PUBLIC UTILITIES COMMISSION 505 VAN NESS AVENUE SAN FRANCISCO, CA 94102-3298



February 16, 2018

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

Subject: Audit of Southern California Edison's Thousand Oaks 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) Thousand Oaks District from November 13, 2017, to November 17, 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 19, 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 <u>richard.kyo@cpuc.ca.gov</u>.

Sincerely,

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

EA2017-795

### **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 83 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	1585396E	Pole	Thousand Oaks
2	1257400E	Pole	Thousand Oaks
3	1585395E	Pole	Thousand Oaks
4	1585394E	Pole	Thousand Oaks
5	4565231E	Pole	Thousand Oaks
6	3004811E	Pole	Thousand Oaks
7	2214334E	Pole	Thousand Oaks
8	2214835E	Pole	Thousand Oaks
9	2214836E	Pole	Thousand Oaks
10	2214837E	Pole	Thousand Oaks
11	1275751E	Pole	Thousand Oaks
12	2064263E	Pole	Thousand Oaks
13	2064261E	Pole	Thousand Oaks
14	1754373E	Pole	Thousand Oaks
15	2240568E	Pole	Malibu
16	2240567E	Pole	Malibu
17	2240568E	Pole	Malibu
18	1939864E	Pole	Malibu
19	4255739E	Pole	Malibu
20	15161Y	Pole	Malibu
21	1143241E	Pole	Malibu
22	4251553E	Pole	Malibu
23	15158Y	Pole	Malibu
24	15157Y	Pole	Malibu
25	4125790E	Pole	Malibu
26	4255736E	Pole	Malibu
27	2241649E	Pole	Malibu
28	GT1261	Pole	Malibu
29	25371Y	Pole	Malibu
30	4856988E	Pole	Malibu
31	25370Y	Pole	Malibu
32	1090476E	Pole	Malibu
33	805630E	Pole	Malibu
34	805631E	Pole	Malibu
35	4267422E	Pole	Malibu
36	805633E	Pole	Malibu
37	805634E	Pole	Malibu
38	805635E	Pole	Malibu
39	1199261E	Pole	Malibu

40	956023E	Pole	Malibu
41	2241692E	Pole	Malibu
42	956022E	Pole	Malibu
43	2189647E	Pole	Malibu
44	956019E	Pole	Malibu
45	956018E	Pole	Malibu
46	956017E	Pole	Malibu
47	956016E	Pole	Malibu
48	956015E	Pole	Malibu
49	1449411E	Pole	Thousand Oaks
50	1585394E	Pole	Thousand Oaks
51	1932031E	Pole	Lake Sherwood
52	1414998E	Pole	Newberry Park
53	1513601E	Pole	Calabasas
54	5370925	Vault	Simi Valley
55	5026190	Vault	Camarillo
56	P5577770	Padmount	Thousand Oaks
57	5025112	BURD	Thousand Oaks
58	5024000	BURD	Thousand Oaks
59	5190608	BURD	Thousand Oaks
60	5635879	Padmount	Thousand Oaks
61	5167504	CST	Thousand Oaks

### **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" sign on SCE pole number 1257400E was missing letters.
- Two "HIGH VOLTAGE" signs on SCE pole number 2214836E were missing letters.
- A "HIGH VOLTAGE" sign on SCE pole number 2064263E was missing.
- A "HIGH VOLTAGE" sign on SCE pole number 2064261E was missing letters.
- A "HIGH VOLTAGE" sign on SCE pole number 1754373E was faded.
- A "HIGH VOLTAGE" sign on SCE pole number 2240567E was missing letters.
- A "HIGH VOLTAGE" sign on SCE pole number 2240568E was missing letters.
- Two "HIGH VOLTAGE" signs on SCE pole number were missing letters.
- Two "HIGH VOLTAGE" signs on SCE pole number 2241649E were missing letters.
- A "HIGH VOLTAGE" sign on SCE pole number 25370Y was missing.

#### 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 1754373E was damaged, exposing the ground wire.
- The ground molding on SCE pole number GT1261 was damaged, exposing the ground wire.

GO 95, Rule 56.2, Use, states in part:

Guys shall be attached to structures, as nearly as practicable, at the center of load. They shall be maintained taut and of such strength as to meet the safety factors of Rule 44.

An anchor guy on SCE pole number 2240567E was not taut.

### 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.

A "HIGH VOLTAGE" sign inside the entrance of SCE vault number 5370925 was missing.