



Frances Yee
Sr. Manager, Regulatory
Compliance and Reporting
Gas Engineering

6121 Bollinger Canyon Road
San Ramon, CA 94583
Phone: 925-200-4736
E-mail: Frances.Yee@pge.com

July 26, 2023

Mr. Terence Eng
Program Manager
Gas Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, CA 94102

Re: General Order 112-F Gas Inspection of PG&E’s Sierra Division (Distribution)

Dear Mr. Eng:

Pacific Gas and Electric Company (PG&E) submits this response to the Safety and Enforcement Division’s (SED) Summary of Inspection Findings (Summary) dated June 27, 2023, stemming from the 2023 SED inspection of PG&E’s Sierra Division distribution records and facilities conducted April 17 to April 28, 2023.

For clarity, each of the eight items identified in the Summary will be repeated, followed by PG&E’s response.

Unsatisfactory Result #1: Design and Construction: Construction (DC.CO)

Question Title, ID	Plastic pipe - Qualifying Personnel to Make Joints, DC.CO.PLASTICJOINTQUAL.R
Question Text	5. Do records indicate persons making joints in plastic pipelines are qualified in accordance with 192.285?
References	192.285(d) (192.285(a), 192.285(b), 192.285(c), 192.807(a), 192.807(b))
Issue Summary	Title 49 Code of Federal Regulations (CFR) §192.603(b) states, “Each operator shall keep records necessary to administer the procedures established under § 192.605.”

During SED’s review of construction project records, SED noted that a Gas Service Record (GSR) (Order#35000536) indicated that the personnel (LANID: [REDACTED]) performing and inspecting Electrofusion (EF) plastic joining for six service tees and six couplings on 6/16/2020 was not qualified to do so. The personnel’s OQ (OQ-2108 Electrofusion (coupling)) had expired on 11/30/2019.

After the SED inspection, PG&E began an internal investigation on 5/12/23, provided supporting documentation to SED (timecards and Job Site Safety Analysis (JSSA) forms), and determined that the LAN ID and signature on the GSR was not the person who performed the EF plastic joining, but rather the person overseeing the work.

SED reviewed PG&E’s supporting documentation; however, the documents do not clarify the responsibilities/covered tasks performed by the field technicians (LANID: [REDACTED] & [REDACTED]). The timecards only show the two technicians’ working locations and dates matching the GSR. The JSSA forms only show the emergency role assigned to each technician. PG&E confirmed to SED that there are no existing records or photos indicating which technician made and inspected each joint.

PG&E was unable to provide adequate or traceable records for identifying plastic joiners and inspectors on the selected project. Therefore, PG&E is in violation of Title 49 CFR §192.603(b) for failing to keep adequate records of qualified plastic joiners and inspectors.

Response to Unsatisfactory Result #1: Design and Construction: Construction (DC.CO)

PG&E is in the process of updating the Gas Service Record (GSR) Form TD-9500P-14-F01 to include multiple plastic joiner information by using a similar stamp to Attachment 2_Joiner Stamp. This will add an additional layer of traceability for not only plastic joiners, but also welders and inspectors, even if there are multiple people performing the same task on the same job.

PG&E acknowledges that the LAN ID on the Gas Service Record (GSR) was the person in charge. In accordance with 49 CFR 192.603(b), PG&E Utility Standard TD-4170S, section 4.3 requires “all PE [polyethylene] pipeline connection-qualified personnel must clearly apply their PG&E-assigned LAN ID adjacent to all PE pipeline connections they complete. The LAN ID must be applied to the pipeline using a soft felt-tip permanent marker such as the Sharpie brand felt-tip pen.” (see Attachment 1_TD-4170S). Contractor personnel who do not have a LAN ID are required to include their full name, company name, and issued ID number or unique identifier. The LAN ID written on these six tees and six couplings in the field provide the necessary traceability for the plastic joiner(s) who performed the work.

Unsatisfactory Result #2: Design and Construction: Design of Pipe Components (DC.DPC)

Question Title, ID	Flanges and Flange Accessories, DC.DPC.FLANGE.O
Question Text	2. Do flanges and flange accessories meet the requirements of 192.147?
References	192.141 (192.147(a), 192.147(b), 192.147(c))
Issue Summary	Title 49 CFR §192.605(a) states, “Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response.”

PG&E’s Standard B-45.4 (Publication Date:3/10/2023, Effective Date:3/10/2023 Rev.0e), Section 2.1, Part E, states, “Bolts/studs must be fully engaged and extend completely through their nuts, with a recommended minimum of two threads exposed, as long as the bolt/stud does not extend beyond ½ inch (in.) from the nut face.”

During field inspection at [REDACTED] regulator station, SED noted that the flange between the filter and valve V-2 had two sets of bolts and nuts that were not fully engaged. Therefore, PG&E is in violation of Title 49 CFR §192.605(a) for failing to follow its standard B-45.4 by not installing bolts and nuts properly to maintain their designed strength.

Response to Unsatisfactory Result #2: Design and Construction: Design of Pipe Components (DC.DPC)

The bolt/stud thread engagement issues raised for the [REDACTED] regulation station were brought into alignment with the requirements of PG&E Gas Design Standard B-45.4, section 2.1(E) (see Attachment 3_B-45.4) under SAP Notification #125960555 (see Attachment 4_Bolt Engagement). Longer bolts were installed as part of this job to ensure proper thread engagement.

In addition, Corrective Action Program (CAP) #126221073 was created on May 24, 2023, and submitted on July 13, 2023, for the Q2 Internal Review Summary Findings (IRSF) for a system-wide review for these types of instances. As part of the CAP process, a Work Group Evaluation will be performed to investigate the cause of this issue to enable PG&E to determine the proper preventative and corrective measures.

Unsatisfactory Result #3: Time-Dependent Threats: Atmospheric Corrosion (TD.ATM)

Question Title, ID	Atmospheric Corrosion Monitoring, TD.ATM.ATMCORRODEINSP.R
Question Text	4. Do records document inspection of aboveground pipe for atmospheric corrosion?
References	192.491(c) (192.481(a), 192.481(b), 192.481(c), 192.481(d))
Issue Summary	Title 49 CFR §192.605(a) states, “Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response.”

PG&E’s Utility Procedure TD-4188P-02 (Publication Date:1/16/2019, Effective Date:4/16/2019 Rev:1) requires the corrosion technician to contact the local supervisor to create a corrective to recoat when they discover an Abnormal Operating Condition (AOC) consisting of light surface rust or coating issues at air-to-soil transitions.

PG&E’s Utility Procedure TD-4188S (Publication Date:2/17/2016, Effective Date: 1/1/2017) Section 4 states, in part: “The mitigation timeline of atmospheric corrosion-related abnormal operating conditions (AOCs) found during monitoring must not exceed thirty-nine months from the date of the AOC identification...”

SED reviewed atmospheric corrosion inspection records of a span (Equipment#44821225) for the years of 2019 and 2022. SED noted that PG&E identified coating issues at the air-to-soil transitions on 7/31/2019 and again on 7/1/2022, indicating that PG&E has not remediated the AOC. PG&E confirmed that the first correction ticket (ticket#123979311) PG&E created was on 7/1/2022, followed by another ticket (ticket#125986590) on 4/20/23.

By the end of SED’s inspection, April 28, 2023, PG&E still had not remediated the AOC, thus exceeding the 39-month timeline specified in TD-4188S. Based on the information gathered, SED found PG&E in violation of Title 49 CFR §192.605(a) for failing to follow its Utility Procedure TD-4188P-02 by not creating a corrective to recoat the span when PG&E discovered the AOC on 7/31/2019. PG&E also failed to follow its Utility Procedure TD-4188S by not mitigating the AOC within 39 months of identification.

Response to Unsatisfactory Result #3: Time-Dependent Threats: Atmospheric Corrosion (TD.ATM)

CAP #123972403 was created on July 1, 2022, to address the AOC on EQ# 44821225. As a result, project order #35363709 was created on July 7, 2022, which entails replacing approximately 315 ft of high-pressure distribution main. Please see Attachment 5_Project Status.

Concern #1: Maintenance and Operations: Gas Pipeline Overpressure Protection (MO.GMOPP)

Question Title, ID	Pressure Limiting and Regulating Stations Inspection and Testing, MO.GMOPP.PRESSREGTEST.R
Question Text	4. Do records indicate inspection and testing of pressure limiting, relief devices, and pressure regulating stations?
References	192.709(c) (192.739(a), 192.739(b))

Issue Summary SED reviewed pressure regulating station maintenance records and found that for regulator station R-608, the left run was the lead run on Aug 6, 2019, but on September 4, 2020, PG&E found that the left run was the lag run. PG&E later confirmed that the regulator station runs were swapped on January 29, 2020, for the moisture to dry and apply paint. However, the personnel who conducted the maintenance and swapped the runs did not document the change.

SED recommends PG&E document the event of changing regulator station configurations whenever it occurs.

Response to Concern #1: Maintenance and Operations: Gas Pipeline Overpressure Protection (MO.GMOPP)

PG&E agrees with this documentation concern and recommendation. The Supervisor has noted the discrepancy and discussed the issue with the team of technicians. Please note that there are no reliability or safety concerns with swapping the runs earlier than expected. For this specific regulator station, the left run was the lead run for approximately 7 months (Aug 6, 2019 – January 29, 2020), then became the lag run for approximately 8 months (January 29, 2020 – September 4, 2020). Therefore, both the left and right runs had approximately the same run time as the lead to ensure that all regulators got exercised to demonstrate proper functionality.

Concern #2: Maintenance and Operations: ROW Markers, Patrols, Leakage Survey and Monitoring (MO.RW)

Question Title, ID Distribution Leakage Surveys, MO.RW.DISTPATROLLEAKAGE.R (also presented in: PD.RW)

Question Text 11. Do records indicate distribution leakage surveys were conducted as required?

References 192.603(b) (192.723(a), 192.723(b))

Issue Summary SED reviewed selected leakage survey records and found discrepancies in the length of main leak surveyed for the following:

	Ft of main surveyed: (2021)	Ft of main surveyed: (2022)
Map:2405-C5	7,125	4,500
Map:2405-D1	940	550
Map:2405-G2	3,735	7,824
Map:2405-G2	2,950	1,540

PG&E responded that the discrepancies were a result of the leak survey technicians incorrectly using the scale wheel because there are no standards or procedures for the technicians to follow.

SED also reviewed PG&E's "Distribution Leak Survey Protocol" for performing quality control (QC) reviews of leak survey plat maps, and selected QC records for the issue plat maps (2019-2022). SED found that both the protocol and records do not require the QC personnel to compare leak survey footage between the current and previous cycle.

PG&E confirmed to SED that the QC personnel do not compare the length of main surveyed.

SED recommends PG&E update its procedures for proper use of the scale wheel and add a requirement for QC personnel to check for discrepancies in leak survey footage.

Response to Concern #2: Maintenance and Operations: ROW Markers, Patrols, Leakage Survey and Monitoring (MO.RW)

The footage discrepancies raised in these (4) instances were corrected (see Attachment 6_LS Maps Corrected). In addition, PG&E has a targeted date of January 1, 2024, in which use of the scale wheels to document leak survey footages will be discontinued and instead will be done through GIS.

Concern #3: Maintenance and Operations: ROW Markers, Patrols, Leakage Survey and Monitoring (MO.RW)

Question Title, ID	Placement of ROW Markers, MO.RW.ROWMARKERABOVE.O (also presented in: PD.RW)
Question Text	14. Are line markers placed and maintained as required for above ground pipelines?
References	192.707(c) (CGA Best Practices, v4.0, Practice 2-5, CGA Best Practices, v4.0, Practice 4-20)
Issue Summary	During SED's field observation, SED noted that line markers were missing at pipeline span (Equipment#45065215) on 4/27/2023.

PG&E corrosion technician remediated the issue by installing the new line markers on the same day. Please provide documentation of the remediation.

Response to Concern #3: Maintenance and Operations: ROW Markers, Patrols, Leakage Survey and Monitoring (MO.RW)

Please see Attachment 7_EQ 45065215_Line Markers.pdf for pictures of newly installed line markers.

Concern #4: Time-Dependent Threats: External Corrosion - CP Monitoring (TD.CPMONITOR)

Question Title, ID	Cathodic Protection Monitoring Criteria, TD.CPMONITOR.MONITORCRITERIA.O
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Question Text 3. Are methods used for taking CP monitoring readings that allow for the application of appropriate CP monitoring criteria?

References 192.465(a) (192.463(b), 192.463(c), 192.463(a))

Issue Summary PG&E’s Utility Standard: TD-4181S (Publication Date:5/24/23, Effective Date:5/24/23 Rev:3), Section 5.1 states, in part:"...Cathodic protection areas are considered adequately protected, per 49 CFR 192, Appendix D, “Criteria for Cathodic Protection and Determination of Measurements,” Section 1.A.1, when the structure-to-soil potentials are –850 millivolts (mV) or more negative, with reference to a copper-copper sulfate electrode, with CP current applied." And Section 7.4, states, " To ensure facilities are protected until the next monitoring cycle, a drivable anode must be installed if the P/S potentials are less negative than –900 mV with reference to a copper-copper sulfate electrode, with CP current applied."

During field observation, SED noted the following read points to be low:

Test Station (ETS):

- Equipment#44406710: -690mV (P/S)

Isolated steel (10%er):

- Equipment#44903579: -871mV (P/S)
- Equipment#45103724: -856mV (P/S)

PG&E indicated that they created correction tickets, and all remediation is currently in progress.

SED requests that PG&E provide an update after completing any corrective actions.

Response to Concern #4: Time-Dependent Threats: External Corrosion - CP Monitoring (TD.CPMONITOR)

Please see updates below on the low reads on the assets identified in these three (3) instances. A troubleshooting investigation for each location will be conducted to determine the cause of the low read.

Asset Type	EQ #	Read	Troubleshoot Notification #
Electrolysis Test Station (ETS)	44406710	- 690mV	126011151
Isolated Steel (10%er)	44903579	- 871mV	126011243
	45103724	- 856mV	126011285

Concern #5: Generic Questions: Generic Questions (GENERIC.GENERIC)

Question Title, ID Generic Question, GENERIC.GENERIC.GENOBSERVE.O

Question Text 1. Generic question - please provide context in result notes.

References 196.161

Issue Summary During SED’s field observation, SED observed exposed pipes (spans) and noted the following AOCs:

1. Equipment#44821225
 - a) A barbed wire was supporting the main body of the pipe.
 - b) The contact areas between the barbed wire and pipe had surface rust and small coating holidays.

2. Equipment#45031542
 - a) Unauthorized plastic pipe tied to the span.
 - b) The support at "Pipe to Support interfaces#1" has sharp open edges and could damage the pipe and/or coating.
 - c) The support at "Pipe to Support interfaces#2" rests on loose soil.

SED requests that PG&E provide an update on any corrective actions taken.

Response to Concern #5: Generic Questions: Generic Questions (GENERIC.GENERIC)

CAP# 123972403 was created on July 1, 2022, to address EQ# 44821225. As a result, Project Order #35363709 was created that will address issues raised for EQ# 44821225. This project entails replacing approximately 315 ft of high-pressure (HP) distribution main. Please see Attachment 5_Project Status.

CAP# 126007078 was created on April 27, 2023, to address the concerns raised for EQ# 45031542. Project Order #35441638 was created as a result, which entails replacing 140 ft of HP distribution main. Please see Attachment 5_Project Status.

Please contact [REDACTED] for any questions you may have regarding this response.

Sincerely,

/s/ Frances Yee

Sr. Manager, Regulatory Compliance and Reporting

cc: Dennis Lee, CPUC
Claudia Almengor, CPUC
Henry Chen, CPUC
Kristina Castrence, PG&E
Frances Yee, PG&E
Susie Richmond, PG&E

Attachments :

Attachment 1_TD-4170S.pdf
Attachment 2_Joiner Stamp.pdf
Attachment 3_B-45.4.pdf
Attachment 4_Bolt Engagement.pdf_
Attachment 5_Project Status.pdf
Attachment 6_LS Maps Corrected.pdf
Attachment 7_EQ 45065215_Line Markers.pdf