

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



January 20, 2021

GI-2020-04-SCG-40-08 / GI-2020-04-SDG-53-08

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

SUBJECT: General Order 112 Inspection of the Southern California Gas Company's and San Diego Gas and Electric Company's Gas Transmission Integrity Management Program (TIMP).

Dear Mr. Schwecke:

On behalf of the Safety and Enforcement Division (SED) of the California Public Utilities Commission, Paul Penney, Kai Cheung, James Zhang and Chirag Patel conducted a General Order 112 inspection of Southern California Gas Company (SoCal Gas) and San Diego Gas and Electric Company (SDG&E) Transmission Integrity Management Programs (TIMP) the weeks of April 20-24, 2020, April 27- May 1, 2020 and July 20-24, 2020. The inspection included a review of procedures and records related to the TIMP in-line inspection (ILI) program.

A summary of the inspection findings documented by SED, SDG&E and SoCal Gas response to our findings, and SED's evaluation of PG&E's response taken for each finding are outlined for each violation, concern and recommendation in this letter. Where indicated below, please provide a written response where GSRB has found SoCalGas/ SDG&E's response to be inadequate.

This letter serves as the official closure for all issues identified in the 2020 Inspection of SDG&E and SoCal Gas's TIMP – ILI Focused, except for the last issue which remains open.

If you have any questions, please call Paul Penney at (415) 703-1817.

Sincerely,

A handwritten signature in blue ink that reads "Dennis Lee".

Dennis Lee, P.E.
Program & Project Supervisor
Gas Safety and Reliability Branch
Safety and Enforcement Division

cc: Terence Eng, GSRB
Paul Penney, GSRB
Mahmoud Intably, GSRB
Kan-Wai Tong, GSRB
Khoa Le, SoCal Gas and SDG&E
Gwen Marelli, SoCal Gas and SDG&E

Post-Inspection Written Findings

Dates of Inspection: 4-20→4-24-20 (Week 1); 4-27→5-1-20 (Week 2); and 7-20→7-24-20 (Week 3)

Operator: SOUTHERN CALIFORNIA GAS CO/ SDG&E

Operator ID: 18484 (primary)

Inspection Systems: Entire Gas Transmission System

Assets (Unit IDs): SoCalGas' Main Office Inspection - Transmission (88388)

System Type: GT

Inspection Name: (2020) SEMPRA TIMP Audit - ILI Focused

Lead Inspector: Paul Penney

Operator Representative: Khoa Le, et all

Unsatisfactory Results

1) Assessment and Repair: Special Permits (AR.SP)

Question Text If the pipeline operates under a special permit have the processes been modified to incorporate the requirements of the permit for required ILI assessments performed?

References 190.341

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

Issue Summary To SoCal's knowledge, they are not operating under any special permits (as of 7-24-20).

The procedure for special permits is in 183.08. It includes Emergency special permits but does not have language for non-emergency special permits. SEMPRA stated they will update the procedure for non-emergency special permits. This is a violation of 192.947(d) for not having a procedure per 190.341.

Please verify the procedure has been updated.

SDG&E and SoCal Gas's Response:

SoCalGas and SDGE agree to update procedures to address the aforementioned issue.

SoCalGas/SDG&E Corrective Action:

SoCalGas and SDG&E have updated procedure 183.08 to include language regarding PHMSA Special Permits. Section 4.7 describes the process for PHMSA Special Permits and Section 4.8 describes the process for PHMSA 'Emergency' Special Permits.

GSRB's Conclusion:

SoCalGas and SDG&E's response adequately addresses this finding.

2) Integrity Management : Continual Evaluation and Assessment (IM.CA)

Question Text Do records demonstrate that periodic evaluations of pipeline integrity have been performed based on data integration and risk assessment to identify the threats specific to each covered segment and the risk represented by these threats?

References 192.947(d) (192.917(a), 192.917(b), 192.917(c), 192.917(d), 192.917(e), 192.937(b))

Issue Summary **Data Request (DR) #15** asked the following questions:

1. What other assessment technique did SoCal Gas/ SDG&E use to assess for the identified threats on the missed footage?

Utility response: ILI was the only method performed for the entire extent of the assessment.

2. If SoCal Gas/ SDG&E didn't assess the missed footage, please explain in detail why.

Utility response: The lack of data at bends and certain features is a limitation of the robotic tool and is due to retracting sensors to traverse the aforementioned features. SoCalGas reviewed the results from the entire survey and concluded the missing data at bends/elbows was not detrimental to the integrity of the pipeline for the following reasons:

1. There were no internal/external metal loss or deformation features detected by the ILI tool in the over 90% of successful inspection data for the pipeline; and 2. There were no internal/external metal loss or deformation features detected just before or immediately after the missed bend/elbow features throughout the entire inspection (see Sections 9 & 10 in the assessment package: pages 61 & 69) indicating metal loss and third-party damage features were not present on the pipeline following the inspection.

DR #42 was a follow up to **DR #15**. It asked where the procedure documented in SoCal/SDG&E's response is located.

SoCal/SDG&E's response was that the procedure was in **GS 167.0210, paragraph 8.7.2**. However, this paragraph does not adequately explain the procedure SoCal/SDG&E used as described in SoCal/SDG&E's response to DR #15.

SoCal/SDG&E also responded in DR #45 that **GS 167.0210, paragraph 8.7.3** describes the process described in DR15. **SED staff disagrees**. There is no specific language in **GS 167.0210, paragraph 8.7.2 or 8.7.3** that assures that missed features are evaluated, and where needed, additional integrity assessment techniques used to assess the missed features.

Per 192.947(d), please provide updated language for GS 167.0210, paragraph 8.7.2 or 8.7.3 to reflect the need to evaluate and address both robotic articulating ILI tools, traditional ILI tools and other ILI tools when features and other appurtenances (i.e., 45 degree elbows, 90 degree elbows, etc.) are not interrogated (i.e., sensors do not pick up internal and external corrosion, etc.) and document the analysis. Further, the procedure should include when to use additional assessment techniques to assess the missed footage. Therefore SoCalGas/SDG&E is in violation of 192.947(d).

SDG&E and SoCal Gas's Response:

SoCalGas and SDGE agree to update procedures to address the aforementioned issue.

SoCalGas/SDG&E Corrective Action:

SoCalGas and SDG&E will add language to GS 167.0210 that requires an engineer to evaluate features that were not inspected by ILI tools due to sensor loss, including documentation of the analysis and the use of additional assessment methodologies to evaluate the integrity of those features when necessary. The standard will be updated as soon as practicable.

GSRB's Conclusion:

SoCalGas and SDG&E's response adequately addresses this finding.

3) Integrity Management : Preventive and Mitigative Measures (IM.PM)

Question Text Does the process include requirements to decide if automatic shut-off valves or remote control valves represent an efficient means of adding protection to potentially affected high consequence areas?

References 192.935(c)

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

Issue Summary **SEMPRA's procedure 167.0214 (Preventative and Mitigative Measures), Section 4.11.2 is not adequate.** It does not include any information about SoCal/ SDG&E's Pipeline Safety Enhancement Program (PSEP) program and the decision tree requirements for selecting locations for Automatic Shut-off Valves (ACVs) and Remote Control Valves (RCVs), nor does it reference Gas Standard 223.023, the standard used by SoCal/SDG&E in making decision related to the Valve automation program and complying with PSEP. This standard is used by the Regulation, Measurement and Control group to make decisions related to the PSEP program and decisions about other valves to include in the program. Therefore SoCalGas/SDG&E is in violation of 192.947(d).

SDG&E and SoCal Gas's Response:

SoCalGas and SDGE agree to update procedures to address the aforementioned issue

SoCalGas/SDG&E Corrective Action:

SoCalGas and SDG&E have updated the Preventative and Mitigative Measures Gas Standards (167.0214/G8186) to further describe the process for selecting ASVs and RCVs. The update includes a reference to Gas Standard 223.0223, Valve Automation, which details the criteria and analysis for determining ASV/RCV capabilities and installations.

Sections 4.11.2 in SoCalGas (167.0214) and SDGE (G8186) procedures have been revised to describe the ASV/RCV selection process as requested.

GSRB's Conclusion:

SoCalGas and SDG&E's response adequately addresses this finding.

4) Integrity Management : Quality Assurance (IM.QA)

Question Does the process for measuring IM program effectiveness include the elements necessary to conduct a Text meaningful evaluation?

References 192.945(a) (192.913(b), 192.951)

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

Issue
Summary

This item was in the 2019 SEMPRA TIMP audit letter; **SEMPRA's response was not adequate.**

VIOLATION:

The 2019 audit letter from the GSRB stated:

Southern California Gas Company and San Diego Gas and Electric Company meets the requirements for four overall performance metrics and nine threat specific performance metrics required under 192.945(a). However, as identified in the first sentence of 192.945(a), each operator must include measures to evaluate the integrity of each covered pipeline segment. Both the nine threat specific performance metrics and the four overall performance metrics are aggregate performance metrics and do not evaluate the integrity of each covered pipeline segment.

Southern California Gas Company and San Diego Gas and Electric Company has no performance metrics to evaluate the integrity of each covered pipeline segment in accordance with 192.945(a).

According to DR #37, Southern California Gas Company and San Diego Gas and Electric Company does not include any other performance metrics, which is required by code.

SoCal/SDG&E has failed to provide any other performance metrics that "...measure whether the program is effective in assessing and evaluating the integrity of each covered pipeline segment..." per the requirements of the first sentence of 192.945(a). Therefore, SoCalGas/SDG&E is in violation of 192.945(a).

SDG&E and SoCal Gas's Response:

SoCalGas and SDG&E disagree with the statement that the gas Integrity Management (IM) program does not have performance metrics to evaluate the integrity of covered segments. As stated in the 2019 audit response letter to GSRB, we have implemented a prescriptive IM program that meets the requirements of 192.945(a) through the aggregation and analysis of the overall and threat-specific performance metrics specified in ASME/ANSI B31.8S. The data is collected for the metrics at the covered segment level and are applied to evaluate the overall program effectiveness. Although we feel that these metrics are sufficient, we have begun to evaluate additional performance metrics to demonstrate the effectiveness of our IM program of the covered pipeline segments.

Utilizing ASME/ANSI B31.8S and PHMSA Advisory Bulletin 2014-05, the following are examples of progress made with these metrics:

- Moving Average of Anomalies Repaired by Integrity Assessment Method, Threat Category, HCA, and Types of Repair
- Baseline and Reassessed Mileage
- Leaks after Assessment

SoCalGas/SDG&E Corrective Action:

- SoCalGas/SDG&E will continue to utilize PHMSA guidance and industry knowledge to explore and develop additional metrics determined to be meaningful measures to evaluate program effectiveness.

GSRB's Conclusion:

There were two issues identified in the audit letter:

- (1) The first issue is a violation 192.945(a).
- (2) The second issue was a concern related to not developing additional performance metrics as discussed in ASME B31.8S-2004, Section 9.2.1 (Process or Activity Measures), 9.2.2 (Operational Measures) and 9.2.3 (Direct Integrity Measures). Please see SED's response to this concern below.

For the first issue, SED further discusses this issue below:

SoCal Gas/SDG&E stated in the first paragraph of its response that: "*SoCalGas and SDG&E disagree with the statement that the gas Integrity Management (IM) program does not have performance metrics to evaluate the integrity of covered segments.*" To be clear, SED did not say that SoCal Gas/SDG&E does not have performance metrics. Rather, SED said that SoCal Gas/SDG&E did not **"...measure whether the program is effective in assessing and evaluating the integrity of each covered pipeline segment..."** as specified in 192.945(a). SED acknowledged that SoCal Gas/SDG&E tracks the four overall performance metrics and nine threat specific metrics identified in B31.8S-2004, Section 9.4(b).

The prescriptive program performance metrics are not limited to the two categories of performance metrics identified in B31.8S-2004, Section 9.4(b). This is made clear in the Part 192 code sections that include:

- (1) 192.911(i) states:
"...The initial program framework and subsequent program must, at minimum, contain the following elements. (When indicated, refer to ASME/ANSI B31.8S (incorporated by reference, see §192.7) for more detailed information on the listed element.)"
...
(i) A performance plan as outlined in ASME/ANSI B31.8S, section 9 that includes performance measures meeting the requirements of §192.945. [Underline added]
- (2) 192.907(b) states:
(b) Implementation Standards. In carrying out this subpart, an operator must follow the requirements of this subpart and of ASME/ANSI B31.8S (incorporated by reference, see §192.7) and its appendices, where specified. An operator may follow an equivalent standard or practice only when the operator demonstrates the alternative standard or practice provides an equivalent level of safety to the public and property. In the event of a conflict between this subpart and ASME/ANSI B31.8S, the requirements in this subpart control. [Underline Added]

It is clear from these two code sections that B31.8S-2004, Section 9.4 is not what controls what is in the performance plan. Rather, it is 192.945(a) that controls what is in the performance plan.

For the first issue, SED staff's position remains the same. If any of the examples provided by SoCal Gas/SDG&E are specific to measuring the integrity of each covered segment, please provide that additional detail. If not, this item will remain open until SoCal Gas and SDG&E provides a specific performance metric.

Please provide a written response to this issue by 30 days from the date on this closure letter.

Concern

Integrity Management : Quality Assurance (IM.QA)

Question Text Does the process to evaluate IM program effectiveness include an adequate set of performance metrics to provide meaningful insight into IM program performance?

References 192.945(a) (192.913(b), 192.951)

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

Issue Summary

CONCERN:

SoCal/SDG&E has failed to implement any additional performance metrics either from its own procedure, TIMP.17, which has been in effect since at least 2010 or as a result of advisory bulletin ADB-2014-05, and the preceding advisory bulletin ADB-2012-10.

These ADBs advise operators to strengthen their programs by implementing additional performance metrics. For example, ASME B31.8S-2004, Section 9.2.1 (Process or Activity Measures), 9.2.2 (Operational Measures) and 9.2.3 (Direct Integrity Measures) discusses these different categories of performance metrics, and provide examples of different measures that fit into these categories.

SDG&E and SoCal Gas's Response:

Please see response to Item #4 above.

GSRB's Conclusion:

SED staff appreciates that SoCal Gas and SDG&E have begun to evaluate additional performance metrics to demonstrate the effectiveness of your IM program as advised in PHMSA's advisory bulletins.

SED staff will continue to monitor and follow up on this issue during subsequent TIMP inspections.