

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



June 24, 2020

GI-2020-01-SDG-48-01ABC

Mr. Rodger Schwecke, Senior Vice President
Gas Transmission, Storage and Engineering
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 conducted a **General Order (GO) 112-F Comprehensive Operation and Maintenance Inspection of San Diego Gas & Electric Company's Transmission Facilities in San Diego Area** on January 27 through 31, 2020, February 3 through 7, 2020 and February 11 through 13, 2020. The inspection included a review of Inspection Unit's operation and maintenance records for the years 2017 through 2019, and a field inspection of a representative sample of the Inspection Unit's facilities. Also, SED staff reviewed the Inspection Unit's Operator Qualification records, which included field observation of randomly selected individuals performing covered tasks.

SED's staff identified two (2) unsatisfactory results of G.O. 112-F, Reference Title 49 Code of Federal Regulations (CFR), Part 192, and noted Six (6) areas of concern which are described in the attached "Post-Inspection Written Preliminary Findings".

Please provide a written response within 30 days of receipt of this letter indicating any updates or corrective actions taken by SDG&E to address the violations and concerns noted in the "Post-Inspection Written Preliminary Findings".

If you have any questions, please contact Gordon Kuo, Utilities Engineer, at (213) 618-5263, or by email: GK2@cpuc.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Terence Eng", written over a horizontal line.

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

Attachment

cc: See next page

Troy Bauer, Manager
Pipeline Safety and Compliance
Southern California Gas Company
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Gordon Kuo
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Claudia Almengor
Associate Governmental Program Analyst
Safety and Enforcement Division

Post-Inspection Written Preliminary Findings

Dates of Inspection: 1/27/20-1/31/20, 2/3/20-2/7/20, 2/11/20-2/13/20

Operator: SAN DIEGO GAS & ELECTRIC CO.

Operator ID: 18112 (primary)

Inspection Systems: SDG&E San Diego Area

Assets (Unit IDs): Transmission (87058)

System Type: GT

Inspection Name: 2020 SDG&E Transmission Audit

Lead Inspector: Gordon Kuo

Operator Representative: Khoa Le, Austin Walker, Bryon Walsh

Unsatisfactory Results

Maintenance and Operations: Gas Pipeline Abnormal Operations (MO.GOABNORMAL)

1. Question Text Did personnel respond to indications of abnormal operations as required by the process?

References 192.605(a) (192.605(c)(1))

Assets Covered Transmission (87058 (48))

Issue Summary During field inspection on 1/31/2020, SED staff observed and pointed out to an SDG&E technician that vegetation was in contact with aboveground pipeline (span1600-137). SED requested SDG&E to take corrective action to remove the vegetation. On 2/7/2020, SDG&E provided SED with work order #7234583 addressing SED's finding. SED reviewed the work order report including "Bridge and Span Inspection Checklist" and found that under question "Are any foreign objects (fencing, vegetation, etc. in contact with pipe?" the answer was "NO" and then in the comments section it was noted: "removed vegetation".

SDG&E's Gas Standard G8142 "Inspection of Pipelines on Bridges and Spans", Section 2.3. states:

"When any condition is found identified by a "yes" answer on the "Bridge and Span Inspection Checklist", the employee performing the inspection will report the condition to his/her immediate supervisor the same day the condition is discovered."

According to the Gas Standard above, SDGE's technician is required to identify and record the deficiency "As-Found" conditions on the Bridge and Span Inspection Checklist. SED believes that SDG&E's technician should have marked it as "Yes" on the Bridge and Span Inspection Checklist since the condition was "As-Found".

Therefore, SDG&E is in violation of GO 112-F, Reference Title 49 CFR, Part 192, §192.605(a) for failing to follow its Gas Standard G8142 "Inspection of Pipelines on Bridges and Spans".

Maintenance and Operations: Gas Pipeline Maintenance (MO.GM)

2. Question Text Do records indicate proper inspection and partial operation of transmission line valves that may be required during an emergency as required and prompt remedial actions taken if necessary?

References 192.709(c) (192.745(a), 192.745(b))

Assets Covered Transmission (87058 (48))

Issue Summary During SED's record review on 2/11/2020, SED found that Valve ID #6615 (located at Point Loma and Santa Barbara street on line 49-131) had multiple abnormal operation conditions either "hard to operate" or "inoperable" since 10/13/2015 as listed chronologically below.

- ❖ On annual inspection 10/22/2014 - satisfactory
- ❖ On annual inspection 10/13/2015 - inoperable for first time
- ❖ On 5/10/2016 follow up, flushed, found still inoperable
- ❖ On 8/5/2016, a request for engineering review was signed and approved by Engineering division for installation/Replacement.
- ❖ On annual inspection 11/22/2016 - Hard to operate
- ❖ Follow up 1st: 12/29/2016 - flushed - still hard to operate
- ❖ Follow up 2nd:1/13/2017 - lubed - become inoperable
- ❖ Follow up 3rd: 2/2/2017- lubed - still inoperable for second time
- ❖ On annual inspection 11/29/2017 - flushed - inoperable
- ❖ On annual inspection 9/18/2018 - flushed - Hard to operate
- ❖ Follow up 1st:12/3/2018 - flushed - Satisfactory
- ❖ Follow up 2nd: 6/26/2019 – satisfactory
- ❖ On annual inspection 10/17/2019 - flushed the valve – inoperable for third time

SDG&E's Gas Standard T8167 Valve Inspection and Maintenance – Transmission, Section 1.2 states:

"The Transmission District shall take prompt remedial action to repair any Critical Valve found inoperable during the inspection.

1.2.1. An alternative valve or valve configuration shall be designated until the inoperable valve is returned to service."

Based on SED's records review of SDG&E's follow-up actions, it was found that Valve ID #6615 valve was found inoperable on 10/13/2015 for the first time. And Per Section 1.2 "[the] Transmission District" shall take prompt remedial action, designate an alternative valve or valve configuration until the inoperable valve is returned to service. But every time that the valve was found inoperable there was no remedial action to repair, designate alternative valve or valve configuration in place until the inoperable valve is returned to service until now (for past four years and four months). Therefore, SDG&E in violation of GO 112-F, Reference Title 49 CFR, Part 192, §192.605 (a) for failing to follow its Gas Standard T8167 "Valve Inspection and Maintenance – Transmission".

Concerns

Design and Construction: Pipeline Commissioning (DC.COMM)

1. Question Text Are field inspection and partial operation of transmission line valves adequate?

References 192.745(a) (192.745(b))

Assets Covered Transmission (87058 (48))

Issue Summary

- I. During field inspection on February 12, 2020, SDG&E crew operated 5 turns to inspect the valve #20408. The crew stated that the valve is a multi-turn ball valve but did not mention it to be a gear-operated valve. In addition, valve characteristics information with SDG&E's valve record form (a copy provided to SED) does not directly state that the valve is a gear-operated or non-gear-operated. In response to SED's clarification data request SDG&E explained as below:
- a. *If the number "¼" is present in a "number of turn to fully operate valve" field with a "ball" or "plug" justification in "valve type", it means quarter-turn non-gear operated valve. The inspection of this type of valve should follow the section "4.2.1. Non-Gear operated valve" of the gas standard D8167.*
 - b. *If there is a number other than "¼" present in a "number of turn to fully operate valve" field with a "ball" or "plug" justification in "valve type", it means a quarter turn gear-operated valve and it should be inspected in accordance with the "Section 4.2.2. Gear Operated" of the gas standard D8167.*
 - c. *If there is a number other than "¼" present in a "number of turn to fully operate valve" field with a "Mueller curb tee valve" justification in "valve type", it means a multi-turn valve and it should be inspected in accordance with the Section "4.3. OPEN - MULTI TURN Valves" of the gas standard D8167.*

However, those explanations are not included in SDG&E's Gas Standard, D8167, Valve Inspection and Maintenance - Distribution nor in SDG&E's Gas Standard, T8167, Valve Inspection and Maintenance - Transmission. Since the valve inspection procedure for geared operated is different from the non-geared operated valves, it is important to include these procedures in the SDG&E gas standards. Lack of those explanations could prevent SDG&E's crew from performing the adequate inspections on the specific type of valves. Therefore, SED recommends SDG&E clarify this deficiency and add the related procedures to its gas standards.

- II. During field inspection on February 12, 2020, SED randomly selected valve #20408 to observe the SDG&E crew demonstrating their valve inspection. However, the crew wrongly arrived at valve #40418 instead of valve #20408. When the crew found the valve tag #40418 on the valve in question, they assumed that other crew have applied a wrong tag, attempted to replace the tag and proceed with their inspection. SED staff requested the crew to verify the valve and tag information before proceeding. Upon verification with back office, it was discovered that the tag is a right tag for that valve (valve # 40418), but the crew went to a wrong location.

SED believes that it is very important that field employees to have correct information associated with their assigned valve or location. If they have any confusion or discrepancy, they should not perform any task until a clarification to issue is obtained. Otherwise, employees may use the wrong procedures on the wrong valves during valve inspection and create a safety hazard.

- III. During our field visit on 2/5/2020, inspecting relief valve with tag number 3012-2320B, it was found that one of 1/2" isolating valve started to leak during lock up read. Please provide us follow up order for valve repair and reperforming the relief valve inspection with new reads.

SDGE provided WO #7234963. The tasks will include replacing of test port valve on RV 3012-2320B-S and retest the RV.

This issue has been resolved and no response from SDG&E is required.

- IV. Found water/fluid in the vault of valve 631 (on 2/12/2020; also found water/fluid in pressure sending line holes near MLV# 3010-3008 and valve box of 3010-3008 on 1/31/2020.

This issue has been resolved and no response from SDG&E is required.

2. Question Text Are unsatisfactory conditions being captured and addressed by continuing surveillance of facilities and the pipeline as required by 192.613?

References 192.613(a) (192.613(b), 192.703(a), 192.703(b), 192.703(c))

Assets Covered Transmission (87058 (48))

Issue Summary During the field inspection on January 30, 2020, SED observed SDG&E's employee conducting an

Optical Methane Detector (OMD) leak survey. The SDG&E's employee was able to cite the driving speed limits and the wind speed limits while performing the OMD survey. However, after reviewing SDG&E Gas standards G8145 and G8138, SED was unable to find such limits addressed in either standard for the application of OMD devices. In addition, according to the OMD User's Manual by Heath Consultants, Chapter I, p.9, Overview, which states in part: "The survey should be conducted at speeds slow enough to allow an adequate sample to be continuously obtained by placement of equipment intake over the most logical venting locations..." Since both high driving speeds and wind speeds can hinder the OMD from detecting the gas, thus rendering the survey ineffective. SED recommends that SDG&E add the limitations of the OMD devices to a gas standard.

Maintenance and Operations: Gas Pipeline Maintenance (MO.GM)

3. Question Text Are their processes for inspecting and partially operating each transmission line valve that might be required in an emergency at intervals not exceeding 15 months, but at least once each calendar year and for taking prompt remedial action to correct any valve found inoperable?

References 192.605(b)(1) (192.745(a), 192.745(b))

Assets Covered Transmission (87058 (48))

Issue Summary During SED's record review on 2/13/2020 (below are listed found conditions for valve ID#7059), SED found valve ID #7059 "hard to operate" on 1/29/2018. SDG&E conducted three more quarterly inspections (5/1//2018, 8/28/2018 & 11/5/2018) and found the valve "hard to operate".

SED reviewed SDG&E's Gas Standards T8167 Valve Inspection and Maintenance – Transmission and D8167 Valve Inspection and Maintenance – Distribution and found that Gas Standard T8167 for transmission valve did not address "hard to operate" condition valve while D8167 for distribution valve, Section 4.6.5.1.2.2 states:

"If after 3 consecutive inspections the 'hard to operate' condition is not resolved, inform Gas Technical Services – Miramar Region Engineering to replace valve or designate another valve. This could include inactive buried valves that could be refurbished, reactivated, tagged and placed on a maintenance schedule. The 'hard to operate' valve will continue to be inspected quarterly until designation or replacement has occurred."

- ❖ On annual inspection 2/29/2016 - hard to operate
- ❖ Follow up on 7/26/2016 – satisfactory
- ❖ Follow up on 8/12/2016 – satisfactory
- ❖ On annual inspection 1/31/2017- satisfactory
- ❖ On annual inspection 1/29/2018 – hard to operate
- ❖ Follow up on 5/1//2018 – hard to operate
- ❖ Follow up on 8/28/2018 – hard to operate
- ❖ Follow up on 11/5/2018 – hard to operate
- ❖ On annual inspection 1/7/2019 – satisfactory
- ❖ On annual inspection 1/7/2020 – satisfactory

SED recommends SoCalGas to amend its Gas Standard T8167 to address "Hard to Operate" valves condition in a similar manner that is addressed in D8167, Section 4.6.5.1.2.2. Especially in transmission pipelines "Hard to Operate" valves may cause a delay in valve closure that may impact the environment or the general public.

Maintenance and Operations: ROW Markers, Patrols, Leakage Survey and Monitoring (MO.RW)

4. Question Text Do records indicate that ROW surface conditions have been patrolled as required?

References 192.709(c) (192.705(a), 192.705(b), 192.705(c))

Assets Covered Transmission (87058 (48))

Issue Summary SED found in previous patrol records that Abnormal Operating Conditions (AOCs) were marked down with the comment "Missing Markers". However, there never was any follow-up noted for these "missing markers" because it is presumed that they were replaced out in the field already, but not noted down. SDG&E explained to SED that it was due to the limitations of the GIS system not having extra options to note whether the markers were replaced immediately or if a follow-up was needed. SDG&E also told SED that the new GIS system has two options for these two situations in order to remedy this situation. However, because of the previous system, there is no guarantee that the markers were ever replaced.

SED was able to review SDG&E procedure G8140, which provided an image of the options given with GIS. SED was able to confirm that there is now a new option to allow for them to note "markers/signs replaced". Thus, if markers are missing and not replaced, it is noted as an "AOC", and if they are replaced it is noted as "markers/signs replaced". This differs from the previous method where missing markers whether they are replaced or not are still marked as AOCs. In both previous and current situations, there is no clear instruction in G8140 as to which boxes need to be marked specifically for these two situations. SED also wishes to prevent a future situation where boxes are marked incorrectly because an employee was following the previous method. SED recommends SDG&E to clarify the instructions on the pipeline patrol procedure noting which box(s) to mark when markers are found missing and replaced or not replaced.

Time-Dependent Threats: Atmospheric Corrosion (TD.ATM)

5. **Question Text** Is pipe that is exposed to atmospheric corrosion protected?

References 192.481(b) (192.481(c), 192.479(a), 192.479(b), 192.479(c))

Assets Covered Transmission (87058 (48))

Issue Summary During the field inspection on 2/12/20, SED observed a bridge and span that had multiple pipes, a mix of both gas and non-gas pipes. The SDG&E crew used GIS to determine which was the correct pipe noted in the work order in Maximo. However, there is nothing within the bridge and span procedure G8142 to ensure that employees should check for other pipes when under a wide bridge to prevent them from inspecting only the first pipe they come across. The procedure also does not mention the use of other tools such as GIS or description in the work orders to eliminate the other pipes in order to find the correct pipe to inspect. SED recommends SDG&E add the instructions in its procedures to clarify the methods of proper identifications of its pipelines during the atmospheric corrosion inspections. These instructions can list the tools that can be used, such as GIS, or whatever other methods that can be used to ensure the employee can locate the correct pipe under a bridge with multiple pipes.

Time-Dependent Threats: External Corrosion - CP Monitoring (TD.CPMONITOR)

6. **Question Text** Do records indicate the location of all items listed in 192.491(a)?

References 192.491(a)

Assets Covered Transmission (87058 (48))

Issue Summary During the field inspection, cathodic protection (CP) point: 3010-50.30-P (visited on 2/5/2020) and CP point 2 (12" box @ Harbison and Division) (visited on 2/12/2020) were found without the point identity tag. It may cause the crew who performs the CP inspection to record inspection results at the wrong locations. SED recommend to add/or replace the missing identity tags.