

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



November 12, 2020

GI-2020-09-SWG-30-09

Jerry Schmitz
Vice President, Engineering
Southwest Gas Corporation
5241 Spring Mountain Road
Las Vegas, NV 89193-8510

SUBJECT: General Order (GO) 112-F Gas Inspection of Southwest Gas Company's Distribution Integrity Management Program (DIMP)

Dear Mr. Schmitz,

The Safety and Enforcement Division (SED) of the California Public Utilities Commission conducted a General Order 112-F inspection of Southwest Gas Company's (SWG), Distribution Integrity Management Program (DIMP) between September 21-25 and September 28 – October 2, 2020.

SED's findings are noted in the Summary of Inspection Findings (Summary) which is enclosed with this letter. The Summary reflects only those particular records that SED inspected during the inspection. SED's staff did not identify any probable violations of G.O. 112-F, Reference Title 49 Code of Federal Regulations (CFR), Part 192. SED's staff identified five concerns which are outlined in the Summary.

Within 30 days of your receipt of this letter, please provide a written response indicating the measures taken by SWG to address the concerns noted in the Summary.

If you have any questions, please contact Sikandar Khatri at (415) 703-2565 or by email at Sikandar.Khatri@cpuc.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Terence Eng".

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

Enclosure: Summary of Inspection Findings

cc:

Laurie Brown, Southwest Gas Company
Dennis Lee, SED
Claudia Almengor, SED
Kelly Dolcini, SED

Summary of Inspection Findings

Dates of Inspection: September 21-25 and September 28 – October 2, 2020

Operator: SOUTHWEST GAS CORP

Operator ID: 18536 (primary)

Inspection Systems: Distribution Integrity Management Program (DIMP)

Assets (Unit IDs): Main Office (Specialized Inspections) (88373)

System Type: GD

Inspection Name: Southwest Gas DIMP 2020

Lead Inspector: Sikandar Khatri

Operator Representative: Laurie Brown

Unsatisfactory Results

No Preliminary Findings.

Concerns

Gas Distribution Integrity Management : Knowledge of the System (GDIM.KN)

- (1) Question Does the plan list the additional information needed to fill gaps due to missing, inaccurate, Text or incomplete records?

References 192.1007(a)(3)

Assets Covered Main Office (Specialized Inspections) (88373 (30))

Issue Summary Title 49 Code of Federal Regulation, §192.1007(a)(3) States:

"Identify additional information needed and provide a plan for gaining that information over time through normal activities conducted on the pipeline (for example, design, construction, operations or maintenance activities)."

DIMP Manual, section 5.1.3.2, talks about additional data and its collection, for example using UOCMU (Unusual Operating Conditions Mapping Update) process. This section also outlines some missing/inaccurate information examples, and demonstrations of some examples were made during WebEx sessions. It was discussed and pointed out that, for example, in Mechanical Fitting Failure Forms of 2019, there was missing information about the manufacturer and model. Additionally, there may be older pipeline segments that do

not have mechanisms to mitigate earthquakes, and collecting such information, when there is an opportunity, is vital. Similar gaps may exist in other parts of the system.

Therefore, Southwest Gas (SWG) should keep missing/inaccurate information list updated as gaps are identified and fill these gaps through normal operation and maintenance process, and additionally use other information sources such as purchase orders, knowledge of field personnel and other appropriate means, as necessary.

Gas Distribution Integrity Management : Identify Threats (GDIM.TH)

- (2) Question In identifying threats, do the procedures include consideration of all of the required threat Text categories to each gas distribution pipeline?

References 192.1007(b)

Assets Covered Main Office (Specialized Inspections) (88373 (30))

Issue Summary Title 49 Code of Federal Regulations, §192.1007(b) states:

"An operator must consider reasonably available information to identify existing and potential threats. Sources of data may include, but are not limited to, incident and leak history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, and excavation damage experience."

The Section 6.1. Threat Categories of SWG DIMP Plan, identifies the threat categories that include: Corrosion Failure; Natural Force Damage; Excavation Damage; Other Outside Force Damage; Pipe, Weld, or Joint Failure; Equipment Failure; Incorrect Operation; and Other Cause. The section 7.2.1 states that the 'riser leaks' are not to be included in "Leak Evaluation" process for DIMP Analysis. Additionally, SWG does not do in-depth analysis of the leaks falling under "Other Cause". Therefore, SWG should:

(1) Analyze "riser leaks" at an appropriate time interval set by SWG to determine the causes of failure which may result in useful insight regarding the integrity of this pipeline component. This time interval should be defined in the DIMP plan.

(2) Analyze the leaks falling into "Other Cause" category to determine whether these could be categorized under other well-defined categories. This will also be helpful for the training of staff which SWG mentioned is provided to staff for better understanding of the leak causes.

Gas Distribution Integrity Management : Report Mechanical Fitting Failures (GDIM.MF)

- (3) Question Are there procedures to collect information necessary to comply with the reporting Text requirements of 192.1009?

References 192.1009

Assets Covered Main Office (Specialized Inspections) (88373 (30))

Issue Summary Title 49 Code of Federal Regulation, §192.1009(a) States:

"Except as provided in paragraph (b) of this section, each operator of a distribution pipeline system must submit a report on each mechanical fitting failure, excluding any failure that results only in a nonhazardous leak, on a Department of Transportation Form PHMSA F-7100.1-2. The report(s) must be submitted in accordance with §191.12."

The report on Mechanical Fitting Failures is submitted annually on PHMSA Form, F-7100.1-2. This was discussed and SWG mentioned that current source of collecting this information is using "Material Investigation Reports" which are performed when a component is removed from the ground. However, there may be situations when the material is not

removed. SWG mentioned that the analysts look at all leaks involving fittings, however, there is no specific procedure which outlines steps for collecting "Mechanical Fitting Failure" information.

Therefore, SWG should develop a procedure which outlines steps for collecting accurate "Mechanical Fitting Failure" information. This procedure can be part of the DIMP Plan, or as a separate procedure referenced in the DIMP Plan, as deemed appropriate by SWG. This procedure should also include steps to conduct quality assurance.

Gas Distribution Integrity Management : GDIM Implementation (GDIM.IMPL)

- (4) Question Does documentation reviewed demonstrate that measures to reduce risks per the DIMP Text plan are being implemented?

References 192.1007(d)

Assets Covered Main Office (Specialized Inspections) (88373 (30))

Issue Summary Title 49 Code of Federal Regulation, §192.1007(d) States:

"Identify and implement measures to address risks. Determine and implement measures designed to reduce the risks from failure of its gas distribution pipeline. These measures must include an effective leak management program (unless all leaks are repaired when found)."

SED reviewed Section 8 of the DIMP Plan which includes examples of implementing measures to reduce risk (i.e. 8.1.1.1 - increasing the frequency of leak surveys for identified threats & 8.3- Early Vintage Plastic Pipe (EVPP) replacement program), however, it was determined that the results of DPP's (Damage Prevention Plan) analysis and corrective actions which includes leaks associated with excavation damage, are not included in the DIMP plan as measures to reduce risk.

In response to a data request, SWG mentioned, *"Damage Prevention resided under DIMP's direct purview until September of 2019. DIMP works closely with the Damage Prevention Administrator in the review of leaks associated with excavation damages. The DIMP Manager is also copied on the quarterly submittals for the Quarterly Incident Reviews (QIRs). The damage rates are included in the Leak Analysis Presentation that DIMP completes annually. DIMP will include the DPP analysis and corrective actions document in the Annual DIMP Team Meeting and will be reflected in the meeting minutes moving forward."*

SED emphasizes that the DPP's analysis and/or corrective actions to reduce the risk of excavation damage be included in the DIMP plan.

- (5) Question Have any measures to reduce risks resulting in the elimination/mitigation of the associated Text identified threat been completed (e.g., pipe replacement program completed, etc.)?

References 192.1007(d)

Assets Covered Main Office (Specialized Inspections) (88373 (30))

Issue Summary Title 49 Code of Federal Regulation, §192.1007(d) States:

"Identify and implement measures to address risks. Determine and implement measures designed to reduce the risks from failure of its gas distribution pipeline. These measures must include an effective leak management program (unless all leaks are repaired when found)."

SED reviewed Section 8 of the SWG DIMP Plan which includes examples of implementing measures to reduce risk. The section 8.2.1 states that the segments with a Risk Assessment value of 5.5 or higher will be remediated by total replacement of that segment. SWG mentioned that during the period 2017-2019, only one segment has been identified

for replacement (in year 2019) which is due for replacement by the end of the year 2020 (by the end of the following calendar year, as per section 8.2.1).

SED emphasizes that the replaced pipe segments should be assessed for integrity issues which will provide useful insight for other parts of the system.