

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



August 28, 2025

GI-2025-05-PGE-92-01ABC

Mr. Austin Hastings
Vice President, Gas Engineering
Pacific Gas and Electric Company
Gas Transmission and Distribution Operations
6121 Bollinger Canyon Road
San Ramon, CA 94583

SUBJECT: SED's Closure Letter for General Order 112-F Gas Inspection of PG&E's Central South Transmission Area

Dear Mr. Hastings:

The Safety and Enforcement Division (SED) of the California Public Utilities Commission reviewed Pacific Gas & Electric Company's (PG&E) response letter dated August 13, 2025 for the findings identified during the General Order (GO) 112-F inspection of PG&E's Central South Transmission Area (Central South Area) which was conducted from May 12 to June 9, 2025.

A summary of the inspection findings documented by SED, PG&E's response to our findings, and SED's evaluation of PG&E's response taken for each identified Violation and Area of Concern is attached.

This letter serves as the official closure of the 2025 GO 112-F inspection of PG&E's Central South Transmission Area and any matters that are being recommended for enforcement will be processed through the Commission's Citation Program or a formal proceeding.

If you have any questions, please contact Hengyao Chen at (415) 214-4173 or by email at hengyao.chen@cpuc.ca.gov.

Sincerely,

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

cc: [REDACTED] PG&E Gas Regulatory Compliance
[REDACTED] PG&E Gas Regulatory Compliance
[REDACTED] PG&E Gas Regulatory Compliance
[REDACTED] PG&E
Terence Eng, SED
Joel Tran, SED
Claudia Almengor, SED

Post-Inspection Written Preliminary Findings

Dates of Inspection: 05/12/2025 – 6/09/2025

Operator: PACIFIC GAS & ELECTRIC CO

Operator ID: 15007 (primary)

Inspection Systems: Transmission

Assets (Unit IDs) with results in this report: Central South Transmission (86289)

System Type: GT

Inspection Name: 2025 PG&E Central South Transmission

Lead Inspector: Chen, Hengyao

Operator Representative: [REDACTED]

Unsatisfactory Results

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

Question Title, ID Atmospheric Corrosion Monitoring, TD.ATM.ATMCORRODEINSP.R

Question 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), 192.9(f)(1), 192.453)

Assets Covered Central South Transmission (86289 (92))

Issue Summary Title 49 CFR Part 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 "Mitigation", 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 the below three spans and noted the following:

1. **Equipment#41452409:** PG&E identified that this span had coating issues at the air-to-soil transitions on 4/10/21 and again on 3/5/24, indicating that PG&E has not remediated the AOC. PG&E confirmed that the first notification ticket (ticket#120896393) they created was on 04/28/2021; however, a replacement project with order number PM44766312 they created was scheduled for 2025. On 5/22/25, SED field verified that PG&E has not remediated the existing coating issues.

2. **Equipment#41466570:** PG&E identified that this span had corrosion and coating issues at air-to-soil transitions on 4/13/21 and again on 3/4/24, indicating the PG&E has not remediated the AOC. PG&E confirmed that the first notification ticket (ticket#120823099) they created was on 04/15/2021; however, a replacement project with order number PM74063902 they created was scheduled for 2025.

3. **Equipment#49931008:** PG&E identified that this span had corrosion issue at air-to-soil transition#2 on 4/13/21 and again on 3/11/24, indicating the PG&E has not remediated the AOC. PG&E confirmed that the first notification ticket (ticket#120813851) they created was on 12/1/21; however, a repair project with order number PM44741977 they created was scheduled on 12/1/25. On 5/21/25, SED field verified that PG&E has not remediated the existing corrosion issue.

By the end of SED's inspection, June 9, 2025, PG&E still had not remediated the AOCs, 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 Part 192.605(a) for failing to follow its Utility Procedure TD-4188S by not mitigating the AOCs within 39 months of identification.

PG&E's Response PG&E agrees with this finding. The three spans were not remediated within the timeline specified in TD-4188S. The following is a summary of the remediation status of the spans:
Equipment #41452409: Due to long lead permits, this repair was not completed within the 36 (not to exceed 39) month compliance period. The repair is currently scheduled for 09/10/2025 when permits are issued and will be completed under PM 44766312.
Equipment #41466570: Due to long lead permits, this repair was not completed within the 36 (not to exceed 39) month compliance period. The repair is currently in progress and mobilized on 07/21/2025 under PM 74063902.
Equipment #49931008: Due to long lead permits, this repair was not completed within the 36 (not to exceed 39) month compliance period. The repair is currently scheduled for 04/06/2026 when permits are issued and will be completed under PM 44741977.
In January 2025, PG&E updated the Atmospheric Corrosion program process to plan and scope projects 3 years in advance. This will allow PG&E to identify any possible issues (including long lead permits) ahead of time in order to meet compliance deadlines.

SED's conclusion SED has reviewed the response from PG&E and has opted not to impose a fine or penalty. SED requests PG&E to provide SED the completion package of the replacement projects (PM 44766312, PM 74063902, and PM 44741977) once they are available.

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

Question Title, ID Correction of Corrosion Control Deficiencies for Onshore Gas Transmission, TD.CPMONITOR.DEFICIENCYGT.R

Question 18. For onshore gas transmission pipelines, do records adequately document actions taken to correct any identified deficiencies in corrosion control found during inspections/testing?

References 192.491(c) (192.465(d))

Assets Covered Central South Transmission (86289 (92))

Issue Summary Title 49 CFR Part 192.465(d) states, "Each operator must promptly correct any deficiencies indicated by the inspection and testing required by paragraphs (a) through (c) of this section. For onshore gas transmission pipelines, each operator must develop a remedial action plan and apply for any necessary permits within 6 months of completing the inspection or testing that identified the deficiency. Remedial action must be completed promptly, but no later than the earliest of the following: prior to the next inspection or test interval required by this section; within 1 year, not to exceed 15 months, of the inspection or test that identified the deficiency; or as soon as practicable, not to exceed 6 months, after obtaining any necessary permits."

SED reviewed test station inspection records of the equipment below. SED noted that PG&E identified the pipe-to-soil (P/S) potentials are less negative than -850mV in 2022. However, PG&E did not take prompt remedial action to correct the low CP deficiencies within 15 months as required by TD-4181S.

Equipment Number & TYPE	Inspection Date	ON(mV)	Instant Off (mV)	Native (mV)	SED's finding:	PG&E's response(s):
41385020 (Coupon)	9/10/2022	-263	-263	-390	Low CP read	SELF-REPORTED 129036062
41385020 (Coupon)	9/18/2023	-293	-293	-439	Low CP read	
41445352 (ETS)	10/10/2022	-1340	-670		Low CP read	SELF-REPORTED 129036062
41445352 (ETS)	10/2/2023	-2756	-1266		Out of tolerance read	
41445352 (ETS)	10/14/2023	-2756	-1266		Out of tolerance read	
41445352 (ETS)	5/22/2024	-2431			No instant off read	
41445352 (ETS)	10/8/2024	-1855			No instant off read	

Based on the information gathered, SED found PG&E in violation of Title 49 CFR Part 192.465(d) by not taking prompt remedial action within 15 months, of the inspection or test that identified the deficiency, for pipelines monitored by 1 coupon and 1 electrolysis testing stations.

PG&E's Response PG&E agrees with the finding for Coupon Test Station (CTS) EQ# 41385020. Repairs were completed in the field on 2/22/2024, 17 months after identification on 9/10/2022, exceeding the 15 month requirement for remediation. Attached, please find Attachment 1 – "Troubleshoot Read Notifications" for both EQ's.

PG&E respectfully disagrees with the finding for Electrolysis Test Station (ETS) EQ# 41445352. There were two separate issues associated with this ETS. The first issue was the low read identified on 10/10/2022. The low read was remediated on 10/14/2023 per troubleshoot notification 124689086, 12 months after identification. This remediation did, however, create a slight overprotection issue where **both** the "pipe-to-soil (P/S) potentials have to be more negative than -2,500 mV with impressed cathodic protection current applied (rectifier On) **and** more negative than -1,200 mV with (instant-OFF)" to be out of compliance. This overprotection issue was remediated on 11/25/2024 per troubleshoot notification 129654808, 13 months after identification. Please note that SAP is not set up to identify back-to-back troubleshoots with different issues on the same equipment and identify it as being resolved when the separate issues are remediated. Attached, please find Attachment 1 – "Troubleshoot Read Notifications." CONFIDENTIAL – Provided Pursuant to Confidentiality Declaration ("Index 17814_Confidentiality Declaration.pdf")

Both issues with Coupon Test Station (CTS) EQ# 41385020 and Electrolysis Test Station (ETS) EQ# 41445352 were self-identified by Corrosion Engineering in 2024 and CAP 129036062 and subsequent CAP 129910205 were created to address a systemwide issue within SAP where "Instant Off" reads more negative than -1200 mV were listed as an "area up" rather than an "area down." This issue was corrected in April 2024. Attached, please find Attachment 2 - "CAP 129036062" and Attachment 3 - "CAP 129910205".

SED's conclusion SED has reviewed the response and Attachments (1~3) from PG&E and has opted not to impose a fine or penalty. However, SED recommends PG&E conduct a periodically quality check for pipe-to-soil read issues as its SAP is not set up to identify back-to-back troubleshoots with different issues on the same equipment.

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

Question Title, ID Vault Inspection, FS.FG.VAULTINSPECT.R (also presented in: FS.FG)

Question 16. Do records document the adequacy of inspections of all vaults having an internal volume =200 cubic feet (5.66 cubic meters) that house pressure regulating/limiting equipment?

References 192.709(c) (192.749(a), 192.749(b), 192.749(c), 192.749(d))

Assets Covered Central South Transmission (86289 (92))

Issue Summary Title 49 CFR Part 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."*

Utility Procedure TD-4540P-01 "Maintenance of Regulator Stations (Non-HPR, HPR) and Farm Tap Sets" (Publication Date:01/26/2023, Effective Date:01/26/23, Rev:2c), Section 5 requires that the field personnel check for combustible gases per Utility Procedure TD-4414P-10 before entering any pit or vault.

Utility Procedure TD-4414P-10 - "Gas Operations Entry Into Other Confined Spaces" (Publication Date: 08/18/2021 Effective Date: 08/31/2021 Rev: 0a), Section 3.1 states, in part: *"Before opening the Other Confined Spaces (OCS), all personnel on site perform a job site tailboard briefing per Utility Procedure TD-4414P-01, "Tailboard Briefing and Job Site Safety Analysis (JSSA) for Gas Operations," with specific attention to confined space hazard assessment"*, and Section 4.2 states, *"Record initial air testing results on Form TD-4414P-10-F01."* In addition, Section 5.1 also states, *"At a minimum, air monitoring results must be recorded before initial entry and before re-entry if all entrants have exited the space."* Furthermore, the later revision (Publication Date: 02/03/2023 Effective Date: 05/08/2023 Rev: 1a), Section 5.1 states, in part: *"Before any employee physically enters that space, Entry Supervisor holds a pre-entry tailboard."*

1. *Confined Space Competent Person discusses initial air test results recorded on Form TD-4414P-10-F01 or Form TD-4414P-10-F02."*

Utility Procedure TD-4414P-01 -"Tailboard Briefing and Job Site Safety Analysis (JSSA) for Gas Operations" (Publication Date:11/15/2017, Effective Date:03/01/2018, Rev:0), Section 5.2 states, *"Retain Record per the Record Retention Schedule"*

1. *The JSSA is a Group-B as-build record."*

SED reviewed a set of selected binders and found that PG&E is missing two types of record in the listed binder including Job Site Safety Analysis (JSSA) form and Other Confined Spaces (OCS) (i.e. TD-4414P-10-F01) form. This was an issue found within one or multiple years. PG&E confirmed that the field personnel did not record an initial air test on the OCS form between 2022 and 2024.

Division	Binder's Name	Type Of Document	Missing Records Year(s)
Kettleman Division	El Dorado Ave Regulator Station	(a) OCS Form	(a) From 2022 to 2024
		(b) Job Site Safety Analysis (JSSA) Form	(b) 2024

SED determined that PG&E's field personnel did not perform the required activities including checking and recording an initial air test on the OCS form and performing a job site tailboard briefing before entering the vault as PG&E couldn't provide the missing records. Therefore, PG&E is in violation of Title 49 CFR §192.605(a), by failing to follow its own Utility Procedures TD-4414P-10 and TD-4414P-01 when conducting operation and maintenance activities.

PG&E's Response PG&E shares SED's concern related to JSAA and OCS records, however PG&E respectfully disagrees that this finding is a violation of 49 CFR 192.605(a) due to the fact that both TD-4414P-10 Rev 0a - "Gas Operations Entry Into Other Confined Spaces" and TD-4414P-01 Rev0 - "Tailboard Briefing and Job Site Safety Analysis (JSSA) for Gas Operations" are not part of PG&E's Operations & Maintenance (O&M) Manual, nor are they required O&M procedures per 49 CFR 192.605(b), therefore 49 CFR 192.605(a) does not apply. PG&E believes that referencing non-O&M procedures in an O&M procedure does not require treating those non- O&M procedures as being part of the O&M process. TD-4414P-10 and TD-4414P-01 cover personnel safety practices that go beyond O&M requirements. The Other Confined Space procedure, TD-4414P-10, is mentioned in the O&M manual to promote personnel safety when performing required pipeline maintenance activities. The JSSA procedure, TD-4414P-01, is not mentioned in either the O&M Manual or the Regulator Station Maintenance Procedure, TD- 4540P-01.

An extensive search was conducted at the Kettleman GPOM office and PG&E was unable to locate either the 2024 JSSA (electronic or hard copy) or the three Other Confined Space (OCS) forms (2022, 2023 and 2024) for the El Dorado Ave. Regulator Station. As a corrective action following this inspection finding, GPOM supervision in Kettleman District tailboarded the crew on the importance of completing and retaining both the JSSA and OCS forms when performing air testing per TD-4414P-10. Attached, please find Attachment 4 – "JSSA OCS Retention Tailboard".

Additionally, GPOM is in the process of transitioning from paper records to leveraging electronic forms using Microsoft Power Apps. Both JSSA and OCS forms have been developed and all GPOM personnel have access to utilize them. Training sessions for each form are scheduled to occur over the next several weeks. Once personnel receive training, they will be expected to utilize the new electronic forms moving forward. The electronic records will be maintained in alignment with the assigned PG&E Records and Information Management (RIM) record retention schedule. CAP 131495407 was created to transition the OCS Vault Entry Form, TD-4414P-10-F01, Rev. 1 to an electronic format. Attached, please find Attachment 5 – "OCS Form CAP 131495407". Similarly, CAP 131259287 was created to transition the JSSA Form, TD-4414P-01-F01, Rev. 1 to an electronic format. Attached, please find Attachment 6 – "JSSA Form CAP 131259287".

SED's conclusion SED has reviewed the response and Attachments (4~6) from PG&E and has concluded that Utility Procedures TD-4414P-10 and TD-4414P-01 are operational procedures that fall under Utility Procedure TD-4540P-01, which is documented regardless of whether they are listed in the O&M Manual. However, SED has opted not to impose a fine or penalty since PG&E has taken appropriate remedial actions, and the violations did not create any hazardous conditions for the public or utility employees.

Concerns

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

Question Title, ID Vault Inspection, FS.FG.VAULTINSPECT.R (also presented in: FS.FG)

Question 16. Do records document the adequacy of inspections of all vaults having an internal volume =200 cubic feet (5.66 cubic meters) that house pressure regulating/limiting equipment?

References 192.709(c) (192.749(a), 192.749(b), 192.749(c), 192.749(d))

Assets Covered Central South Transmission (86289 (92))

Issue Summary Utility Procedure TD-4414P-01 -"Tailboard Briefing and Job Site Safety Analysis (JSSA) for Gas Operations" (Publication Date:11/15/2017, Effective Date:03/01/2018, Rev:0), Section 5.2 states, "Retain Record per the Record Retention Schedule

1. *The JSSA is a Group-B as-build record."*

After reviewing, SED noted that the Record Retention Schedule (GOV-7101S, Attachment 1) does not cover the JSSA record requirement(s) for any gas related operation and maintenance activities.

SED recommends that PG&E update its Utility Procedure TD-4414P-01 and/or retention schedule to cover the related JSSA record keeping requirement(s) for gas related operation and maintenance activities.

PG&E's Response The JSSA record keeping guidance is managed and maintained by PG&E Records and Information Management (RIM) group, which governs record retention requirements for all of PG&E. The retention schedule for a standalone JSSA, which applies to all maintenance activities, is "RSC25" and corresponds to 5 years from the date of creation. The retention schedule can be found on page 45 of GOV-7101S Attachment 1, "Information & Records Retention Schedule". The retention schedule can also be found on the Information & Records

Governance (IRG) knowledge center website. Attached, please find Attachment 7 – “JSSA Retention Schedule – RSC25”. As stated in PG&E’s response to Unsatisfactory Result #3, the JSSA procedure, TD-4414P-01, is not part of PG&E’s O&M Manual.

SED’s Conclusion SED has reviewed the response and Attachment 7 from PG&E and determined that the provided document by PG&E sufficiently address SED’s concern.

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

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), 192.9(f)(1), 192.453, 192.491)

Assets Covered Central South Transmission (86289 (92))

Issue Summary SED reviewed atmospheric corrosion (AC) inspection records of the two unintentionally exposed spans below and noted the following:

1. **Equipment#41432203:** PG&E’s AC inspection records indicated this span had heavy debris and vegetation issues on 5/12/2021 and again on 5/14/2024.
2. **Equipment#41465894:** PG&E’s AC inspection records indicated this span had heavy debris and vegetation issues on 5/7/2021 and again on 5/14/2024.

On 5/21/25, SED visited the above two spans and noted that PG&E has not remediated the issues yet.

On 5/27/25, PG&E created a vegetation clearing work order for each issued span (Notification#131285719 for EQ#41432203 and Notification#131285832 for EQ#41465894).

On 6/2/25, PG&E also responded that its Vegetation Management team has instituted a new process for PG&E’s field personnel to request and submit a vegetation clearing work order through its Gas Transmission Vegetation Management Home SharePoint site as well as hold a five-minute meeting to explain the new process.

On 6/2/25, SED reviewed PG&E’s Five Minute Meeting regarding gas transmission vegetation management updates and noted that the guidance did not specify a remediation timeline.

SED recommends PG&E update its procedures to include a remediation timeline for vegetation management.

PG&E’s Response PG&E has implemented a new process for field personnel to request and submit a vegetation clearing work order. The Vegetation Management team has instituted this new process for PG&E’s field personnel to request and submit a vegetation clearing work order through its Gas Transmission Vegetation Management Home SharePoint site. A five-minute meeting (5MM) to explain the new process has been created for guidance. Please see Attachment 8 – “5MM_GTVM_ Jan 7 2025”, for the completed 5 Minute Meeting. Please note that the new process implements a risk-based approach to both inspections and mitigations. As such, once a site evaluation is completed, a scope of work will be created and evaluated by a cross functional team for environmental and political sensitivity of the site and constraints. Once this evaluation is completed, a timeline for remediation will be provided to the requestor. This risk-based process was reviewed and approved by Senior PG&E leadership. TD-4490P-03 Rev2a – “Vegetation Encroachment Site-Specific Risk Analysis”, has just been revised (Rev 2a), and includes this risk-based approach. Rev 2a of the procedure becomes effective on 9/1/2025. Please see Attachment 9 – “TD-4490P-03 Rev 2a - Vegetation Encroachment Site-Specific Risk Analysis”.

Both of these unintentionally exposed pipes were last inspected by NACE Certified Corrosion Mechanics on May 14, 2024 with no abnormal operating conditions identified. Subsequently, a site visit by the Gas Transmission Vegetation Management group was conducted on June 11, 2025. The data is currently going through a first-level environmental review. Once the results of that review are received, it will be determined whether a second-level environmental review will need to be conducted. Timeframes for second-level reviews vary, though they typically take anywhere from several weeks to a few months. Once the environmental review is completed,

Vegetation Management will start the process of clearing constraints. After all constraints are cleared, a tree crew will be contacted and the mobilization date will be finalized.

SED's Conclusion SED has reviewed the response and Attachments (8 & 9) from PG&E and determined that the ongoing corrective actions articulated by PG&E sufficiently address SED's concern. SED requests PG&E to provide SED the completion package of the vegetation clearing work for each issued span (Notification#131285719 for EQ#41432203 and Notification#131285832 for EQ#41465894) once they are available.

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

Question Title, ID Extent of Corrosion Control Deficiencies for Onshore Gas Transmission, TD.CPMONITOR.DEFICIENCYEXTENT.O

Question 14. Is the extent of inadequate cathodic protection identified, and if found, corrected?

References 192.465(f) (192.465(d))

Assets Covered Central South Transmission (86289 (92))

Issue Summary PG&E's Utility Procedure: TD-4181P-203 (Publication Date:12/31/21, Effective Date:1/1/2022, Rev:0), Section 1.3 states, "Ensure that all transmission pipelines, gathering pipelines, and storage well casings meet or exceed the -850 mV instant OFF criterion wherever possible, to align with industry best practices as recommended by AMPP (Association for Materials Protection and Performance)."

During field observation, SED noted that the following read points had low Cathodic Protection (CP) issues (i.e. less negative than -850mV):

Equipment / Type	Current (Pipe-to-Soil) Read	Previous (Pipe-to-Soil) Read
44921256 (ETS)	-787mV (Instant Off) on 05/20/25	-858mV (Instant Off) on 12/20/24
44931722 (ETS)	-803mV (Instant Off) on 06/04/25	-879mV (Instant Off) on 08/01/24
42836822 (CTS)	Not checked due to disconnected lead wires on the CTS head.	-764mV(Instant Off), -357mV(Native) on 11/18/24

PG&E created the troubleshoot notification to remediate the above three test stations:

Equipment / Type	Notification Number	Notification Creation Date
44921256 (ETS)	Notification 131267196	05/21/25
44931722 (ETS)	PM 46530751 / Notification 131318068	06/04/25
42836822 (CTS)	PM 46530752 / Notification 131318115	06/04/25

SED recommends PG&E to remediate low CP issues before the next inspection cycle.

PG&E's Response PG&E has remediated all three of the test stations that recorded low reads during the audit field inspections. Attached, please find Attachment 10 – "Field Troubleshoot Notifications". Please note that the correct notification for ETS EQ# 44931722 is 131318115 and the correct notification for CTS EQ# 42836822 is 131318068.

SED's Conclusion SED has reviewed the response and Attachment 10 from PG&E and determined that the corrective actions articulated by PG&E sufficiently address SED's concern.