

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



February 10, 2023

SA2022-957

Jennifer Kaminsky
Manager – Electric Assets & Compliance
San Diego Gas and Electric (SDG&E)
8315 Century Park Court, Suite CP22B
San Diego, CA 92123

SUBJECT: Substation Audit of San Diego Gas and Electric Metro

Ms. Kaminsky:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Kyle King & Calvin Choi, of my staff conducted a substation audit of San Diego Gas and Electric Metro from December 12, 2022 to December 16, 2022. The audit included a review of SDG&E's Metro records and field inspections of SDG&E's Metro 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 March 10, 2023, 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 Kyle King at (213) 222-3260 or Kyle.King@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
Kyle King, Utilities Engineer, ESRB, SED, CPUC

AUDIT FINDINGS

I. Records Review

During the audit, my staff reviewed the following records:

- SDG&E GO 174 Substation Inspection Process
- SDG&E GO 174 Substation Inspection Program
- SDG&E SOP Protection System Maintenance Program.
- Substation Operators Training Records
- Summary of Substation Inspections
- Inspection Checklists and One-Line Diagrams for ten substations
- Recent open and completed work orders
- Summary of results of Infrared Testing in 2021
- Oil sample testing results
- Infrared inspection records

II. Field Inspections

My staff inspected the following substation facilities during the field inspection:

No.	Substation ID	Location
1	Adams	4677 Florida Street, San Diego, CA
2	Station F	El Cajon Blvd. & Iowa St., San Diego, CA
3	Wabash Canyon	3870 Juniper St., San Diego, CA
4	Grant Hill	646 30 th Street, San Diego, CA
5	Urban	14 th St. & F St., San Diego, CA
6	Station B	West E. St. & Kettner Blvd., San Diego, CA
7	Sampson	Harbor Dr. & Sampson St., San Diego, CA
8	Silvergate	San Diego, CA
9	Division	Harbor Dr. & Vesta St., San Diego, CA
10	Sewage Pump Station 1	Harbor Dr. & Vesta St., San Diego, CA
11	National City	Roosevelt Ave. & W. 11 th St., National City, CA
12	Coronado	1000 1 st St., Coronado, CA
13	Border	701 Harvest Rd., San Diego, CA
14	San Ysidro	4965 Otay Mesa Rd., San Diego, CA
15	Imperial Beach	Thermal Ave. & Dahlia Ave., Imperial Beach, CA
16	Montgomery	G St. & Bay Blvd., Chula Vista, CA
17	Sweetwater	698 E. 30 th St., National City, CA
18	Hilltop	J Street & Hilltop Dr., Chula Vista, CA
19	Lincoln Acres	S. Lanoitan Ave. & E. 18 th St., National City, CA
20	Market	47 th St. & Market St., San Diego, CA
21	Streamview	5445 Lea St., San Diego, CA
22	Salt Creek	1775 Hunte Parkway, Chula Vista, CA
23	Telegraph Canyon	1065 Tierra Del Rey, Chula Vista, CA
24	Sunnyside	4010 Otay Lakes Rd., Chula Vista, CA
25	Proctor Valley	Proctor Valley Rd. & San Miguel Ranch Rd., San Diego County
26	Paradise	68 th St. & Benson Ave., San Diego, CA

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:

Urban Substation

- High Voltage sign was damaged.

Station B Substation

- High Voltage sign was damaged.
- Bank 30 Transformer was leaking oil.

Division Substation

- Four cooling fans on Transformer Bank 31 were not operating.
- Two cooling fans on Transformer Bank 32 were not operating.

National City Substation

- One cooling fan on Transformer Bank 21 was not operating.

Border Substation

- An intake nitrogen cabinet window was cloudy on Transformer Bank 32.

Imperial Beach Substation

- There was leaking oil on the radiator for Transformer Bank 32.

Lincoln Acres Substation

- There was leaking oil fluid on the 4 kV Circuit LA2 Reg.
- There was leaking oil fluid on the 4kV Circuit LA3 Reg.
- There was a tripping hazard due to a DC Power cord from Breaker to Breaker on the 4 kV Circuit Breaker LA2 to LA3.

Market Substation

- The perimeter fencing around the substation had damaged grounding wires.
- The perimeter fencing around the substation did not have High Voltage signs.
- There was a cloudy sight glass on the cabinet window for the 12 kV Transformer Bank 31 OCB.
- There was leaking oil fluid for the 12 kV Circuit 169 OCB.

Telegraph Canyon Substation

- The substation was missing High Voltage signs within and around the substation.

Proctor Valley Substation

- There was leaking oil fluid on Transformer Bank 45.

Paradise Substation

- The 69 kV Bus Tie had a cloudy glass oil circuit breaker.
- The 69 kV Bus Tie had a foggy cabinet window for the air pressure gauge.
- There was leaking oil fluid on Transformer Bank 32 on the radiator flange.