STATE OF CALIFORNIA Gavin Newsom, *Governor*

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

April 20, 2021 EA2021-888

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 Huntington Beach District

Mr. Stark:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), James Miller and Joceline Pereira of my staff conducted an electric distribution audit of Southern California Edison's (SCE) Huntington Beach District from February 22, 2021 to February 26, 2021. 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 May 20, 2021, 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,

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 95, Rule 18-A1a, Reporting and Resolution of Safety Hazards Discovered by Utilities, that was applicable at the time of SCE's own inspections, states in part:

> *Each company (including utilities and CIPs) is responsible for taking appropriate corrective action to remedy Safety Hazards and GO 95 nonconformances posed by its facilities.*

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 January 1, 2011 to December 31, 2020, SCE completed 108 work orders past their due date for corrective action in the Huntington Beach District. The records also indicated that SCE had 252 open work orders in the district 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.

Records indicated that from January 1, 2011 through December 31, 2020, SCE failed to perform 499 detailed inspections of its underground facilities, 2096 detailed inspections of its overhead facilities, and 69 patrol inspections by SCE's inspection due date in the Huntington Beach District.

III. Field Inspections

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

	Structure No.	Structure Type	Location
1	1968335E	Utility Pole	South Huntington Beach
2	4085786E	Utility Pole	South Huntington Beach
3	1968336E	Utility Pole	South Huntington Beach
4	1968337E	Utility Pole	South Huntington Beach
5	2050681E	Utility Pole	South Huntington Beach
6	4633430E	Utility Pole	South Huntington Beach
7	4633429E	Utility Pole	South Huntington Beach
8	4329652E	Utility Pole	Newport Beach
9	2140274E	Utility Pole	Newport Beach
10	2140273E	Utility Pole	Newport Beach
11	2140272E	Utility Pole	Newport Beach
12	2140271E	Utility Pole	Newport Beach
13	2140270E	Utility Pole	Newport Beach
14	2140269E	Utility Pole	Newport Beach
15	1142296E	Utility Pole	Westside Costa Mesa
16	1036816H	Utility Pole	Westside Costa Mesa
17	1036815H	Utility Pole	Westside Costa Mesa
18	1036814H	Utility Pole	Westside Costa Mesa
19	1036817	Utility Pole	Westside Costa Mesa
20	643961H	Utility Pole	Westside Costa Mesa
21	1036813E	Utility Pole	Westside Costa Mesa
22	776889E	Utility Pole	Westside Costa Mesa
23	643959H	Utility Pole	Westside Costa Mesa
24	691676E	Utility Pole	Westside Costa Mesa
25	1347232E	Utility Pole	Westside Costa Mesa
26	4448658E	Utility Pole	Westside Costa Mesa
27	2295893E	Utility Pole	Yorktown
28	4353225E	Utility Pole	Yorktown
29	743212E	Utility Pole	Yorktown
30	120614E	Utility Pole	Yorktown
31	2045956E	Utility Pole	Yorktown
32	1787965E	Utility Pole	Yorktown
33	1787966E	Utility Pole	Yorktown
34	1521272E	Utility Pole	Yorktown
35	1787967E	Utility Pole	Yorktown
36	1787968E	Utility Pole	Yorktown
37	1471630E	Utility Pole	Yorktown
38	1438493E	Utility Pole	Huntington Beach
39	C140943Y	Utility Pole	Huntington Beach

	Structure No.	Structure Type	Location
40	C140942Y	Utility Pole	Huntington Beach
41	C6325Y	Utility Pole	Huntington Beach
42	C140944Y	Utility Pole	Huntington Beach
43	1503670E	Utility Pole	Huntington Beach
44	1670977E	Utility Pole	Huntington Beach
45	3001116E	Utility Pole	Huntington Beach
46	4076475E	Utility Pole	Huntington Beach
47	2340255E	Utility Pole	Huntington Beach
48	1396507E	Utility Pole	Huntington Beach
49	4076798E	Utility Pole	Huntington Beach
50	2340302E	Utility Pole	Huntington Beach
51	4076799E	Utility Pole	Huntington Beach
52	4701787E	Utility Pole	Huntington Beach
53	1471635E	Utility Pole	Green Lantern Village
54	1471636E	Utility Pole	Green Lantern Village
55	1471637E	Utility Pole	Green Lantern Village
56	1471638E	Utility Pole	Green Lantern Village
57	1471639E	Utility Pole	Green Lantern Village
58	1471640E	Utility Pole	Green Lantern Village
59	1503775E	Utility Pole	Green Lantern Village
60	4680922E	Utility Pole	Green Lantern Village
61	4680902E	Utility Pole	Green Lantern Village
62	1519774E	Utility Pole	Green Lantern Village
63	1503390E	Utility Pole	Green Lantern Village
64	1503391E	Utility Pole	Green Lantern Village
65	1503392E	Utility Pole	Green Lantern Village
66	1503393E	Utility Pole	Green Lantern Village
67	1503394E	Utility Pole	Green Lantern Village
68	4208648E	Utility Pole	Green Lantern Village
69	1503396E	Utility Pole	Green Lantern Village
70	1516729E	Utility Pole	Green Lantern Village
71	1460759E	Utility Pole	Fountain Valley
72	1460760E	Utility Pole	Fountain Valley
73	1460761E	Utility Pole	Fountain Valley
74	1460762E	Utility Pole	Fountain Valley
75	4095701E	Utility Pole	Fountain Valley
76	794759H	Utility Pole	Fountain Valley
77	1460764E	Utility Pole	Fountain Valley
78	1426055E	Utility Pole	Sunset Beach
79	4667533E	Utility Pole	Sunset Beach
80	1995098E	Utility Pole	Sunset Beach
81	1549226E	Utility Pole	Sunset Beach

	Structure No.	Structure Type	Location
82	2069701E	Utility Pole	Sunset Beach
83	4704778E	Utility Pole	Sunset Beach
84	4076541E	Utility Pole	Sunset Beach
85	B140014Y	Utility Pole	Sunset Beach
86	B140013Y	Utility Pole	Sunset Beach
87	1396537E	Utility Pole	Sunset Beach
88	B140012Y	Utility Pole	Sunset Beach
89	5445407	Padmounted Transformer	Newport Coast
90	5445408	Padmounted Transformer	Newport Coast
91	5445406	Padmounted Transformer	Newport Coast
92	P5630141	Padmounted Switch	Newport Coast
93	5435233	BURD Transformer	Newport Coast
94	5435234	BURD Transformer	Newport Coast
95	5435235	Padmounted Transformer	Newport Coast
96	5435010	Padmounted Transformer	Newport Coast
97	5435009	Padmounted Transformer	Newport Coast
98	5638631	Padmounted Transformer	Newport
99	5100891	Vault with Transformer	Newport
100	5504575	BURD Transformer	Newport
101	5648050	Padmounted Transformer	Westminster
102	5648049	Padmounted Switch	Westminster
103	P5434528	Padmounted Transformer	Westminster
104	P5434524	Padmounted Transformer	Westminster
105	5434525	Padmounted Transformer	Westminster
106	5107417	BURD Transformer	Midway City
107	5107416	BURD Transformer	Midway City
108	5107419	BURD Transformer	Midway City
109	1267576E	Utility Pole	Westminster
110	1548487E	Utility Pole	Huntington Beach
111	4000240E	Utility Pole	Adams
112	835562E	Utility Pole	Huntington Beach
113	4716680E	Utility Pole	Huntington Beach
114	701482E	Utility Pole	Newport Beach
115	1670638E	Utility Pole	Huntington Beach
116	1728747E	Utility Pole	Oak View
117	4000550E	Utility Pole	Newport Beach
118	2286057E	Utility Pole	Newport Beach
119	1548439E	Utility Pole	Wintersburg
120	1267650E	Utility Pole	Midway City
121	508623E	Utility Pole	Newport Beach
122	4457559E	Utility Pole	Bonita Canyon
123	2048185E	Utility Pole	Bonita Canyon

	Structure No.	Structure Type	Location
124	1642139E	Utility Pole	Newport Beach
125	1098412E	Utility Pole	Gum Grove Park
126	6338447E	Utility Pole	Gum Grove Park
127	1098410E	Utility Pole	Gum Grove Park
128	1098409E	Utility Pole	Gum Grove Park
129	1098408E	Utility Pole	Gum Grove Park
130	1098407E	Utility Pole	Gum Grove Park
131	1098406E	Utility Pole	Gum Grove Park
132	1098405E	Utility Pole	Gum Grove Park
133	1098404E	Utility Pole	Gum Grove Park

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 poles were either missing or damaged:

- 1968337E
- 2050681E
- 643959H
- 691676E
- 2045956E
- 1521272E
- 1503775E
- 1503390E
- 4208648E
- 1516729E
- 794759H
- 1396537E
- 4000550E
- 2286057E

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 .*

The down guy wire on each of poles numbered 1503670E and 1642139E was not taut.

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 poles numbered 1098408E and 1396507E was less than eight feet above the ground or an easily climbable foreign structure.

GO 95, Rule 38 - Minimum Clearances of Wires from Other Wires, Table 2, Column A, Case 4 requires the minimum radial clearance between span wires and supply conductors of 0 to 750 volts not supported on the same poles to be 24 inches.

A span guy wire on Pole No. 1503390 had approximately one inch of vertical clearance from a secondary supply conductor supported on a nearby streetlight.

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.*

An unauthorized "No Parking" sign and owl figurine were attached to Pole No. 1426055E.

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.*

A crossarm on Pole No. 691976E was broken.

The pole tag on each of the following poles was missing or damaged:

- 4076541E
- 1098410E
- 1098409E
- 1098408E

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.*

The interior of Structure No. PMT5445406 showed extensive corrosion.

The enclosure of BURD Structure No. 5504575 was caving in on one side.

GO 128, Rule 34.3(C), Equipment, Transformers, states in part:

> *Transformers operating at more than 600 volts, other than current and potential transformers and transformers which constitute a component part of other apparatus and which conform to the requirements of such apparatus, shall be readily accessible for operation, inspection, maintenance, and replacement.*

Padmounted transformer No. PMT5445408 was engulfed in vegetation and not readily accessible.

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 44.1, Installation and Reconstruction, states in part:

> *Lines and elements of lines, upon installation or reconstruction, shall provide as a minimum the safety factors specified in Table 4. The design shall consider all supply and communication facilities planned to occupy the structure. For purposes of this rule, the term "planned" applies to the facilities intended to occupy the structure that are actually known to the constructing company at the time of design.*

The pole loading calculations supplied by SCE for the following poles contained incorrect information:

- 1670638E – The pole loading data included a down guy wire that was not present at the time of the field inspection.
- 1728747E – The pole loading data indicated that this dead-end pole supported an eighty-eight foot span of conductors. My staff measured the span to be approximately one-hundred and eighteen feet.

General Order 95, Rule 58.2(A), Transformers, Grounding or Bonding, states in part:

> *Grounding of Windings: Transformer windings, providing service not exceeding 300 volts (except those used exclusively for energizing street lighting systems or used exclusively for energizing signal and traffic circuits) shall be effectively grounded.*
>
> ...
>
> *Transformer ground connections shall be provided at one of the following locations:*
>
> *At the transformer pole or*
>
> *At a pole adjacent to the transformer pole*

A transformer on Pole No. 1036813E was not grounded at the pole or at either adjacent pole.