

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



August 2, 2016

EA2016-011

Melvin Stark
Manager, Maintenance & Inspection
Southern California Edison Company (SCE)
3 Innovation Way
Pomona, CA 91786

Subject: Audit of SCE's Huntington Beach District

Mr. Stark:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Richard Kyo of my staff conducted an audit of SCE's Huntington Beach District from July 11, 2016 to July 15, 2016. 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 September 2, 2016, 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,

Handwritten signature of Fadi Daye in blue ink.

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
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.
- Diagnostic testing records for oil insulated equipment.

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.

General Order 165, Section III-C, Standards for Inspection, states:

For all inspections records shall specify the circuit, area, facility or equipment inspected, the inspector, the date of the inspection, and any problems (or items requiring corrective action) identified during each inspection, as well as the scheduled date of corrective action.

SCE's records indicated that from 2013 to 2016, seven work orders were completed past their scheduled date of corrective action.

III. Field Inspections

My staff inspected the following facilities during the field inspection:

Structure Number	Type of Structure	Location
1462129E	Pole	Westminster
1462130E	Pole	Westminster
1462131E	Pole	Westminster
1462132E	Pole	Westminster
1928190E	Pole	Westminster
4380804E	Pole	Westminster
1462140E	Pole	Westminster
1472009E	Pole	Westminster
1462141E	Pole	Westminster
1438499E	Pole	Westminster
2286080E	Pole	Corona Del Mar
1141963E	Pole	Corona Del Mar
750951E	Pole	Corona Del Mar
750799E	Pole	Corona Del Mar
835703E	Pole	Corona Del Mar
284006E	Pole	Corona Del Mar
4433104E	Pole	Corona Del Mar
4826551E	Pole	Corona Del Mar
1142056E	Pole	Corona Del Mar
2051254E	Pole	Corona Del Mar
1815694E	Pole	Corona Del Mar
1815696E	Pole	Corona Del Mar
1815697E	Pole	Corona Del Mar
1815698E	Pole	Corona Del Mar
4806511E	Pole	Costa Mesa
2295823E	Pole	Costa Mesa
2295886E	Pole	Costa Mesa
2295887E	Pole	Costa Mesa
2021278E	Pole	Costa Mesa
4806512E	Pole	Costa Mesa
4806514E	Pole	Costa Mesa
1788177E	Pole	Costa Mesa
1027791H	Pole	Costa Mesa
1788176E	Pole	Costa Mesa
1788175E	Pole	Costa Mesa
1788174E	Pole	Costa Mesa
1728694E	Pole	Costa Mesa
1087305E	Pole	Costa Mesa
1087305E	Pole	Costa Mesa

1671030E	Pole	Costa Mesa
4631851E	Pole	Costa Mesa
2050532E	Pole	Costa Mesa
2050531E	Pole	Costa Mesa
4702584E	Pole	Costa Mesa
1285843E	Pole	Costa Mesa
1285844E	Pole	Costa Mesa
4000505E	Pole	Costa Mesa
2021530E	Pole	Costa Mesa
4755376E	Pole	Costa Mesa
2050552E	Pole	Costa Mesa
2050553E	Pole	Costa Mesa
4633052E	Pole	Costa Mesa
4630600E	Pole	Costa Mesa
X9967E	Pole	Fountain Valley
1438989E	Pole	Fountain Valley
1438990E	Pole	Fountain Valley
1438991E	Pole	Fountain Valley
1438992E	Pole	Fountain Valley
1438993E	Pole	Fountain Valley
1438994E	Pole	Fountain Valley
4380595E	Pole	Fountain Valley
1438997E	Pole	Fountain Valley
1438998E	Pole	Fountain Valley
636464E	Pole	Corona Del Mar
4713323E	Pole	Corona Del Mar
1087323E	Pole	Corona Del Mar
284006E	Pole	Corona Del Mar
1142341E	Pole	Newport Beach
2295277E	Pole	Newport Beach
4182332E	Pole	Costa Mesa
4382471E	Pole	Costa Mesa
4000304E	Pole	Costa Mesa
735894H	Pole	Westminster
4866206E	Pole	Huntington Beach
5136454	Vault	Huntington Beach
5303500	Padmount Transformer	Huntington Beach
5172961	Padmount Transformer	Huntington Beach
5193265	Padmount Transformer	Huntington Beach
5110672	BURD	Huntington Beach
5110668	BURD	Huntington Beach
5172602	Padmount Transformer	Huntington Beach

IV. Field Inspection – Undocumented Violations List

My staff observed the following violations during the field inspection. None of these violations were documented and/or addressed by SCE during its last inspections.

GO 95, Rule 18-B, Notification 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.

GO 95, Rule 84.4-A6, Clearances, states in part:

Across or along Public Thoroughfares: Communication conductors over or across public thoroughfares shall have a clearance of 18 feet above ground (Table 1, Case 3, Column B).

The above ground clearance of communication service drops on poles numbered 1815694E and 1438994E was 6 feet. SCE did not notify the other companies of this safety hazard when it last inspected the poles.

A communication service drop on pole number 1462132E was wrapped around the base of the pole. SCE did not notify the other company of this safety hazard when it last inspected the pole.

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

Climbing space shall be maintained from the ground level.

Climbing space on pole number 1462132E was obstructed by a communication cable that was wrapped around the base of 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.

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).

A section of ground moulding on pole number 1142056E was warped and bowing out.

GO 128, Rule 35.3, Warning Signs, states in part:

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.

Vault number 5136454 did not have high voltage signs inside its entrance.

V. Field Inspection – Documented Violations List

My staff observed the following violations during the field inspection that were documented and/or addressed by SCE during its last inspections.

GO 95, Rule 34, Foreign Attachments, states in part:

Nothing in these rules shall be construed as permitting the unauthorized attachment, to supply, street light or communication poles or structures, of antennas, signs, posters, banners, decorations, wires, lighting fixtures, guys, ropes and any other such equipment foreign to the purposes of overhead electric line construction.

Third-party signs were attached to poles numbered 1815697E and 4631851E.

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 51.6-A, Marking and Guarding, 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"

Poles numbered 1788174E and 4630600E did not have high voltage signs on the uppermost crossarm.

High Voltage signs on the following poles were damaged (e.g. broken, illegible, faded, etc.):

- Pole 1438499E
- Pole 1788175E
- Pole 1438989E
- Pole 4380595E

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).

A section of the ground moulding on the following poles was missing:

- Pole 1462130E
- Pole 1141963E
- Pole 750951E

A section of the ground moulding on poles numbered 1462140E and 1438499E was warped and bowing out.

GO 95, Rule 54.8-B4a, Vertical Clearances, states:

Service drop vertical clearances shall be maintained over all portions of buildings and structures as required by Table 10.

Table 10 shows that the minimum clearance over a building for insulated conductors 0-750 volts should be 0.5 inches (footnote a). A service drop attached to pole number 2051254E was touching the roof of a building.

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.

A down guy wire on pole number 4631851E was not taut.

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.

A pole step on pole number 1141963E was bent and damaged.

GO 95, Rule 91.3-A1, states in part:

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...

Jointly used poles numbered 2050532E and 4755376E did not have pole steps.