

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



November 21, 2019

EA2019-835

Mr. Mel Stark
Principle Manager, T&D Compliance Integration
Southern California Edison Company
1 Innovation Way
Pomona, CA 91786

Subject: Audit of Southern California Edison's Fullerton District Distribution

Mr. Stark:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Howard Huie, of my staff conducted an electric distribution audit of Southern California Edison's (SCE) Fullerton District from September 30, 2019 to October 4, 2019. 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 December 23, 2019, 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 Howard Huie at (213) 620-6503 or howard.huie@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, SED, CPUC
Charlotte TerKeurst, Program Manager, Electric Safety and Reliability Branch, CPUC
Howard Huie, 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 work orders.
- Pole loading calculations.
- Safety hazard notifications.
- Intrusive test records
- SCE's inspection program records.

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, Rule 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.

GO 165, Standard III-B, Distribution Facilities, Standards for Inspections, states in part:

Each utility subject to this General Order shall conduct inspections of its distribution facilities, as necessary, to ensure reliable, high-quality, and safe operation, but in no case may the period between inspections (measured in years) exceed the time specified in Table 1.

SCE's records indicated that from 2014 to 2018, SCE completed 76 work orders past their due date for corrective action. Additionally, as of the date of the audit, SCE has the following 3 open work orders that are past their respective scheduled due dates for corrective action:

Work Order Number	Due Date
406587447	12/15/14
406308032	12/31/14
409320559	12/05/18

III. Field Inspections

My staff inspected the following facilities during the field inspection:

No.	Structure ID.	Type of Structure	Location
1	1628693E	Pole	Yorba Linda
2	1288824E	Pole	Yorba Linda
3	1496903E	Pole	Yorba Linda
4	1543321E	Pole	Yorba Linda
5	1543320E	Pole	Yorba Linda
6	1543319E	Pole	Yorba Linda
7	911514E	Pole	Yorba Linda
8	1497760E	Pole	Buena Park
9	4679432E	Pole	Buena Park
10	1497762E	Pole	Buena Park
11	1497763E	Pole	Buena Park
12	1497767E	Pole	Buena Park
13	1497768E	Pole	Buena Park
14	1497764E	Pole	Buena Park
15	1497769E	Pole	Buena Park
16	4217634E	Pole	Buena Park
17	4791601E	Pole	Buena Park
18	1172083E	Pole	Buena Park
19	4791603E	Pole	Buena Park
20	4791699E	Pole	Buena Park
21	4783034E	Pole	Buena Park
22	828532E	Pole	Buena Park
23	828533E	Pole	Buena Park
24	911511E	Pole	Buena Park
25	1067002E	Pole	Yorba Linda
26	1067004E	Pole	Yorba Linda
27	1097034E	Pole	Yorba Linda
28	1124970E	Pole	Yorba Linda
29	1427206E	Pole	Yorba Linda
30	1427205E	Pole	Yorba Linda
31	1427204E	Pole	Yorba Linda
32	1427203E	Pole	Yorba Linda
33	1427201E	Pole	Yorba Linda
34	X4536E	Pole	Yorba Linda
35	1628695E	Pole	Yorba Linda
36	425379E	Pole	Yorba Linda
37	4082993E	Pole	Yorba Linda
38	1754926E	Pole	Yorba Linda
39	4868457E	Pole	Yorba Linda
40	4868456E	Pole	Yorba Linda
41	4616976E	Pole	Yorba Linda
42	1973415E	Pole	Yorba Linda
43	1973416E	Pole	Yorba Linda
44	1426954E	Pole	Yorba Linda

45	4469809E	Pole	Yorba Linda
46	1762782E	Pole	Buena Park
47	1747997E	Pole	Buena Park
48	4416059E	Pole	Buena Park
40	4820314E	Pole	Buena Park
50	1747998E	Pole	Buena Park
51	1762789E	Pole	Buena Park
52	1762784E	Pole	Buena Park
53	1817224E	Pole	Buena Park
54	1893746E	Pole	Buena Park
55	1659742E	Pole	Buena Park
56	1213836E	Pole	Buena Park
57	123837E	Pole	Buena Park
58	1592592E	Pole	Buena Park
59	1362274E	Pole	Buena Park
60	1307658E	Pole	Buena Park
61	1367286E	Pole	Buena Park
62	4679419E	Pole	Buena Park
63	1372597E	Pole	Buena Park
64	691453E	Pole	Buena Park
65	691403E	Pole	Buena Park
66	5319017	Padmount Transformer	Placentia
67	P5311577	Padmount Transformer	Placentia
68	P5433808	Padmount Transformer	Placentia
69	P5546089	Padmount Transformer	Placentia
70	S5093697	Sub Structure (CST)	Placentia
71	5802198	BURD	Placentia
72	5202576	BURD	Placentia
73	P5319234	Padmount Switch	Placentia
74	P5495373	Padmount Switch	Placentia
75	5202516	Vault	Placentia
76	V5202519	Vault	Placentia

IV. Field Inspection Violations List

My staff observed the following violations during the field inspections:

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.

The “Anchor Loop” of the down guy anchor on pole No. 1067002E was completely buried.

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 each of the following SCE poles was either missing or damaged:

- 1754926E – missing “High Voltage” sign
- 911514E – damaged “High Voltage” sign
- 1497764E – damaged “High Voltage” sign
- 1124970E – damaged “High Voltage” sign
- 1427203E – damaged “High Voltage” sign
- 1288824E – damaged “High Voltage” sign
- X4536E – damaged “High Voltage” sign
- 1067002E – damaged “High Voltage” sign

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 each of the following SCE poles was damaged:

- 1288824E - ground molding is bowed outward, exposing the SCE ground wire.
- 1497767E – ground molding is broken, exposing the SCE ground wire.

- 1497769E – ground molding is broken, exposing the SCE ground wire.
- 1628695E - ground molding is bowed outward, exposing the SCE ground wire.

GO 95, Rule 35, Vegetation Management, states in part:

Where overhead conductors traverse trees and vegetation, safety and reliability of service demand that certain vegetation management activities be performed in order to establish necessary and reasonable clearances the minimum clearances set forth in Table 1, Cases 13 and 14, measured between line conductors and vegetation under normal conditions; shall be maintained. (Also see Appendix E for tree trimming guidelines.) These requirements apply to all overhead electrical supply and communication facilities that are covered by this General Order, including facilities on lands owned and maintained by California state and local agencies.

GO 95, Rule 37, Table 1, Column D, Case 13:

Radial clearance of bare line conductors from tree branches or foliage requires a radial clearance of 18 inches.

The radial clearance of the palm tree in front of 6041 Grand View, Yorba Linda, from an SCE primary conductor was 12 inches.

GO 95, Rule 54.8-C4: Clearances between Supply Service Drops and Other Conductors, states in part:

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.

The radial clearance of an SCE service drop between poles numbered 1747997E and 4416059E and a communication service drop within 15 feet of the point of attachment was less than 12 inches.

GO 95, Rule 54.7, Climbing and Working 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...

The climbing space on pole number 1067004E is obstructed by vegetation from the base of the pole to above 7 feet.

The climbing space on pole 1427203E is obstructed by communications conductors which occupy all quadrants of the pole.

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 on pole number 1543319E is 6 feet 4 inches from the top of an adjacent masonry fence.