

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE

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March 16, 2010

Mark Hollister
Electrical Services Manager
Los Angeles Department of Water and Power (LADWP)
111 North Hope Street
Los Angeles, CA 90012-2607

CPUC File No.: EA-2010-02

SUBJECT: Electrical Audit of Central District

Dear Mr. Hollister:

On behalf of the Utilities Safety and Reliability Branch of the California Public Utilities Commission, I conducted an electric audit of the LADWP's Central District on February 2 to 4, 2010. The audit included a review of LADWP's inspection, maintenance programs, records for the period of 2007 – 2009, and a field inspection in areas where LADWP recently performed detailed inspections of overhead and underground facilities.

During the audit, I found that LADWP did not document all General Orders (GOs) 95 and 128 violations at the time of its inspections. In addition, I discovered a number of poles that had never been intrusively inspected since they were set in between 1947 and 1951. Attached to this letter is a list of the violations I observed during the follow-up inspections.

Please advise me within 30 days of corrective measures taken by LADWP regarding the above violations. If you have any questions, you can contact me at (213) 576-5700.

Sincerely,

A handwritten signature in black ink, appearing to read "Kan-Wai Tong".

Kan-Wai Tong, P.E.
Utilities Engineer
Utilities Safety and Reliability Branch
Consumer Protection and Safety Division

Enclosure: Inspection Report

Inspection Report

List of GOs 95 and 128 violations that were observed during the field inspection and were not documented in your 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.”

- Poles numbered 304071M, 247817M and 152627M had sunken insulators.
- Pole 219645M had a broken riser coupling.

GO 95, Rule 58.2, Transformers

Rule 58.2-A(1) states:

“Grounding of Windings: Transformer windings, providing service not exceeding 300 volts (except those used exclusively for energizing street lighting systems or used exclusively for energizing signal and traffic circuits) shall be effectively grounded...”

- Pole 247817M had an ungrounded secondary transformer winding.

GO 95, Rule 35, Vegetation Management

Rule 35 states:

“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)...”

- Pole 69129M had a service drop that showed signs of abrasion from tree contact.

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 support line conductors of more than 750 volts and were not marked with high voltage signs:

- 69129M
- 152627M
- 152626M
- 816485M

GO 95, Rule 54.6B, Ground Wires

Rule 54.6B states:

“That portion of the ground wire 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 22.2).”

- Pole 69129M had a broken ground molding.

GO 95, Rule 54.8B(1), Above Public Thoroughfares

Rule 54.8B(1) states:

“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. Where there are no curbs the foregoing provisions shall apply using the outer limits of possible vehicular movement in lieu of a curb line.”

- Pole 526325H had a service drop with a vertical clearance of 14 feet and 9 inches at the curb at 933 Hollins Street in Los Angeles.
- Pole 67571M had a service drop with a vertical clearance of 14 feet and 11 inches at the curb at 967 Breed Street in Los Angeles.
- Pole 67571M had a service drop with a vertical clearance of 13 feet and 1 inch at the curb at 971 Breed Street in Los Angeles.

GO 95, Rule 54.8B, Clearances above Ground, Buildings, Etc.

Rule 54.8B, Table 10, Case 3, requires 8 feet minimum vertical clearance of service drop of 0 – 750 volts from buildings on other premises.

- Pole 152627M supported a service drop that had less than 8 feet vertical clearance from a building (218 ½ West 89th Street) on other premises.

Rule 54.8B, Table 10, Case 1, requires 2 feet minimum vertical clearance of service drop of 0 – 750 volts from all portions of buildings including metallic or non-metallic cornice, decorative appendage, eaves, roof or parapet wall of the building served.

- Pole 816485H had a service drop connector touching the roof of a house it served at 218 ½ West 89th Street.

GO 128, Rule 32.7, Covers

Rule 32.7 states:

“Manholes, handholes, and subsurface equipment enclosures while not being worked in, shall be securely closed by covers of sufficient strength to sustain such loads as may reasonably be imposed upon them and arrangements shall be such that a tool or appliance shall be required for their opening and cover removal...”

- Underground vault 1128313 had a cover with bolts missing.

GO 128, Rule 34.2B, Sectionalizing Switches

Rule 34.2B states:

“Sectionalizing switches shall be so located that they may be operated, maintained, or replaced from a readily and safely accessible place.

They shall be so installed that the center of the grip of the operating handle when in its highest position will not be more than 6 1/2 feet above the floor or other standing surface. Switches with viewing windows shall be so installed that the center of the viewing window will be not more than 6 1/2 feet above the floor or other standing surface.”

- Underground vault 1385236 contained a switch, where the center of the grip of the operating handle was 8 feet above the floor.

GO 128, Rule 34.2C, Transformers

Rule 34.2C states:

“Transformers operating at more than 600 volts, other than current and potential transformers and transformers which constitute a component part of other apparatus and which conform to the requirements of such apparatus, shall be readily accessible for operation, inspection, maintenance, and replacement...”

- Underground transformer 1387869 was covered by a customer’s wooden deck and not accessible.

GO 128, Rule 35.1, Identification of Cables

Rule 35.1 states:

“Cables operating at a voltage in excess of 750 volts shall be permanently and clearly identified by tags or other suitable means to indicate their operating voltage and the circuit with which they are normally associated at each manhole or other commonly accessible location of the underground system...”

- Handhole 1366889 contained two circuits, where one them was 4.8 kV and was not tagged.

In addition to the above violations, I also noted the following GO 165 violations during the audit.

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

“Each utility subject to this General Order shall conduct inspections of its distribution facilities, as necessary, to assure reliable, high-quality, and safe operation, but in no case may the period between inspections (measured in years) exceed the time specified in the attached table.”

The following poles failed to meet the intrusive inspection time specified in the table.

- Pole 773514H was set in 1951 and was never intrusively inspected.
- Pole 455550H was set in 1947 and was never intrusively inspected.
- Pole 773515H was set in 1951 and was never intrusively inspected.