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

November 2, 2020 EA2020-863

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

Subject: Audit of Southern California Edison's Wildomar District

Mr. Stark:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Saimon Islam, Richard Le, and Mily Vaidya of my staff conducted an electric distribution audit of Southern California Edison's (SCE) Wildomar District from September 14, 2020 to September 18, 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 December 2, 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 Saimon Islam at (213)-266-4733 or saimon.islam@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
Saimon Islam, Utilities Engineer, ESRB, SED, 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.
- Vegetation Management Records

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.*

- SCE's records indicated that from 2015 to 2020, SCE completed 142 work orders past their due date for corrective actions. Additionally, as of the date of the audit, SCE had 277 open work orders that were past their scheduled due date for corrective actions.

GO 165, Standard III-B, Distribution Facilities, Standards for Inspections, states in part:

> *Each utility subject to this General Order shall conduct inspections of its distribution facilities, as necessary, to ensure reliable, high-quality, and safe operation, but in no case may the period between inspections (measured in years) exceed the time specified in Table-1*

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.*

- SCE's records indicated that from 2015 to 2020, SCE completed 38 annual grid patrol inspections and 2980 overhead detailed inspections past their scheduled due dates.

GO 165, Standard III-B, Distribution Facilities, Standards for Inspections, states in part:

> *Each utility subject to this General Order shall conduct inspections of its distribution facilities, as necessary, to ensure reliable, high-quality, and safe operation, but in no case may the period between inspections (measured in years) exceed the time specified in Table-1*

GO 128, Rule 17.2, Inspection, states in part:

> *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 these rules.*

- SCE's records indicated that from 2015 to 2020, SCE completed 3,239 underground detailed inspections past their scheduled due date.

GO 128, Rule 17.1, 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.*

- SCE's records indicated that from 2015 to 2019, SCE completed 24 work orders past their due date for corrective actions. Additionally, as of the date of the audit, SCE had 55 open work orders that were past their scheduled due date for corrective action.

III. Field Inspections

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

	Structure No.	Structure Type	Location
1	2228150E	Utility Pole	Wildomar
2	2206503E	Utility Pole	Wildomar
3	2339365E	Utility Pole	Pechanga
4	2339366E	Utility Pole	Pechanga
5	2075257E	Utility Pole	Pechanga
6	2075256E	Utility Pole	Pechanga
7	4639169E	Utility Pole	Pechanga
8	2014240E	Utility Pole	Pechanga
9	4229980E	Utility Pole	Pechanga
10	4358260E	Utility Pole	Pechanga
11	2014539E	Utility Pole	Pechanga
12	2014538E	Utility Pole	Pechanga
13	2037250E	Utility Pole	Pechanga
14	2343462E	Utility Pole	Murrieta
15	2075179E	Utility Pole	Murrieta
16	2075180E	Utility Pole	Murrieta
17	2075182E	Utility Pole	Murrieta
18	4524104E	Utility Pole	Murrieta
19	2065694E	Utility Pole	Murrieta
20	4163671E	Utility Pole	Perris
21	2181579E	Utility Pole	Perris
22	2181582E	Utility Pole	Perris
23	2227842E	Utility Pole	Perris
24	2181578E	Utility Pole	Perris
25	2181577E	Utility Pole	Perris
26	2181576E	Utility Pole	Perris
27	4842214E	Utility Pole	Lake Elsinore
28	4586810E	Utility Pole	Lake Elsinore
29	4586811E	Utility Pole	Lake Elsinore
30	2347007E	Utility Pole	Lake Elsinore
31	2347006E	Utility Pole	Lake Elsinore
32	2352497E	Utility Pole	Lake Elsinore
33	2352499E	Utility Pole	Lake Elsinore
34	2352498E	Utility Pole	Lake Elsinore
35	4317741E	Utility Pole	Lake Elsinore
36	2352496E	Utility Pole	Lake Elsinore

	Structure No.	Structure Type	Location
37	GT132510	Utility Pole	Lake Elsinore
38	4294197E	Utility Pole	Lake Elsinore
39	4166501E	Utility Pole	Temecula
40	2065796E	Utility Pole	Temecula
41	2065797E	Utility Pole	Temecula
42	2065798E	Utility Pole	Temecula
43	2302485E	Utility Pole	Temecula
44	2065799E	Utility Pole	Temecula
45	2065800E	Utility Pole	Temecula
46	2065701E	Utility Pole	Temecula
47	2065702E	Utility Pole	Temecula
48	2173392E	Utility Pole	Temecula
49	2299164E	Utility Pole	Lake Elsinore
50	4224335E	Utility Pole	Lake Elsinore
51	2299163E	Utility Pole	Lake Elsinore
52	2299162E	Utility Pole	Lake Elsinore
53	2309604E	Utility Pole	Lake Elsinore
54	2309603E	Utility Pole	Lake Elsinore
55	2113010E	Utility Pole	Lake Elsinore
56	2113009E	Utility Pole	Lake Elsinore
57	73095S	Utility Pole	Lake Elsinore
58	9541S	Utility Pole	Lake Elsinore
59	2224957E	Utility Pole	Lake Elsinore
60	2224961E	Utility Pole	Lake Elsinore
61	2224962E	Utility Pole	Lake Elsinore
62	2224963E	Utility Pole	Lake Elsinore
63	2224964E	Utility Pole	Lake Elsinore
64	2224965E	Utility Pole	Lake Elsinore
65	2224966E	Utility Pole	Lake Elsinore
66	2224967E	Utility Pole	Lake Elsinore
67	2224968E	Utility Pole	Lake Elsinore
68	2112513E	Utility Pole	Lake Elsinore
69	2112511E	Utility Pole	Lake Elsinore
70	5465576E	Utility Pole	Lake Elsinore
71	GT137342	Utility Pole	Lake Elsinore
72	4112347E	Utility Pole	Lake Elsinore
73	4367241E	Utility Pole	Lake Elsinore
74	4554986E	Utility Pole	Lake Elsinore
75	1751299E	Utility Pole	Lake Elsinore
76	111863E	Utility Pole	Lake Elsinore

	Structure No.	Structure Type	Location
77	1751300E	Utility Pole	Lake Elsinore
78	4002900E	Utility Pole	Lake Elsinore
79	1750951E	Utility Pole	Lake Elsinore
80	4111864E	Utility Pole	Lake Elsinore
81	1750952E	Utility Pole	Lake Elsinore
82	4111865E	Utility Pole	Lake Elsinore
83	1750953E	Utility Pole	Lake Elsinore
84	4111866E	Utility Pole	Lake Elsinore
85	2173392E	Utility Pole	Temecula
86	4815581E	Utility Pole	Temecula
87	2173389E	Utility Pole	Temecula
88	209164E	Utility Pole	Temecula
89	4874366E	Utility Pole	Temecula
90	2091165E	Utility Pole	Temecula
91	4870398E	Utility Pole	Temecula
92	4870399E	Utility Pole	Temecula
93	4870397E	Utility Pole	Temecula
94	4491345E	Utility Pole	Temecula
95	4753874E	Utility Pole	Temecula
96	2173219E	Utility Pole	Temecula
97	4491034E	Utility Pole	Temecula
98	2206507E	Utility Pole	Murrieta
99	4415340E	Utility Pole	Murrieta
100	2206508E	Utility Pole	Murrieta
101	2245908E	Utility Pole	Murrieta
102	2206506E	Utility Pole	Murrieta
103	2199258E	Utility Pole	Murrieta
104	2298964E	Utility Pole	Murrieta
105	2226079E	Utility Pole	Lake Elsinore
106	GT23791	Utility Pole	Lake Elsinore
107	12388S	Utility Pole	Lake Elsinore
108	GT23790	Utility Pole	Lake Elsinore
109	4004614E	Utility Pole	Lake Elsinore
110	5171835	Vault	Murrieta
111	5196779	BURD Transformer	Murrieta
112	5196782	BURD Transformer	Murrieta
113	P5505183	Pad-mounted Transformer	Murrieta
114	5546937	Pad-mounted Switch	Murrieta
115	P5546942	Pad-mounted Transformer	Murrieta
116	5200000	BURD Transformer	Corona

	Structure No.	Structure Type	Location
117	5509101	Pad-mounted Switch	Corona
118	P5522655	Pad-mounted Transformer	Corona
119	P5390747	Pad-mounted Transformer	Temecula
120	5384085	Pad-mounted Transformer	Temecula
121	P5389702	Pad-mounted Switch	Temecula
122	P5389703	Pad-mounted Switch	Temecula
123	P5496775	Pad-mounted Transformer	Temecula
124	P5496776	Pad-mounted Transformer	Temecula
125	P5496770	Pad-mounted Transformer	Temecula
126	P5496767	Pad-mounted Switch	Temecula
127	2307212E	Utility Pole	Lake Elsinore

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 twelve poles were either missing or damaged:

- 2206503E
- 2339366E
- 4358260E
- 2181579E
- 2181577E
- 2181576E
- 4224335E
- 2309603E
- 2112511E
- 2206508E
- GT23790
- 2307212E

GO 95, Rule 91.3-A, Use of Steps, 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*

- SCE Pole number 2014240E was a jointly used pole supporting supply conductors and had vertical runs. The pole did not have any pole steps.

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.*

The guy anchors of the following SCE poles were buried in the ground:

- 4358260E
- 2343462E
- 4842214E
- 2065798E
- 9541S
- 4367241E

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 pole number 2014539E is missing on the bottom section of the pole, thus, exposing the ground wire.

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.*

- Pole 2181579E had an unauthorized light attached to it.
- Pole 4586811E had an unauthorized advertising sign attached to it.
- Pole 2224957E had three unauthorized advertising signs attached to it.
- Pole 2224962E had an unauthorized advertising sign attached to it.
- Pole 2199258E had an unauthorized no trespassing sign attached to it.
- Pole 2298964E had an SCE instruction sticker attached to the top of a high voltage sign

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

> *Climbing space shall be maintained from the ground level. Climbing space, measured from center line of pole, shall be provided on one side or in one quadrant of all poles or structures. The climbing space shall be maintained in the same position for a distance of not less than 4 feet vertically both above and below each conductor level through which it passes.*

- The climbing space on pole number 2307212E was obstructed by vegetation and a boundary wall.

GO 128, Rule 35.3, Waring Sign, 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. Such warning signs shall also be installed on an exterior surface of all such pad mounted 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.*

- An underground vault number 5171835 containing live parts above 750 volts did not have high voltage sign installed on the interior surface.

GO 128, Rule 17.1, 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.*

- Pad-mounted transformer P5505183 had corrosion on the inside of its cover.
- Pad-mounted switch 5509101 exhibited a high temperature reading on one of its elbows at 135 degrees Fahrenheit.
- Pad-mounted transformer P5522655 was leaking oil.
- Pad-mounted transformers P5496776 and P5496770 had shrubs and bushes encroaching the outside of the enclosures and making it hard to open and inspect.