

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



April 7, 2022

GI-2022-01-SCG-40-03-04

Mr. Rodger Schwecke  
Senior Vice President and Chief Infrastructure Officer  
Southern California Gas Company  
555 West 5th Street, GT21C3  
Los Angeles, CA 90013

Dear Mr. Schwecke:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission (CPUC) conducted a **General Order (G.O.) 112-F comprehensive and full review inspections of Southern California Gas Company (SoCalGas)'s Operation & Maintenance Procedures and Emergency Plan (OME Procedures Inspection)** on January 10 through 14 and January 18 through 21, 2022. SED staff reviewed SoCalGas' written OME procedures pursuant to G.O. 112-F, Reference Title 49, Code of Federal Regulations (CFR), Parts 191 & 192, and used the Pipeline and Hazardous Materials Safety Administration's (PHMSA) Inspection Assistance (IA) as a reference guide to conduct this inspection.

SED staff did not identify any probable violations of G.O. 112-F, Reference Title 49 CFR, Parts 191 & 192, but noted eight (8) areas of concern within the Transmission and Distribution Procedures, which are described in the attached "Post-Inspection Written Preliminary Findings" reports.

Please provide a written response within 30 days of your receipt of this letter indicating the measures taken by SoCalGas to address the concerns noted in the "Post-Inspection Written Preliminary Findings".

Thank you for your cooperation in this inspection. If you have any questions, please contact Sann Naing, Senior Utilities Engineer (Specialist), at (213) 266-4723 or by email at [sn1@cpuc.ca.gov](mailto:sn1@cpuc.ca.gov).

Sincerely,

A handwritten signature in blue ink that reads "Terence Eng".

Terence Eng, P.E.  
Program Manager  
Gas Safety and Reliability Branch  
Safety and Enforcement Division

CC: Sann Naing, SED/GSRB  
Alex Hughes, SoCalGas  
Gwen Marelli, SoCalGas  
Kan Wai Tong, SED/GSRB  
Claudia Almengor, SED/GSRB  
Matthewson Epuna, SED/GSRB

# Post-Inspection Written Preliminary Findings

**Dates of Inspection:** January 10-14 and January 18-21, 2022

**Operator:** SOUTHERN CALIFORNIA GAS CO

**Operator ID:** 18484 (primary)

**Inspection Systems:** Transmission OME Procedures

**Assets (Unit IDs) with results in this report:** SoCalGas' Main Office Inspection - Transmission (88388)

**System Type:** GT

**Inspection Name:** 2022\_SoCalGas Transmission OME Procedures

**Lead Inspector:** Sann Naing

**Operator Representative:** Austin Walker

## Unsatisfactory Results

**No Preliminary Findings.**

## Concerns

### Design and Construction: Construction Welding Procedures (DC.WELDPROCEDURE)

Question Title, ID Welding Procedures, DC.WELDPROCEDURE.WELD.P

Question 1. Does the operator have written specifications requiring qualified welding procedures in accordance with 192.225?

References 192.225

Assets Covered SoCalGas' Main Office Inspection - Transmission (88388 (40A))

Issue Summary SoCalGas Gas Standard (GS) 187.0055 -General Welding Requirements requires welding on its pipeline to be done by qualified welders using welding procedure specifications (WPS) qualified by SoCalGas. However, Section 1.2 of the standard states "API 1104 is typically used to qualify welders and welding procedures for pipeline applications where there is a low exposure to cycling or thermal stresses." On January 13, 2022, SED held a meeting with SoCalGas' process owner for this GS, and learned that while the verbiage was accurate, SoCalGas' welding procedure specifications are qualified by API 1104 as a rule. SED recommends SoCalGas to strengthen the language in the GS 187.0055 to cite its usage of API 1104 or any other industry standard approved by 49 CFR Part 192 for qualifying the welders and welding procedures.

On February 8, 2022, SoCalGas provided additional information via an email that stated the GS 187.0055 is currently undergoing extensive revisions and will review SED recommendations. SED requests SoCalGas to elaborate upon its corrective action(s) and outline the key points of its revisions if the updated version has not published.

## Design and Construction: Design of Pipe (DC.DP)

Question Title, ID Steel Pipe Design Factor, DC.DP.PIPEDESFACTOR.P

Question 7. Does the operator have written procedures for determining the Design Factor to be used for steel pipe as required by 192.111?

References 192.111 (192.103, 192.105, 192.107, 192.109, 192.112, 192.115, 192.121, 192.123, 192.125, 192.303, 192.305, 192.307)

Assets Covered SoCalGas' Main Office Inspection - Transmission (88388 (40A))

Issue Summary Per review of SoCalGas GS 182.0200 – Design Factors for Steel Piping Systems, SED identified a table within Section 4.2 of the standard (Table 1), which had duplicate lines for "uncased crossing of railroad right of way". The first line referring to this scenario, second in order from the top, had unadjusted design factor values for Class 1 and 2 locations ("0.72", "0.60"). The second line with the correct values can be found on the seventh row (second from the bottom). SoCalGas stated the table values will be revised by removing the first entry.

During SED's follow-up correspondence with the SoCalGas' Pipeline Safety Compliance team, SoCalGas determined that the duplicate line had been present since 1998 which was when the first Document Library version of the Gas Standard was uploaded digitally. Further review found the duplicate line had been present in GS 182.0200 since 1992. The current Document Library in use was created in 1998. While this error is present in the current GS, SoCalGas stated that the DDS Manager planning tool references the correct derating values during pipe design and construction activities and provided supporting evidence. According to SoCalGas, this tool was implemented in the mid-1990s. In addition to the DDS Manager, SoCalGas also stated that Gas Engineering currently reviews and approves pipeline installations for Part 192 compliance.

SoCalGas completed its revision and removed the erroneous derating factor as of February 2, 2022.

SED accepts SoCalGas' proposed corrective actions. However, SED recommends notifying SoCalGas' Integrity Management and other appropriate work groups the possible impact on uncased Class 1 and 2 pipeline crossings with railroad right of way due to this erroneous derating factor in the previous versions of this gas standard. In addition, SED may revisit this matter in subsequent inspections.

## Emergency Preparedness and Response: Emergency Response (EP.ERG)

1) Question Title, ID Emergency Plan Review, EP.ERG.REVIEW.P

Question 1. Does the process include a requirement to review the manual at intervals not exceeding 15 months, but at least once each calendar year?

References 192.605(a)

Assets Covered SoCalGas' Main Office Inspection - Transmission (88388 (40A))

Issue Summary

Title 49 CFR Part 192, §192.605(a) states in part:

*"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 once each calendar year...."*

SoCalGas' Emergency Management Preparedness and Response Policy (ER-1), Section 5.1.1 Operation Emergency Manuals states in part:

*"... Applicable OEM standards are reviewed each calendar year as part of the Operations and Maintenance plan review. ..."*

SED recommends SoCalGas revise this section to be consistent with the language stated in the regulation including *"at intervals not exceeding 15 months, but at least once each calendar year"* to avoid potential misleading and misunderstanding, and to be precise with code language.

On February 8, 2022, SoCalGas, provided additional information via an email, stating that it has republished the ER-1 to include "at intervals not exceeding 15 months, but at least once each calendar year" and provided the revised version. SED has reviewed SoCalGas' response and accepts the corrective action that it has articulated and implemented.

SoCalGas' Emergency Management Preparedness and Response Policy (ER-1), Section 5.1.1 states in part:

*"...Each Region maintains an OEM which includes standards that have been identified as essential to sustaining operations and maintenance during an emergency....."*

*Applicable OEM standards are reviewed each calendar year as part of the Operations and Maintenance plan review. ..."*

SED randomly reviewed some of the Operation Emergency Manuals (OEM) (for example OEM 01.010-I – Emergency Incidents/Local Instructions) and found that no review date was recorded in the document profile summary box of the document. In addition, SoCalGas said that it currently does not have a system to keep track of review of OEMs. SED recommends SoCalGas to have a system to keep track of reviews of its OEMs.

On February 8, 2022, SoCalGas, provided additional information via an email, which stated that it is currently undergoing a document library update and has provided project requirements for future implementation of SED's recommendation. SED requests SoCalGas to elaborate upon its corrective action(s) and outline the key points of its revisions if the updated version has not been published.

2) Question Title, ID Emergency Response, EP.ERG.READINESS.P

Question 9. Does the process include procedures for ensuring the availability of personnel, equipment, tools, and materials as needed at the scene of an emergency?

References 192.615(a) (192.615(a)(4))

Assets Covered SoCalGas' Main Office Inspection - Transmission (88388 (40A))

Issue Summary Title 49 CFR Part 192, §192.615 Emergency plans states in part:

*"(a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:*

*(1)...(4) The availability of personnel, equipment, tools, and materials, as needed at the scene of an emergency."*

SoCalGas stated that its Gas Standard (GS) 183.0130 - Materials and Supplies for Emergency Situations addresses the availability of equipment and tools during emergency response as well.

SED reviewed SoCalGas' GS 183.0130 and Operation Emergency Manual (OEM) document 06.050-COM - Emergency Materials - Pico Rivera. SED noticed that the standards mostly address materials and supplies but did not explicitly address procedures for availability of tools. SED recommends SoCalGas to review its standards that address §192.615(a)(4) and revise them to address the items in the language as prescribed in the code.

## **Maintenance and Operations: Gas Pipeline MAOP (MO.GOMAOP)**

Question Title, ID Normal Operations and Maintenance Procedures, MO.GOMAOP.MAOPLIMIT.P

Question 2. Does the process include requirements for starting up and shutting down any part of the pipeline in a manner to assure operation with the MAOP limits, plus the build-up allowed for operation of pressure-limiting and control devices?

References 192.605(a) (192.605(b)(5))

Assets Covered SoCalGas' Main Office Inspection - Transmission (88388 (40A))

Issue Summary SoCalGas Gas Standard (GS) 223.0145 - Planning Shutdowns for Transmission and Storage lists the Title 49 CFR Part 192, §192.605(b)(5) to be the code that impacted the standard (i.e. the standard satisfies this code section).

§192.605 Procedural manual for operations, maintenance, and emergencies states in part:

*"... (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.*

*(1)...(5) Starting up and shutting down any part of the pipeline in a manner designed to assure operation within the MAOP limits prescribed by this part, plus the build-up allowed for operation of pressure-limiting and control devices."*

GS 223.0145 does not explicitly mention MAOP limits as prescribed by code even though the standard implies the safe shutting down operations for completion. SoCalGas should amend this procedure to include the language prescribed by this code to explicitly state that during starting up and shutting down, the pressure of the pipeline must stay within the MAOP limits, plus the build-up allowed for operation of pressure-limiting and control devices if it does not reference any other procedures within its Operations and Maintenance Plan (O&M Plan) that meet these code section requirements.

On February 8, 2022, SoCalGas, provided additional information via an email, which stated that GS 223.0145 will be revised and republished on May 1, 2022. SED requests SoCalGas to elaborate upon its corrective action(s) and outline the key points of its revisions if the updated version has not been published.

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## Post-Inspection Written Preliminary Findings

**Dates of Inspection:** January 10-14 and January 18-21, 2022

**Operator:** SOUTHERN CALIFORNIA GAS CO

**Operator ID:** 18484 (primary)

**Inspection Systems:** Distribution OME Procedures

**Assets (Unit IDs) with results in this report:** SoCalGas' Main Office Inspection - Distribution (88391)

**System Type:** GD

**Inspection Name:** 2022\_SoCalGas Distribution OME Procedures

**Lead Inspector:** Sann Naing

**Operator Representative:** Austin Walker

## **Unsatisfactory Results**

**No Preliminary Findings.**

### **Concerns**

#### **Assessment and Repair: Repair Criteria (O and M) (AR.RCOM) & Time-Dependent Threats: Internal Corrosion - Preventive Measures (TD.ICP)**

Question Title, ID Repair of Corroded Pipe, AR.RCOM.REPAIR.P (also presented in: TD.ICP)

Question 1. Does the process give sufficient guidance for personnel to repair or replace pipe that has corroded to an extent that there is no longer sufficient remaining strength in the pipe wall?

References 192.605(b)(2) (192.487(a), 192.487(b), 192.489(a), 192.489(b), 192.491(c))

Assets Covered SoCalGas' Main Office Inspection - Distribution (88391 (40B))

Issue Summary SoCalGas' Gas Standard (GS) 182.0050 - Predicted Failure Pressure Analysis for Corrosion Metal Loss, Section 1.6 states, "distribution pipe ... where uniform corrosion or closely grouped corrosion pitting results in large areas of pipe where the remaining wall thickness is less than 30% nominal wall, should be repaired or replaced". Section 3.9 defines "should" as "a recommendation that is desirable to follow whenever possible. Deviating from the recommendation does not require documentation or approval." and Section 3.8 defines "shall" as "a requirement that must be followed or its exception must be approved and documented in accordance with Section 5 of this standard."

§192.487 states in part:

"...distribution line pipe with a remaining wall thickness less than that required for the MAOP of the pipeline, or a remaining wall thickness less than 30 percent of the nominal wall thickness, must be replaced. However, corroded pipe may be repaired by a method that reliable engineering tests and analyses show can permanently restore the serviceability of the pipe."

SED interprets the verbiage GS 182.0050, particularly between "should" and "shall", to be less stringent than Part 192 requirements.

On January 21 and February 8, 2022, SoCalGas, provided additional information via emails, which stated that GS 182.0050 is not applicable for distribution pipelines with a remaining wall thickness less than 30% of the nominal wall and that Section 1.6 will be revised. SoCalGas also stated that the reader will be directed to GS 186.02 – Inspection of Exposed Pipe for remediation guidance.

SED has reviewed SoCalGas GS 186.02 Section 4.3.1.5.1 which states: "Replace each segment of generally corroded pipe when the depth of the corrosion 70% or more of the nominal wall thickness. See GS G8146, *Replacement Criteria for Distribution Mains and Services*."

SED accepts SoCalGas' corrective plan that it has articulated. However, SED may review the records of the corrective action during future inspections.

#### **Design and Construction: Construction Welding Procedures (DC. WELD PROCEDURE)**

Question Title, ID Welding Procedures, DC. WELD PROCEDURE.WELD.P

Question 1. Does the process require welding to be performed by qualified welders using qualified welding procedures and are welding procedures and qualifying tests required to be recorded in detail?

References 192.225(a) (192.225(b))

Assets Covered SoCalGas' Main Office Inspection - Distribution (88391 (40B))

Issue Summary SoCalGas GS 187.0055 - General Welding Requirements requires welding on its pipeline to be done by qualified welders using welding procedure specifications (WPS) qualified by SoCalGas. However, Section 1.2 of the standard states "API 1104 is typically used to qualify welders and welding procedures for pipeline applications where there is a low exposure to cycling or thermal stresses." On January 13, 2022, SED held a meeting with SoCalGas' process owner this GS, and learned that while the verbiage was accurate, SoCalGas' welding procedure specifications are qualified by API 1104 as a rule. SED thus recommends SoCalGas to strengthen the language in GS 187.0055 to precisely cite its usage of API 1104 or any other industry standard approved by 49 CFR Part 192 for qualifying the welders and welding procedures.

On February 8, 2022, SoCalGas, provided additional information via an email that stated the GS 187.0055 is currently undergoing extensive revisions and will review SED recommendations. SED requests SoCalGas to elaborate upon its corrective action(s) and outline the key points of its revisions if the updated version has not published.

## Emergency Preparedness and Response: Emergency Response (EP.ERG)

Question Title, ID Emergency Response, EP.ERG.READINESS.P

Question 4. Does the process include procedures for ensuring the availability of personnel, equipment, tools, and materials as needed at the scene of an emergency?

References 192.615(a) (192.615(a)(4))

Assets Covered SoCalGas' Main Office Inspection - Distribution (88391 (40B))

Issue Summary Title 49 CFR Part 192, §192.615 Emergency plans states in part:

*"(a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:*

*" ... (4) The availability of personnel, equipment, tools, and materials, as needed at the scene of an emergency."*

SoCalGas stated that its GS 183.0130 - Materials and Supplies for Emergency Situations addresses the availability of equipment and tools during emergency response as well.

SED reviewed SoCalGas' Gas Standard 183.0130 and Operation Emergency Manual (OEM) document 06.050-COM - Emergency Materials - Pico Rivera. SED noticed that the standards addressed materials and supplies but did not explicitly address procedures for availability of tools. SED recommends SoCalGas to review its standards that addressed §192.615(a)(4) and revise them to address the items in the language as prescribed in the code.