

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



June 18, 2024

GI-2023-11-PGE-78-01ABC

Ms. Christine Cowsert
Senior Vice President, Gas Engineering
Pacific Gas and Electric Company
Gas Transmission and Distribution Operations
6121 Bollinger Canyon Road
San Ramon, CA 94583

Subject: SED Closure letter for G.O. 112-F Compliance Inspection of PG&E's Southern Transmission Area

Dear Ms. Cowsert:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission (CPUC) reviewed Pacific Gas & Electric Company's (PG&E) response letter dated May 30, 2024 and supporting documents of its remedial actions for SED's findings identified during the General Order 112-F (G.O. 112-F) inspection of PG&E's Southern Transmission Area (Comprehensive Standard Transmission Backbone - Topock & Hinkley Districts / Stations - Hinkley & Topock / Local Transmission - Kern Division) from November 13 thru 17, November 27 thru December 1, and December 4 thru 8, 2023.

Enclosed is a summary of SED's inspection findings, PG&E's responses to SED's findings, and SED's evaluation of PG&E's responses to each finding.

This letter serves as the official closure of SED's 2023 G.O. 112-F inspection of PG&E's Southern Transmission area.

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.

Sincerely,

Matthewson Epuna
Program & Project Supervisor
Gas Safety & Reliability Branch
Safety and Enforcement Division

Enclosure: SED's Post-Inspection Written Preliminary Findings, PG&E's responses, and SED's conclusions.
CC:

██████████, PG&E
██████████, PG&E
Terence Eng, SED/GSRB
Sann Naing, SED/GSRB
Claudia Almengor, SED

Post-Inspection Written Preliminary Findings

Dates of Inspection: November 13 to 17, and November 27 to December 8, 2023

Operator: PACIFIC GAS & ELECTRIC CO

Operator ID: 15007 (primary)

Inspection Systems: PG&E Southern Transmission

Assets (Unit IDs) with results in this report: Southern Transmission (88996)

System Type: GT

Inspection Name: 2023 PG&E Southern Transmission

Lead Inspector: Sann Naing

Operator Representative: Glen M. Allen

Unsatisfactory Results

No Preliminary Findings.

Concerns

Design and Construction : Design of Pipe Components (DC.DPC)

1.) Question Title, ID Flanges and Flange Accessories, DC.DPC.FLANGE.O

Question 8. Do flanges and flange accessories meet the requirements of 192.147?

References 192.147 (192.147(a), 192.147(b), 192.147(c), 192.607)

Assets Covered Southern Transmission (88996 (78))

Issue Summary During field inspection, SED team observed some pipeline flange bolts did not extend completely through the nuts at the following locations:

1. Topock Compressor Station, unit K-5 discharge by-pass valve flange
2. Ridgecrest Primary Regulator station, valves V1, V4, V7, and V8
3. UPF Corporation Meter & Reg Station flanges

PG&E generated the following repair work order notifications for these findings: Work Order numbers - 46079024 for K-5 discharge by-pass valve flange, 127548610 for Ridgecrest station valves, and 127548712 for UPF Corporation Meter & Reg Station flanges.

PG&E identified this issue (Flange bolts not completely extending through the nuts) as a systemwide issue and reported it in 2023 Q2 Internal Review Summary of Findings (IRSF) report it submitted to SED on 7/13/23.

PG&E's standard procedure B-45.4 - Flange Bolt-Tightening Sequence and Torque Values, Section 2.1 (E) states:

"Bolts/studs must be fully engaged and extend completely through the nut, with a recommended minimum of one thread exposed. Any excess thread protruding beyond the nut face should be minimized with a recommendation, not to exceed 1/2-inch beyond nut face."

American Society of Mechanical Engineers (ASME) / American National Standards Institute (ANSI) B16.5-2003, incorporated by reference into Title 49 CFR, Part 192, requires that bolt length be calculated to include the length of the necessary nuts needed to connect the flange, plus the minimum flange thickness, plus the gasket thickness, plus the appropriate thickness tolerances.

SED requests repair status update on these findings. SED recommends that PG&E's work group evaluation should include identification and remediation of these issues during its normal operations and maintenance (O&M) activities.

PG&E's Response:

PG&E created corrective notifications during the inspection for these findings: Notification 127542679 for the K-5 discharge flange, Notification 127548610 for the four Ridgecrest Regulation Station valves, and Notification 127548712 for the UPF Corporation Meter & Regulation Station. All work associated with these corrective notifications has been completed. See Attachment 1 - "AOC 1 Completed Corrective Notifications" for screenshots of the notification completion dates.

PG&E has completed the Work Group Evaluation (WGE) for the systemwide issue on the bolt/stud engagement issue and has recommended that during scheduled annual maintenance for all stations, bolts/studs identified that do not meet the standard procedure criteria should be remediated or a corrective notification will be generated to address it. As a corrective action to the WGE, a 5 Minute Meeting (5MM) was created by Gas Pipeline Operations and Maintenance (GPOM) and Standards Engineering to address the issue. See Attachment 2 - "WGE - Bolt/Stud Engagement Issue" and Attachment 3 - "5MM Thread Engagement Requirements for Bolted Connections" for the WGE and 5MM, respectively.

Please note that Annex D of American Society of Mechanical Engineers (ASME) / American National Standards Institute (ANSI) B16.5-2003, was not introduced until the 2003 edition of ASME/ANSI B16.5. While guidance in Annex D is not mandatory per footnote 1 (see Attachment 4 - "Annex D of ASME-ANSI 16.5-2003"), it aligns with the current version of PG&E design standard B45.4 (Rev-0e, effective 03-10-2023) which requires that "bolts/studs must be fully engaged and extend completely through the nut, with a recommended minimum of one thread exposed ... " per section 2.1(e).

SED's Conclusion:

SED reviewed PG&E's response and accepts its remedial actions. SED also acknowledges that PG&E's stated action plan for flange bolts issue (not completely extending through the nuts) will promote safety. SED may review the implementation of this process during future inspections.

2.) Question Title, ID Supports and Anchors, DC.DPC.SUPPORT.O

Question 29. Do field observations confirm each length of pipe and each component is being visually inspected for sufficient installation of anchors or supports to prevent undue strain on connected equipment, to resist longitudinal forces, to prevent or dampen excessive vibration, and is in accordance with §192.161?

References 192.141 (192.161(a), 192.161(b), 192.161(c), 192.161(d), 192.161(e), 192.161(f))

Assets Covered Southern Transmission (88996 (78))

Issue Summary During field inspection, SED observed some pipeline supports that were not in contact with the pipelines (not in contact to provide support for the pipelines that needed the support). Also, some of the gaps in supporting frame were bridged with temporary wooden wedges at the following locations:

1. Needles Tap Station
2. [REDACTED] Minerals Meter Station
3. Ridgecrest Primary Reg Station

PG&E generated the following repair work order notifications for these findings: Work order notification numbers - 127496127 for Needles Tap station, 127548611 for [REDACTED] Station, and 127548549 Ridgecrest Primary Reg Station. Please provide a remedial action report to SED.

PG&E's Response:

PG&E created corrective notifications during the inspection for these findings: Notification 127496127 for the Needles Tap Regulation Station, Notification 127548611 for the [REDACTED] Minerals Meter Station, and Notification 127548549 for the Ridgecrest Primary Regulation Station. All work associated with these

corrective notifications has been completed. See Attachment 5 - "AOC 2 Completed Corrective Notifications" for screenshots of the notification completion dates.

SED's Conclusion:

SED reviewed the PG&E's response and accepts its remedial actions.

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

3.) Question Title, ID Continuing Surveillance, MO.GO.CONTSURVEILLANCE.O (also presented in: MO.GOCLASS)

Question 3. 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 Southern Transmission (88996 (78))

Issue Summary During a field inspection, PG&E conducted a leak survey with an instrument and discovered gas leaks at the following locations:

1. Three (3) leaks during Topock Compressor Station leak survey
2. A Launcher inside the Hinkley Compressor station
3. MLV 275.86B at Gosford Rd. Meter Station

PG&E generated the following work order notifications for these findings: Work Order Notification numbers - 127484097, 127484132, and 127484300 for Topock Compressor Station leaks, 127529671 for the Launcher inside the Hinkley Compressor station, and 127549297 for MLV 275.86B at Gosford Rd. Meter Station. PG&E informed SED it completed remediation of all the gas leaks that were discovered in the field inspections except the leak at MLV 275.86B. Please provide a remedial action report to SED for the gas leak at MLV 275.86B.

PG&E's Response:

PG&E created leak notifications during the inspection for these findings: Notifications 127484097, 127484132 and 127484300 for the Topock Compressor Station, Notification 127529671 for the Hinkley Compressor Station, and Notification 127549297 for the Gosford Road Meter Station valve MLV 275.86B. Repairs for the Topock Compressor Station and the Hinkley Compressor Station were completed during the inspection, and the repair documentation was provided to SED under Southern Transmission Audit Data Requests #54 and #69, respectively. The non-hazardous Grade 3 leak on MLV 275.86B at Gosford Road Meter Station is scheduled to be repaired by Kettleman District personnel during the valve's annual maintenance in June 2024.

SED's Conclusion:

SED reviewed PG&E's response and accepts PG&E's remedial actions and remedial plan for the leak on MLV 275.86B at Gosford Road Meter Station.

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

4.) Question Title, ID Atmospheric Corrosion Monitoring, TD.ATM.ATMCORRODEINSP.O

Question 5. 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), 192.481(d))

Assets Covered Southern Transmission (88996 (78))

Issue Summary During field inspection, SED team observed surface rust with indications of atmospheric corrosion and disbonded coating at the following locations:

1. V-20 and blind flange near Needles Tap
2. Topock compressor station unit K-5 discharge by-pass valve
3. Victorville G TAP flanges and volts
4. Oro Grande Reg station flanges and volts
5. [REDACTED] Minerals Meter Station volts and flanges
6. L-300A span (EQ# 41453454) just outside of Topock compressor station

PG&E generated the following work order notifications for these findings: Work Order Notification numbers: 127496126 for V-20 and blind flange near Needles Tap, 127496128 for K-5 discharge by-pass valve, 127658648 for Victorville G TAP flanges and volts, 127658649 for Oro Grande Reg station flanges and volts, 127549055 for [REDACTED] Station, and 120503300 for Span outside of Topock Compressor station. Please provide a remedial action report to SED.

PG&E's Response:

PG&E created corrective notifications during the inspection for these findings: Notification 127496126 for the V-20 blind flange near Needles Tap, Notification 127496128 for the Topock Compressor Station K-5 discharge by-pass valve, Notification 127658648 for the Victorville G TAP flanges and bolts, Notification 127658649 for the Oro Grande Regulation Station flanges and bolts, and Notification 127549055 for the [REDACTED] Minerals Meter Station flanges and bolts. Notification 120503300 for the span just outside of Topock compressor station, EQ #41453454, was created following its last inspection.

All work associated with the corrective notifications for the V-20 blind flange near Needles Tap, Topock Compressor Station K-5 discharge by-pass valve and the [REDACTED] Minerals Meter Station flanges and bolts have been completed. See Attachment 6 - "AOC 4 Completed Corrective Notifications" for screenshots of the notification completion dates. The work associated with the Victorville G TAP and Oro Grande Regulation Station flanges and bolts is currently scheduled to be completed in the 3rd quarter of 2025. Please note that there are no abnormal operating conditions associated with the coating at these stations. See Attachment 7 - "AC Inspection Reports" for the latest Atmospheric Corrosion Inspection Reports for these two stations. The span just outside of Topock compressor station, EQ #41453454, is currently being remediated by the Projects group under order 43292177, with an expected completion of June 2024.

SED's Conclusion:

SED reviewed PG&E's response and accepts the proposed remedial action plans for this SED may review the implementation of this action plan during future inspections.