PUBLIC UTILITIES COMMISSION
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February 8, 2024 EA2023-1059

Rockeish Mckenzie, 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 Van Nuys District

Mr. Mckenzie:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Eric Ujiiye of my staff conducted an electric distribution audit of LADWP's Van Nuys District from December 4-8, 2023. 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 8, 2024, by electronic or hard copy, of all corrective measures taken by LADWP to remediate and prevent such violations.

Please note that ESRB will be posting the audit report and your response to our audit on the CPUC website. If there is any information in your response that you would like us to consider as confidential, we request that in addition to your confidential response, you also provide us with a public or redacted version of your response that can be posted publicly on our website.

If you have any questions concerning this audit, you can contact Eric Ujiiye at (213) 620-2598 or eric.ujiiye@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

Enclosure: Audit Findings

Cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC
Nika Kjensli, Program Manager, ESRB, CPUC
Eric Ujiiye, 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 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 January 1, 2019 to December 31, 2022, the following number of overhead patrol inspections were either completed or pending completion past LADWP's assigned due dates:

- 1,717 late overhead patrols in High Fire Threat Tier 3
- 11,109 late overhead patrols in High Fire Threat Tier 2
- 106,169 late overhead patrols in all other areas

LADWP's inspection records indicated that from January 1, 2019 to December 31, 2022, the following number of overhead detailed inspections were either completed or pending completion past LADWP's assigned due date:

- 487 late overhead detailed inspections in High Fire Threat Tier 3
- 7,401 late overhead detailed inspections in High Fire Threat Tier 2
- 22,735 late overhead detailed inspections in all other areas

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 of these rules.*

LADWP inspection records indicated that from January 1, 2019 to December 31, 2022, the following number of underground patrol inspections were either completed or pending completion past LADWP's assigned due date:

- 326 late underground patrols in High Fire Threat Tier 3
- 2,023 late underground patrols in High Fire Threat Tier 2
- 6,768 late underground patrols in all other areas

LADWP inspection records indicated that from January 1, 2019 to December 31, 2021, the following number of underground detailed inspections were either completed or pending completion past LADWP's assigned due date:

- 90 late underground detailed inspections in High Fire Threat Tier 3
- 1,064 late underground detailed inspections in High Fire Threat Tier 2
- 4,452 late underground detailed inspections in all other areas

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 44.1, Installation and Reconstruction, states in part:

> *Lines and elements of lines, upon installation or reconstruction, shall provide as a minimum the safety factors specified in Table 4. The design shall consider all supply and communication facilities planned to occupy the structure. For purposes of this rule, the term "planned" applies to the facilities intended to occupy the structure that are actually known to the constructing company at the time of design.*

The pole load calculation for Pole number 528468M, dated November 27, 2023, contained an indicated an East facing span length of 100 feet. However, ESRB field measurements showed that the actual span length was 150 feet.

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 records indicated that from January 1, 2019 to December 31, 2022, a total of 13,002 overhead work orders were either completed late, not completed, or cancelled after LADWP's assigned due dates 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 records indicated that from January 1, 2019 to December 31, 2022, a total of 1,224 underground work orders were either completed late, pending completion, or cancelled after LADWP's assigned due dates for corrective action.

III. Field Inspection

My staff inspected the following facilities during the field inspection:

No.	Structure ID.	Type of Structure	Location
1	17017M	Pole	Studio City
2	371788M	Pole	Studio City
3	418486M	Pole	Studio City
4	17010M	Pole	Studio City
5	374791M	Pole	Studio City
6	292229M	Pole	Studio City
7	528017M	Pole	Van Nuys
8	528468M	Pole	Van Nuys
9	151177M	Pole	Sun Valley
10	151176M	Pole	Sun Valley
11	467109M	Pole	Sun Valley
12	467110M	Pole	Sun Valley
13	412451M	Pole	Sun Valley
14	442149M	Pole	Sun Valley
15	380207M	Pole	Sun Valley
16	403668M	Pole	Sun Valley
17	429436M	Pole	Sun Valley
18	161794M	Pole	Sun Valley
19	430103M	Pole	Sun Valley
20	430087M	Pole	Sun Valley
21	165280M	Pole	Sun Valley
22	345145M	Pole	Sun Valley
23	165281M	Pole	Sun Valley
24	243594M	Pole	Sun Valley
25	44358M	Pole	Sun Valley
26	343101M	Pole	Sun Valley
27	353735M	Pole	Sun Valley
28	378611M	Pole	Sun Valley
29	378278M	Pole	Sun Valley
30	347019M	Pole	Sun Valley
31	295076M	Pole	Sun Valley
32	34271M	Pole	Sun Valley
33	350891M	Pole	Sun Valley
34	263144M	Pole	Sun Valley
35	263145M	Pole	Sun Valley
36	263146M	Pole	Sun Valley
37	263147M	Pole	Sun Valley
38	263148M	Pole	Sun Valley
39	263149M	Pole	Sun Valley

40	263150M	Pole	Sun Valley
41	263151M	Pole	Sun Valley
42	396395M	Pole	Sun Valley
43	284249M	Pole	Sun Valley
44	396195M	Pole	Sun Valley
45	396208M	Pole	Sun Valley
46	214701M	Pole	Tujunga
47	270425M	Pole	Tujunga
48	270424M	Pole	Tujunga
49	402641M	Pole	Tujunga
50	306658M	Pole	Tujunga
51	258867M	Pole	Tujunga
52	296057M	Pole	Tujunga
53	254294M	Pole	Tujunga
54	254204M	Pole	Tujunga
55	254202M	Pole	Tujunga
56	389850M	Pole	Tujunga Canyon
57	279104M	Pole	Tujunga Canyon
58	378854M	Pole	Tujunga Canyon
59	430975M	Pole	Tujunga Canyon
60	528320M	Pole	Tujunga Canyon
61	378851M	Pole	Tujunga Canyon
62	349745M	Pole	Tujunga Canyon
63	444160M	Pole	Tujunga Canyon
64	373146M	Pole	Tujunga Canyon
65	523172M	Pole	Tujunga Canyon
66	166556M	Pole	Tujunga Canyon
67	1385517	Pad Mount	Van Nuys
68	1423821	Pad Mount	Van Nuys
69	1366699	Hand Hole	Van Nuys
70	1265859	Hand Hole	Van Nuys
71	1272715	Vault	Van Nuys
72	1272863	Vault	Van Nuys
73	1432269	Pad Mount	Van Nuys

IV. Field Inspection – Violations List

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 each of the following poles required maintenance:

- Pole 161794M – a 6-foot section of ground wire and ground moulding was missing at the public level.
- Pole 165281M – a pole step supported on the pole was rotated and bent downwards.
- Pole 343101M – a riser bracket 10 feet above the ground was partially attached and not securing the riser to the pole.
- Pole 347019M – an 8-foot section of ground wire and ground moulding was missing at the public level.
- Pole 270425M – the point where the down guy wire attaches to the down guy anchor was buried in the ground.
- Pole 270424M – One primary level cross arm of a double cross arm configuration was severely damaged from one side displaying defection.
- Pole 258867M – a pole step supported on the pole was bent downwards.

GO 95, Rule 35, Vegetation Management, states in part:

> *When a supply or communication company has actual knowledge, obtained either through normal operating practices or notification to the company, that its circuit energized at 750 volts or less shows strain or evidence abrasions 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).*

A service drop supported on Pole number 263149M was strained and deflected at midspan by a tree located on the property being served.

General Order 95, Rule 38 - Minimum Clearances of Wires from Other Wires, Table 2, Column D, Case 3 requires supply conductors of 0-750 Volts (including service drops) and communications conductors "not supported on the same poles" to have a clearance of 48 inches "vertically at crossings in spans and radially where colinear or approaching crossings".

The LADWP service drop supported on each of the following poles was touching a communications conductor not supported on the same pole:

- Pole 48853M
- Pole 161794M

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 supported on each of the following poles were damaged or missing:

- Pole 380207M – The "HIGH VOLTAGE" sign was missing letters or portions thereof.
- Pole 429436M – The "HIGH VOLTAGE" sign was missing letters or portions thereof.
- Pole 430087M – The "HIGH VOLTAGE" sign was missing letters or portions thereof.
- Pole 345145M – The "HIGH VOLTAGE" sign was missing letters or portions thereof.
- Pole 165281M – The "HIGH VOLTAGE" sign was missing.
- Pole 243594M – The "HIGH VOLTAGE" sign was missing letters or portions thereof.
- Pole 353735M – The "HIGH VOLTAGE" sign was missing letters or portions thereof.
- Pole 378278M – The "HIGH VOLTAGE" sign was missing letters or portions thereof.
- Pole 347019M – The "HIGH VOLTAGE" sign was missing letters or portions thereof.
- Pole 306658M – The "HIGH VOLTAGE" sign was missing.
- Pole 258867M – The "HIGH VOLTAGE" sign was missing letters or portions thereof.
- Pole 254294M – The "HIGH VOLTAGE" sign was missing letters or portions thereof.
- Pole 254202M – The "HIGH VOLTAGE" sign was missing letters or portions thereof.
- Pole 279104M – The "HIGH VOLTAGE" sign was missing.

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…*

The climbing space on Pole 343101M was obstructed at the public level by a thorny bush.

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).*

A 6-inch section of ground wire attached to the surface of Pole number 254202M was not covered at the communications level.

GO 128, Rule 34.3-B, Guarding Live Parts, states in part:

> *Pad-mounted equipment that contains exposed live parts shall be installed to resist the passing of a wire the equivalent of a bare number 18 AWG from the outside between the pad and the housing of the equipment, into the compartment which contains live parts when it is closed.*

On the outside enclosure of Padmount 1432269, there was a gap between the enclosure and the ground near the access door.