

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



April 4, 2012

FILE NO. EA2012-01

Robert F. LeMoine
Southern California Edison
Manager, Maintenance & Inspection
3 Innovation Way
Pomona, CA 91768

SUBJECT: Electric Audit of SCE's Kernville District

Dear Mr. LeMoine:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission, I conducted an electric Audit of Southern California Edison (SCE) Kernville District on March 5-9, 2012. The audit included a review of SCE's records and field inspections of SCE's facilities that had been recently inspected by SCE's personnel.

I found that SCE did not document all General Order (GO) 95 and GO 128 violations at the time of inspections. Attached to this letter is a list of the violations I observed during the audit.

Within 30 days from the date of this letter, provide us with a written response indicating the corrective measures taken by SCE regarding the violations noted, and the date they were, or will be, corrected.

If you have any questions, you may contact me at (213) 576-7016.

Sincerely,

A handwritten signature in black ink, appearing to read "Mahmoud", with a long horizontal flourish extending to the right.

Mahmoud (Steve) Intably
Utilities Engineer
Electric Safety and Reliability Branch
Consumer Protection and Safety Division

Enclosure: Violations List

Violations List

List of General Orders (GOs) 95 and 128 violations that were observed during the audit and were not documented in SCE's inspection records:

GO 95, Rule 31.1 Design, Construction and Maintenance

Rule 31.1 states:

“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.”

Pole number 1637399E had a service drop with loose connection to the house it served.

GO 95, Rule 35 Tree Trimming

Rule 35 states:

“Communication and electric supply circuits, energized at 750 volts or less, including their service drops, should be kept clear of vegetation in new construction and when circuits are reconstructed or repaired, whenever practicable. When a utility has actual knowledge, obtained either through normal operating practices or notification to the utility, that any circuit energized at 750 volts or less shows strain or evidences abrasion from vegetation contact, the condition shall be corrected by reducing conductor tension rearranging or replacing the conductor, pruning the vegetation or placing mechanical protection on the conductor(s). For the purpose of this rule, abrasion is defined as damage to the insulation resulting from the friction between the tree and conductor. Scuffing or polishing of the insulating covering is not considered abrasion. Strain on a conductor is present when deflection causes additional tension beyond the allowable tension of the span. Contact between vegetation and conductors, in and of itself, does not constitute a violation of the rule.”

Each of the following poles had a service drop or an overhead conductor in contact with trees and showing signs of abrasion:

- 1584101E
- 1584459E

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

Rule 56.2 states:

“Where mechanical loads imposed on poles, towers, or structures are greater than can

be supported with safety factors as specified in Rule 44, additional strength shall be provided by the use of guys or other suitable construction.

Where guys are used with poles or similar structures capable of considerable deflection before failure, the guys shall be able to support the entire load, the pole below the point of guy attachment acting merely as a strut.

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."

Each of the following poles had a loose guy wire:

- 4606619E
- 1637399E
- 2072194E
- 1584459E

GO 95, Rule 38 Minimum Clearances of Wires from Other Wires

Rule 38 states:

"The minimum vertical, horizontal or radial clearances of wires from other wires shall not be less than the values given in Table 2 and are based on a temperature of 60° F. and no wind. Conductors may be deadended at the crossarm or have reduced clearances at points of transposition, and shall not be held in violation of Table 2, Cases 8-15, inclusive.

The clearances in Table 2 shall in no case be reduced more than 10 percent because of temperature and loading as specified in Rule 43 or because of a difference in size or design of the supporting pins, hardware or insulators. All clearances of less than 5 inches shall be applied between surfaces, and clearances of 5 inches or more shall be applied to the center lines of such items."

Each of the following poles had a guy wire passing a communication cable with less than three-inch radial separation:

- 4606619E
- 33961CIT
- 2230475E

The following poles had conductors with less than 4 feet vertical clearance from a telephone cable:

- 400958E
- 4606619E
- 1637422E

Pole number 2253966E had a triplex cable with less than 3 feet radial clearance from a communication cable.

GO 95, Rule 54.7A Climbing Space (Wood Crossarm Construction)

Rule 57.7A states:

“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. To comply with this requirement, the position of the climbing space shall not be changed through conductor levels which are less than 4 feet apart. Where the vertical distance between consecutive conductor levels is 4 feet or more, and less than 8 feet, the position of the climbing space through such consecutive level may be shifted not more than one-quarter (90 degrees) of the distance around the pole.”

Where a single level of circuitry is installed at the top of a pole, the climbing space shall extend up to the level of such pole top circuitry and need not be provided through and above such level. Where a conductor is installed at the top of a pole under the provisions of Rule 54.4-D8, the climbing space shall extend up to the level of such pole top conductor but need not be provided through and above such level...”

The following poles had tree-branches obstructing the climbing space:

- 2197714E
- 1400957E
- 1400958E
- 1400980E

GO 95, Rule 91.3A(1) Stepping poles with vertical runs or risers

Rule 91.3A(1) states:

“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...”

Pole number 1536444E is a jointly used pole with a riser attached and was not provided with pole steps.

General order 95, Rule 91.3B Location Of Steps

Rule 91.3B states:

“The lowest step shall be not less than 7 feet 6 inches from the ground line and 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 the that conductor level above which only circuits operated and maintained by one party remain...”

GO 165, Section IV, Paragraph 5: Standards for Inspection, Record-keeping, and Reporting

Paragraph 5 states:

“For all inspections, within a reasonable period, company records shall specify the circuit, area, or equipment inspected, the name of the inspector, the date of the inspection, and any problems identified during each inspection, as well as the scheduled date of corrective action. For detailed and intrusive inspections, companies shall also rate the condition of inspected equipment. Upon completion of corrective action, company records will show the nature of the work, the date, and the identity of persons performing the work”

SCE audit summary report from 2009-2012 showed that 52 work orders priority 2 were completed late. In addition, SCE failed to document all GOs 95 and 128 violations at the time of inspections as requires by General Order 165, Section IV.