STATE OF CALIFORNIA ARNOLD SCHWARZENEGGER, *Governor*

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

November 19, 2009

Mel Stark
Manager, Maintenance & Inspection
Southern California Edison
2885 W. Foothill Blvd.
Rialto, CA 92376

CPUC File No.: EA2009-27

SUBJECT: General Order (GO) 165 Compliance Audit of Southern California Edison's Dominquez Hills District

On behalf of the Utilities Safety and Reliability Branch of the California Public Utilities Commission (CPUC), I conducted an electric audit of SCE's Dominquez Hills District from November 9-13, 2009. The audit included a review of your recent inspection records and a field inspection in areas where SCE recently performed inspections of overhead and underground facilities.

I found that SCE did not document all GO 95 and 128 violations at the time of its inspection. Attached to this letter is a list of the violations I observed during the audit. I also found that SCE does not patrol all of its underground system annually (or twice a year for rural areas) as required by GO 165.

Some of the records I requested during the audit were not available. On November 16 and 17, I sent emails to Mark Judy and Moses Varela, of your company, requesting that these records be provided to us by December 11, 2009.

Please advise me within 30 days of corrective measures taken by SCE regarding the above violations. If you have any questions, please contact me at (213) 576-7016.

Sincerely,

Mahmoud (Steve) Intably, P.E.
Utilities Engineer
Utilities Safety and Reliability Branch
Consumer Protection and Safety Division

cc: Moses M. Varela, Manager Program Contract 3, Dist. Insp. & Maint. Program Power Delivery, 10060 Telegraph Road, Ventura, CA 93004

Enclosure: Compliance Audit Summary

Inspection Report

List of General Orders (GO) 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.

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.

All work performed on public streets and highways shall be done in such a manner that the operations of other utilities and the convenience of the public will be interfered with as little as possible and no conditions unusually dangerous to workmen, pedestrians or others shall be established at any time."

The following poles had a bent/turned step:

1. 1282964E
2. 1282959E
3. 1927466E

Poles number 2317982E had open risers.
Pole number 2318112E had a loose PVC pipe under a crossarm.
Pole number 1442835E had a damaged riser.
Pole number 80432E had a damaged secondary riser coupler.
Pole number 1282959E had a kicker block through bolt loose.
Pole number 927464E had a sunken insulator.

GO 95, Rule 31.6 Abandoned Lines

Rule 31.6 states:

"Lines or portions of lines permanently abandoned shall be removed by their owners so that such lines shall not become a public nuisance or a hazard to life or property..."

Pole number 1038590E had an abandoned insulator.

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 limbs and foliage, 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 notifications to the utility, that any circuit energized at 750 volts or less shows strain or evidences abrasion from tree contact, the condition shall be corrected by slacking or rearranging the line, trimming the tree 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 there is additional tension causing a deflection of the conductor beyond the slack of the span. Contact between limbs and these conductors, in and of itself, does not constitute a violation of the rule."

The following poles had service drops in contact with trees and showed signs of abrasion:

1. 1328702E
2. 1506879E

GO 95, Rule 35 Tree Trimming

Rule 35 states:

"Where overhead wires pass through trees, safety and reliability of service demand that tree trimming be done in order that the wires may clear branches and foliage by a reasonable distance. The minimum clearances established in Table 1, Case 13, measured between line conductors and vegetation under normal conditions, shall be maintained. (Also see Appendix E for tree trimming guidelines.)"

Pole number 2318112E had two spans that were in contact with trees.

GO 95, Rule 51.6A High Voltage Marking

Rule 51.6A states:

"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. Such signs shall be of weather and corrosion–resisting material, solid or with letters cut out therefrom and clearly legible."

The following poles supported line conductors of more than 750 volts and were not marked with high voltage signs:

1. 2142637E
2. 1282959E
3. 927466E

GO 95, Rule 54.6E (2) Risers Covered from 8 Feet Above the Ground Level and Above

Rule 54.6E(2) states:

"All risers from underground cables or other conductors which pass through an unrelated conductor or cable level shall be covered or encased by material as described in Rule 54.6–E1 or by a suitable protective covering as described in Rule 22.8 from a distance of 8 feet above the ground to:

a) *Not less than 18 inches above supply conductors.*

b) *Not less than 36 inches above communication conductors for supply risers of 750 volts or less; and*

c) *Not less than 48 inches above communication conductors for supply risers of 750 - 7500 volts; and*

d) *Not less than 60 inches above communication conductors for supply risers of more than 7500 volts.*

When iron or steel pipe, or other material not meeting the minimum insulating efficiency as specified in Rule 22.8–B is used it shall be terminated or covered by suitable protective covering where within a vertical distance of 8 feet from communication conductors or cables, or unprotected supply conductors"

Pole number 4367565 had a riser that was not covered by suitable protective covering within a vertical distance of 8 ft from communication cables.

GO 95, Rule 54.8C4 Clearances between Supply Service Drops, 0 – 750 Volt and Communication Service Drops

Rule 54.8C4 states:

"The radial clearance between supply service drop conductors and communication service drop conductors may be less than 48 inches as specified in Table2, Column C, Cases 4 and 9; Column D, Cases 3 and 8, but shall be not less than 24 inches. Where within 15 feet of the point of attachment of either service drop on a building, this clearance may be further reduced but shall be not less than 12 inches."

Service drop attached to pole number 927456E had less than 2 ft radial clearance from communications service drops.

The following poles had service drops within 15 ft from the point of attachment and had less than 12 inches radial clearance from communications service drops:

1. 80432E
2. M4091Y

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."

The following poles had loose guy wires:

1. 1282962E
2. 927465E
3. M6132Y

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."

The following poles had a down guy wire passing communication cable with less than three-inch separation:

1. 1282964E
2. 927456E
3. 2318112E

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,.."

The following poles were not provided with pole steps:

1. 80432E
2. 2318112E
3. 2318114E
4. 1752088E
5. 2187170E
6. 2304014E

GO 95, Rule 93 Climbing Space

Rule 93 states:

"Climbing space shall be provided on all jointly used poles which support conductors and the provisions of Rules 54.7 and 84.7 are directly applicable to such poles. Climbing space on jointly used poles shall be so correlated between conductor levels that its position in relation to the pole is not changed by more than 90 degrees in a vertical distance of less than 8 feet. Climbing space shall be maintained from the ground level."

The following poles had climbing space obstructions that may pose a safety hazard:

1. 927456E
2. 2318117E
3. 927461
4. M4096Y
5. 2228706E
6. 692713E
7. 1282959E
8. 2034623E
9. 1282961E
10. M6131Y
11. M3944Y

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 for 2008-2009 showed that:

1. 15 Work Orders rated priority 1 were completed late
2. 1622 Work Orders rated priority 2 were completed late
3. 1093 Work Orders rated priority 2 were still open/past due

During the audit I found two violations on poles numbered 1266002E and 2318119E that were assigned incorrect priority ratings. In addition, I found several SCE Work Orders that were closed while violations still exists, and Work Orders that were open while no violations existed.