains and transmission lines**

*(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.*

*(b) Exceptions for buried pipelines. Line markers are not required for the following pipelines:*

*(1) Mains and transmission lines located offshore, or at crossings of or under waterways and other bodies of water.*

*(2) Mains in Class 3 or Class 4 locations where a damage prevention program is in effect under §192.614.*

*(3) Transmission lines in Class 3 or 4 locations until March 20, 1996.*

*(4) Transmission lines in Class 3 or 4 locations where placement of a line marker is impractical.*

*(c) Pipelines above ground. Line markers must be placed and maintained along each section of a main and transmission line that is located above ground in an area accessible to the public.*

*(d) Marker warning. 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 ¼ inch (6.4 millimeters) stroke.*

*(2) The name of the operator and telephone number (including area code) where the operator can be reached at all times."*

**SDG&E Gas Standard G8141 Pipeline Markers, Section 4.1.8** requires that line markers be installed where pipeline cross perpendicular or diagonal to the street.

During the field inspection of SDG&E Cathodic Protection (CP) facilities, SED staff observed that SDG&E pipelines had missing line marker(s) at the following locations where the pipelines crossed streets or Right of Ways perpendicularly or diagonally. SDG&E had previously inspected the pipelines in 2014, and did not note any abnormal conditions on the inspection records:

1. L805 on Enterprise Street between Auto Park Way and Mission Road in Escondido
2. L1601-4.94 near the recreation park area

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

2). **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.”*

SDG&E’s Gas Standard SDG&E G8129, Section 9.2 states, *“The results of Odorator tests performed by Transmission district and Distribution Operations region personnel are recorded on Form 3991SD, Odor intensity Test Report or equivalent electronic form. Odor Intensity Test Reports data is reviewed by the EAC Chemical Section on a quarterly basis.”*

During records review of Odor Intensity Test Reports for 2013 and 2014, and observed that odor intensity test reports, Form 3991SD for January, May, August, September, November, and December 2013, recorded percentage of gas in air that is greater than the prescribed value of 1/5 Lower Explosive Level (LEL). The regulation required that at a concentration in air of one-fifth of the 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 3991SD implied that the concentration of the gas in air when the gas odor was first readily detectable was greater than the lower explosive limit and ranged as high as 4.5% gas in the Upper Explosive Limit (UEL). SED noted this inaccurate data recording in previous inspections of other Sempra Inspection Units and made recommendations but this issue has not been remedied. There was no evidence that SDG&E 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. SDG&E failed to review the effectiveness of its procedure and establish QA/QC program for its personnel work product from this activity. Therefore, SDG&E is in violation of G.O. 112-E Reference Title 49 CFR Part 192, § 192.605(b)(8)

## **II. Concerns and Recommendations**

1. SDG&E’s Gas Standard G8026, 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 677-1SD Pipeline Condition and Maintenance Report, and.....*”. Gas Standard G8026 required employees to document pipeline and coating information on SDG&E’s Form 677-1SD during a bell-hole inspection. SDG&E’s Form 677-1SD has undergone several revisions since 2012, including last revision in April 2013. However, some of the SDG&E’s bell-hole inspections are not correctly and completely documented on Form 677-1SD. SDG&E must verify that all employees are trained and qualified to complete the latest revision of Form 677-1SD, correctly and completely.

2. On February 26, 2015, during the field inspection of SDG&E’s Cathodic Protection (CP) facilities, SED observed that SDG&E’s above ground pipeline was in contact with pipe supports that did not have wear pads to protect the pipe from damage due to friction between the pipe and the pipe supports. The wear pads can also protect the pipe against crevice corrosion. In addition, SED observed that one of the pipe supports was in contact with a stub and in case of thermal expansion or vibration, the pipe support may exert a shear force on the stub cause it to fail. SED recommends that SDG&E take the necessary steps to correct the deficiencies.