

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



January 16, 2018

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

EA2017-784

Subject: Audit of Southern California Edison's Long Beach District

Mr. Stark:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Richard Kyo and Ryan Ishikawa of my staff conducted an electric audit of Southern California Edison's (SCE) Long Beach District from October 30, 2017 to November 3, 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 February 16, 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 Richard Kyo at (213) 576-7081 or richard.kyo@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: CPUC 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

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 54 work orders 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	4254782E	Pole	Long Beach
2	4258572E	Pole	Long Beach
3	153253E	Pole	Long Beach
4	153254E	Pole	Long Beach
5	217976E	Pole	Long Beach
6	1211518E	Pole	Long Beach
7	217977E	Pole	Long Beach
8	264477E	Pole	Long Beach
9	217978E	Pole	Long Beach
10	1151249E	Pole	Long Beach
11	217979E	Pole	Long Beach
12	217980E	Pole	Long Beach
13	4336755E	Pole	Lakewood
14	4189292E	Pole	Lakewood
15	4336761E	Pole	Lakewood
16	1402333E	Pole	Lakewood
17	4471100E	Pole	Lakewood
18	1402332E	Pole	Lakewood
19	1402331E	Pole	Lakewood
20	1402330E	Pole	Lakewood
21	1402329E	Pole	Lakewood
22	4189150E	Pole	Lakewood
23	1402327E	Pole	Lakewood
24	1402326E	Pole	Lakewood
25	456262E	Pole	Hawaiian Gardens
26	4806749E	Pole	Hawaiian Gardens
27	1456263E	Pole	Hawaiian Gardens
28	1456266E	Pole	Hawaiian Gardens
29	1474565E	Pole	Hawaiian Gardens
30	1456261E	Pole	Hawaiian Gardens
31	2364846E	Pole	Hawaiian Gardens
32	1456259E	Pole	Hawaiian Gardens
33	1456258E	Pole	Hawaiian Gardens
34	1456257E	Pole	Hawaiian Gardens
35	1456256E	Pole	Hawaiian Gardens
36	1456255E	Pole	Hawaiian Gardens
37	1456254E	Pole	Hawaiian Gardens
38	4717606E	Pole	Long Beach
39	92849E	Pole	Long Beach

40	4403262E	Pole	Long Beach
41	4354325E	Pole	Long Beach
42	2091890E	Pole	Long Beach
43	X911E	Pole	Long Beach
44	1528892E	Pole	Long Beach
45	4427164E	Pole	Long Beach
46	92848E	Pole	Long Beach
47	2103780E	Pole	Long Beach
48	2103782E	Pole	Long Beach
49	1474522E	Pole	Long Beach
50	2006078E	Pole	Long Beach
51	1474523E	Pole	Long Beach
52	1474524E	Pole	Long Beach
53	1474702E	Pole	Lakewood
54	1456281E	Pole	Lakewood
55	1456280E	Pole	Lakewood
56	1456279E	Pole	Lakewood
57	893720E	Pole	Long Beach
58	1640557E	Pole	Long Beach
59	1640560E	Pole	Long Beach
60	2381638E	Pole	Long Beach
61	1268948E	Pole	Long Beach
62	2382394E	Pole	Long Beach
63	4084034E	Pole	Long Beach
64	B11151Y	Pole	Long Beach
65	3382355E	Pole	Long Beach
66	93211E	Pole	Long Beach
67	M5133093	Manhole	Long Beach
68	M5133091	Manhole	Long Beach
69	M5133092	Manhole	Long Beach
70	V5134205	Vault	Long Beach
71	V5134053	Vault	Long Beach
72	V5132733	Vault	Long Beach
73	V5132757	Vault	Long Beach
74	M5132761	Manhole	Long Beach
75	5208242	Vault	Long Beach
76	M5132758	Manhole	Long Beach

IV. Field Inspection Violations List

My staff observed the following violations during the field inspection:

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:

- 4336755E – The high voltage signs were faded.
- 4336761E – The high voltage signs on the upper two crossarms were faded.
- 1474565E – The high voltage sign was missing letters.
- 1456258E – The "VOLTAGE" sign was missing.
- 4403262E – The high voltage sign was faded.
- 2091890E – The high voltage sign was missing.
- 1474522E – The high voltage sign on the upper crossarm was missing letters.
- 2006078E – The high voltage sign on the upper crossarm was missing letters.
- 1475424E – The high voltage sign was missing letters.

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 on SCE pole number 217980E was damaged.

The ground molding on SCE pole number 456262EE was warped, exposing the ground wire.

The ground molding on SCE pole number 2364846E was bowing out, exposing the ground wire.

The ground moulding on SCE pole number 2103782E was damaged.

GO 128, Rule 35.3, Warning Signs, states:

Warning signs indicating high voltage shall be installed on an interior surface, or barrier if present, inside the entrance of vaults, manholes, handholes, pad-mounted transformer compartments, and other above ground enclosures containing exposed live parts above 750 volts. Such warning sign shall also be installed on an exterior surface of all such padmounted transformer compartments and other above ground enclosures. Such signs shall be clearly visible to a person in position to open any such access door, other opening, or barrier.

SCE vaults numbered V5134205 and V5132757 did not have a high voltage sign inside the entrance.