PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3298



April 9, 2025 SA2025-1307

Jerrod Meier, Senior Director Electric Compliance, Electric Engineering Pacific Gas & Electric Company (PG&E) 300 Lakeside Dr., Oakland, CA 94612

SUBJECT: Electric Substation Audit of PG&E Cupertino Headquarters

Mr. Meier:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Gordon Szeto and Emiliano Solorio of ESRB staff conducted an electric substation audit of PG&E Cupertino Headquarters from January 27 through January 31, 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 May 7, 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 Gordon Szeto at gordon.szeto@cpuc.ca.gov or (415) 652-1847.

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 Cupertino Headquarters

Lee Palmer, Director, Safety and Enforcement Division (SED), CPUC Cc: Eric Wu, Program Manager, ESRB, SED, CPUC Fadi Daye, Program and Project Supervisor, ESRB, SED, CPUC Yi Yang, Senior Utilities Engineer (Supervisor), ESRB, SED, CPUC Stephen Lee, Senior Utilities Engineer (Supervisor), ESRB, SED, CPUC Gordon Szeto, Utilities Engineer, ESRB, SED, CPUC Emiliano Solorio, Utilities Engineer, ESRB, SED, CPUC Madonna Ebrahimof, Staff Services Analyst, ESRB, SED, CPUC Anne Beech, Director of Governance and Reporting, PG&E Sean Mackay, Director of Investigations, PG&E Leah Hughes, Manager of Investigations, PG&E Barbara Moses, Manager of EO Compliance, PG&E Meredith Allen, VP of Regulatory Affairs, PG&E Spencer Olinek, Chief Regulatory Liaison, PG&E Electric Data Requests (Electric Data Requests @pge.com) Electric CPUC Regulatory Compliance (ElectricCPUCRegulatoryComplianceAudit@pge.com)

CPUC SUBSTATION AUDIT FINDINGS

PG&E Cupertino Headquarters January 27 – 31, 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 Cupertino Headquarters (HQ):

- List of all PG&E substations in the Cupertino HQ
- Map showing all PG&E substations in the Cupertino HQ
- PG&E Substation Maintenance and Construction (SM&C) Manual, Utility Standard: TD-3322M, Revision 11, with attachments 1 through 11
- PG&E Utility Standard: TD-3328P, Revision 0, with attachments 2 through 4
- PG&E Mobile Substation Equipment Maintenance and Operating Procedures, Utility Standard: TD-3468P-01, Revision 2, with attachments 1 through 3
- PG&E Substation Equipment Maintenance Requirements, Utility Standard: TD-3322S, Revision 9, with attachments 2 through 12
- PG&E Substation Supplemental Inspection Program, Utility Standard: TD-3328S, Revision 3, with attachment 1
- PG&E Substation Asset Performance Management (APM) Process, Utility Procedure: TD-3320P-36, Revision 0
- PG&E Substation SAP Work Management System (WMS) Process, Utility Procedure: TD-3320P-12, Revision 7, with attachments 2, 4 through 6, 12, and 14
- PG&E Substation Fire Protection Systems and Equipment Inspection, Test and Maintenance: TD-3320P-07, Revision 3
- PG&E Substation General Work Procedures, Utility Standard: TD-3320S, Revision 2
- Explanation of PG&E inspector training policies
- List of all substation inspections conducted in the last five years for Cupertino HQ
- List of all open/pending, completed, cancelled, and late work orders and maintenance items in the previous five years (2020-2024)
- Equipment lists for ESRB selected substations
- Single-line diagrams of ESRB selected substations
- Last two visual inspection checklists for ESRB selected substations
- List of transformer banks that operated beyond nameplate capacity for the last five years (2020-2024) for ESRB selected substations.
- Infrared Testing records for ESRB selected substations in the last two years
- Most recent oil sample test results for ESRB selected substations
- Most recent electric test results for ESRB selected substations
- Training records for all substation inspection and maintenance personnel in the past five years (2020-2024)
- Other relevant substation inspections for the past five years (2020-2024) for ESRB selected substations
- Internal audit findings for Cupertino HQ for the past five years (2020-2024)

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-3322S¹, establishes PG&E's required end dates and out-of-compliance dates as follows:

| Priority Code | Required End Date | Out-of-Compliance Date |
|------------------|----------------------|--|
| A | Within 30 days | Close notifications after removing the hazard [make safe] with either |
| | Willin 50 days | permanent or temporary repairs within 30 days. Create a new lower priority |
| | | notification immediately for any remaining work that will exceed 30 days. |
| В | Within 00 days | The out-of-compliance date is the 1 st day of the 2 nd month following the |
| | Within 90 days | month in which the required end date occurs. |
| Е | Within 365 days | The out-of-compliance date is the 1 st day of the year following the year in |
| | | which the required end date occurs. |
| F | Greater than 365 | There is no out-of-compliance date. This work will be completed when it is |
| | days | operationally efficient to perform the work. |

Table 1: Due Dates Per Priority Code

Based on Table 1 above, ESRB noted that out of a total of 7,128 Line Corrective (LC) notifications, 7 (0.1%) were closed after their out-of-compliance date. Therefore, PG&E did not perform maintenance in accordance with the accepted good practices described in Utility Standard TD-3322S for these 7 LC notifications. See Table 2 below for the past-due LC notifications.

| Substation | Notification # | Priority | Notification Date | Completion Date | Out-of- Compliance Date | Out-of- Compliance Date per Record | Days Late |
|------------|-------------------|----------|----------------------|--------------------|-------------------------------|---|--------------|
| Whisman | 124176538 | В | 7/26/2022 | 3/8/2023 | 12/1/2022 | 12/1/2022 | 98 |
| River Oaks | 126504359 | В | 6/23/2023 | 12/15/2023 | 11/1/2023 | 11/1/2023 | 45 |
| Ames | 126656821 | В | 7/21/2023 | 1/13/2024 | 12/1/2023 | 12/1/2023 | 44 |
| Los Gatos | 126838649 | В | 8/14/2023 | 1/23/2024 | 1/1/2024 | 1/1/2024 | 22 |
| El Patio | 126944507 | В | 8/28/2023 | 1/29/2024 | 1/1/2024 | 1/1/2024 | 29 |

Table 2: Overdue LC Notifications

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¹ PG&E Utility Standard TD-3322S, August 3, 2023, Revision 9.

| Yerba Buena | 127991899 | В | 1/2/2024 | 6/11/2024 | 6/1/2024 | 6/1/2024 | 11 |
|----------------|-----------|---|-----------|------------|----------|----------|----|
| Metcalf | 128512564 | В | 4/10/2024 | 10/16/2024 | 9/1/2024 | 9/1/2024 | 47 |

b. ESRB questions on Data Request (DR) 18 Infrared Inspections, and DR 19 Most Recent Oil Samples, were provided to PG&E prior to the field audit on January 24, 2025. PG&E provided Responses to ESRB in DRU15032 on February 13, 2025. On DR 18 Infrared Inspection responses, three of the Completed Re-inspections were completed late and two of the Re-inspections have pending completions that may be overdue as identified in Table 3 below.

Table 3: Overdue Infrared Inspection Notifications

| Substation | Notification # | Priority | Notification Date | Completion Date | Out-of- Compliance Date | Days Late |
|----------------|-------------------|----------|----------------------|-----------------------|-------------------------------|---------------------|
| Britton | 126297319 | В | 5/31/2023 | 12/10/2023 | 10/1/2023 | 71 |
| Milpitas | 126939420 | В | 8/28/2023 | 1/17/2024 | 1/1/2024 | 16 |
| Milpitas | 126939428 | В | 8/28/2023 | 7/29/2024 | 1/1/2024 | 211 |
| Monta Vista | 129280263 | В | 7/23/2024 | Pending Completion | 12/1/2024 | To Be Determined |
| San Jose A | 129193757 | В | 7/9/2024 | Pending Completion | 12/1/2024 | To Be Determined |

c. On PG&E Response to DR 20 Most Recent Electrical Tests, ESRB notes there were inconsistencies in how the Circuit Breaker (CB) contact erosion calculations were performed. In accordance with the Electrical Test Records Instructions for Vacuum Circuit Breakers: The Percentage of Contact Erosion = (Reference Dimension – Circuit Breaker Closed Measurement)/0.125.

In several cases (Britton Substation Westinghouse CB 1112, El Patio Substation CB 1114/2, Evergreen Substation CB 2105, Hicks Substation CB 2102, Milpitas Substation CB 2100, Saratoga Substation CB 1100 and Wolfe Substation CB 1108/2 and CB 1104), the results were multiplied by a factor of 100, giving results of up to 40% contact erosion. The results are shown in Table 4 below.

Table 4 Circuit Breaker Contact Erosion Calculation Results

| Substation | Circuit | Reference | | CB Closed | | % Contact | | % Contact | |
|------------|---------|-------------|--------------|-------------|--------------|-----------|----------|-----------|-------------|
| | Breaker | Dimension | (in) | Measurem | ent | Erosio | on | Erosi | ion |
| | (CB) | Phase | | (in) | | Pe | r Record | Cor | rect Result |
| | # | A B | \mathbf{C} | Phase | | | Phase | | Phase |
| | | | | A B | \mathbf{C} | A | В | A | В |
| | | | | | | C | | C | |
| Britton | CB1112 | 4.045 4.200 | | 4.090 4.209 | | 36 | 7 | 0.36 | 0.072 |
| | | 4.091 | | 4.121 | | 24 | | 0.24 | |

| El Patio | CB1114/2 | 1.021 1.009 | 1.029 1.015 | 6.4 4.8 | 0.064 0.048 |
|-----------|----------|-------------|-------------|-----------|---------------|
| | | 1.014 | 1.015 | 1.6 | 0.008 |
| Evergreen | CB2105 | 1.420 1.420 | 1.440 1.420 | 16 16 | 0.160 0.000 |
| | | 1.380 | 1.400 | 16 | 0.160 |
| Hicks | CB2102 | 2.191 2.187 | 2.141 2.174 | 40 10 | 0.400 0.104 |
| | | 2.145 | 2.140 | 4 | 0.040 |
| Milpitas | CB2100 | 0.581 0.582 | 0.575 0.580 | 4.80 1.60 | 0.048 0.016 |
| | | 0.576 | 0.570 | 4.80 | 0.048 |
| Saratoga | CB1100 | 0.937 0.968 | 0.933 0.991 | 3.0 18 | 0.032 0.184 |
| | | 0.968 | 0.989 | 16 | 0.168 |
| Wolfe | CB1108/2 | 1.516 1.520 | 1.493 1.521 | 18.4 -0.8 | 0.184 -0.008 |
| | | 1.594 | 1.583 | 10.4 | 0.088 |
| Wolfe | CB1104 | 1.531 1.562 | 1.493 1.527 | 30 28 | 0.304 0.280 0 |
| | | 1.437 | 1.437 | 12 | |

This would imply a significant amount of Circuit Breaker contact erosion. Other substation circuit breaker contact erosion calculations did not include the factor of 100. Calculational errors were noted in some other substations (e.g., Swift Substation CB 1100 and El Patio CB 1400). PG&E should review the contact erosion calculations in the Electrical Test records provided in DR 20 and correct any errors found in them.

d. For Transformer Bank 1 at the San Jose B Substation, there were existing open LC Tags for Bird Mitigation Protection (LC#128167311 dated 2/12/24) and Bushing Replacement (LC#128208799 dated 2/20/24). During the field audit, the Cupertino Substation Division field personnel reported that both items were completed in June 2024. However, the SAP record shows that the LC Tags are still open. The SAP records should be updated to close these items out.

III. Field Inspection

During the field inspection, ESRB inspected the following 16 substations:

| Substation | City | | |
|------------------------|-------------|--|--|
| Wolfe Substation | Cupertino | | |
| Saratoga Substation | Saratoga | | |
| Llagas Substation | Gilroy | | |
| Morgan Hill Substation | Morgan Hill | | |
| Metcalf Substation | San Jose | | |
| El Patio Substation | San Jose | | |
| Hicks Substation | San Jose | | |
| Edendale Substation | San Jose | | |
| Evergreen Substation | San Jose | | |
| San Jose A Substation | San Jose | | |
| San Jose B Substation | San Jose | | |
| Mabury Substation | San Jose | | |
| Trimble Substation | San Jose | | |
| Milpitas Substation | Milpitas | | |
| Britton Substation | Sunnyvale | | |
| Monta Vista Substation | Cupertino | | |

IV. Field Inspection – Violations List

ESRB noted 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. Wolfe Substation

1.1 Circuit Breaker 162 had an Oil Leak. Existing LC Tag#130788506.



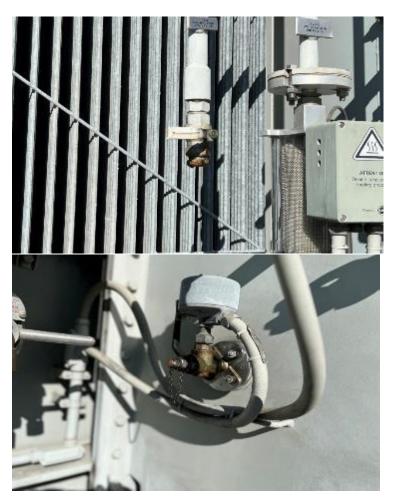
1.2 Transformer Bank 2 had an Oil Leak at Radiator Flange. Existing LC Tag#130788501.



1.3 Transformer Bank 2 had Paper Trapped Inside Fan. Fixed in Field.



1.4 Transformer Bank 2 had Additional Oil Leaks at Load Tap Changer Conservator Tank Drain Valve and Fault Pressure Device Drain Valve.



1.5 The Perimeter Fence had Gap Greater than 6 Inches Depth. PG&E Fixed in Field.



1.6 The Perimeter Fence had Several Sets of Warning Signs Posted Inside Fence.



2. Saratoga Substation2.1Transformer Bank 3 Had Branch Inside Radiator.



3. Llagas Substation

3.1 Circuit Breaker 112 has an Oil leak on Hydraulic Line. Existing LC Tag#130109005.



3.2 The Perimeter Fence had Warning Signs Posted Inside Fence. Existing LC Tag#130108978.



4. Morgan Hill Substation

4.1 Battery had Corrosion. Existing LC Tag#129517567.



4.2 Transformer Bank 2 Nitrogen Bottle Missing Second Strap. PG&E Fixed in Field.



4.3 Transformer Bank 2 Had Wasp Nest. PG&E Fixed in Field.



4.4 Transformer Bank 2 Had Oil Leak Mitigation. Existing LC Tag#130774181.



4.5 Circuit Breaker 172 had Oil Protection Berm Breach. Existing LC Tag#124924236.



4.6 Circuit Breaker 182 had Birds Nest. Existing LC Tag#129522212.



4.7 Transformer Bank 1 Had Bird Nest. PG&E Fixed in Field.



4.8 Perimeter Fence had Warning Signs Posted Inside Fence. Existing LC Tag#130108978.



5. Metcalf Substation

5.1 Transformer Bank 11 Phase C Two Fans Not Working Existing LC Tag#128582602.



5.2 Transformer Bank 11 Phase C Oil Leak Mitigation Upper Manway Existing LC

Tag#129715835.



5.3 Transformer Bank 12 Phase A Oil Leak Mitigation Existing LC Tag#130780077.



5.4 Transformer Bank 12 Phase B Oil Leak Mitigation Existing LC Tag#130783098.



5.5 Transformer Bank 12 Phase B Conservator Tank Pressure Gauge Malfunction. Existing LC Tag#129692396 PG&E Fixed in Field.



5.6 Transformer Bank 13 Phase B Oil Leak Mitigation Kelman Gas Analyzer Existing LC Tag#130713051.



5.7 Transformer Bank 13 Phase B Oil Leak Mitigation Pump Flange Existing LC Tag#130783076.



5.8 Transformer Bank 13 Phase B Birds Nest Radiator Fan Power Cord.



5.9 Transformer Bank 13 Phase C Oil Leak Mitigation Upper Flange Existing LC Tag#130783071.



5.10 Transformer Bank 4 Oil Leak Mitigation Existing LC Tag#130116644.



5.11 Transfer Bank Spare Oil Leak at Oil Filter Conservator Connection. PG&E Fixed in Field.



5.12 Transfer Bank 1A Oil Leak Mitigation at Conservator Drain Valve Existing LC Tag#130713052.



5.13 Transformer Bank 2 Phase C Desiccant Need Replacement.



5.14 Transformer Bank 2 Phase C Oil Leak Mitigation at Top Flange Existing LC Tag#130116641.



5.15 Transformer Bank 2 Phase B Desiccant Need Replacement.



5.16 Transformer Bank 2 Phase B Oil Leak Mitigation at Top Flange Existing LC Tag#130116640.



5.17 Transformer Bank 2 Phase A Desiccant Need Replacement. Existing Tag#130535711 Will be Changed to Also Cover Banks 2B and 2C.



5.18 Transformer Bank 2 Phase A Oil Leak Top Flange Existing LC Tag#130783075.



5.19 Battery Room Eyewash Missing Expiration Date Existing LC Tag#129670378.



6. El Patio Substation

6.1 The Nitrogen Bottle for Transformer Bank 1 was Empty and no Nitrogen pressure at transformer top. PG&E replaced the Empty Bottle and Fixed in Field.



6.2 Transformer Bank 1 Sample Drain Valve Oil Leak Mitigation Existing LC Tag#129692374.



6.3 Transformer Bank 2 Two Fans Not Working



6.4 Transformer Bank 2 Oil Leak at Lower Flange



6.5 Perimeter Security Fence had Cut Ground Connection Due to Recent Vandalism



6.6 Perimeter Security Fence has Signs Posted Inside Existing LC Tag#30739987.



7. Hicks Substation

7.1 Transformer Bank 5 Nitrogen Bottle Needs 2nd Strap. PG&E Fixed in Field.



7.2 Transformer Bank 1 Oil Leak Mitigation Existing LC Tag#130535753.



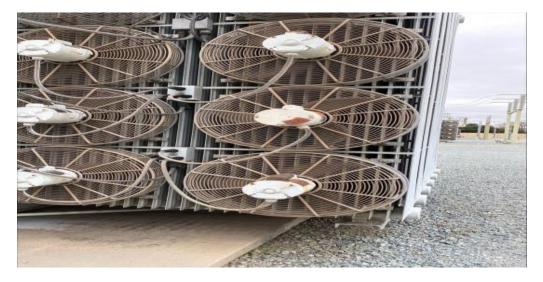
7.3 Transformer Bank 4 Oil Leak Mitigation Existing LC Tag#130535750.



7.4 Transformer Bank 2 had an Oil Leak Mitigation Existing LC Tag#130535749.



7.5 Transformer Bank 3 One Fan Not Working. PG&E Fixed in Field.



8. Edendale Substation

8.1 Circuit Breaker 162 Had a Bird Nest, Existing LC Tag#130791806.



8.2 Transformer Bank 4 Desiccant Needs to be Replaced.



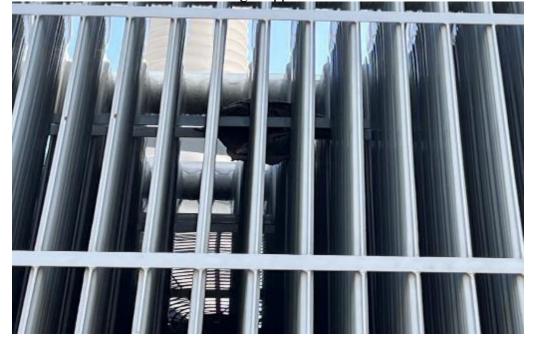
8.3 Transformer Bank 3 has Oil Leak at Lower Sampling Valve, Existing LC Tag#129384420.



8.4 Transformer Bank 2 Nitrogen Bottle Needs 2nd Strap. PG&E Fixed in Field.



8.5 Transformer Bank 2 Fan has Rag Trapped in Radiator Fins. PG&E Fixed in Field.



 $8.6\ Transformer\ Bank\ 2$ has Oil Leak Mitigation at Sample Valve. Existing LC Tag#130791809.



8.7 Transformer Bank 2 Need Animal Protection Tape at Bushing. Existing LC Tag#130791886.



8.8 Transformer Bank 1 One Fan Not Working. Existing LC Tag#129632500.



9. Evergreen Substation9.1 Circuit Breaker 32 Has Bird Nest. Existing LC Tag#129590697.



9.2 Transformer Bank 1 Phase B 3 Fans Not Working Left Side



9.3 Transformer Bank 1 Phase B Oil Leak Mitigation. Existing LC Tag#129590535.



9.4 Transformer Bank 1 Phase A Oil Leak Mitigation. Existing LC Tag#129590535.



9.5 Transformer Bank 1 Spare Nitrogen Bottle Empty. Existing LC Tag#129590535.



9.6 Transformer Bank 1 Spare Oil Leak Mitigation. Existing LC Tag#129590535.



9.7 Circuit Breaker 172 Hydraulic Oil Leak Mitigation. Existing LC Tag#129590532.



9.8 Transformer Bank 3 Oil Leak Mitigation. Existing LC Tag#129590690.



9.9 Transformer Bank 2 Load Tap Changer (LTC) Temperature Gauge Hard to Read.



9.10 Transformer Banks 2 and 3 Neutral Reactor Missing Label. As a best practice, it should have labels to be consistent with Edendale Substation which has LC Tag #129619844.

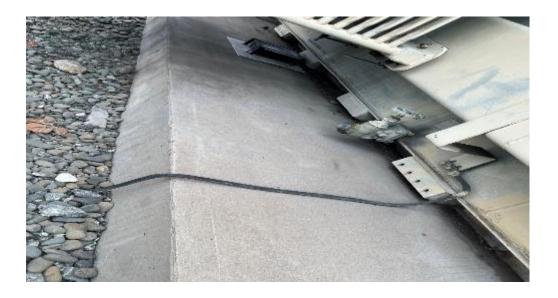


10. San Jose A Substation

10.1 Bird Nest at Circuit Breaker 332. PG&E Fixed in Field.



10.2 Transformer Bank 2 Oil Leak Mitigation at Main Oil Valve. Existing LC Tag#130718285.



10.3 Transformer Bank 2 Oil Filter Line Leak. Existing LC Tag#130718286.



10.4 Transformer Bank 1 Oil Leak at Main Oil Pump Valve.



10.5 Transformer Bank 1 Cracked Glass Bushing Oil Level Gauge. Existing LC Tag#129389739.



10.6 Transformer Bank 1 Rust. Existing LC Tag#129389229.



10.7 Transformer Bank 2 Oil Leak at Main Oil Pump Valve. Existing LC Tag#130718282.



10.8 Transformer Bank 4 Desiccant Near End of Life Need Replacement.



10.9 Perimeter Security Fence Signs Installed Inside Fence Existing LC Tag#130719763, Ground Rod Missing Northeast Corner Existing LC Tag#129390970.



10.10 Ground Rod Missing Entrance Gate Left Side Post

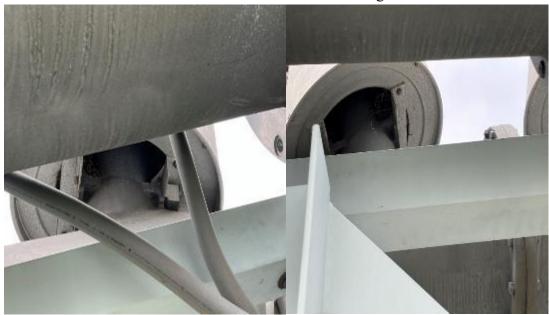


11. San Jose B Substation

11.1 Circuit Breaker 142 has Faded Semaphore. Existing LC Tag#130791452.



11.2 Circuit Breaker 182 has 2 Birds Nests Middle Bushing. PG&E Fixed in Field.



11.3 Circuit Breaker 162 Pressure Gauges Were Not Readable. Existing LC Tag#130791449 to Reinstall Pressure Gauges.



11.4 Battery Room Fan Was Not Operational. Created New LC Tag#130806140.



11.5 Transformer Bank 1 Wasp Nest. PG&E Fixed in Field.



11.6 Transformer Bank 2 Nitrogen Bottle Not Secured With 2nd Strap. PG&E Fixed in Field.



11.7 Transformer Bank 2 Oil Leak Mitigation Existing LC Tag#130791408, Oil Filter Not Running Existing LC

Tag#129391900, Oil Residue on Conduit Existing LC Tag#129389768.



11.8 Transformer Bank 2 Animal Guard Damaged. Existing LC Tag#129390991.



11.9 Transformer Bank 2 Fan Covers Rusted. Existing LC Tag#129389760.



11.10 Transformer Bank 3 Fan Not Working. Existing LC Tag#130791434.



11.11 Circuit Breaker 1110/2 Faded Counter. Existing LC Tag#128451938.



12. Mabury Substation

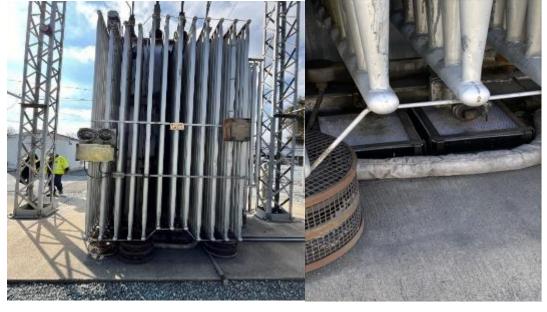
12.1 Transformer Bank 2 Oil Leak Mitigation. Existing LC Tag#130535745.



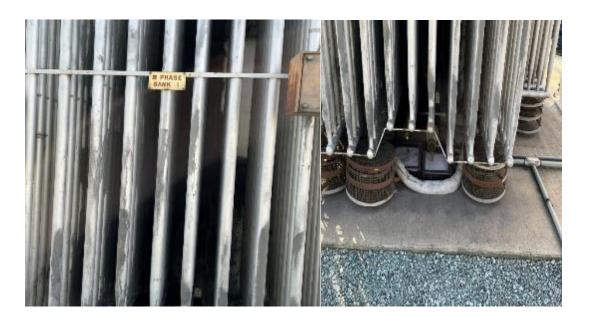
12.2 Circuit Breaker 72 Oil Leak Mitigation. Existing LC Tag#129395916.



12.3 Transformer Bank 1 Phase C Oil Leak Mitigation. Existing LC Tag#130732652.



12.4 Transformer Bank 1 Phase B Oil Leak Mitigation. Existing LC Tag#130732701.



12.5 Transformer Bank 1 Phase A Oil Leak Mitigation. Existing LC Tag#130732657



12.6 Voltage Regulator 1 Fan Not Working.



12.7 Battery Room Corrion on Cells. Existing LC Tag#130713366.



12.8 Perimeter Security Fence Signs Installed Inside Fence.



12.9 Perimeter Security Fence Ground Rod Missing Front Gate Right Side Post.



12.10 Perimeter Security Fence Ground Rods Missing at Substation Back Corner Posts.



13. Trimble Substation

13.1 Circuit Breaker 332 Oil Leak Hydraulic Line to Counter.



13.2 Circuit Breaker 312 Oil Leak Hydraulic Line. Existing LC Tag#130712304.



13.3Transformer Bank 5 Birds Nest in Radiator. PG&E Fixed in Field.



13.4 Transformer Bank 3 Low Nitrogen Pressure. Existing LC Tag#130712672 PG&E Fixed in Field by adding Nitrogen to 0.5 psig.



13.5 Rust on Fan Cover and Support Structure



13.6 Transformer Bank 3 Oil Leak Mitigation. Existing LC Tag#130703901.



13.7 Transformer Bank 2 Oil Leak Mitigation at Filter. Existing LC Tag#130712699.



13.8 Transformer Bank 1 Oil Leak Mitigation at Main Drain Valve. Existing LC Tag#130712698.



14. Milpitas Substation

14.1 Transformer Bank 1 Oil Leak Mitigation. Existing LC Tag#130712698.



14.2 Transformer Bank 1 Desiccant Near End of Life Need Replacement



14.3 Transformer Bank 2 Oil Left Corner of Transformer.



14.4 Transformer Bank 3 Oil Leak Mitigation. Existing LC Tag#130116554.



14.5 Transformer Bank 4 Oil Left Corner of Transformer.



14.6 Transformer Bank 5 Low Nitrogen Pressure 0 psig. Existing LC Tag#128045443 dated 1/9/24 for possible Nitrogen Leak Repair. PG&E added Nitrogen to 0.5 psig in the field. Two most recent inspections on 10/10/24 and 12/5/24 had Nitrogen pressure inside transformer of 1.0 and 0.5 psig, respectively. Coupled with the 0 psig measurement on 1/30/25 supports a Nitrogen Leak in the transformer.



14.7 The Security Perimeter Fence Southwest Corner Ground Wire Not Connected to New Fence Post.



15. Britton Substation

15.1 Battery had corrosion on terminal post of cells 60, 44 and 40. PG&E Fixed in Field.



15.2 Transformer Bank 1 Oil Leak Mitigation. Existing LC Tag#124733582.



15.3 Transformer Bank 2 Oil Leak Mitigation. Existing LC Tag#130732362.



16. Monta Vista Substation

16.1 Upper Section of Substation 230 kV to 115 kV. Battery Corrosion Existing LC Tag#129789020.



 $16.2\ 230\ kV$ Bus Support Structure Near Circuit Breaker 252 had Bird of Prey Nest. New LC Tag#130810650.



16.3 Transformer Bank 2 Had 6 Fans Not Working. Existing LC Tag#130116554.



16.4 Transformer Bank 2 Oil Leak Mitigation. Existing LC Tag#130777293.



16.5 Transformer Bank 4 Oil Leak Mitigation. Existing LC Tag#130777294.



16.6 Transformer Bank 3 Fan Not Working. Existing LC Tag#130535715.



16.7 Transformer Bank 3 Oil Leak Mitigation. Existing LC Tag#130777299.



16.8 Low Section of Substation 115 kV to 60 kV. Battery Room Fan Not Working. New LC Tag#130810113.



16.9 Perimeter Security Fence Signs Installed Inside Fence. Existing LC Tag#129531740.

