

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
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February 5, 2018

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

EA2017-782

Subject: Audit of Southern California Edison's Monrovia District

Mr. Stark:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Derek Fong, Ryan Ishikawa and Eric Ujjiye of my staff conducted an electric audit of Southern California Edison's (SCE) Monrovia District from October 16, 2017 to October 20, 2017. 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 March 5, 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 Ujjiye at (213) 620-2598 or eric.ujjiye@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 Ujjiye, 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.

II. Records Review – Violations List

My staff observed the following violations during the records review portion of the audit:

GO 95, Rule 31.1, 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 communication or supply lines and equipment.

GO 95, 31.2, Inspection of Lines, states in part:

Lines shall be inspected frequently and thoroughly for the purpose of ensuring that they are in good condition so as to conform with these rules. Lines temporarily out of service shall be inspected and maintained in such condition as not to create a hazard.

SCE's records indicated that from 2014 to 2017, SCE completed 3 work orders (407091057, 407260026, 407268775) past their scheduled due date of corrective action.

III. Field Inspections

My staff inspected the following facilities during the field inspection:

No.	Structure ID.	Type of Structure	Location
1	2278323E	Pole	South Pasadena
2	1725006E	Pole	South Pasadena
3	959346E	Pole	South Pasadena
4	1429867E	Pole	South Pasadena
5	1429866E	Pole	South Pasadena
6	1429865E	Pole	South Pasadena
7	1429868E	Pole	South Pasadena
8	4594026E	Pole	South Pasadena
9	4338468E	Pole	South Pasadena
10	1429869E	Pole	South Pasadena
11	2228322E	Pole	South Pasadena
12	1844834E	Pole	South Pasadena
13	4463279E	Pole	South Pasadena
14	770222E	Pole	South Pasadena
15	959342E	Pole	South Pasadena
16	443075E	Pole	South Pasadena
17	1237692E	Pole	South Pasadena
18	170313E	Pole	South Pasadena
19	1206747E	Pole	South Pasadena
20	53770H	Pole	Temple City
21	231770E	Pole	Temple City
22	1207800E	Pole	Irwindale
23	1567354E	Pole	Irwindale
24	1567355E	Pole	Irwindale
25	1567358E	Pole	Irwindale
26	185943E	Pole	Irwindale
27	476955E	Pole	Irwindale
28	185945E	Pole	Irwindale
29	2354422E	Pole	San Gabriel
30	198174E	Pole	San Gabriel
31	198172E	Pole	San Gabriel
32	5206246	BURD – switch	Baldwin Park
33	5333146	Padmount	Baldwin Park
34	B5201813	BURD – Switch	Baldwin Park
35	P5436290	Padmount	Baldwin Park
36	V5011122	Vault - Switch	Baldwin Park
37	P5333161	Padmount	Arcadia
38	P53335471	Padmount	Arcadia

IV. Field Inspection Violations List

My staff observed the following violations during the field inspection:

GO 95, Rule 18.B, Reporting and Resolution of Safety Hazards Discovered by Utilities, Notifications of Safety Hazards, states in part:

If a company, while performing inspections of its facilities, discovers a safety hazard(s) on or near a communications facility or electric facility involving another company, the inspecting company shall notify the other company and/or facility owner of such safety hazard(s) no later than 10 business days after the discovery. To the extent the inspecting company cannot determine the facility owner/operator; it shall contact the pole owner(s), who shall be responsible for promptly notifying the company owning/operating the facility with the safety hazard(s), normally not to exceed five business days after being notified of the safety hazard. The notification shall be documented and such documentation must be preserved by all parties for at least ten years.

SCE poles numbered 4594026E and 4338468E were located adjacent to buddy poles supporting communications cables. SCE did not notify the communications company of the pole transfer when it last detail-inspected the pole.

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.

- One or more insulators on SCE pole number 1725006E were “sunken”.
- A pole step on SCE pole number 1206747E was bent.
- Multiple pole steps on SCE pole number 1207800E were bent.

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” sign on SCE pole number 1725006E was damaged.
- The High Voltage sign on SCE pole number 170313E was missing the word “VOLTAGE”.
- The High Voltage sign on SCE pole number was missing the word “HIGH”.

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 molding on SCE pole number 1725006E was damaged.
- The ground molding on SCE pole number 4463279E was bowed, exposing the ground wire.
- The ground molding on SCE pole number 1207800E was separating from the pole, exposing the ground wire.

GO 95, Rule 54.7, Climbing Space and Work Space, Climbing Space, states in part:

Climbing space shall be maintained from the ground level. Climbing space, measured from center line of pole, shall be provided on one side or in one quadrant of all poles or structures with dimensions as specified in the following ...

- The climbing space on SCE pole number 1429868E was obstructed by a communications cable.
- The climbing space on SCE pole number 4594026E was obstructed by tree branches.
- The climbing space on SCE pole number 4338468E was obstructed by communications cables, vegetation, and a buddy pole.
- The climbing space on SCE pole number 1429869E was obstructed by a communications cable.
- The climbing space on SCE pole number 2228322E was obstructed by a communications cable and vegetation.

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

A pole step on SCE pole number 4594026E was located 7 feet, 2 inches from ground level.

GO 95, Section III, Table 2, Column C, Case 17 requires the minimum radial clearance between conductors, taps, or leads of the same circuit to be 3 inches.

A service conductor supported on SCE pole 1429866E was contacting a bare secondary cable on the same circuit.

GO 95, Section III, Table 2, Column C, Case 19 requires the minimum radial clearance between guys and communication cables supported on the same pole to be 3 inches.

- A down guy wire on SCE pole number 170313E was contacting a communications cable at mid-span.
- A down guy wire on SCE pole number 231770E was contacting a communications cable at mid-span.

GO 95, Rule 54.8-C4, Service Drop 0-750 volts, states:

From Communication Service Drops: The radial clearance between supply service drop conductors and communication service drop conductors may be less than 48 inches as specified in Table 2, Column C, Cases 4 and 9; Column D, Cases 3 and 8, but shall be not less than 24 inches. Where within 15 feet of the point of attachment of either service drop on a building, this clearance may be further reduced but shall be not less than 12 inches.

An SCE service drop on SCE pole number 198172E had less than 12 inches of radial clearance from a communications service drop at more than 15 feet from the point of attachment of either drop.