

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



September 5, 2019

EA2019-838

Mary Li  
Senior Electrical Engineer  
Anaheim Public Utilities Department  
201 S. Anaheim Blvd.  
Anaheim, CA 9805

Subject: Audit of Anaheim Public Utilities Department, Distribution

Ms. Li:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Howard Huie and Kyle King of my staff conducted an electric distribution audit of Anaheim Public Utilities Department (APUD) Distribution from August 5, 2019 to August 13, 2019. The audit included a review of APUD's records and field inspections of APUD'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 October 7, 2019, by electronic or hard copy, of all corrective measures taken by APUD to remedy and prevent such violations.

If you have any questions concerning this audit, you can contact Howard Huie at (213) 620-6509 or [howard.huie@cpuc.ca.gov](mailto:howard.huie@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

Enclosures: Audit Findings

Cc: Elizaveta Malashenko, Director, Safety and Enforcement Division, CPUC  
Lee Palmer, Deputy Director, Office of Utility Safety, SED, CPUC  
Charlotte TerKeurst, Program Manager, Electric Safety and Reliability Branch, CPUC  
Howard Huie, Utilities Engineer, ESRB, CPUC

## **AUDIT FINDINGS**

### **I. Records Review**

During the audit, my staff reviewed the following records:

- Overhead and underground detailed inspections records.
- Completed and pending corrective action work orders.
- Pole loading calculations.
- Safety hazard notifications.
- Intrusive test records
- APUD's documented inspection program.

## II. Field Inspections

My staff inspected the following facilities during the field inspection:

No.	Structure ID.	Type of Structure	Location
1	27445D	pole	Anaheim
2	2814D	pole	Anaheim
3	2815D	pole	Anaheim
4	27052D	pole	Anaheim
5	29362D	pole	Anaheim
6	3494D	pole	Anaheim
7	PS1020	pole	Anaheim
8	2699D	pole	Anaheim
9	3497D	pole	Anaheim
10	PS773/23479	pole	Anaheim
11	3498D	pole	Anaheim
12	29167D	pole	Anaheim
13	3500D	pole	Anaheim
14	4365D	pole	Anaheim
15	4366D	pole	Anaheim
16	4367D	pole	Anaheim
17	4368D	pole	Anaheim
18	4369D	pole	Anaheim
19	30130D	pole	Anaheim
20	2812D	pole	Anaheim
21	2811D	pole	Anaheim
22	322410	pole	Anaheim
23	322420	pole	Anaheim
24	19372D	pole	Anaheim
25	626241H	pole	Anaheim
26	4546D	pole	Anaheim
27	4526D	pole	Anaheim
28	35557H	pole	Anaheim
29	739556H	pole	Anaheim
30	25531D	pole	Anaheim
31	31803D	pole	Anaheim
32	32296D	pole	Anaheim
33	32435D	pole	Anaheim
34	30178D	pole	Anaheim
35	12157D	pole	Anaheim
36	BL21415E	pole	Anaheim
37	BL21315E	pole	Anaheim
38	31442D	pole	Anaheim
39	28938D	pole	Anaheim
40	11440D	pole	Anaheim
41	11439D	pole	Anaheim
42	11435D	pole	Anaheim
43	SR691	pole	Anaheim
44	22379D	pole	Anaheim

45	22378D	pole	Anaheim
46	22377D	Pole	Anaheim
47	22376D	Pole	Anaheim
48	22375D	Pole	Anaheim
49	22374D	Pole	Anaheim
50	22373D	Pole	Anaheim
51	31321D	Pole	Anaheim
52	22371D	Pole	Anaheim
53	29261D	Pole	Anaheim
54	30809D	Pole	Anaheim
55	30794D	Pole	Anaheim
56	30793D	Pole	Anaheim
57	30792D	Pole	Anaheim
58	30791D	Pole	Anaheim
59	30386D	Pole	Anaheim
60	75482D	Pole	Anaheim
61	X5786	BURD	Anaheim
62	4053	BURD	Anaheim
63	4054	BURD	Anaheim
64	4055	BURD	Anaheim
65	4057	BURD	Anaheim
66	4066	BURD	Anaheim
67	4068	BURD	Anaheim
68	4069	BURD	Anaheim
69	3343	BURD	Anaheim
70	3345	BURD	Anaheim
71	3346	BURD	Anaheim
72	PMC260	Pad mounted Switch	Anaheim
73	PMC261	Pad mounted Switch	Anaheim
74	PMC106	Pad mounted Switch	Anaheim
75	SGS116	Switch	Anaheim
76	V57	Vault	Anaheim
77	RC1555	Pad mounted Transformer	Anaheim
78	RC926	Pad mounted Transformer	Anaheim

### III. Field Inspection Violations List

My staff observed the following violations during the field inspections portion of the audit:

**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 each of the following APUD poles were damaged and/or missing:

- 29362D – Damaged “High Voltage” sign
- 3494D – Damaged “High Voltage” sign
- 2699D – Missing “High Voltage” sign
- PS773/23473 – Missing “High Voltage” sign
- 3500D – Missing “High Voltage” sign
- 4366D – Missing “High Voltage” sign
- 4367D – Missing “High Voltage” sign
- 30130D – Missing “High Voltage” sign
- 2812D – Missing “High Voltage” sign
- 19372D – Missing “High Voltage” sign
- 25531D – Missing “High Voltage” sign
- 32296D – Missing “High Voltage” sign
- 32435D – Missing “High Voltage” sign
- BL21415E – Damaged “High Voltage” sign
- BL21315E – Damaged “High Voltage” sign
- 28938D – Damaged “High Voltage” sign
- SR691 – Missing “High Voltage” sign
- 22377D – Missing “High Voltage” sign
- 22378D – Missing “High Voltage” sign
- 22377D – Missing “High Voltage” sign
- 22376D – Missing “High Voltage” sign
- 22375D – Missing “High Voltage” sign
- 22373D – Missing “High Voltage” sign
- 30809D – Missing “High Voltage” sign
- 30386D – Missing “High Voltage” sign
- 754821D – Missing “High Voltage” sign

**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.*

The switch on pole number 19372D was not secured (missing a lock to prevent the switch from unauthorized operations).

The ground wire on pole number 29261D was damaged.

**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 moulding on each of the following APUD poles was damaged:

- 27445D
- 27052D
- 4369D
- 29261D

**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 following APUD Underground Residential Distribution (URD) transformer covers were not secured to where a tool or appliance is required to access the enclosed equipment:

- 4054
- 4057
- 4068
- 3343
- 3346

**GO 128, Rule 17.1, Design, Construction and Maintenance**, 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 maintenance door on structure PMC 106 cannot fully open due to a temporary storage shed that is placed next to the switch cabinet.