

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



October 12, 2018

Melvin Stark
Principal Manager, T&D Compliance Integration
Southern California Edison Company
1 Innovation Way
Pomona, CA 91786

EA2018-821

Subject: Audit of Southern California Edison's Whittier District

Mr. Stark:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Derek Fong, Eric Ujiiye, Howard Huie, and Monica Robledo of my staff conducted an electrical distribution audit of Southern California Edison's (SCE) Whittier District from May 21, 2018 to May 25, 2018. The audit included a review of SCE's records and field inspections of SCE's 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 November 12, 2018, by electronic or hard copy, of all corrective measures taken by SCE to remedy and prevent such violations.

If you have any questions concerning this audit, you can contact Eric Ujiiye at (213) 620-2598 or eric.ujiiye@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: Elizaveta Malashenko, Director, Safety and Enforcement Division, CPUC
Lee Palmer, Deputy Director, Office of Utility Safety, CPUC
Charlotte TerKeurst, Program Manager, Electric Safety and Reliability Branch, CPUC
Eric Ujiiye, Utilities Engineer, ESRB, CPUC

AUDIT FINDINGS

I. Records Review

During the audit, my staff reviewed the following records:

- Overhead and underground detailed inspections records.
- Completed and pending corrective action work orders.
- Pole loading calculations.
- Safety hazard notifications.
- Intrusive test records
- SCE's documented inspection program.

III. Field Inspections

My staff inspected the following facilities during the field inspection:

No.	Structure ID.	Type of Structure	Location
1	4772157E	pole	Santa Fe Springs
2	W9544Y	pole	Santa Fe Springs
3	1422364E	pole	Santa Fe Springs
4	1800049E	pole	Santa Fe Springs
5	1131806E	pole	Santa Fe Springs
6	2317419E	pole	Santa Fe Springs
7	1131808E	pole	Santa Fe Springs
8	530313E	pole	Santa Fe Springs
9	1800045E	pole	Santa Fe Springs
10	1857794E	pole	Santa Fe Springs
11	1857793E	pole	Santa Fe Springs
12	1857792E	pole	Santa Fe Springs
13	1857791E	pole	Santa Fe Springs
14	1857790E	pole	Santa Fe Springs
15	1227248E	pole	Santa Fe Springs
16	1368622E	pole	Norwalk
17	1398620E	pole	Norwalk
18	1655462E	pole	Norwalk
19	165213E	pole	Norwalk
20	165212E	pole	Norwalk
21	165211E	pole	Norwalk
22	165210E	pole	Norwalk
23	978178E	pole	Norwalk
24	M12745Y	pole	Norwalk
25	X16909E	pole	Norwalk
26	X16919E	pole	Norwalk
27	4007299E	pole	Norwalk
28	1398621E	pole	Norwalk
29	4746822E	pole	Norwalk
30	2182804E	pole	Norwalk
31	1153530E	pole	Cerritos
32	1153529E	pole	Cerritos
33	1153528E	pole	Cerritos
34	1153527E	pole	Cerritos
35	1153526E	pole	Cerritos
36	4748068E	pole	Cerritos
37	1152441E	pole	Norwalk
38	1152442E	pole	Norwalk
39	774914E	pole	Whittier
40	4052311E	pole	Whittier
41	1655485E	pole	Whittier
42	2062853E	pole	Downey

43	1300905E	pole	La Mirada
44	1300906E	pole	La Mirada
45	E5126874	Vault	Whittier
46	P5121444	Pad-mounted Transformer	Santa Fe Springs
47	P5121442	Pad-mounted Transformer	Santa Fe Springs
48	P5126181	Pad-mounted Transformer	Santa Fe Springs
49	P5203308	Pad-mounted Transformer	Santa Fe Springs
50	M5163636	manhole	Norwalk
51	BS5126224	BURD	Whittier
52	BS5399422E	Vault	La Mirada

IV. Field Inspection Violations List

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

GO 95, Rule 54.8-B4, Table 10, requires insulated conductors of 0-750 V to have a minimum vertical clearance of 0.5 inches above “all portions of buildings including metallic or non-metallic cornice, decorative appendage, eaves, roof or parapet wall of the building served”.

The service drop supported on pole No. 1131808E and serving the home at 13244 Leffingwell Rd. was touching the roof of the aforementioned home.

GO 95, Rule 91.3-A, Use of Steps, states in part:

Poles with Vertical Runs or Risers: All jointly used poles which support supply conductors shall be provided with pole steps if vertical runs or risers are attached to the surface of such poles:

Pole steps were not installed on pole No. W95544Y, which was a jointly used pole supporting multiple risers.

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.

There was damage to SCE facilities on the following poles:

- 530313E – The insulator bracket supporting the service drop to the home at 13252 Leffingwell Rd. was detached and hanging below the eave of the home.
- 1398620E – A pole step supported on the pole was bent.
- 165210E – The crossarm supporting the secondary conductors was deteriorated.
- 978178E – The crossarm supporting the secondary conductors and service drops was deteriorated and broken at the center of the crossarm.
- 1153530E – One of the double crossarms supporting the primary conductors was broken at the center of the crossarm.
- 2182804E – A nail was missing from a bracket that was used to attach a riser to the pole.
- 1300905E – A primary conductor supported on the pole exhibited bird caging near a splice.

GO 95, Rule 51.6-A, Marking and Guarding, High Voltage Marking of Poles, states in part:

Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words "HIGH VOLTAGE", or pair of signs showing the words "HIGH" and "VOLTAGE", not more than six (6) inches in height with letters not less than 3 inches in height. A pair of signs may be stacked to a height of no more than 12 inches. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.

The high voltage signs on the following SCE poles were damaged and/or missing:

- 1131806E – The "HIGH" was damaged and only displayed "VOL" for the voltage section.
- 1131808E – The voltage section only displayed "VOL".
- 1800045E – "HIGH" and "VOLTAGE" were missing from the uppermost cross-arm.
- 1857792E – The "HIGH" was damaged and the "VOLTAGE" was missing.
- 165210E – The "HIGH" and "VOLTAGE" signs were missing
- 1153529E – The "HIGH" was damaged and "V" was displayed for the voltage section.

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.

GO 95, Rule 54.6-B, Ground Wires, states in part:

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

The ground moulding supported on pole No. 1153528E was broken at multiple locations and peeling away from the pole, exposing the ground wire.

GO 95, Rule 93, Climbing Space, states:

Climbing space shall be provided on all jointly used poles which support conductors and the provisions of Rules 54.7 and 84.7 are directly applicable to such poles. Climbing space on jointly used poles shall be so correlated between conductor levels that its position in relation to the pole is not changed by more than 90 degrees in a vertical distance of less than 8 feet. Climbing space shall be maintained from the ground level.

The climbing space on the following poles was obstructed:

- 165211E – A communications equipment cabinet and an electrical meter were obstructing the climbing space.
- 4746822E – A palm tree growing parallel to the pole had palm fronds obstructing the climbing space.

GO 95, Rule 91.3-B, Stepping, Location of Steps, states:

The lowest step shall be not less than 8 feet from the ground line, or any easily climbable foreign structure from which one could reach or step. Above this point steps shall be placed, with spacing between steps on the same side of the pole not exceeding 36 inches, at least to that conductor level above which only circuits operated and maintained by one party remain. Steps or fixtures for temporary steps shall be installed as part of a pole restoration process. Steps shall be so placed that runs or risers do not interfere with the free use of the steps

The lowest pole step supported on pole No. 4594026E was located 7 feet, 2 inches above the ground line.

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

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.

The entry way for padmount transformer P5126181 was obstructed by vegetation within the suggested 8 feet of clearance for the entry way posted on the enclosure door.