

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



August 26, 2021

SA2021-899

Jorge DaSilva
Director – Electric Regional Operations
San Diego Gas and Electric
8315 Century Park Court, Suite CP22B
San Diego, CA 92123

Subject: Audit of SDG&E Substations Beach Cities District.

Mr. DaSilva:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Calvin Choi, Joceline Pereira, and Mily Vaidya of my staff conducted a substation audit of San Diego Gas & Electric (SDG&E) from May 10, 2021 to May 14, 2021. The audit included a review of SDG&E's records and field inspections of SDG&E's substation facilities.

During the audit, my staff identified violations of one or more General Orders (GOs). A copy of the audit findings itemizing the violations is enclosed. Please advise me no later than September 27, 2021, by electronic or hard copy, of all corrective measures taken by SDG&E to remedy and prevent such violations.

If you have any questions concerning this audit, you can contact Calvin Choi at (213) 266-4730 or Calvin.Choi@cpuc.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Fadi Daye".

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

Enclosures: Audit Findings

Cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC
Nika Kjensli, Program Manager, ESRB, SED, CPUC
Calvin Choi, Utilities Engineer, ESRB, SED, CPUC

AUDIT FINDINGS

I. Records Review

During the audit, my staff reviewed the following records:

- GO 174 Substation Inspection Practice
- Transformer Outage, Test & Restoration Manual
- Doble Testing of Transformer & Transformer Bushings Manual
- Ground Grid Integrity Testing Practices
- Soil Resistivity Testing Procedures
- Inspection and Testing of Live Line Tools Manual
- Substation Maintenance Practice
- Battery Testing & Maintenance
- Fire Protection System Maintenance & Inspection Program
- Substation Inspection Records
- Pending and Completed Workorders for the year 2020
- Inspection Checklists and One-Line Diagrams
- Electrical Testing Records
- Oil Sample Test Results
- Infrared Testing Results

II. Field Inspections

My staff inspected the following facilities during the field inspection:

No.	Substation Name	Address	Community
1	CLAIREMONT-CM	5030 Chateau Dr.	Clairemont
2	DUNHILL-DH	3433 Dunhill St	Sorrento Valley
3	EASTGATE-EG	3/10 MI N/O Eastgate Mall	San Diego
4	ELLIOTT-EL	11155 Tierrasanta Blvd.	Tierrasanta
5	FRIARS-FR	7550 Mission Valley Rd.	Mission Valley
6	GENESEE-GE	9545 Fez St.	Golden Triangle
7	KEARNY WEST-KNY	(5417) Complex Street	Kearny Mesa
8	KETTNER-KE	S/W CNR Kettner Blvd & Palm St.	Little Italy
9	KYOCERA-KA	8775 Balboa Ave.	Kearny Mesa
10	LA JOLLA-LJ	N/W CNR Pearl St. & Eads Ave	La Jolla
11	MESA HEIGHTS-MSH	7474 Ronson Rd.	Kearny Mesa
12	MESA RIM-MRM	7020 Flanders	Sorrento Mesa
13	MIRA SORRENTO-MTO	5305 Mira Sorrento Place	San Diego
14	MIRAMAR-MR	8888 Miramar Rd.	Miramar
15	MISSION-MS	9060 Friars Rd (south entrance)	Mission Valley
16	OLD TOWN-OT	5515 Riley St.	Bay Park
17	PACIFIC BEACH-PB	1600 Hornblend St.	Pacific Beach
18	POINT LOMA SEWAGE-PLS	Sewer Plant Bldg. #90075	Point Loma
19	POINT LOMA-PTL	4039 Udall St.	Point Loma
20	ROSE CANYON-RN	Frontage Rd W/of I-5 S/of Gilman Dr.	La Jolla
21	SCRIPPS-SS	Scripps Lake Dr	Miramar Ranch
22	SEWAGE PUMP STA 64-SPS64	10743 Roselle St.	Sorrento Valley
23	TORREY PINES-TP	Cray Ct. N/of John Jay Hopkins Dr.	Torrey Pines
24	VINE-VN	3548 Kettner Boulevard	San Diego
25	WITHERBY-WY	Witherby & Hancock St.	Loma Portal

III. Field Inspection - Violations List

My staff observed the following violations during the field inspections portion of the audit:

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.

Facilities at the following substations were not maintained for their intended use:

Elliott Substation

- A cooling fan on Bank 31 Transformer failed to spin as expected.
- The gauge for the LTC oil filter on Bank 33 Transformer was dirty/illegible.

Mission Substation

- Bank 31 Transformer showed signs of oil weeping, which seems to originate near the oil level gauge.

Witherby Substation

- The viewing glass on 4 kV WY1 and WY3 Oil Breakers were cracked and unable to see through it.

Vine Substation

- Cooling Fan F on Bank 32 Transformer failed to spin as expected.

Clairemont Substation

- Cooling Fan G on Bank 32 Transformer did not start by itself.
- The viewing glass for nitrogen gauge on Bank 31 Transformer was cracked and unable to see through it.

Mesa Heights Substation

- Cooling Fan E on Bank 33 Transformer failed to spin as expected.

Pacific Beach Substation

- Bank 30 Transformer shows signs of oil weeping, which seems to originate from the radiator connections.

La Jolla Substation

- Bank 31 Transformer shows signs of oil weeping, which seems to originate from the radiator connections.

Torrey Pines Substation

- The viewing glass on the 12 kV Circuit 266 Circuit Breaker was cloudy and unable to see through it.
- The junction box connected to the 12 kV Circuit 264 Circuit Breaker was significantly corroded with holes going through the enclosure.

Dunhill Substation

- The numbers on the odometer on the 4 kV Circuit DH1 Circuit Breaker was faded and illegible.

Genesee Substation

- The hazard sign on the battery room was faded and peeling.

Rose Canyon Substation

- The oil level gauge on the South Main Bus Pot was dirty/illegible and unable to see through it.

Mesa Rim Substation

- Cooling Fan D and H on Bank 30 Transformer failed to spin as expected.

Miramar Substation

- A cooling fan on Bank 31 Transformer failed to spin as expected.

Scripps Substation

- Two cooling fans on Bank 30 Transformer failed to spin as expected.