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August 4, 2017

Mr. Ken 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 Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a G.O. 112 Inspection of San Diego Gas and Electric Company's (SDG&E) Transmission facilities from April 24 - 28, 2017. The inspection included a review of Inspection Unit's operation and maintenance records for the years 2013 through 2016 and field inspections of a representative sample of the Inspection Units' facilities. SED staff also reviewed the Inspection Unit's Operator Qualification records, which included field observation of randomly selected individuals performing covered tasks.

SED staff identified one probable violation and one area of concern. Attached are San Diego Gas and Electric's written responses.

Please contact Troy A. Bauer at (909) 376-7208 if you have any questions or need additional information.

Sincerely,

Troy A. Bauer

CC:
Terence Eng, SED
Dennis Lee, SED
Kelly Dolcini, SED

ATTACHMENT

## SUMMARY OF INSPECTION FINDINGS

### I. Probable Violations

1. Title 49 CFR §192.5 states:

*(a) "This section classifies pipeline locations for purposes of this part. The following criteria apply to classifications under this section.*

...

*(2) Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.*

...

*(b) Except as provided in paragraph (c) of this section, pipeline locations are classified as follows:*

...

*(4) A Class 4 location is any class location unit where buildings with four or more stories above ground are prevalent."*

During SED's review of Class Location Survey records, SED noted a location (HCA Map 1600_30) where SDG&E had discovered the construction of a major residential building. The complex, Casa Mira View (9800 Mira Lee Way), consists of all five story buildings and SDG&E first discovered the new construction during an annual Class Location Survey on 2/28/2013. SDG&E classified this area as a Class 3 location.

On 3/6/2014, SDG&E's Class Location Survey noted "*465 dwelling units have been built so far and a total of 2167 will be built by the end of the project. Phase 1 should be fully occupied by the end of 2014.*" SDG&E still classified this area as a Class 3 location.

On 3/16/2015, SDG&E's Class Location Survey noted "*810 dwelling units have been built and occupied so far and a total of 2167 will be built by the end of the project. Phase 1 is fully occupied. Phase 2 will begin being occupied in Q3 2015.*" SDG&E still classified this area as a Class 3 location.

On 3/17/ 2016, SDG&E's Class Location Survey noted "*1200 units have been built and occupied so far and a total of 2167 will be built by the end of the project. Phase 2 is 50% occupied.*" SDG&E still classified this area as a Class 3 location.

On 4/27/17, SED conducted a field visit of the area and found that buildings with four or more stories above ground are prevalent. SDG&E failed to classify the residential building complex as a Class 4 location, and is therefore in violation of §192.5(b)(4).

**RESPONSE:**
SDG&E disagrees with the SED determination. SDG&E reviewed the class location sliding mile on map 1600_3 and confirmed the Class Location 3 determination. In addition to this review SDG&E conducted a review each time changes were reported as outlined in the audit letter.

As presented in 49 CFR 192.5, the process for defining the class location around a pipeline is progressive. Class 1 location has the lowest requirement for number of dwellings intended for human occupancy in a class location unit (10 or fewer). A Class 2 location has the requirement for 11 to 45 buildings intended for human occupancy in a class location unit. A Class 3 location has the requirement for 46 or more buildings intended for human occupancy in a class location unit.

While identifying the number of buildings intended for human occupancy, federal code also takes into consideration multi-unit/ high occupancy buildings in section 192.5(2) – "Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy." This addresses the occupancy density for buildings such as apartment and condominium complexes and demonstrate the intent of the class location designations to focus on localized population density.

Class 4 location is the final class location and prescribes any class location unit where buildings with four or more stories above ground are prevalent.

A specific definition for "prevalent" has not been codified. The term has been referenced in a number of interpretation responses that the common dictionary should be used. As a result, pipeline operators are required to make a determination on defining "prevalent."

Various sources define the term "prevalent" as "wide spread or commonly occurring" and SoCalGas and SDG&E (together referred to as Utilities) concluded that Class 4 location is to have a higher human occupancy around the pipeline compared to Class 3 location where buildings with 4 or more stories above ground are prevalent.

Based on consideration of the minimum requirement for a Class 3 location of 46 buildings, SoCalGas and SDG&E adopted the position that there must be 23 or more aboveground, four or more story buildings in a given Class location unit to be classified as a Class 4 location to be considered prevalent. **In other words, a Class 4 location would require 46 or more dwellings intended for human occupancy, as well as 23 or more buildings with four or more stories.**

The value of 23 was derived by taking 50% of the minimum number of buildings to meet a Location Class 3. The 50% value was used to define the threshold of 4 story or more buildings required to be Class 4. The use of a fixed threshold for Class 4 is consistent with the approach to define Class 1 through 3 and allows for newer GIS technologies to perform the process and the determination of the term "prevalent" is consistent and repeatable across the Utilities gas system network.

SDG&E Gas Standard G8121 (3.9) defines class location 4 as follows:

"A Class Location unit containing 23 or more buildings with four or more stories above ground (including parking levels and structures). A Class 4 location ends 220 yards (200 meters) from the nearest building with four or more stories above ground."

The reason this pipeline segment does not meet the SDG&E criteria of Class Location 4 is due to the existence of less than 23 four-story buildings in the sliding mile. SDG&E class location map 1600_30 shows an apartment complex on the north of Mira Mesa Blvd consisting of 26 four-story buildings, however only 20 are located within 660 feet of the pipeline. There is an additional four-story building south of Mira Mesa Blvd, which brings the total count to 21 4-story buildings in the sliding mile. As per the regulation, SDG&E does consider dwelling unit count as part of its determination. The number of dwellings intended for human occupancy establishes the area as location class 3, and the sliding mile does not achieve the 23 buildings established as the criteria for the Utilities definition for determining a location class 4.

The Utilities believe that they have prudently applied a criterion for determining class 4 location that is alignment with regulations and interpretations available. If the CPUC is not in agreement, we would like to meet to discuss potential alternatives and the possible impacts of a change in the building count number.

**CORRECTIVE ACTION:**

None required

## II. Recommendations

1. During SED's field inspection of Leakage Surveys, SED noted that conditions of the terrain along the pipeline can vary drastically, where the pipeline may alternate between over and under a paved surface. Each of SDG&E's Leakage Surveying tools (OMD, DP-IR, etc.) has its own advantages and disadvantages, depending on terrain and weather conditions. However, this information is not documented, which may result in Leak Surveyors attempting to use a tool that is disadvantageous to use. Leak Surveyors currently make a determination of which tool to use for each situation based on experience.

   SED recommends documenting the ideal tool(s) to be used on each Leakage Surveying map so that Leak Surveyors can reference the maps to be advised of the best tool(s) to use.

**RESPONSE:**

SDG&E agrees that each leakage survey tool has advantages and disadvantages. Many of the pipelines SDG&E operates require the use of multiple tools to complete a leakage survey depending on the terrain, weather conditions (drought, above average rainfall, etc.) and other environmental factors. SDG&E will address the issue of identifying the proper leak survey tool and its capabilities by providing additional guidance to employees in Gas Standards; G8138 "Optical Methane Detector Operation and Maintenance" and G8145 "Leakage Surveys". All affected employees will be provided training on the Gas Standard updates.