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

August 27, 2021 EA2021-902

Melvin Stark
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Southern California Edison Company
1 Innovation Way
Pomona, CA 91786

Subject: Audit of Southern California Edison's Dominguez Hills District

Mr. Stark:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Eric Ujiiye and Kyle King of my staff conducted an electric distribution audit of Southern California Edison's (SCE) Dominguez Hills District from June 7, 2021, to June 11, 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 September 27, 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 Eric Ujiiye at (213) 620-2598 or eric.ujiiye@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, Electric Safety and Reliability Branch, CPUC
Eric Ujiiye, Utilities Engineer, ESRB, 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.

II. Records Review – Violations List

My staff observed the following violations during the records review portion of the audit:

GO 165, Section III-B, Standards for Inspection, states:

> *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 insuring that they are in good condition so as to conform with these rules.*

SCE's records indicated from 2015 to 2020, SCE completed 4986 overhead detailed inspections past their scheduled due date.

GO 165, Section III-B, Standards for Inspection, states:

> *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:

> *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 from 2015 to 2020, SCE completed 192 underground detailed inspections past their scheduled due date.

GO 95, Rule 18, Rule 18-B1, Maintenance Programs, states in part:

> *Companies shall undertake corrective actions within the time periods stated for each of the priority levels set forth below. Scheduling of corrective actions within the time periods below may be based on additional factors, including the following factors, as appropriate …*

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 2016 to 2021, SCE completed 1,036 overhead work orders past their due date for corrective action.

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 2016 to 2021, SCE completed 470 underground notifications past SCE's scheduled due date for corrective action.

III. Field Inspections

My staff inspected the following facilities during the field inspection:

No.	Structure ID.	Type of Structure	Location
1	2011824E	pole	Compton
2	1091707E	pole	Compton
3	1072652E	pole	Compton
4	4273659E	pole	Compton
5	1091709E	pole	Compton
6	1577978E	pole	Compton
7	1876165E	pole	Compton
8	1091711E	pole	Compton
9	1091712E	pole	Compton
10	1852174E	pole	Compton
11	1926850E	pole	Compton
12	1538793E	pole	Compton
13	1765651E	pole	Compton
14	1266320E	pole	Compton
15	1234099E	pole	Compton
16	4030482E	pole	Compton
17	1234100E	pole	Compton
18	4760547E	pole	Compton
19	4528815E	pole	Los Angeles
20	1002712E	pole	Los Angeles
21	438708H	pole	Los Angeles
22	1179519E	pole	Los Angeles
23	438709H	pole	Los Angeles
24	4843816E	pole	Los Angeles
25	1538069E	pole	Los Angeles
26	1656541E	pole	Los Angeles
27	1002791E	pole	Los Angeles
28	950997E	pole	South Gate
29	1040491E	pole	South Gate
30	1040493E	pole	South Gate
31	1040492E	pole	South Gate
32	4583001E	pole	South Gate
33	422398E	pole	South Gate
34	531507E	pole	South Gate
35	785093E	pole	South Gate
36	4592612E	pole	South Gate
37	785091E	pole	South Gate
38	785090E	pole	South Gate
39	785089E	pole	South Gate
40	1933333E	pole	Bell

41	4680039E	pole	Bell
42	553512E	pole	Bell
43	1933332E	pole	Bell
44	1845356E	pole	Maywood
45	4443690E	pole	Maywood
46	1522292E	pole	Maywood
47	1522293E	pole	Maywood
48	1522294E	pole	Maywood
49	1474090E	pole	Maywood
50	1419129E	pole	Bell
51	423391E	pole	East Los Angeles
52	4447230E	pole	East Los Angeles
53	4184551E	pole	East Los Angeles
54	4184552E	pole	East Los Angeles
55	1455744E	pole	East Los Angeles
56	994422E	pole	East Los Angeles
57	479265H	pole	East Los Angeles
58	4558248E	pole	East Los Angeles
59	787094H	pole	East Los Angeles
60	248470E	pole	East Los Angeles
61	418458H	pole	East Los Angeles
62	4314423E	pole	East Los Angeles
63	4209817E	pole	East Los Angeles
64	1402262E	pole	Carson
65	1402263E	pole	Carson
66	4623411E	pole	Carson
67	1402261E	pole	Carson
68	1402260E	pole	Carson
69	1402259E	pole	Carson
70	4083419E	pole	Carson
71	1621783E	pole	Carson
72	1621705E	pole	Carson
73	1621707E	pole	Carson
74	1621709E	pole	Carson
75	1621711E	pole	Carson
76	1621713E	pole	Carson
77	1621715E	pole	Carson
78	1621717E	pole	Carson
79	1621718E	pole	Carson
80	1621719E	pole	Carson
81	1621740E	pole	Carson
82	1621743E	pole	Carson
83	1621741E	pole	Carson
84	1715815E	pole	Carson
85	1832518E	pole	Carson

86	1832521E	pole	Carson
87	1852771E	pole	Carson
88	4760548E	pole	Compton
89	1808506E	pole	Compton
90	1808503E	pole	Los Angeles
91	P5063128	Pad-Mounted Transformer	Carson
92	P5186265	Pad-Mounted Transformer	Carson
93	B5022126	BURD	Carson
94	B5022127	BURD	Carson
95	B5022128	BURD	Carson
96	V5066916	Vault	Dominguez Hills
97	1577762E – 1577761E	OH-Veg. Management	Dominguez Hills
98	1838755E	OH-Veg. Management	Carson
99	1265902E	OH-Veg. Management	Paramount

IV. Field Inspection Violations List

My staff observed the following violations during the field inspections portion of the audit:

GO 95, Rule 18.B, Reporting and Resolution of Safety Hazards Discovered by Utilities, Notifications 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.*

A communications down guy wire attached to joint pole 1402260E was not maintained 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.*

Facilities attached to the following poles were not maintained for their intended use:

- Pole 4273659E - A high visibility strip was damaged and not fully attached to the pole.
- Pole 1091709E – A 4-inch conduit containing primary conductors that is attached to the pole was damaged at the base.
- Pole 1091711E – One member of a double cross-arm supporting primary conductors on the pole was deteriorated.
- Pole 4083419E – A secondary riser attached to the pole was damaged.

GO 95, Rule 54.6 – C, Lateral Conductors, states in part:

> *…Such conductors when installed along the bottom surface of crossarms and protected by plastic conduit having the properties of the material specified in Rule 22.8–B shall be considered to be suitably protected and allowed in the climbing space*

A protective conduit attached to Pole 1621707E and containing a lateral run of secondary conductors was not secured to the bottom surface of the crossarm.

GO 95, Rule 52.7 - D, Hardware, states in part:

> *…No part of any guy may be nearer than 1 1/2 inches to any through bolt which is metallically interconnected to dead–end hardware.*

A down guy wire attached to Pole 1072652E at the top transmission level was contacting a transmission phase insulator support bracket, causing the guy wire to be deflected.

GO 95, Rule 54.8 Service Drops, 0-750 Volts, Table 10: Minimum Allowable Clearance of Supply Service Drops of 0 – 750 Volts from Buildings requires the minimal vertical clearance of "Insulated Conductors 0 -750 Volts" from "Buildings on other premises" to be no less than 8 feet.

An SCE service drop attached to Pole 1933333E had less than one foot of clearance above the roof of a home located on an adjacent property.

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 signs attached to the following SCE poles were damaged and/or missing:

- 1072652E – The marking partially displayed the "VOLTAGE" portion of the marking.
- 1577978E – The marking partially displayed the "VOLTAGE" portion of the marking.
- 1876165E – The pole did not have "HIGH VOLTAGE" markings.
- 1091711E – The "VOLTAGE" portion of the marking was missing.
- 1002712E – The pole did not support "HIGH VOLTAGE" markings.
- 950997E – The pole did not support "HIGH VOLTAGE" markings.
- 1040491E – The pole did not support "HIGH VOLTAGE" markings.
- 1040493E – The "HIGH" portion of marker was missing in addition to partially displaying the "VOLTAGE" portion of the marking.
- 4184552E – The "VOLTAGE" portion of the marking was missing.
- 4184584E – The "HIGH" portion was missing in addition to partially displaying the "VOLTAGE" portion of marking.
- 1402262E – The marking partially displayed the "VOLTAGE" portion of the marking.
- 1402260E – The marking partially displayed the "VOLTAGE" portion of the marking on one of the directional faces, in addition to missing the "HIGH" marking and partially displaying the "VOLTAGE" portion of the marking on a different directional face of the cross-arm.
- 1402259E –The "VOLTAGE" marking portion is missing on one of the directional faces, in addition to partially displaying the "VOLTAGE" portion of the marking on a different directional face of the cross-arm.
- 4083419E – The marking partially displayed the "VOLTAGE" portion of the marking on one directional face in addition to not supporting "HIGH VOLTAGE" markings on the other direction face of the cross-arm.
- 1621703E – The marking partially displayed the "HIGH" and was missing the "VOLTAGE" on one direction face and only was missing both markings on the other direction face of the double cross-arm.
- 1621705E – The "HIGH" portion of the marker was missing and displayed partially displayed the "VOLTAGE" marking on a different directional face of the cross-arm.

- 1621707E – The “HIGH” portion of the marker was missing on one directional face of the cross-arm.
- 1621709E – The pole did not support “HIGH VOLTAGE” markings on one direction face of the cross-arm.
- 1621711E – The pole did not support “HIGH VOLTAGE” markings on one directional face of the cross-arm and the “VOLTAGE” marking was missing on the other direction face of the cross-arm.
- 1621713E – The “HIGH” marking was missing on one direction face of the cross-arm in addition to the “VOLTAGE” marking was missing on the other direction face of the cross-arm.
- 1621715E – On two levels of primary conductors supported on the pole partially displayed the “VOLTAGE” portion of the markings.
- 1621717E – The “HIGH” portion of the marking was missing.
- 1621739E – The “HIGH” was missing on the uppermost cross-arm and the “VOLTAGE” was missing on the lower double buck arm constructed crossarms.
- 1621740E – The “HIGH” portion of the marking was missing.

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 attached to the following poles was damaged:

- Pole 1091709E – the ground moulding was damaged and deteriorated above the public level.
- Pole 1876165E - the ground moulding was damaged and missing a section at the communication level.
- Pole 1091711E - the ground moulding was warped and slipping out of the attachment brackets below the communication level.
- Pole 1091712E - the ground moulding was bowing away from the surface of the pole above the public level.
- Pole 1002712E - the ground moulding was bowing in multiple locations and missing a section below the communication level.
- Pole 1040491E – the ground moulding was severely damaged, bowing, and missing multiple sections above the public level.
- Pole 1522293E - the ground moulding was missing a section above the public level.
- Pole 479265H – The ground moulding was damaged below the communication and at the supply level, exposing the ground wire.

GO 95, Rule 54.8 – B.1, Service Drops, 0 – 750 Volts, Clearances above Ground, Buildings, Etc., states in part**:**

> *Above Public Thoroughfares: Service drop conductors shall have a vertical clearance of not less than 18 feet above public thoroughfares, except that this clearance may grade from 18 feet at a position not more than 12 feet horizontally from the curb line to a clearance of not less than 16 feet at the curb line, provided the clearance at the centerline of any public thoroughfare shall in no case be less than 18 feet.*

A service drop attached to a secondary span on Pole 1845356E had a vertical clearance above a public thoroughfare of less than 16 feet within twelve feet horizontal distance from the curb line.

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

> *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.*

- Pole 1656541E – A down guy wire was not protected by a down guy marker.
- Pole 1402263E – A down guy wire attached at the primary level of the pole had a damaged down guy marker and was not securely attached.

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 .*

The SCE down guy wire attached to the following poles was not maintained taut:

- Pole 1621739E
- Pole 1832518E