

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



January 12, 2023

EA2022-972

Scott Harding
Assistant Director of Utility Operations
City of Colton Electric Utility
150 South 10th Street
Colton, CA 91324

SUBJECT: Electric Audit of City of Colton Electric Utility

Mr. Harding:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Eric Ujiiye and Mily Vaidya of my staff conducted an electric distribution audit of City of Colton Electric Utility from May 16, 2022, to May 20, 2022. The audit included a review of City of Colton Electric Utility inspection and maintenance records and a field inspection of City of Colton Electric Utility 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 February 13, 2023, by electronic or hard copy, of all corrective measures taken by City of Colton Electric Utility to remedy and prevent such violations.

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

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.
- Diagnostic test records, e.g., infrared thermography inspections and oil insulation testing.
- City of Colton Electric Utility's visual inspection program.
- ESRB's interview of two City of Colton Electric Utility inspectors.

II. Field Inspection

My staff inspected the following facilities during the field inspection:

No.	Structure ID.	Type of Structure	Location
1	8736F	Pole	Colton
2	8733F	Pole	Colton
3	8734F	Pole	Colton
4	4573603E	Pole	Colton
5	1770591E	Pole	Colton
6	1770591E	Pole	Colton
7	1770592E	Pole	Colton
8	4113F	Pole	Colton
9	4121F	Pole	Colton
10	4571693E	Pole	Colton
11	1265611E	Pole	Colton
12	4775F	Pole	Colton
13	4776F	Pole	Colton
14	4777F	Pole	Colton
15	4778F	Pole	Colton
16	8382F	Pole	Colton
17	1265603E	Pole	Colton
18	9662F	Pole	Colton
19	4544F	Pole	Colton
20	4149407E	Pole	Colton
21	4628678E	Pole	Colton
22	4628679E	Pole	Colton
23	4915807E	Pole	Colton
24	4628680E	Pole	Colton
25	4628681E	Pole	Colton
26	607218E	Pole	Colton
27	4710F	Pole	Colton
28	9706F	Pole	Colton
29	4013885E	Pole	Colton
30	607216E	Pole	Colton
31	607215E	Pole	Colton
32	1056404E	Pole	Colton
33	10469F	Pole	Colton
34	10004F	Pole	Colton
35	10067F	Pole	Colton
36	10068F	Pole	Colton
37	665713H	Pole	Colton
38	4925F	Pole	Colton
39	4924F	Pole	Colton
40	4923F	Pole	Colton
41	2072637E	Pole	Colton
42	4857466E	Pole	Colton

43	4921F	Pole	Colton
44	4920F	Pole	Colton
45	4919F	Pole	Colton
46	4918F	Pole	Colton
47	4917F	Pole	Colton
48	4916F	Pole	Colton
49	4965F	Pole	Colton
50	4966F	Pole	Colton
51	4967F	Pole	Colton
52	4968F	Pole	Colton
53	4969F	Pole	Colton
54	4970F	Pole	Colton
55	4971F	Pole	Colton
56	4915F	Pole	Colton
57	4914F	Pole	Colton
58	5414F	Pole	Colton
59	5413F	Pole	Colton
60	5412F	Pole	Colton
61	5411F	Pole	Colton
62	5410F	Pole	Colton
63	4834F	Pole	Colton
64	4833F	Pole	Colton
65	2347964E	Pole	Colton
66	4625375E	Pole	Colton
67	2347962E	Pole	Colton
68	4602348E	Pole	Colton
69	2347959E	Pole	Colton
70	2347957E	Pole	Colton
71	2347956E	Pole	Colton
72	4020F	Pole	Colton
73	4019F	Pole	Colton
74	4018F	Pole	Colton
75	4017F	Pole	Colton
76	4016F	Pole	Colton
77	4021F	Pole	Colton
78	4022F	Pole	Colton
79	4023F	Pole	Colton
80	4024F	Pole	Colton
81	4025F	Pole	Colton
82	4026F	Pole	Colton
83	4027F	Pole	Colton
84	8366F	Pole	Colton
85	8367F	Pole	Colton
86	8368F	Pole	Colton
87	8369F	Pole	Colton
88	8370F	Pole	Colton
89	8371F	Pole	Colton
90	4286954E	Pole	Colton

91	8499F	Pole	Colton
92	8440F	Pole	Colton
93	8443F	Pole	Colton
94	8444F	Pole	Colton
95	8445F	Pole	Colton
96	4061F	Pole	Colton
97	4208F	Pole	Colton
98	5788F	Pole	Colton
99	5789F	Pole	Colton
100	4058F	Pole	Colton
101	4057F	Pole	Colton
102	8360F	Pole	Colton
103	8359F	Pole	Colton
104	4825F	Pole	Colton
105	1156F	Pole	Colton
106	1157F	Pole	Colton
107	76F	Pole	Colton
108	4571F	Pole	Colton
109	163F	Pole	Colton
110	162F	Pole	Colton
111	4342F	Pole	Colton
112	4296F	Pole	Colton
113	4343F	Pole	Colton
114	4511F	Pole	Colton
115	4512F	Pole	Colton
116	10422F	Pole	Colton
117	82F	Pole	Colton
118	3741F	Pole	Colton
119	9207F	Pole	Colton
120	9113F	Pole	Colton
121	5008F	Pole	Colton
122	3190	Pad-mount	Cooley
123	PB273	Manhole	Cooley
124	LV-132	Vault	Cooley
125	LV-123	Vault	Cooley
126	1930	Pad-mount	Cooley
127	PB260	Pad-mount	Cooley
128	1931	Pad-mount	Cooley
129	PB259	Pad-mount	Cooley
130	1506	Manhole	Cooley
131	2824	Pad-mount	Cooley
132	PB258	Pad-mount	Cooley
133	2636	Pad-mount	Cooley
134	PB257	Pad-mount	Cooley
135	3144	Pad-mount	Cooley
136	2691	Manhole	Cooley
137	PB204	Pad-mount	Cooley
138	2245	Pole	Cooley

139	2355	Pad-mount	Cooley
140	2354	Pad-mount	Cooley
141	2353	Pad-mount	Cooley
142	2352	Pad-mount	Cooley
143	4009	Manhole	Cooley
144	PB979	Pad-mount	Cooley
145	4037	Pad-mount	Cooley
146	4038	Pad-mount	Cooley
147	2530	Pad-mount	Cooley
148	2444	Pad-mount	Cooley
149	2443	Pad-mount	Cooley
151	2529	Pad-mount	Cooley
152	2369	Pad-mount	Cooley

III. Field Inspection – Violations List

My staff observed the following violations during the field inspection:

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 following facilities were not maintained for their intended use:

- Pole 4113F – a down guy anchor was completely buried, i.e., the connection point between the down guy wire and the down guy anchor was buried.
- Pole 4776F – a ground wire was missing from the ground to 4 feet above the ground
- Pole 1265603E - damaged visibility strips are separating from the pole.
- Pole 4149407E - damaged visibility strips are separating from the pole.
- Pole 4917F – the lowest pole step attached to the pole was damaged
- Pole 4915F – a ground wire was cut 12 feet above the ground.
- Pole 4914F - a ground wire was cut 4 feet above the ground.
- Pole 5414F- a ground wire was cut 4 feet above the ground.
- Pole 4833F- a ground wire was cut at ground and 8 feet above the ground.
- Pole 2347962E – a completely buried down guy anchor attachment point.
- Pole 4020F – a completely buried down guy anchor attachment point.
- Pole 4018F – a completely buried down guy anchor attachment point and a damaged down guy wire marker.
- Pole 4022F – the pole was burned at the base, greatly reducing the size of the base of the pole.
- Pole 4027F – a completely buried down guy anchor attachment point.
- Pole 8444F – a completely buried down guy anchor attachment point.

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 markings on the following City of Colton Electric Utility poles were missing:

- 4628608E
- 4920F
- 4919F
- 4918F
- 4966F
- 4967F
- 8440F
- 8359F
- 4296F

The high voltage markings on the following City of Colton Electric Utility poles were damaged:

- 1770591E
- 1770592E
- 1265611E
- 8382F
- 1265603E
- 9662F
- 4924F
- 4969F
- 82F
- 4970F
- 4020F
- 4027F
- 8366F
- 8367F
- 4286954E
- 8499F
- 8443F
- 8444F
- 1157F
- 4571F
- 162F
- 4343F
- 4511F

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 .

A down guy wire attached to Pole 4834F was not maintained taut.

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 attached to each of the following poles was damaged:

- 4571693E
- 8382F
- 4628681E
- 1056404E
- 4924F
- 4918F
- 4968F
- 4915F
- 4914F
- 5414F
- 4833F
- 2347962E
- 4602348E
- 2347957E
- 4020F
- 4010F
- 8369F
- 8370F
- 8445F
- 4208F
- 5789F
- 4057F
- 8360F
- 4825F
- 1156F
- 76F
- 163F
- 162F
- 4342F
- 4343F
- 4511F
- 82F
- 3741F
- 5414F

GO 95, Rule 56.9, Guy Marker (Guy Guard), states:

A substantial marker of suitable material, including but not limited to metal or plastic, not less than 8 feet in length, shall be securely attached to all anchor guys. Where more than one guy is attached to an anchor rod, only the outermost guy is required to have a marker.

The outer most down guy wire attached to Pole 4970F at the primary level did not have a guy marker.

GO 95, Rule 31.6, Abandoned Lines, 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. For the purposes of this rule, lines that are permanently abandoned shall be defined as those lines that are determined by their owner to have no foreseeable future use

The following permanently abandoned down guy anchors near the following poles were not removed:

- Pole 8370F
- Pole 8371F

GO 95, Rule 91.3-B., Location of Steps, states in part:

The lowest step shall be not less than 8 feet from the ground line, or any easily climbable foreign structure from which one could reach or step.

The lowest pole step attached to Pole 4917F was less than 8 feet from the ground line.

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.

The following facilities were not maintained for their intended use:

- Padmounted transformer 1930 – displayed corrosion at the base of the enclosure that resulted in a hole.
- Padmounted transformer 2824 – displayed corrosion in multiple locations at the base of the enclosure.
- Manhole PB 257 – the manhole was severely damaged, allowing access to the enclosure.
- Padmounted transformer 2691 – displayed corrosion in multiple locations at the base of the enclosure.
- Padmounted transformer 2355 – displayed corrosion at the base of the enclosure that resulted in a hole.

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 cover of Manhole PB 273 was not secured with bolts or any fasteners that would require a tool to access the enclosure.

GO 128, Rule 35.3, Warning Signs, states:

Warning signs indicating high voltage shall be installed on an interior surface, or barrier if present, inside the entrance of vaults, manholes, handholes, pad mounted transformer compartments, and other above ground enclosures containing exposed live parts above 750 volts. Such warning signs shall also be installed on an exterior surface of all such pad mounted transformer compartments and other above ground enclosures. Such signs shall be clearly visible to a person in position to open any such access door, other opening, or barrier.

The warning signs attached to each of the following padmounted transformers were faded and illegible.

- 2355
- 2353
- 2352