STATE OF CALIFORNIA Gavin Newsom, *Governor*

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

August 29, 2019 EA2019-836

Randy R. Smith
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Southern California Edison Company
1 Innovation Way
Pomona, CA 91786

Subject: Audit of Southern California Edison's Ontario District

Mr. Smith:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Howard Huie and Saimon Islam of my staff conducted an electric distribution audit of Southern California Edison's (SCE) Ontario District from June 17, 2019 to June 21, 2019. 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 30, 2019, 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 Howard Huie at (213) 620-6503 or howard.huie@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: Elizaveta Malashenko, Director, Safety and Enforcement Division, CPUC
Lee Palmer, Deputy Director, Office of Utility Safety, SED, CPUC
Charlotte TerKeurst, Program Manager, Electric Safety and Reliability Branch, CPUC
Howard Huie, 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 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.*

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 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*

SCE's records indicated that from 2014 to 2018, SCE completed 6 annual grid patrol inspections and 1 overhead detailed inspection past their scheduled due dates.

SCE's records indicated that from 2014 to 2018, SCE completed 169 work orders past their due date for corrective action. Additionally, as of the date of the audit, SCE had two open work orders that were past their scheduled 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.*

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 so as to conform with these rules.*

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.*

SCE's records indicated that from 2014 to 2018, SCE completed 19 underground detailed inspections past their scheduled due date.

III. Field Inspections

My staff inspected the following facilities during the field inspection:

No.	Structure ID.	Type of Structure	Location
1	2084582E	pole	South Corona
2	2146511E	pole	South Corona
3	2084581E	pole	South Corona
4	2084634E	pole	South Corona
5	2146679E	pole	South Corona
6	825758H	pole	South Corona
7	4450699E	pole	South Corona
8	4450700E	pole	South Corona
9	2215372E	pole	South Corona
10	4636968E	pole	Riverside
11	4636954E	pole	Riverside
12	2084670E	pole	Riverside
13	4636953E	pole	Riverside
14	2084669E	pole	Riverside
15	4636952E	pole	Riverside
16	2159163E	pole	Rancho Cucamonga
17	1386480E	pole	Rancho Cucamonga
18	1386479E	pole	Rancho Cucamonga
19	1386478E	pole	Rancho Cucamonga
20	1445202E	pole	Rancho Cucamonga
21	1499416E	pole	Rancho Cucamonga
22	H30473Y	pole	Rancho Cucamonga
23	4817867E	pole	Rancho Cucamonga
24	4857784E	pole	Rancho Cucamonga
25	2064865E	pole	Rancho Cucamonga
26	4857794E	pole	Rancho Cucamonga
27	H30469Y	pole	Rancho Cucamonga
28	H30468Y	pole	Rancho Cucamonga
29	H30467Y	pole	Rancho Cucamonga
30	H30466Y	pole	Rancho Cucamonga
31	788179E	Pole	Ontario
32	V5493214	Vault	Ontario
33	V5598939	Vault	Ontario
34	B5327246	BURD	Ontario
35	B5624128	BURD	Ontario
36	P5611121	Pad-Mounted Transformer	Ontario
37	S5465371	Switch	Ontario
38	M5450985	Manhole	Rancho Cucamonga
39	P5532313	Pad-Mounted Transformer	Eastville

IV. Field Inspection Violations List

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

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 on each of the following SCE poles were damaged and/or missing:

- H30473Y – Both sides of the crossarm displayed damaged incomplete "HIGH" and "VOLTAGE" marking.
- 2064865E – The "HIGH" and "VOLTAGE" markers are missing.
- H30469Y – One side of the crossarm displayed damaged incomplete "HIGH" and "VOLTAGE" marking, and the other side is inverted.
- H30467Y – The "HIGH" and "VOLTAGE" markers are missing.
- H30466Y - Both sides of the crossarm displayed damaged incomplete "HIGH" and "VOLTAGE" marking.

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 poles numbered 2084582E and 4450700E was obstructed by vegetation.

GO 95, Rule 44.3, Replacement, states in part:

> *Lines or parts thereof shall be replaced or reinforced before safety factors have been reduced (due to factors such as deterioration and/or installation of additional facilities) in Grades "A" and "B" construction to less than two-thirds of the safety factors specified in Rule 44.1 and in Grade "C" construction to less than one-half of the safety factors specified in Rule 44.1. Poles in Grade "C" construction that only support communication lines shall also conform to the requirements of Rule 81.3–A... In no case shall the application of this rule be held to permit the use of structures or any member of any structure with a safety factor less than one.*

Pole number 788179E had a Safety Factor of 2.52, which is below the minimum allowable limit of 2.67.