

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



October 10, 2019

EA2019-843

Lise Jordan, Sr. Director
Regulatory Compliance and Quality Assurance
Pacific Gas and Electric Company (PG&E)
77 Beale Street
San Francisco, CA 94105

SUBJECT: Audit of PG&E's Mission Division

Dear Ms. Jordan:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Raymond Cho, Nathan Sarina, Quang Pham, Rajan Mutialu, and Karin Nguyen of ESRB staff conducted an electric distribution audit of PG&E's Mission Division (Division) from June 3, 2019 through June 7, 2019. During the audit, ESRB staff conducted field inspections of PG&E's facilities and equipment and reviewed pertinent documents and records.

As a result of the audit, ESRB staff identified violations of one or more General Orders (GOs). A copy of the audit findings itemizing the violations is enclosed. Please provide a response within 30 days of your receipt of this letter indicating all corrective actions and preventive measures, taken or planned, to address the violations to ensure compliance with GO requirements. The response should indicate the date of each remedial action and preventive measure completed within 30 days. For any outstanding items not addressed within 30 days, please provide the projected completion dates of all actions for all violations outlined in Sections II & IV of the enclosed Audit Findings.

If you have any questions concerning this audit, please contact Raymond Cho at 415-703-2236 or raymond.cho@cpuc.ca.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Banu Acimis".

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

Enclosure: CPUC Audit Findings

Cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC
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Rajan Mutialu, Public Utilities Regulatory Analysts, ESRB, SED, CPUC
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AUDIT FINDINGS

I. Records Review

During the audit, ESRB staff reviewed the following records:

- Procedures for PG&E's "Electric Distribution Preventive Maintenance Manual", April 1, 2016 version.
- Procedures for PG&E's TD-2305M-JA02 "Job Aid: Overhead Inspection", April 6, 2019 version and Td-2035M-JA03 "Job Aid: Underground Inspection", July 2015 version.
- Completed work orders with notifications from February 2013 to April 2019, cancelled work orders with notifications from July 2013 to April 2019, and completed late work orders from May 2014 to March 2019.
- Patrol and detailed inspection records from May 2014 to April 2019.
- Feeder reliability metrics and sustained outages in the Division from May 2014 to April 2019.
- Master Map displaying approximate locations of the plant maps administered by the division.
- New Construction (both overhead and underground) projects in the last 12 months not subject to a patrol or detailed inspection.
- Pole loading calculations from May 2018 to April 2019 including completion dates.
- Third-party notifications sent in the last 60 consecutive calendar months and received from the last 60 consecutive calendar months.
- List of inspectors and patrolmen active in the division from 2014 to year to date (YTD).
- Electronic training records for inspectors from 2014 to 2018.
- Completed equipment test records from January 2016 to December 2018 and deferred equipment test records from January 2016 to August 2018.

II. Records Violations

ESRB staff observed the following violations during the record review portion of the audit:

1. GO 95, Rule 31.1, Design, Construction and Maintenance, states in part:

"Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.

For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design, construction, or maintenance of communication or supply lines and equipment."

Northern California Joint Pole Association – Operations/Routine Handbook, Section 18.1(E)(c), states in part:

“Maintenance Liability – Liability for maintenance extends 60 days from date sent of a Form 2 Preliminary Joint Pole Authorization involving a relinquishment, or from the date facilities were removed from pole.”

ESRB staff reviewed Third-Party Utility Incoming Notification of Hazard Situation records and determined that PG&E did not take actions to assess incoming notifications in a timely manner. ESRB staff reviewed six incoming notifications, see Table 1, and noted that the notifications were sent to PG&E on 8/22/2018. However, PG&E did not assess the conditions until May, 2019 which is approximately nine months later.

Table 1: Late Third-Party Utility Incoming Notifications of Hazard Situation

Tracking # (TPI Notification #)	Date Received at RMC	Map #	Address	Date Assessed
114929079	8/22/2018	J0705	2536 Grant Ave. San Lorenzo	5/22/2019
114931510	8/22/2018	I0818	703 GRANT AVE N/S SAN LORENZO	5/24/2019
114930408	8/22/2018	J0918	Jackson St W/S P/P Calaroga Ave. Hayward	5/24/2019
114926019	8/22/2018	I0822	2536 Grant Ave. San Lorenzo 37.675715 - 122.1460123	5/27/2019
114931104	8/22/2018	I0822	1390 GRANT AVE N/S SAN LORENZO	5/22/2019
114931514	8/22/2018	J0918	JACKSON ST W/S P/P CALAROGA AVE. HAYWARD	5/24/2019

PG&E must consider developing internal controls for assessing incoming notifications in a timely manner, especially for conditions that require immediate response or conditions that poses safety risks to the public and the workforce.

2. GO 95, Rule 18-B, Maintenance Programs states in part:

“Each company (including electric utilities and communications companies) shall establish and implement an auditable maintenance program for its facilities and lines for the purpose of ensuring that they are in good condition so as to conform to these rules. Each company must describe in its auditable maintenance program the required qualifications for the company representatives who perform inspections and/or who schedule corrective actions. Companies that are subject to GO 165 may maintain procedures for conducting inspections and maintenance activities in compliance with this rule and with GO 165.”

GO 95, Rule 31.1, Design, Construction and Maintenance states in part:

“Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.

For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design, construction, or maintenance of communication or supply lines and equipment.”

GO 128, Rule 17.1, Design, Construction and Maintenance states in part:

“Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.

For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design, construction, or maintenance of [the] communication or supply lines and equipment.”

PG&E’s Electric Distribution Preventative Maintenance (EDPM) Manual, published April 1, 2016, defines the priority codes and associated time frames for the response/repair action as follows:

- **Priority A – Safety / Emergency Immediate Response**
An emergency is defined as any activity in response to an outage to customer(s) or an unsafe condition requiring immediate response or standby to protect the public.
- **Priority B – Urgent Compliance (Due within 3 months)**
- **Priority E – Compliance (Due 3-12 months)**
- **Priority F – Compliance (For Regulatory Conditions, the Recommended Repair Date is the due date for the next inspection (UG = 3 years, OH = 5 years).**

ESRB staff reviewed late work orders completed within the Division for the past 60 months and determined that PG&E did not address a total of 266 work orders by the assigned due date. Of these 266 work orders, 228 were classified as “late” and 38 were classified as “late-exempt”.

Per GO 95, Rule 18B(1)(b), *“Correction times may be extended under reasonable circumstances, such as: third party refusal, customer issue, no access, permits required, system emergencies (e.g. fires, severe weather conditions)”*.

PG&E classifies work orders under these circumstances as “late-exempt” as they are exempted from completion by their assigned due date.

Table 2 below breaks down the 266 late work orders by the given priority, including the total number of late work orders, as well as non-exempt and cancelled work orders, which are included in the total. No work orders with the priority code “A” were late in the past 60 months.

Table 2: Late Work Orders

Priority Codes	Total Late Work Orders	Non-Exempt Late Work Orders	Cancelled Late Work Orders
B	31	29	4
E	194	159	7
F	41	40	2
Total	266	228	13

Of the 228 non-exempt late work orders, one non-exempt, Priority E late work order # 113172203, was 289 days past the assigned due date as of the start of the audit. Table 3 below identifies the most overdue non-exempt work orders for each priority.

Table 3: Most Overdue Work Orders

Priority Code	Most Overdue Work Order (WO#s)	Number of Days Past Assigned Due Date
B	112905811	129
E	111043747	406
F	105827925	136

PG&E identified work order #112905811 on May 21, 2017 to repair a broken fault indicator with an expected completion date of June 5, 2017. PG&E did not cancel the work order until October 12, 2017.

PG&E identified work order #111043747 on December 8, 2015 to replace a decayed/rotten pole with an expected completion date of December 7, 2016. PG&E did not complete the work until January 17, 2018.

PG&E identified work order #105827925 on November 15, 2011 to replace a broken/damaged pole with an expected completion date of December 31, 2016. PG&E did not complete the work until on May 16, 2017.

III. Field Inspection

During the field inspection, ESRB staff inspected the following facilities:

Order of Site Visits	Structure Type	Structure Number, Notification # or SAP ID	Address	City
1	Pole	110126979	25404 Palomares Rd.	Hayward
2	Pole	SAP ID: 100910196	Nearby 25404 Palomares Rd.	Hayward
3	Pole	110128308	Nearby 25404 Palomares Rd.	Hayward
4	Pole	110126907	25012 Palomares Rd.	Hayward
5	Pole	11026909	25025 Palomares Rd.	Hayward
6	Pole	110126903	Nearby 24977 Palomares Rd.	Hayward
7	Pole	110126904	Nearby 24977 Palomares Rd.	Hayward
8	UG Transformer	T-340059	340 Southland Mall	Hayward
9	Pole	110122631	1310 Elgin Street	Hayward
10	UG Transformer	T-9677	16361 Saratoga Street	Hayward
11	Pole	110127668	18519 Lake Chabot Road	Hayward
12	Pole	110127558	18030 Lamson Road	Hayward
13	Pole	110401949	4626 Emily Court	Hayward
14	UG Transformer	T-7225	41700 Vargas Rd	Fremont
15	Pad mounted Transformer	T-16402	Cougar Drive & Mission	Fremont
16	Pole	SAP ID: 100943804	3661 Howe Court	Fremont
17	Pole	N/A	4712 Hedgewick Ave	Fremont
18	Pad mounted Transformer	T-5159	Sloat Road & Presidio Way	Fremont
19	UG Transformer	T-6738	Sloat Road & Presidio Way	Fremont
	UG Transformer	T-6737	Sloat Road & Presidio Way	Fremont

Order of Site Visits	Structure Type	Structure Number, Notification # or SAP ID	Address	City
20				
21	Subsurface Junction Box	J-5398	Nearby 39116 Argonaut Way	Fremont
22	Splice Box	N/A	Nearby 39116 Argonaut Way	Fremont
23	Pad mounted Transformer	T-11923	Nearby 39116 Argonaut Way	Fremont
24	Pad mounted Transformer	T-26765	Nearby 39174 Argonaut Way	Fremont
25	Junction Box	J-73955	Oakville Lane & Cowan Way	Livermore
26	UG Transformer	T-28796	Nearby 2665 Cowan Way	Livermore
27	Transformer	T-30221	Nearby 2632 Cowan Way	Livermore
28	UG Transformer	J-73002	Nearby St. Helena Court & Cowan Way	Livermore
29	UG Transformer	T-28447	St. Helena Court	Livermore
30	Pole	110163888	3815 Santa Clara Way	Livermore
31	Pole	110166680	526 Nightingale Street	Livermore
32	Pole	110244426	786 Moraga Drive	Livermore
33	Junction box	N/A	1650 Vancouver Way	Livermore
34	Pole	110325126	7980 Tassajara Road	Livermore
35	Transformer	T-94275	6945 Atlas Peak Drive	Livermore
36	UG Transformer	T-9888	22268 City Center Drive	Hayward
37	Manhole	MH1292	948 B Street	Hayward
38	Pole	120760928	24624 Dale Street	Hayward
39	Pole	120252164	24956 Muir Street	Hayward
40	Pole	N/A	502 Berry Ave	Hayward
41	Pole	110097643	2281 Tallahassee Street	Hayward
42	Pole	110211696	2281 Tallahassee Street	Hayward

IV. Field Inspection Violations

ESRB staff observed the following violations during the field inspection:

1. GO 95, Rule 31.1 Design, Construction and Maintenance states in part:

“Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service...”

- 1.1) A pole located at 2281 Tallahassee Street, Hayward (Location 41) showed signs of leaning by more than 10% of its height above the ground.
- 1.2) A pole located at 25012 Palomeres Road (Location 4) had an anchor guy buried in the ground and a damaged high visibility strip.

The poles located at the following addresses had vegetation in contact with a section above the sectionalizing insulator of the anchor guy:

- 1.3) 25012 Palomares Rd., Castro Valley (Location 4)
- 1.4) 25404 Palomares Rd., Castro Valley (Location 1)
- 1.5) 786 Moraga Drive, Livermore (Location 32)

2. GO 95, Rule 54.6-B, Vertical and Lateral Conductors, Ground Wires states in part:

“...That portion of the ground wire attached on the face or back of wood cross arms or on the surface of wood poles and structures shall be covered by a suitable protective covering (see Rule 22.8)...”

- 2.1) A pole located at 18030 Lamson Road, Castro Valley (Location 12) had a missing section of wooden molding that exposed a live ground wire.
- 2.2) A pole located at 3661 Howe Court, Fremont (Location 16) had a section of damaged molding.

3. GO 128, Rule 17.1, Design, Construction, and Maintenance states in part:

“Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.”

- 3.1) The transformer T-340059 located at 340 Southland Mall, Hayward (Location 8) had exposed bolts on the secondary connection.

- 3.2) The transformer T-6738 located at Sloat Road and Presidio Way, Fremont (Location 19) had corrosion on a bushing.
- 3.3) The base of a metal enclosure for a transformer (T-11923) located at Argonaut Way, Fremont (Location 23) was corroded.

4. GO 95, Rule 20.7, Climbing Space states in part:

“Climbing Space means the space reserved along the surface of a climbable pole or structure to permit ready access for linemen to equipment and conductors located on the pole or structure. Climbing space shall be maintained from the ground level.”

The poles located at the following addresses had vegetation contact that prevented adequate climbing space from the ground level:

- 4.1) 25012 Palomeres Road, Castro Valley (Location 4)
- 4.2) 25404 Palomeres Road, Castro Valley (Location 1)
- 4.3) 3661 Howe Court, Fremont (Location 16)
- 4.4) 786 Moraga Drive, Livermore (Location 32)