PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

September 11, 2025 SA2025-1313

Daniel Kushner
Senior Director - Electric Risk & Compliance
Pacific Gas & Electric Company (PG&E)
300 Lakeside Drive
Oakland, CA 94612

SUBJECT: Electric Substation Audit of PG&E Martin Headquarters (HQ)

Mr. Kushner:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Brandon Vazquez, Nora Nguyen, and Rafael Herranz of ESRB staff conducted an electric substation audit of PG&E's Martin HQ from May 19, 2025 through May 23, 2025. During the audit, ESRB staff conducted field inspections of PG&E's substation facilities and equipment and reviewed pertinent documents and records.

As a result of the audit, ESRB staff identified violations of General Order 174. A copy of the audit findings itemizing the violations is enclosed. Please provide a response no later than **October 9, 2025**, by electronic copy of all corrective actions and preventive measures taken by PG&E to correct the identified violations and prevent the recurrence of such violations.

Please note that ESRB will be posting the audit report and your response to our audit on the CPUC website. If there is any information in your response that you would like us to consider as confidential, we request that in addition to your confidential response, you provide us with a public version (a redacted version of your confidential response) to be posted on our website.

If you have any questions concerning this audit, please contact Brandon Vazquez at Brandon.Vazquez@cpuc.ca.gov or (628) 249-2867.

Sincerely,

Rickey Tse, P.E.
Program and Project Supervisor
Electric Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission

Enclosure: CPUC Electric Substation Audit Report for PG&E Martin HQ

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CPUC SUBSTATION AUDIT FINDINGS
PG&E MARTIN HEADQUARTERS
MAY 19-23, 2025

I. Records Review

During the substation audit, Electric Safety and Reliability Branch (ESRB) reviewed the following standards, procedures, and records for PG&E's Martin Headquarters (HQ):

- List and locations of all PG&E Martin HQ substations.
- Map showing all PG&E substations in the Martin HQ.
- PG&E Substation Equipment Maintenance Requirements, Utility Standard: TD-3322S, Revision 10.
- PG&E Substation Maintenance and Construction (SM&C) Manual, Utility Standard: TD-3322M, Revision 12.
- PG&E Substation Inspections Procedure, Utility Standard: TD-3322M-01, Revision 12.
- PG&E Infrared Inspection Procedures, Utility Standard: TD-3322M-09, Revision 11.
- PG&E Insulating Oil Testing Manual, Utility Standard: TD-3322M-10, Revision 10.
- PG&E Accumulated Critical Current (ACC) Process, Utility Standard: TD-3320P-12.
- PG&E Substation Fire Protection Systems and Equipment – Inspection, Test and Maintenance Procedure, Utility Standard: TD-3320P-07, Revision 3.
- PG&E Substation General Work Procedures, Utility Standard: TD-3320S.
- Explanation of PG&E inspector training policies.
- List of all substation inspections conducted in the last five years.
- List of all open, completed, canceled, and late Line Corrective (LC) Notifications and maintenance items in the last five years.
- Equipment lists for all selected substations.
- Single-line diagrams of all selected substations.
- Last two visual inspection checklists for all substations.
- List of transformer banks that operated beyond nameplate capacity for the last five years for all substations.
- Infrared testing records for all substations in the last two years.
- Most recent oil sample test results for all substations.
- Most recent electrical test results for all substations.
- Training records for all substation and maintenance personnel in the last five years.
- Other relevant substation inspections for the last five years for all substations.
- Internal audit findings for Martin HQ for the last five years.

II. Records Violations

ESRB observed the following violations during the records review portion of the audit:

1. **General Order (GO) 174, Rule 12, General** states in part:

   "Design, construction and maintenance should be performed in accordance with accepted good practices for the given local conditions known at the time by those responsible."

   a. PG&E Substation Equipment Maintenance Requirements, Utility Standard: TD-3322S[1], establishes PG&E's required end dates and out-of-compliance dates for corrective work as follows:

Table 1: Line Corrective (LC) Due Dates Per Priority Code

Priority Code	Required End Date	Out-of-Compliance Date
A	Within 30 days	Close notifications (after removing the hazard [make safe]) with either permanent or temporary repairs within 30 days. Create a new lower priority notification immediately for any remaining work that will exceed 30 days. Reference the Priority A notification number to ensure a record of temporary repairs is linked to the new notification.
B	Within 90 days	The out-of-compliance date is the 1st day of the 2nd month following the month in which the required end date occurs.
E	Within 365 days	The out-of-compliance date is the 1st day of the year following the year in which the required end date occurs.
F	Greater than 365 days	There is no out-of-compliance date. This work will be completed when it is operationally efficient to perform the work.

Based on Table 1 above, ESRB found a total of 270 late LC notifications.[2] Out of the 270 late LC notifications, there were 118 late-closed notifications and 152 late-open notifications.[3] Therefore, PG&E did not perform maintenance in accordance with accepted good practices as described in Utility Standard TD-3322S. See Table 2 below for a breakdown of the late LC notifications by priority and type.

[1] PG&E Utility Standard TD-3322S, Effective June 6, 2024, Revision 10, Section 1.3.3.
[2] This is based on the Out-of-Compliance Date, Priority, Notification Date, and Completion Date provided in PG&E's April 15, 2025 response to Pre-Audit Data Request - Question 13. See Attachment 1 – Late LC Notifications for ESRB's Analysis.
[3] Late-closed LC notifications are notifications that were completed past their out-of-compliance date based on their priority code, and late-open LC notifications are pending notifications that have not been completed by their assigned out-of-compliance date based on their priority code.

Table 2: Late LC Notifications

Priority	Late-Closed	Late-Open	Total
A	-	-	**-**
B	65	101	**166**
E	53	51	**104**
Total	**118**	**152**	**270**

See Table 3 below for the most late LC notifications by priority.

Table 3: Most Late LC Notifications by Priority

Notification #	Priority	Days Late	Status
123272446	B	491	Closed
117637123	E	455	Closed

b. PG&E Substation Equipment Maintenance Requirements, Utility Standard: TD-3322S[4], also establishes PG&E's required out-of-compliance dates for preventative maintenance (PM) as follows:

1.3 Compliance
1. For preventive work, determine the out-of-compliance date using the notification required end date in the maintenance plan and the maintenance plan cycle.

- *IF the cycle is 1 year or more, THEN the out-of-compliance date is the 1st day of the year following the year in which the required end date occurs.*
- *IF the cycle is less than 1 year, THEN the out-of-compliance date is the 1st day of the month following the month in which the required end date occurs.*

Based on this excerpt from PG&E's procedure and out-of-compliance dates provided by PG&E, ESRB found a total of 151 late PM notifications.[5] Out of the 151 late PM notifications, there were 94 late-closed notifications and 57 late-open notifications. Therefore, PG&E did not perform maintenance in accordance with the accepted good practices described in Utility Standard TD-3322S. See Table 4 below for the most late PM notifications.

Table 4: Most Late PM Notifications

Notification #	Days Late	Status
118981740	1,441	Closed
119701811	1,172	Open

[4] PG&E Utility Standard TD-3322S, Effective June 6, 2024, Revision 10, Section 1.3.1.
[5] See Attachment 1 – Late LC Notifications for ESRB's Analysis.

2. **GO 174, Rule 31.1, Inspection Programs, Frequency** states:

"Substations shall be inspected as frequently as necessary.
- *Time intervals or other bases shall be specified in the Inspection Program."*

PG&E Substation Equipment Maintenance Requirements, Utility Standard: TD-3322S, establishes the frequency of PG&E's substation inspection program as follows:

"Substation inspection type - PG&E developed substation inspection types to determine the frequency of inspection. Initially, the categorization of a substation type is based on a PG&E-developed model that considers the risk each substation may have for public and employee safety, system criticality, security, and environmental risk. Then, field conditions or current activities (e.g., specific equipment or public issues) not represented in the model are considered, and the final substation type categorization is then made. Type 1 substations are inspected monthly and Type 2 substations are inspected on an every-other-month cycle."[6]

"Substation inspections – PG&E Substation Inspection Program is based on a time-based trigger. Substation Inspections are scheduled to be performed monthly for high criticality substations, and every other month for low criticality substations."[7]

"The criticality of the substation is based on numerous factors including, but not limited to, voltage class, capacity, NERC CIP jurisdiction, system operation criticality, as well as proximity to waterways, to population, or to environmentally sensitive areas. The methodology, contained in a spreadsheet, is then used to evaluate individual substations and assign a classification (frequency)."[8]

ESRB's analysis of PG&E's Substation Inspection List[9] found that PG&E completed one (1) substation inspection past the Out-of-Compliance Date. See Table 5 below for the late substation inspection.

Table 5: Late San Fran A Substation Inspection

Substation	Description	Notification No	Priority	Completed On	Out of Compliance Date	Days Late
SAN FRAN A (POTRERO PP) SUB	SAN FRAN A (POTRERO PP) SUB;STA INSP OOC	126036915	E	7/5/2023	7/1/2023	4

[6] PG&E Utility Standard TD-3322S, Attachment 11, Revision 3, PG&E Substation Inspection Program Summary, Effective April 7, 2022, Section 2.
[7] PG&E Utility Standard TD-3322S, Attachment 11, Revision 3, PG&E Substation Inspection Program Summary, Effective April 7, 2022, Section 3.a.
[8] PG&E Utility Standard TD-3322S, Attachment 5, Revision 7, Station and Headquarters Maintenance Template, Effective May 28, 2021, note following Table 3.
[9] PG&E Pre-Audit Data Request Response, Question 12 (Dated: April 15, 2025).

3. **GO 174, Rule 33, Inspection Programs, Records** states:

> *"33.1 Electronic or hard copy records of completed Inspections shall include, at a minimum:*
> - *Inspector name or identification*
> - *Inspection date*
> - *Brief description of identified discrepancies*
> - *Condition rating (where applicable)*
> - *Scheduled date of corrective action (where applicable)*
>
> *33.2 Electronic or hard copy records of completed Inspections shall be retained for not less than five (5) years."*

PG&E Substation Equipment Maintenance Requirements establish the frequency of PG&E's substation infrared inspection program as follows:

> *"Yearly: Conduct infrared surveys on electric substation equipment to detect heat-producing connections and contacts and other thermal patterns that may indicate abnormal conditions or equipment failure"*[10]

This standard refers to "TD-3322M, SM&C Manual, Infrared Inspections" and "Form: Substation Infrared Inspection F80". The referenced manual addresses the use of an infrared (IR) camera and recordkeeping requirements:[11]

> *"A. General, 1. Purpose, Monitoring the thermal profile of equipment and its components helps determine if the equipment is operating properly or if it needs corrective work. An IR inspection with an IR camera provides a thermal image and the interpretive spot temperature of the target."*
>
> *"H. Recordkeeping: 1. Substation Infrared Inspection Form; a. When thermal anomalies are identified through an IR inspection, document this information in the APM remote software. During tech down procedures, use Form TD-3322M-F80, "Substation Infrared Inspection." Submit the form with attached images to the substation maintenance supervisor, who schedules the necessary follow-up inspections and repairs."*

As stated in the SM&C Manual, an IR camera is the primary tool used in these inspections, and images from the camera are only retained if an image documents a thermal anomaly. In addition, PG&E's April 30, 2025 response to ESRB Pre-Audit Data Request – Question 18 states that PG&E transitioned to using APM for IR data collection

[10] PG&E Utility Standard TD-3322S, Attachment 5, Revision 7, Station and Headquarters Maintenance Template, Effective May 28, 2021, Table 1, Page 5.
[11] PG&E Utility Manual TD-3322M-09, Revision 11, Infrared Inspections, Effective June 6, 2023, Pages 1 and 16.

and retention in 2023, except when APM is not accessible during an inspection.[12]

A. Per ESRB's review of the IR records provided in response to Pre-Audit Data Request – Question 18, ESRB determined that PG&E is in violation of GO 174, Rule 33.1 due to the inspection date not being clearly provided. While the APM records appear to provide the information required by Rule 33.1,[13] a critical element of the inspection are the IR images of thermal anomalies. These images are referenced in the APM data and were provided to ESRB as separate PDF files. However, the PDF files provided inconsistent date information, including no dates, dates added to cover pages, and dates embedded within IR images. This inconsistency prevents ESRB from confirming the initial inspection date entered into APM, and it also prevents PG&E management and ESRB from verifying that re-inspections and any required corrective actions were performed. PG&E should update its Utility Manual TD-3322M, Attachment 9 to require inspectors to activate the IR camera feature to automatically superimpose a date and time stamp on the thermal image.

   In response to a similar finding from the San Carlos Substation Audit that ESRB conducted in February 2025, PG&E stated: "We agree that standardizing the IR reports would prevent the issues mentioned above, and that there is an opportunity to improve clarity and consistency in how the infrared imagery is presented. To that end, we have created CAP 131307790 to review and potentially update our infrared internal processes to include a visible date stamp on infrared images."[14] PG&E should standardize its IR reports to ensure they provide a clear and consistent record of all IR inspections.[15] The reports should provide the following: title page listing the station name and report contents, page numbers, dated images, equipment identification, description of anomalies, and corrective actions taken along with associated LC notifications. Listed below are examples where ESRB noted insufficient and inconsistent IR records:

   - **Beach St** – The 2023 and 2024 IR inspection records only provide an IR image of the station sign.
   - **Daly City** – The 2023 and 2024 IR inspection records only provide an IR image of the station sign and do not list the inspection date or if thermal anomalies were identified.
   - **Moscone** – The 2023 IR inspection record only provides an IR image of

[12] "In 2023, PG&E transitioned to predominantly using our digital platform, AssetWise Performance Management (APM), for all data collection, phasing out hard copy collection except in infrequent instances. The APM output for infrared tests is available in an Excel file, with each substation on a separate tab. Photographs from the 2023-2025 inspections are included in the PDF files."
[13] PG&E excel file *DRU15335_Q18_Atch01_MARTIN HQ ETS.12_IR CHECKSHEETS FINAL_CONF*. This assumes that the "Date and Time Collected" field in the APM data provides information for when the inspector entered data during the actual inspection, rather a later date, such as when a clerk entered inspection data in an office.
[14] PG&E June 18, 2025 Response to the San Carlos HQ Substation Audit Report (SA2025-1308).
[15] Related inspections include: the initial inspection, re-inspections, and re-inspections following any needed repairs.

the station sign and does not list the inspection date or if thermal anomalies were identified. Additionally, the 2024 IR inspection record only provides an IR image of the station sign.

B. Furthermore, ESRB found PG&E in violation of GO 174, Rule 33.2 for failing to retain various IR inspection records and associated thermal anomalies. PG&E stated in response to Pre-Audit Data Request – Question 18 that: "During the initial phase of routinely using APM, we encountered challenges with correctly uploading infrared photographs. Some photos were not properly embedded within APM, making them inaccessible afterward. To address this issue, we created CAP 131152864 to document the problem and ensure that Martin FLIR-trained employees are proficient in uploading photographs to APM." Table 6 below lists the missing IR inspection records.

Table 6: Missing IR Inspection Records

Substation Name	Missing Infrared Photographs
EAST GRAND	2023 Annual and all associated anomalies
JUDAH	2023 Annual
MILLBRAE	2023 Annual and all associated anomalies
NORIEGA	2023 Annual
PACIFICA	2023 Annual
PLYMOUTH	2023 Annual
SAN ANDREAS	2023 Annual
SAN FRAN AIRPORT	2023 Annual
SAN FRAN K	2023 Annual, anomalies for K4B REG 6.5.23 and K1C REG 11.18.24
SAN FRAN L SUB	2023 Annual, anomalies for BK2 4KV ARSW 6.5.23 and L 4/12 6.5.23
SAN FRAN P (HUNTERS POINT)	2023 annual, anomalies for 1109 BRKR 7.12.23 and 1109 BRKR 7.20.24
SAN FRAN X (MISSION)	2024 Annual
SAN FRAN Y (LARKIN)	2023 Annual
SERRAMONTE	2023 Annual
WESTLAKE	2023 Annual

4. **GO 174, Rule 12, General** states in part:

"Design, construction and maintenance should be performed in accordance with accepted good practices for the given local conditions known at the time by those responsible."

PG&E SM&C Manual, Infrared Inspections, Section III.D. Repair Priority Codes states:

"The repair priority codes shown [below] determine the actions required for re-inspection or equipment repair."

Temperature Rise (ΔT)						
SAP Repair Priority Codes	Action	Direct View Targets Percent of Rated Load			Indirect View Targets	Main Tank compared to LTC
		0–40%	41–80%	81–100%		
A	Immediate repair	> 100°C		> 125°C	> 10°C	> -5°C
A	Repair 30 days	80°–100°C		100°–125°C	NA	
B	Repair 90 days	60°–79°C	NA	80°–99°C	5°–9° C	-4° to -5°C
B	Re-inspect 90 days	15°–59°C	15°–79°C		2°–4° C	-2° to -3°C
NA	No action	< 15°C			< 2° C	≤ -1°C

Note: If 90-day re-inspection conditions dictate a second re-inspection, repairs must be made within 90 days.

ESRB found that PG&E failed to conduct an IR re-inspection of the San Fran F (Marina) Substation following the 2023 annual IR inspection which identified anomalies at the 407 B phase concentric, 403 B phase cable, FY-4 A phase concentric connection, and FY-2 A phase cable. PG&E stated in response that: "No notifications were created for these hotspots. However, the 2024 annual IR performed on June 29, 2024, found no anomalies with any equipment, including these distribution underground cables."[16] While the 2024 annual IR inspection found no anomalies, ESRB asserts that PG&E must follow its procedures and conduct re-inspections/repairs when anomalies are identified.

5. **GO 174, Rule 12, General** states in part:

"Design, construction and maintenance should be performed in accordance with accepted good practices for the given local conditions known at the time by those responsible."

[16] PG&E Follow-up Data Request Response, Question 4 (Dated: 7/25/2025).

PG&E SM&C Manual, Insulating Oil, Attachment 3, Action Matrix Work Codes[17] lists the following corrective actions for DGA Codes 3 and 4:

DGA CODE 3	DGA CODE 4
Work Code = D3	Work Code = D4
• Electrical testing is required to determine the source of gassing, if possible. • The supervisor initiates contact with the specialist; the specialist informs the supervisor of specific testing requirements. • If a previous estimated degree of polymerization (EDP) test has not been taken or if a previous EDP test is older than 2 calendar years, a TDA+ oil sample is required before clearance initiation. • If identified as economically viable, perform an internal inspection and repair.	• If previous electrical testing on a Code 3 was not performed, electrical testing is required to determine the source of gassing, if possible. • The supervisor initiates contact with a specialist; the specialist informs the supervisor of specific testing requirements. • If a previous EDP test has not been taken or if a previous EDP test is older than 2 calendar years, a TDA+ oil sample is required before clearance initiation. • If identified as economically viable, perform an internal inspection and repair. If not viable, the supervisor notifies Asset Management and recommends a just-in-time (JIT) replacement. De-rate to 90% of nameplate in the short term before replacement.

ESRB's review of PG&E's Oil Test Records[18] found that PG&E failed to conduct proper oil retests when abnormal results were identified. Listed below are two examples where PG&E failed to conduct the required retests.

- East Grand Substation: 404 B (152) SINGLE PHASE REGULATOR
  The June 2024 oil test found a DGA result of "4" which the Oil Test Report noted could be due to: "Severe contact heating. Investigate immediately. Based on limits established in the analysis norms, a potential diagnosis could be a T3 fault." PG&E stated in response: "Following the TASA completed on June 25, 2024, an LC notification was inadvertently not created to address the DGA code 4 associated with this regulator."[19]

- San Fran H (Martin): Bank 1, 3 PHASE TRANSFORMER (LTC)
  The 2020-2024 oil tests found a DGA result of "3" which the Oil Test Reports note: "Recommend retest within 150 days (5 months) for trending. Monitor for increased arcing. Evaluate for worn or damaged components. A slightly abnormal dissipation of energy is noted. This is an early indication of fault or wear activity. Partial discharge is indicated. Heating is indicated. Abnormal arcing is indicated." PG&E stated in response: "An LC notification was inadvertently not created to address the previously identified DGA code 3 results. However, the 2025 annual TASA was completed on July 13, 2025, under PR 129829992 with results still pending."[20]

[17] PG&E Utility Manual TD-3322M-10-Att03, Attachment 3, Revision 0, Insulating Oil, Effective 8/6/2024, Page 1.
[18] PG&E Pre-Audit Data Request Response, Question 19 (Dated: April 30, 2025).
[19] PG&E Follow-up Data Request Response, Question 5 (Dated: 7/25/2025).
[20] *I.d.*

III. Field Inspection

During the field inspection, ESRB inspected the following 21 substations:

Substation	City
Martin HQ (San Fran H)	Daly City
East Grand	South San Francisco
San Francisco Airport	San Bruno
Millbrae	Millbrae
San Andreas	Millbrae
Serramonte	Daly City
Pacifica	Pacifica
Daly City	Daly City
Westlake	Daly City
Plymouth	San Francisco
Ocean Ave	San Francisco
San Fran L	San Francisco
Noriega	San Francisco
Judah	San Francisco
San Fran K	San Francisco
San Fran F (Marina)	San Francisco
Beach St	San Francisco
San Fran J	San Francisco
San Fran Y (Larkin)	San Francisco
San Fran X (Mission)	San Francisco
San Fran A (Potrero PP)	San Francisco

IV. Field Inspection – Violations List

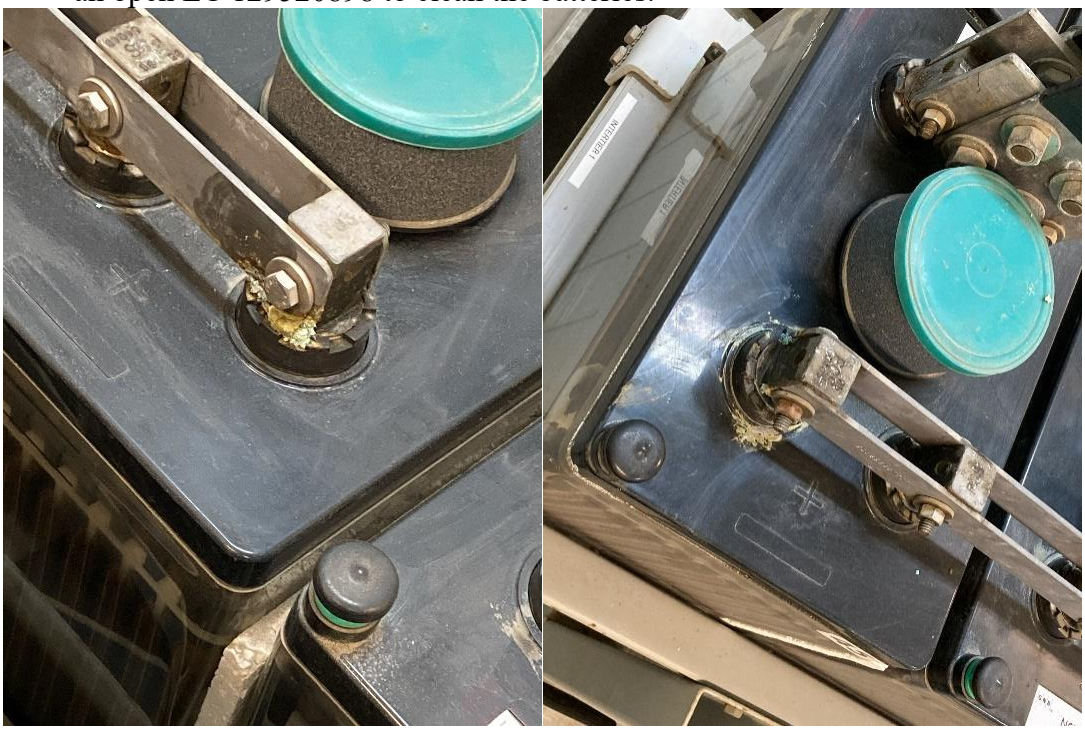
ESRB observed the following violations of GO 174, Rule 12 during the field inspection:

GO 174, Rule 12, General states in part:

> *"…Substations shall be designed, constructed and maintained for their intended use, regard being given to the conditions under which they are to be operated, to promote the safety of workers and the public and enable adequacy of service.*
>
> *Design, construction, and maintenance should be performed in accordance with accepted good practices for the given local conditions known at the time by those responsible."*

1. Martin HQ Substation

1.1. There is corrosion on battery cells 45 and 49 in the 230 kV Battery Room. PG&E has an open LC 129520898 to clean the batteries.



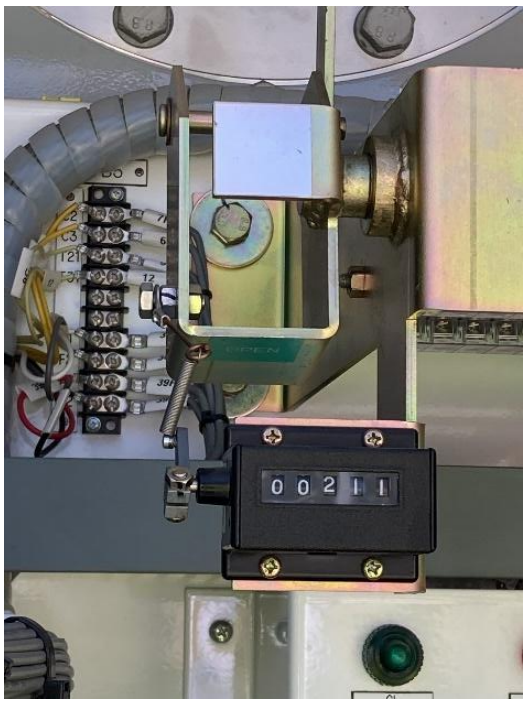
1.2. Switch 2341 closed semaphore is faded.

1.3. The bus structure hardware is corroded at the HZ-2 230 kV Cable.

1.4. San Mateo-Martin bus structure hardware is corroded.

1.5. Faded closed semaphore and faded caution sign at Switch 4335.

1.6. Closed semaphore faded at CB 4632.



1.7. HP-3 Pothead structure is corroded.

1.8. HP-3 115 kV Pipe Ground Switch cabinet has significant corrosion.

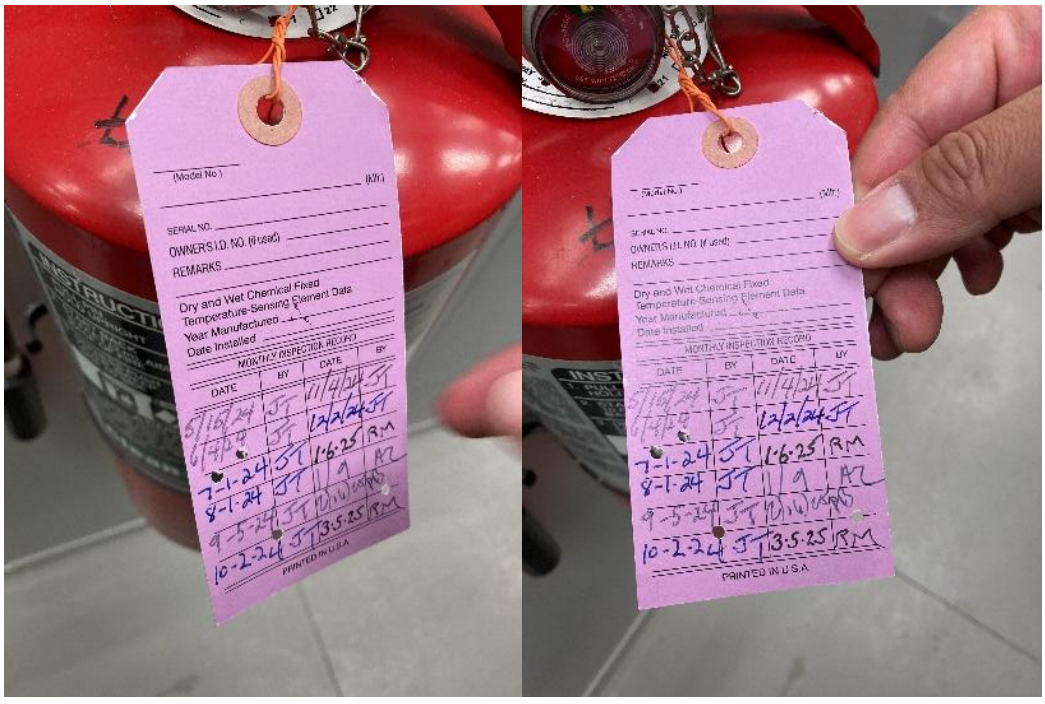
1.9. Fire extinguisher is missing the 7/2024, 8/2024, 10/2024, and 3/2025 monthly inspections and another fire extinguisher is missing the 3/2025 monthly inspection in the 12 kV Section E Control Room.

1.10. Deteriorated signage at the 12 kV Section E Building. PG&E has an open LC 131234687 to replace the signage.

1.11. CB 1132 closed semaphore is faded.

1.12. CB 1102 closed semaphore is faded.

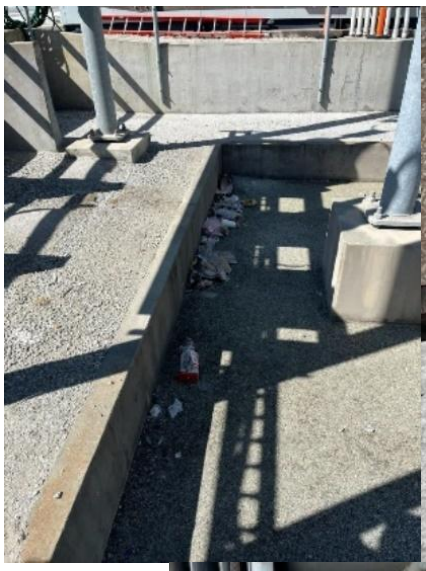
1.13. Both fire extinguishers missing 4/2025 monthly inspection in the 115 kV MPAC #2 control room.



1.14. CB 1302 has a faded counter. PG&E has an open LC 126035884 to replace the counter.

1.15. CB 1402 has a faded closed semaphore.

1.16. Housekeeping needs improvement. Buckets, rags, trash, hardware, etc. observed around substation.



1.17. Bird nest at TX Bank 7.

1.18. Switch 4631 closed semaphore is faded.

1.19. Switch 4531 closed semaphore is faded.

1.20. CB 92 closed/open semaphore is faded.

1.21. Bank 6 Digital Voltmeter screen is not working. PG&E has an open LC 131235142 to repair the Voltmeter.

1.22. Control cabinets left unlatched in multiple control rooms.

2. East Grand Substation

2.1. CB 1114/2 has a faded counter. PG&E has an open LC 130774717 to replace the counter.

2.2. CB 1113/2 has a faded counter. PG&E has an open LC 129698772 to replace the counter.

2.3. There is corrosion at the base of TX Bank 3.

3. **San Francisco Airport Substation**
   3.1. AC Panel 120/208 V left open.

3.2. CB 112 counter is faded. PG&E has an open LC 129282051 to replace the counter.

4. Millbrae Substation

4.1. Bird nest at CB 142.

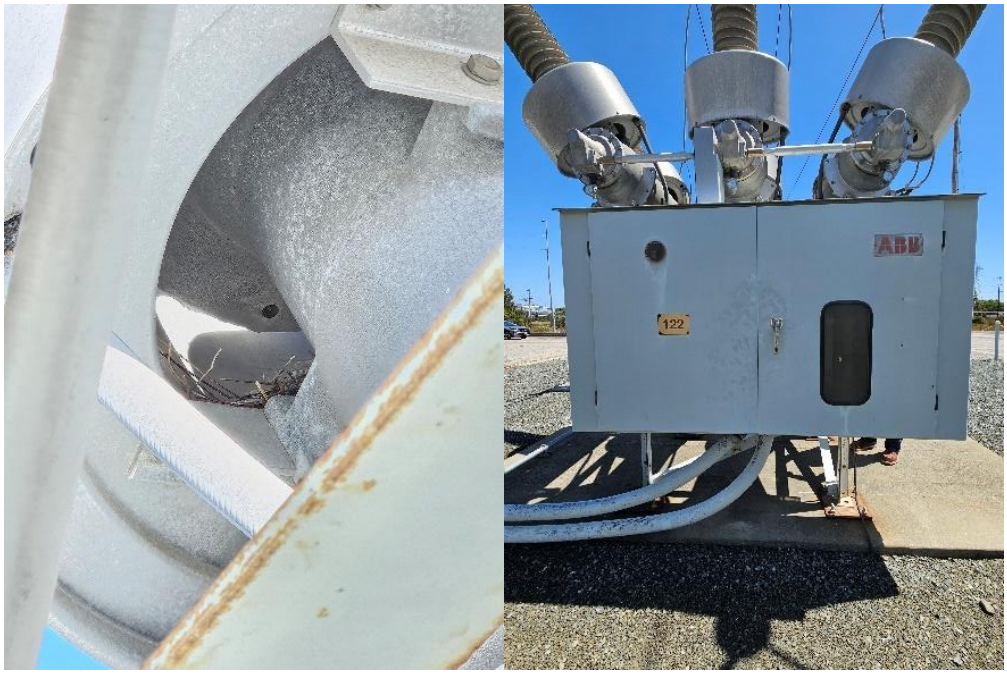
4.2. CB 1106/2 has a faded counter. PG&E has an open LC 131244546 to replace the counter.

4.3. Station BK 3 1A bushing is missing half of bird guard.

4.4. Closed semaphore faded for Auxiliary Tie 2.

4.5. Station Service BK 4 1A missing half of bird guard on both bushings.

4.6. Bird nest at CB 122.



4.7. Bird nest at CB 152.

4.8. Corrosion at Spare TX Bank 1.

4.9. Faded Entry Procedure sign at TX Bank 1.

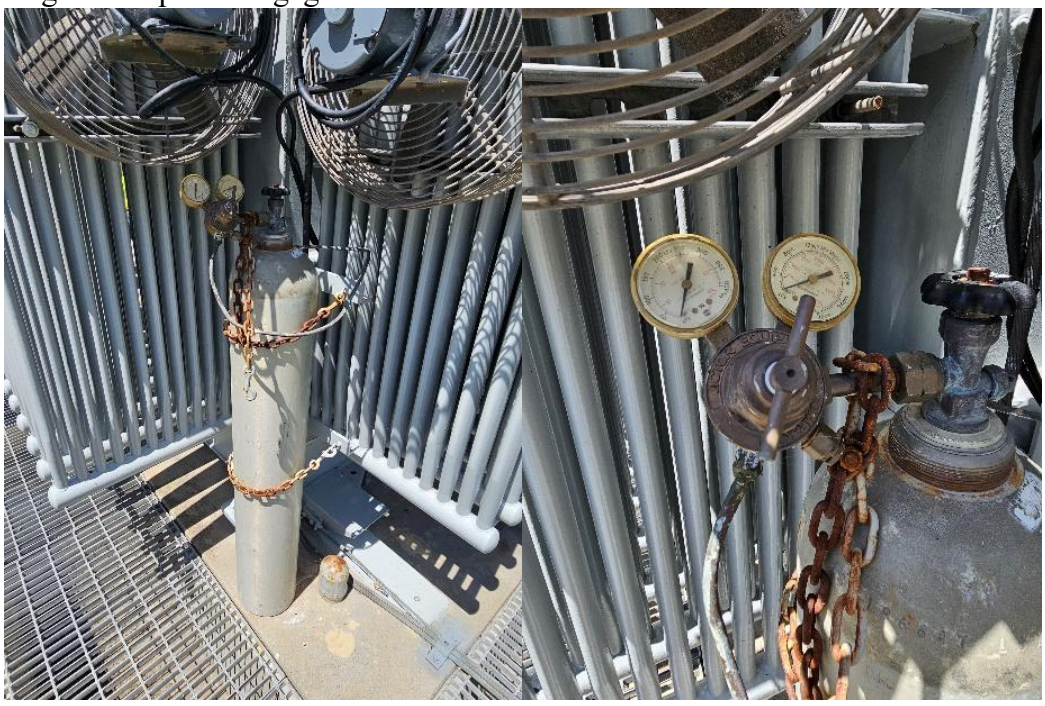
4.10. 402 Regulator (4kV) has an elevated gas level.

4.11. Bird nest at C Phase TX Bank 5.

4.12. Bird nest at Spare TX Bank 5.

5. San Andreas Substation

5.1. Nitrogen tank pressure gages broken at TX Bank 1.



5.2. Bank 1 has a deteriorated Entry Procedure sign.

5.3. Bird nest at low side insulator bushing of Bank 1.

6. Serramonte Substation

6.1. Corrosion on multiple battery cells in Control Room.

6.2. Bank 1 has a leaking gage and low oil level. PG&E has an open LC 129517779 to repair Bank 1.

7. Daly City Substation

7.1. Switch 151 semaphore is faded.

7.2. Station Service Bank 2 has two bushings missing half of the bird guard.

8. **Westlake Substation**

8.1. Unit Sub 403 is deteriorated and at end of life. PG&E has an open CAP Order 130709590 to replace the Unit Sub in 1 year.

9. **Plymouth Substation**

9.1. Damaged barbed wire. PG&E has an open LC 129315835 to repair the barbed wire.

10. Ocean Ave Substation

10.1. Bank 1 (401) has moderate rust. PG&E has an open LC 129315928 to repaint it.

10.2. Bank 2 (402) has moderate rust. PG&E has an open LC 130544674 to repaint it.

10.3. Distribution riser cover damaged and wrapped with tape.

11. San Fran L Substation

11.1. Bank 2 LTC has a liquid temperature alarm.

11.2. Insulators dirty at Bank 1 DSC.

11.3. Faded Danger signage at Switchgear Building.

11.4. Third party comms line slacked and low in Substation.

11.5. Third party comms line touching abandoned streetlight.

11.6. Tree pushing down on comms guy in Substation.

11.7. Minor soil erosion at fence.

12. Noriega Substation

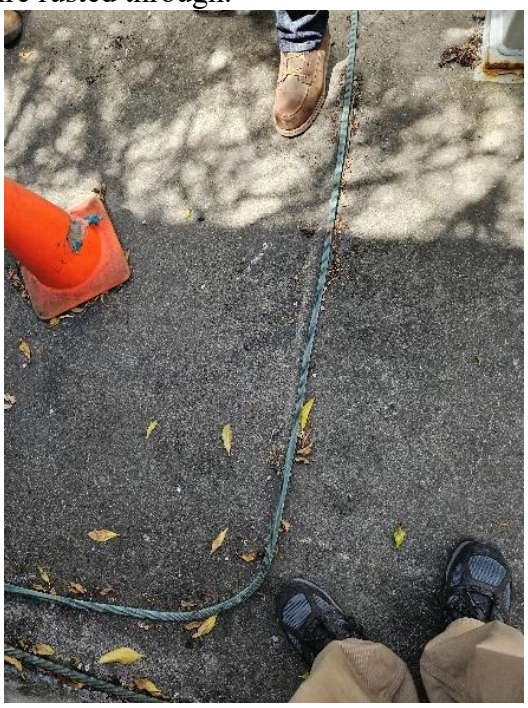
12.1. Rust at Switchgear cabinets. PG&E has an open LC 129349625 to repaint them.

12.2. Water damage due to condensation buildup in Battery Shed. PG&E has an open LC 129349480 to repair the water damage.

12.3. Faded identification signage and Danger signage at Bank 2 Unit 402.

12.4. Rust at CB 401/2. PG&E has an open LC 129350326 to repaint it.

12.5. Clamps for ground wire rusted through.



13. Judah Substation

13.1. Significant rust at vault by Switch 3766.

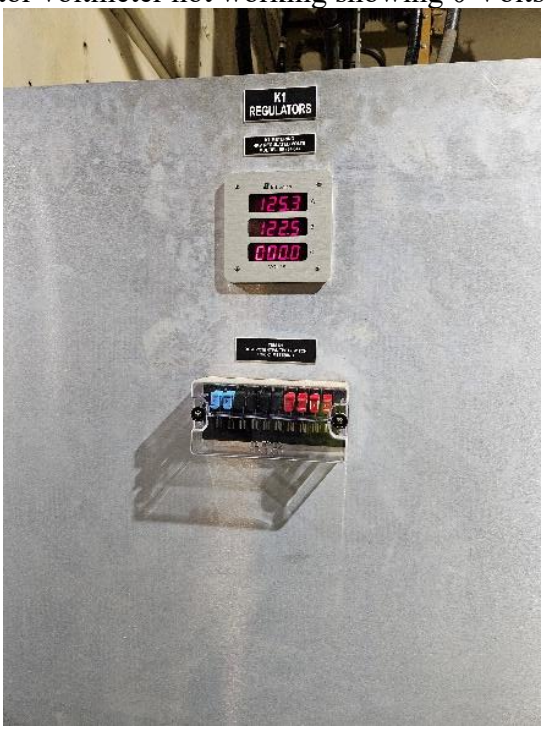
13.2. Pothead riser needs duct seal at Bank 402.

14. San Fran K Substation

14.1. Station batteries are at end of life. PG&E has a Capitol Order 121830140 to replace the batteries.

14.2. The 205 Regulators require chain/barrier and Danger signage.

14.3. K-1 C phase Regulator voltmeter not working showing 0 Volts.



15. Beach St Substation

15.1. Fence ground wire is a tripping hazard and needs to be buried and clamped down.

16. San Fran J Substation

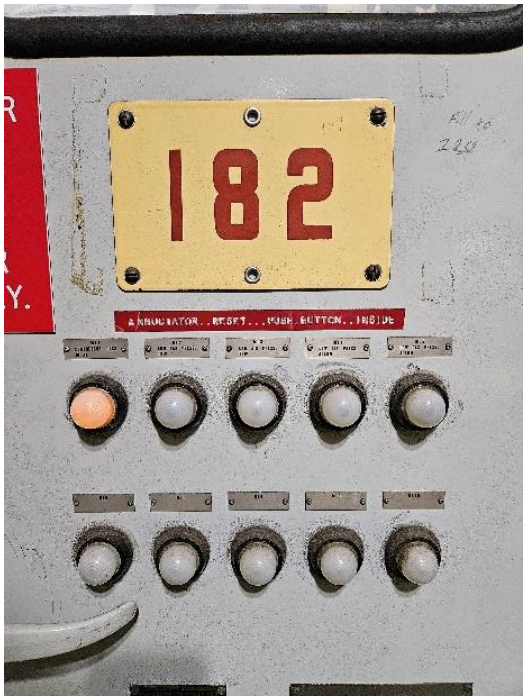
16.1. Bank 1 LTC fluid gauge is broken. There is a sign on the gauge, but PG&E has not created an LC notification to address the issue.

16.2. Bank 2 has an oil leak at the radiator flange. PG&E has an open LC 122446898 to repair the leak.

17. Larkin Substation

17.1. CB 192 has an alarm for compressor loss of AC. PG&E has an open LC 129794806 to correct this issue.

17.2. CB 182 has an alarm for compressor loss of AC. PG&E has an open LC 129400819 to correct this issue.



17.3. Minor oil seep at middle pipe near the Bank 1 cooling fans.

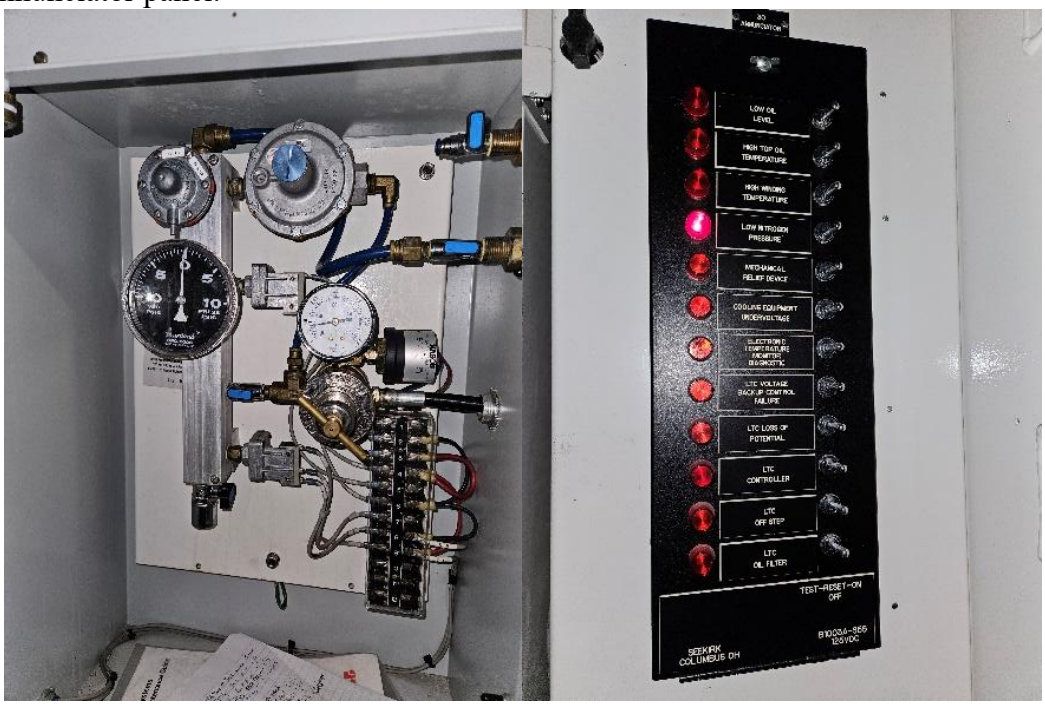
17.4. DC Panel 8 cabinet door not attached due to active construction.

18. San Fran X (Mission) Substation

18.1. Oil weep at Bank 9 radiator flange.

18.2. Alarm Relay C30-ANN-4 has an alarm for FSR 1125 Relay fail at Cell 45 BK4-22.

18.3. Broken Nitrogen gauge at Bank 1 and “Low Nitrogen Pressure” alarm shown at the Annunciator panel.



19. San Fran A (Potrero PP) Substation

19.1. Ground wire not properly secured at Shunt Reactor 1.

19.2. Winding Trip alarm at 230/115 kV Bank 3. PG&E has an open LC 129113085 to correct the issue.

19.3. Pump motor counter faded at CB 362. PG&E has an open LC 129477721 to replace the counter.

19.4. Pump motor counter faded at CB 132.

19.5. Pump motor counter faded at CB 182. PG&E has an open LC 129477720 to replace the counter.

19.6. Bird nest under the middle bushing at CB 192. PG&E has an open LC 129477848 for the bird nest.


19.7. Faded counter at CB A1115/2. PG&E has an open LC 125983508 to replace the counter.

19.8. Pump motor counter faded at CB 412.

19.9. Faded counters at CB A-1114/2 and CB A1117/2. PG&E has an open LC 128457081 to replace the counters.

19.10. Faded semaphore at CB 432.


19.11. Corrosion on battery cells 54 and 55 in the Station Battery Room. PG&E has an open LC 130533738 to clean the corrosion.


19.12. Faded counter at CB 386. PG&E has an open LC 129477723 to replace the counter.