

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
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February 19, 2021

EA2020-880

Scott Hirashima, P.E.  
Manager of Regulatory Standards and Compliance  
Regulatory Standards and Compliance Section  
City of Los Angeles, Department of Water and Power (LADWP)  
111 North Hope Street, Room 1246  
Los Angeles, CA 90012

**SUBJECT:** Audit of LADWP's Palms District

Mr. Hirashima:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Eric Ujjiye, Kyle King, and Joceline Pereira of my staff conducted an electric distribution audit of LADWP's Palms District from September 21, 2020 to September 25, 2020. The audit included a review of LADWP's inspection and maintenance records and a field inspection of LADWP'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 March 19, 2021, by electronic or hard copy, of all corrective measures taken by LADWP to remedy and prevent such violations.

If you have any questions concerning this audit, you can contact Eric Ujjiye at (213) 620-2598 or [eric.ujjiye@cpuc.ca.gov](mailto:eric.ujjiye@cpuc.ca.gov).

Sincerely,

A handwritten signature in blue ink that reads "Fadi Daye".

Fadi Daye, P.E.  
Program and Project Supervisor  
Electric Safety and Reliability Branch  
Safety and Enforcement Division  
California Public Utilities Commission

Enclosure: Audit Findings

Cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC  
Nika Kjensli, Program Manager, ESRB, CPUC  
Eric Ujjiye, Utilities Engineer, ESRB

## Audit Findings

### I. Records Review

During the audit, my staff reviewed the following records:

- Overhead and underground detailed inspection records.
- Completed and pending corrective action work orders.
- Pole loading calculations.
- Intrusive test records.
- LADWP's visual inspection program.
- ESRB's interview of two LADWP inspectors.

### 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.*

LADWP's inspection records indicated that from 2015 to 2019, the following number of overhead inspections were either completed or pending completion past the assigned due dates:

- Late Overhead Patrol Inspections
  - Tier 1 – 30,049
  - Tier 2 – 290
- Late Overhead Detailed Inspections
  - Tier 1 – 466
  - Tier 2 – 198

**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.*

LADWP inspection records indicated that from 2015 to 2019, the following number of underground inspections were either completed or pending completion past the assigned due dates:

- Late Underground Patrol Inspections
  - Tier 1 – 9,435
  - Tier 2 – 1,520
- Late Underground Detailed Inspections
  - Tier 1 – 1,176
  - Tier 2 – 273

**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.*

LADWP's records indicated that from 2015 to 2019, LADWP completed 153 overhead work orders past LADWP's 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.*

LADWP's records indicated that from 2015 to 2019, LADWP completed 23 underground work orders past LADWP's scheduled due date for corrective action.

### III. Field Inspection

My staff inspected the following facilities during the field inspection:

No.	Structure ID.	Type of Structure	Location
1	419479M	Pole	Hollywood
2	419480M	Pole	Hollywood
3	747438H	Pole	Hollywood
4	426518M	Pole	Hollywood
5	106758M	Pole	Hollywood
6	103918M	Pole	Korea Town
7	421852M	Pole	Korea Town
8	379353M	Pole	Hollywood Hills
9	378927M	Pole	Hollywood Hills
10	267754M	Pole	Hollywood Hills
11	822944H	Pole	Hollywood Hills
12	140936M	Pole	Hollywood Hills
13	294927M	Pole	Hollywood Hills
14	100802HG	Pole	Hollywood Hills
15	188466M	Pole	Hollywood Hills
16	312052M	Pole	Hollywood Hills
17	312053M	Pole	Hollywood Hills
18	312054M	Pole	Hollywood Hills
19	436958M	Pole	South Los Angeles
20	436957M	Pole	South Los Angeles
21	436956M	Pole	South Los Angeles
22	426955M	Pole	South Los Angeles
23	436954M	Pole	South Los Angeles
24	TP957-R	Pad Mounted Transformer	South Los Angeles
25	TP8740-R	Pad Mounted Transformer	South Los Angeles
26	134040M	Pole	South Los Angeles
27	145168M	Pole	South Los Angeles
28	372068M	Pole	South Los Angeles
29	383181M	Pole	West Los Angeles
30	145170M	Pole	West Los Angeles
31	145171M	Pole	West Los Angeles
32	145172M	Pole	West Los Angeles
33	145173M	Pole	West Los Angeles
34	145187M	Pole	West Los Angeles
35	295333M	Pole	West Los Angeles
36	295363M	Pole	West Los Angeles
37	1200500	Pad Mounted Transformer	West Los Angeles
38	1198290	Pad Mounted Transformer	West Los Angeles
39	1200351	Pad Mounted Transformer	West Los Angeles
40	1117464	Pad Mounted Transformer	West Los Angeles
41	1200153	Pad Mounted Transformer	West Los Angeles
42	1492669	Pad Mounted Transformer	West Los Angeles
43	1199595	Pad Mounted Transformer	West Los Angeles

44	1199637	Pad Mounted Transformer	West Los Angeles
45	380741M	Pole	West Los Angeles
46	159794M	Pole	West Los Angeles
47	356404M	Pole	West Los Angeles
48	1385020	Pad Mounted Transformer	West Los Angeles
49	159796M	Pole	West Los Angeles
50	1478544	Pad Mounted transformer	West Los Angeles

#### IV. Field Inspection – Violations List

My staff observed the following violations during the field inspections of LADWP's Palms District:

**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 the following LADWP poles were damaged or missing:

- Pole 103918M – The markings "HIGH" and "VOLTAGE" were not displayed on both directions of the double crossarms supporting primary conductors, nor on the surface of the pole.
- Pole 378927M – The markings "HIGH" and "VOLTAGE" were not displayed on both sides of the upper crossarm supporting primary conductors, nor on the surface of the pole.
- Pole 267754M – The markings "HIGH" and "VOLTAGE" were not displayed on both directions of the double crossarms supporting primary conductors, nor on the surface of the pole.
- Pole 145168M – The markings "HIGH" and "VOLTAGE" were not displayed on the upper double crossarms and lower double buck arms supporting primary conductors, nor on the surface of the pole.
- Pole 372068M – The markings "HIGH" and "VOLTAGE" were not displayed on both directions on the upper level double crossarms supporting primary conductors, nor on the surface of the pole.
- Pole 383181M – The markings "HIGH" and "VOLTAGE" were not displayed on both directions of the double crossarms supporting primary conductors, nor on the surface of the pole.
- Pole 145171M – The markings "HIGH" and "VOLTAGE" were not displayed on both sides of the upper crossarm supporting primary conductors, nor on the surface of the pole.
- Pole 145172M – The markings "HIGH" and "VOLTAGE" were not displayed on both directions of the double crossarms supporting primary conductors, nor on the surface of the pole.
- Pole 295333M – The markings "HIGH" and "VOLTAGE" were not displayed on the upper double crossarms and lower double buck arms supporting primary conductors, nor on the surface of the pole.
- Pole 380741M – The markings "HIGH" and "VOLTAGE" were damaged on all the double crossarms and double buck arms supporting primary conductors attached to the pole.
- Pole 159796M – The markings "HIGH" and "VOLTAGE" were damaged on both directions of the double crossarms supporting primary conductors attached to the pole.

**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.*

LADWP facilities on the following poles required maintenance:

- Pole 103918M: the “eye” of the down guy anchor supporting the pole was buried.
- Pole 270161M: the lower double cross-arm supported on the pole had a crack running the length of the cross-arm.
- A secondary level double cross-arm supported on a pole located at the rear property line of the home at 10002 South Hobart Blvd, Los Angeles was severely deteriorated, split, and held together by the supporting bolts.
- Pole 295333M: a pole step was severely bent downward.
- Pole 295363M: a pole step was rotated and bent.

**GO 95, Rule 54.7, Climbing and Working 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 with dimensions as specified in the following ...*

The climbing space on the following poles was obstructed:

- Pole 106758M – The climbing space on the pole was obstructed by vegetation that surrounded the pole at 10 feet above ground to 25 feet above ground.
- Pole 103918M – The climbing space on the pole was obstructed from ground level to 6 feet above ground by a constructed barrier.

**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 molding on the following poles was damaged:

- Pole 379353M: the ground moulding was bowed away from the surface of the pole, exposing the ground wire.

- Pole 372068M: a four-foot section of ground moulding and ground wire were missing at the base of the pole, resulting in an extruding 2-inch section of ground wire from underneath the remaining ground moulding attached to the pole.

**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.*

LADWP did not report the third-party safety hazards on the following poles:

- Pole 426518M - A third-party riser running from the base of the pole to the communications level was not attached to the pole.
- Pole 378927M – A third-party communications service drop coming from the pole was contacting the ground near the base of a nearby pedestal.
- Pole 140936M – A third-party down guy at the communication level was not taut.
- Pole 100802HG – A third party service drops are wrapped around a customer owned LADWP electrical service weather head.
- Pole 312053M – A third-party communication company service drop was abandoned and left attached at the communication level.
- Pole 145171M – A third-party ground wire riser was missing a section of the ground wire and the moulding from the ground level to 5 feet above ground.

**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 down guy wires attached to the following poles were not taut:

- Pole 379353M
- Pole 159794M

**GO 95, Rule 54.8 Service Drops, 0-750 Volts, Table 11 - Minimum Radial Clearance between Supply Service Drop Conductors and Communication Line Conductors Not on Messengers**, requires the minimal “Radial Distance of Crossing from Supporting Pole (Feet)” of a service drop and communication conductor that is “More than 20” feet from the pole to have a “Minimum Radial Clearance” of 24 inches.



- Pole 145172M supported an LADWP service drop that was touching a communication service drop more 20 feet from the attached pole.

**GO 95, Rule 54.6-E.3, Vertical and Lateral Conductors**, states in part:

*Covering Joints: Where two sections of suitable protective covering join together (at joints) they shall be covered to prevent exposing the underground cables or other conductors*

- A non-metallic riser containing primary facilities and attached to the surface of pole 346404M was separated at a joint 3 feet below the communication level.

**GO 95, Rule 56.4-D.2 Clearances**, states in part:

*Passing and Attached to Same Pole: The radial clearance between different guys, different span wires, or different guys and span wires, attached to the same pole shall not be less than 3 inches.*

- A down guy wire attached Pole 372068M was contacting a communications conductor (supported on the same pole) at midspan.

**GO 128, Rule 32.7, Covers**, states in part:

*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.*

- The underground access panel cover for pad-mounted transformer 1199595, was not secure due to the detached bolts and deteriorated anchoring points.

**GO 128, Rule 35.2-B, Guarding of Live Parts**, states in part:

*In locations accessible only to qualified electrical workers, exposed conductive parts energized above 750 volts shall be located or enclosed so as to prevent accidental contact.*

- The bolt securing the high voltage live-front side cabinet door on pad-mounted transformer 1199637 was damaged; in addition to the absences of a barrier, allowing accidental contact to the live front, high voltage facilities.