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April 14, 2021

Mr. Terence Eng, P.E.
Program Manager, Gas Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Ave, 2nd Floor
San Francisco, CA 94102

Dear Mr. Eng:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a **General Order (G.O.) 112-F Comprehensive Review and Inspection of Southern California Gas Company (SoCalGas)'s Operation and Maintenance (O&M) Procedures** on January 11 through January 15, 2021. SED staff reviewed SDG&E's written O&M procedures pursuant to G.O. 112-F, Reference Title 49, Code of Federal Regulations (CFR), Parts 191 & 192, and used Pipeline and Hazardous Materials Safety Administration (PHMSA)'s Inspection Assistance (IA) as a reference guide to conduct the inspection.

SED staff identified six (6) areas of concern. Attached are SoCalGas' written responses.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Troy A. Bauer".

Troy A. Bauer
Pipeline Safety and Compliance Manager

CC:

Gwen Marelli, SoCalGas
Mahmoud Intably, SED
Kan-Wai Tong, SED
Desmond Lew, SED
Claudia Almengor, SED

**2021 SoCalGas Operation and Maintenance Audit
01/11/2021 to 11/15/2021**

Concern(s)

1. Title 49 CFR Part 192, §192.505(d) - Strength test requirements for steel pipeline to operate at a hoop stress of 30 percent or more of SMYS states:

“For fabricated units and short sections of pipe, for which a post installation test is impractical, a preinstallation strength test must be conducted by maintaining the pressure for at least 4 hours.”

SoCalGas Gas Standard (GS) 182.0170 Strength Testing - High Pressure Pipelines and Facilities, §4.5.2, states in part:

“Horizontally Directionally Drilled (HDD) pipe where a post-installed pressure test failure would be difficult to locate, repair or replace, shall be pretested for a minimum test duration of 4 hours at the planned post-construction hold pressure if the pipe segment will be operating at 30% SMYS or greater.”

SED recommends SoCalGas revise this section to be consistent with the language stated in the regulation and to remove any ambiguity or misconception of the meaning that includes addressing:

- “short sections of pipe” and
- “a preinstallation strength test must be conducted”

SoCalGas Response:

A post-installation pressure test is required for all HDDs as stated in SoCalGas GS 182.0170. For the sake of clarity, we added the following changes to SCG 182.0170 Section 4.5.2.: The term “*planned hold post-construction pressure*” has been changed to “*planned hold post-installation test pressure*,” and the statement was revised to clarify the need for a post-installation pressure test, “*Regardless of whether a pre-test is completed, a post-installation pressure test is required to be performed that meets the requirements in Table 2.*”

Section 4.5.1 addresses the pressure test requirements for “short sections of pipe” which meets the requirements of 192.505 (d).

2. SED reviewed SoCalGas’ Gas Standard (GS) 223.0075, Pipeline Markers for compliance in the course of this inspection. §2.3 of the GS states:

"The installation and maintenance of pipeline markers must be conducted by trained personnel familiar with the location and operation of the pipeline."

While trained personnel may be knowledgeable in installing and maintaining pipeline, unless they have been qualified, they cannot perform the covered task "maintaining line markers for buried main and transmission". SED recommends SoCalGas to revise §2.3 to replace "trained personnel" with "qualified personnel" and to ensure consistency with §6 Operator Qualification Covered Tasks, Covered Task 08.02 – Title 49 CFR, Part 192, §192.707 Maintaining line markers for buried main and transmission lines.

SoCalGas Response:

In September 2020 the Gas Standard 223.0075 section 2.3 was updated to state as follows:

*2.3. The installation and maintenance of pipeline markers must be conducted by **qualified** and trained personnel familiar with the location and operation of the pipeline.*

3. Title 49 CFR, Part 192, §192.461(c) External corrosion control: Protective coating states that:

"Each external protective coating must be inspected just prior to lowering the pipe into the ditch and backfilling, and any damage detrimental to effective corrosion control must be repaired."

SoCalGas' Gas Standard (GS) 186.0117 - External surface preparation and shop-applied coating for high pressure corrosion service areas, §4.8 – Inspection, provides conditions and requirements for inspection. §4.8 did not address that the coating must be inspected just prior to lowering the pipe in the ditch. SED recommends SoCalGas to revise its GS 186.0117, §4.8 to be consistent with the language in §192.461(c).

SoCalGas Response:

GS 186.0117 is for above ground paints that can be applied in the field and or the shop. This document is currently being updated in connection with its 5-year review and the following changes will be made:

- The current publication does not state "for above ground" but will be incorporated in the PURPOSE and/or POLICY AND SCOPE on the next publication.
- CFR 192.461(c) does not apply to GS186.0117 and will be removed from the O&M 49 CFR impacted sections.

A Notice of Publication of this Gas Standard is scheduled for June 2021.

4. Title 49 CFR Part 192, §192.505(d) - Strength test requirements for steel pipeline to operate at a hoop stress of 30 percent or more of SMYS states:

“For fabricated units and short sections of pipe, for which a post installation test is impractical, a preinstallation strength test must be conducted by maintaining the pressure for at least 4 hours.”

SoCalGas Gas Standard (GS) 182.0170 Strength Testing - High Pressure Pipelines and Facilities, §4.5.2, states in part:

“Horizontally Directionally Drilled (HDD) pipe where a post-installed pressure test failure would be difficult to locate, repair or replace, shall be pretested for a minimum test duration of 4 hours at the planned post-construction hold pressure if the pipe segment will be operating at 30% SMYS or greater.”

SED recommends SoCalGas revise this section to be consistent with the language stated in the regulation and to remove any ambiguity or misconception of the meaning that includes addressing:

- “short sections of pipe” and
- “a preinstallation strength test must be conducted”

SoCalGas Response:

A post-installation pressure test is required for all HDDs as stated in SCG 182.0170. For the sake of clarity, we added the following changes to SCG 182.0170 Section 4.5.2:

The term “*planned hold post-construction pressure*” has been changed to “*planned hold post-installation test pressure;*” and the statement was revised to clarify the need for a post-installation pressure test, “*Regardless of whether a pre-test is completed, a post-installation pressure test is required to be performed that meets the requirements in Table 2.*”

Section 4.5.1 addresses the pressure test requirements for “short sections of pipe” which meets the requirements of 192.505 (d).

5. SoCalGas Gas Standard (GS) 184.0031 Pressure Monitoring of Distribution Systems was reviewed for compliance in the course of this inspection. SoCalGas GS 184.0031 §3.2 defines the Under-Pressure condition as "an event ... which results in a pressure less than the established Minimum Operating Pressure for that system and results in any part of the pipeline system being shut down and results in at least one customer outage".

G.O. 112-F, Subpart B-Reports, §122.2(a)(4) defines an under-pressure incident, in part: "...results in any part of the gas pipeline system losing service or being shut-down.". SED interprets the language in §3.2 as possibly differing in scope because of this variance in

verbiage. Therefore, SED recommends SoCalGas revise GS 184.0031 to be consistent with the G.O. and remove any ambiguity.

SoCalGas Response:

SoCalGas GS184.0031 was revised to reflect the definition of an Under-Pressure Condition as stated in GO112-F. The updates were made to the “Purpose” part of the standard and Sections 3.2 and 6.5. The previous definition was “An event caused by the failure of any pressure controlling device, or any other unplanned event other than excavation related damage, that results in any part of the gas pipeline system being shut down and resulting in at least one customer outage.” The revised definition is “An event caused by the failure of any pressure controlling device, or any other unplanned event other than excavation-related damage, in the pipeline system which results in any part of the pipeline system losing service or being shut-down.” Examples are given, which include an exclusion for the activation of a slam-shut regulator and an Under-Pressure Condition, defined as “An event that results in a pressure less than the established Minimum Operating Pressure for the system, and results in at least one customer outage”.

6. SED reviewed SoCalGas’ Gas Standard (GS) 223.0075, Pipeline Markers for compliance in the course of this inspection. §2.3 of the GS states:

"The installation and maintenance of pipeline markers must be conducted by trained personnel familiar with the location and operation of the pipeline."

While trained personnel may be knowledgeable in installing and maintaining pipeline, unless they have been qualified, they cannot perform the covered task “maintaining line markers for buried main and transmission”. SED recommends SoCalGas to revise §2.3 to replace “trained personnel” with “qualified personnel” and to ensure consistency with §6 Operator Qualification Covered Tasks, Covered Task 08.02 – Title 49 CFR, Part 192, §192.707 Maintaining line markers for buried main and transmission lines.

SoCalGas Response:

In September 2020 the Gas Standard 223.0075 section 2.3 was updated to state as follows:

*2.3. The installation and maintenance of pipeline markers must be conducted by **qualified** and trained personnel familiar with the location and operation of the pipeline.*