

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



October 27, 2020

EA2020-857

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

Subject: Audit of Southern California Edison's Saddleback District

Mr. Stark:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), James Miller, Stacey Ocampo and Joceline Pereira of my staff conducted an electric distribution audit of Southern California Edison's (SCE) Saddleback District from August 24, 2020 to August 28, 2020. 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 November 30, 2020, 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 James Miller at (213) 266-4715 or James.Miller@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: Lee Palmer, Director, Safety and Enforcement Division, CPUC
Nika Kjensli, Program Manager, ESRB, SED, CPUC
James Miller, Utilities Engineer, ESRB, SED, CPUC

AUDIT FINDINGS

I. Records Review

My staff reviewed the following records during the audit:

- Patrol & Detailed Inspection records.
- Late Inspections
- Work Orders Created from Inspections
- Repair Work Orders
- Intrusive Testing Records
- Third Party Notifications
- Vegetation Management Records
- Pole Loading Calculation Records

II. Records Review – Violations List

My staff discovered the following General Order violations during the records review portion of the audit:

GO 165, Section III-C, Record Keeping, states in part:

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.

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.

SCE's records indicated that from 2015 to 2020, SCE completed 334 work orders past their due date for corrective action. Additionally, as of the date of the audit, SCE had 318 open work orders that were past their scheduled due date for corrective action.

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 128, Rule 17.2, Inspection, states:

[Underground] Systems shall be inspected by the operator frequently and thoroughly for the purpose of insuring that they are in good condition and in conformance with all applicable requirements of these rules.

GO 165, Section III-B, Standards of Inspection, requires utilities to conduct detailed inspections of its distribution facilities, as necessary, to ensure reliable, high-quality, and safe operation.

From June 2010 through June 2020, SCE failed to perform 2445 detailed inspections of its underground facilities, 49 detailed inspections of its overhead facilities, and 259 patrol inspections by SCE's inspection due date.

III. Field Inspections

My staff inspected the following structures during the field inspection portion of the audit:

	Structure No.	Structure Type	Location
1	2258442E	Utility pole	Laguna Beach
2	2258441E	Utility pole	Laguna Beach
3	412442E	Utility pole	Laguna Beach
4	60439E	Utility pole	Laguna Beach
5	4633654E	Utility pole	Laguna Beach
6	4139600E	Utility pole	Laguna Beach
7	D2360Y	Utility pole	Laguna Beach
8	992791E	Utility pole	Laguna Beach
9	369997E	Utility pole	Laguna Beach
10	2258766E	Utility pole	Laguna Beach
11	60443E	Utility pole	Laguna Beach
12	2257804E	Utility pole	Laguna Beach
13	1098341E	Utility pole	Laguna Beach
14	2258402E	Utility pole	Laguna Beach
15	2258327E	Utility pole	Laguna Beach
16	4394088E	Utility pole	Modjeska Canyon
17	2368639E	Utility pole	Modjeska Canyon
18	X100117E	Utility pole	Modjeska Canyon
19	4884021E	Utility pole	Modjeska Canyon
20	X10040E	Utility pole	Modjeska Canyon
21	1681169E	Utility pole	Modjeska Canyon
22	1717471E	Utility pole	Modjeska Canyon
23	Tagless pole north of 4394088E	Utility pole	Modjeska Canyon
24	4884978E	Utility pole	Modjeska Canyon
25	X10047E	Utility pole	Modjeska Canyon
26	4909782E	Utility pole	Modjeska Canyon
27	1681168E	Utility pole	Modjeska Canyon
28	1681167E	Utility pole	Modjeska Canyon
29	4852592E	Utility pole	Modjeska Canyon
30	4252143E	Utility pole	Modjeska Canyon
31	12500E	Utility pole	Modjeska Canyon
32	12499E	Utility pole	Modjeska Canyon
33	4869791E	Utility pole	Modjeska Canyon
34	4802004E	Utility pole	Modjeska Canyon
35	X12497E	Utility pole	Modjeska Canyon
36	1008654H	Utility pole	Modjeska Canyon
37	4909642E	Utility pole	Modjeska Canyon

38	421618H	Utility pole	Modjeska Canyon
39	X12495E	Utility pole	Modjeska Canyon
40	12494E	Utility pole	Modjeska Canyon
41	1535299E	Utility pole	Modjeska Canyon
42	X124935	Utility pole	Modjeska Canyon
43	4883814E	Utility pole	Modjeska Canyon
44	417262E	Utility pole	Live Oak Canyon
45	4252111E	Utility pole	Live Oak Canyon
46	1680962E	Utility pole	Live Oak Canyon
47	1680963E	Utility pole	Live Oak Canyon
48	612360H	Utility pole	Live Oak Canyon
49	1680964E	Utility pole	Live Oak Canyon
50	1680965E	Utility pole	Live Oak Canyon
51	1680966E	Utility pole	Live Oak Canyon
52	2333420E	Utility pole	Silverado Canyon
53	2333421E	Utility pole	Silverado Canyon
54	2333418E	Utility pole	Silverado Canyon
55	4430731E	Utility pole	Silverado Canyon
56	2333417E	Utility pole	Silverado Canyon
57	4778183E	Utility pole	Silverado Canyon
58	1192542E	Utility pole	Silverado Canyon
59	1192543E	Utility pole	Silverado Canyon
60	998605E	Utility pole	Silverado Canyon
61	2258245E	Utility pole	Silverado Canyon
62	2258788E	Utility pole	Silverado Canyon
63	428337E	Utility pole	Silverado Canyon
64	2258791E	Utility pole	Silverado Canyon
65	2258792E	Utility pole	Silverado Canyon
66	2258509E	Utility pole	Silverado Canyon
67	2258790E	Utility pole	Silverado Canyon
68	655240E	Utility pole	Silverado Canyon
69	4590209E	Utility pole	Silverado Canyon
70	1575354	Utility pole	Silverado Canyon
71	4361560F	Utility pole	Silverado Canyon
72	784754E	Utility pole	Silverado Canyon
73	1269470E	Utility pole	Silverado Canyon
74	812198H	Utility pole	Silverado Canyon
75	491665E	Utility pole	Silverado Canyon
76	4430733E	Utility pole	Silverado Canyon
77	687524E	Utility pole	Silverado Canyon
78	584866E	Utility pole	Silverado Canyon

79	4771004E	Utility pole	Black Star Canyon
80	2018553E	Utility pole	Black Star Canyon
81	2018554E	Utility pole	Black Star Canyon
82	2018555E	Utility pole	Black Star Canyon
83	2018556E	Utility pole	Black Star Canyon
84	4771015E	Utility pole	Black Star Canyon
85	4158947E	Utility pole	Black Star Canyon
86	2018557E	Utility pole	Black Star Canyon
87	2018558E	Utility pole	Black Star Canyon
88	4741008E	Utility pole	Black Star Canyon
89	2018560E	Utility pole	Black Star Canyon
90	4797326E	Utility pole	Laguna Canyon
91	4797325E	Utility pole	Laguna Canyon
92	4797324E	Utility pole	Laguna Canyon
93	4797323E	Utility pole	Laguna Canyon
94	4797322E	Utility pole	Laguna Canyon
95	4797321E	Utility pole	Laguna Canyon
96	4797320E	Utility pole	Laguna Canyon
97	4797319E	Utility pole	Laguna Canyon
98	4797318E	Utility pole	Laguna Canyon
99	4797317E	Utility pole	Laguna Canyon
100	4892596E	Utility pole	Laguna Canyon
101	GT7450	Utility pole	Laguna Canyon
102	1039796E	Utility pole	Laguna Canyon
103	1331590E	Utility pole	Laguna Canyon
104	1039798E	Utility pole	Laguna Canyon
105	1038799E	Utility pole	Laguna Canyon
106	4402751E	Utility pole	Laguna Canyon
107	1087383E	Utility pole	Laguna Canyon
108	1521482E	Utility pole	Laguna Canyon
109	785425E	Utility pole	Laguna Canyon
110	785424E	Utility pole	Laguna Canyon
111	4170132E	Utility pole	Laguna Canyon
112	D2080Y	Utility pole	Laguna Canyon
113	5554394	BURD Transformer	Cypress Square
114	B5586962	BURD Transformer	Cypress Square
115	B5563888	BURD Transformer	Cypress Square
116	P5554389	Padmounted Switch	Cypress Square
117	P5528610	Padmounted Transformer	Cypress Square
118	5607409	BURD Transformer	Stonegate
119	5607411	BURD Transformer	Stonegate

120	5607410	BURD Transformer	Stonegate
121	5607408	BURD Transformer	Stonegate
122	P5639911	Padmounted Transformer	Stonegate
123	P5639916	Padmounted Transformer	Stonegate
124	P5639917	Padmounted Transformer	Stonegate
125	B5124262	BURD Transformer	Lake Forest
126	B5124263	BURD Transformer	Lake Forest
127	P5304658	Padmounted Switch	Lake Forest
128	V5122170	Vault	Lake Forest
129	B5081563	BURD Transformer	Laguna Woods
130	V5081478	Vault	Laguna Woods
131	B5081564	BURD Transformer	Laguna Woods
132	E5088777	Walk-in Enclosure	Laguna Woods
133	4504711	Utility pole	Top of the World
134	737277E	Utility pole	Top of the World
135	1729020E	Utility pole	Top of the World
136	2251266E	Utility pole	Santiago Canyon
137	420596E	Utility pole	Santiago Canyon
138	4633648E	Utility pole	Santiago Canyon
139	4622171E	Utility pole	Santiago Canyon
140	2257147E	Utility pole	Rose Canyon
141	1045200H	Utility pole	Rose Canyon
142	2251263E	Utility pole	Rose Canyon
143	2257299E	Utility pole	Rose Canyon
144	4511274E	Utility pole	Rose Canyon
145	1135767E	Utility pole	Rose Canyon
146	1027659E	Utility pole	Rose Canyon
147	4252350E	Utility pole	Rose Canyon
148	2030764E	Utility pole	Rose Canyon
149	4639878E	Utility pole	Rose Canyon
150	4639879E	Utility pole	Rose Canyon
151	4639877E	Utility pole	Rose Canyon
152	1350816E	Utility pole	Rose Canyon
153	4639246E	Utility pole	Rose Canyon
154	2257297E	Utility pole	Rose Canyon
155	2257298E	Utility pole	Rose Canyon
156	4664669E	Utility pole	Rose Canyon
157	2257296E	Utility pole	Rose Canyon
158	X8481E	Utility pole	Rose Canyon
159	8500E	Utility pole	Rose Canyon
160	4884006E	Utility pole	Rose Canyon

161	8499E	Utility pole	Rose Canyon
162	4633864E	Utility pole	Rose Canyon
163	X8502	Utility pole	Rose Canyon
164	658801E	Utility pole	Rose Canyon
165	X8503E	Utility pole	Rose Canyon
166	X8510E	Utility pole	Rose Canyon
167	X8511E	Utility pole	Rose Canyon
168	4576865E	Utility pole	Rose Canyon
169	4884339E	Utility pole	Rose Canyon
170	4884338E	Utility pole	Rose Canyon
171	P1277991E	Utility pole	The Ranch at Laguna Beach
172	P125729E	Utility pole	The Ranch at Laguna Beach
173	P129365E	Utility pole	The Ranch at Laguna Beach
174	P125737	Utility pole	The Ranch at Laguna Beach
175	P125503	Utility pole	The Ranch at Laguna Beach
176	P220493	Utility pole	The Ranch at Laguna Beach

IV. Field Inspection Violations List

GO 95, Rule 51.6, 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 each of the following seven poles were either missing or damaged:

- 2258441E
- 2258788E
- 2258327E
- 2258791E
- 2258792E
- 412442E
- 428337E

GO 95, Rule 56.2 Overhead Guys, Anchor Guys and Span Wires, 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 .

Guys attached to each of the following seven poles were not taut:

- 2258442E
- 491665E
- 2018560E
- D2080Y
- 4664669E
- 658801E
- 4633864E

GO 95, Rule 56.9 Guy Marker (Guy Guard), states in part:

A substantial marker of suitable material, including but not limited to metal or plastic, not less than 8 feet in length, shall be securely attached to all anchor guys. Where more than one guy is attached to an anchor rod, only the outermost guy is required to have a marker.

- The reflective guy marker on a down guy attached to Pole No. 2018558E was damaged and unsecured.

GO 95, Rule 91.3 Stepping, B. Location of Steps, states in part:

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 each of the following five poles was located at a height of less than eight feet:

- 4852592E
- X12497E
- 2333417E
- 428337E
- 4511274E

GO 95, Rule 38 - Minimum Clearances of Wires from Other Wires, Table 2, Column C, Case 19 requires the minimum radial clearance between guys and span wires passing communication conductors supported on the same poles to be three inches.

- A down guy wire on Pole No. 2018556E had less than one inch of clearance from a communication conductor supported on the same pole.
- A down guy wire on Pole No. 2333418E was in contact with a communication conductor supported on the same pole.

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.

Unauthorized signs were attached to each of the following three poles:

- 4741008E
- 2030764E
- P129365E
- An unauthorized light fixture was attached to Pole No. 584866E.

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 pole tags on the following two poles were damaged:

- X10047E
- 2258791E

An unidentified pole supporting SCE facilities located north of Pole No. 4394088E was missing a pole tag.

GO 128, Rule 17.1, 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 [the] communication or supply lines and equipment.

A baffle inside padmounted structure No. B5081563 was packed with organic debris.