

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



January 10, 2023

TA2022-987

Antonio Ortega
Government Affairs and Communication Officer
Imperial Irrigation District (IID)
333 East Barioni Blvd.
Imperial, CA 92251

Subject: Transmission Audit of IID's La Quinta District

Mr. Ortega:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Eric Ujjiye, Calvin Choi and Mily Vaidya of my staff conducted an electric transmission audit of Imperial Irrigation District (IID) La Quinta District from April 11, 2022, to April 15, 2022. The audit included a review of IID's records and field inspections of IID'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 10, 2023, by electronic or hard copy, of all corrective measures taken by IID to remedy and prevent the recurrence 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.

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

AUDIT FINDINGS

I. Records Review

During the audit, my staff reviewed the following records:

- Circuit facility inspection records.
- Completed and pending corrective action work orders.
- Pole loading calculations.
- Tower Structure Analysis Records
- Safety hazard notifications.
- Intrusive test records
- IID's documented inspection program.

II. Field Inspections

My staff inspected the following facilities during the field inspection:

No.	Structure ID	Circuit	Structure	Location
1	1240516	L -line	Pole	Oasis
2	1240514	L -line	Pole	Oasis
3	1240513	L -line	Pole	Oasis
4	1240512	L -line	Pole	Oasis
5	1240511	L -line	Pole	Oasis
6	1240510	L -line	Pole	Oasis
7	1240509	L -line	Pole	Oasis
8	1224821	L -line	Tower	Oasis
9	1227312	L -line	Tower	Oasis
10	1227313	L -line	Tower	Oasis
11	1198133	CE Line	Pole	Thousand Palms
12	1184317	CE Line	Pole	Thousand Palms
13	1184316	CE Line	Pole	Thousand Palms
14	1198135	CE Line	Pole	Thousand Palms
15	1198143	CE Line	Pole	Thousand Palms
16	KNKS0102	KN-KS	Tower	Zone B
17	KNKS9002	KN-KS	Tower	Zone B
18	KNKS01033	KN-KS	Tower	Zone B
19	KNKS0104	KN-KS	Tower	Zone B
20	KNKS0201	KN-KS	Tower	Zone B
21	KNKS0202	KN-KS	Tower	Zone B
22	KNKS0203	KN-KS	Tower	Zone B
23	KNKS0204	KN-KS	Tower	Zone B
24	KNKS0301	KN-KS	Tower	Zone B
25	KNKS0302	KN-KS	Tower	Zone B
26	KNKS9032	KN-KS	Tower	Coachella
27	1216906	KN-KS	Tower	Coachella
28	KNKS9033	KN-KS	Tower	Coachella
29	KNKS9034	KN-KS	Tower	Coachella
30	KNKS9041	KN-KS	Tower	Coachella
31	KNKS9042	KN-KS	Tower	Coachella
32	KNKS9043	KN-KS	Tower	Coachella
33	KNKS9044	KN-KS	Tower	Coachella
34	KNKS9051	KN-KS	Tower	Coachella
35	KNKS9052	KN-KS	Tower	Coachella
36	KNKS9053	KN-KS	Tower	Coachella
37	KNKS2404	KN-KS	Tower	North Shore Mecca
38	K-2405D	KN-KS	Pole	North Shore Mecca
39	K-2406D	KN-KS	Pole	North Shore Mecca
40	K-2407D	KN-KS	Pole	North Shore Mecca
41	K-2408D	KN-KS	Pole	North Shore Mecca
42	K-2409D	KN-KS	Pole	North Shore Mecca
43	KNKS2403	KN-KS	Tower	North Shore Mecca
44	K-2410D	KN-KS	Pole	North Shore Mecca

45	K-2411D	KN-KS	Pole	North Shore Mecca
46	K-2412D	KN-KS	Pole	North Shore Mecca
47	KNKS2402	KN-KS	Tower	North Shore Mecca
48	K-2413D	KN-KS	Pole	North Shore Mecca
49	K-2414D	KN-KS	Pole	North Shore Mecca
50	K-2415D	KN-KS	Pole	North Shore Mecca
51	K-2416D	KN-KS	Pole	North Shore Mecca
52	KNKS2401	KN-KS	Tower	North Shore Mecca
53	K-2501	KN-KS	Pole	North Shore Mecca
54	K-2502	KN-KS	Pole	North Shore Mecca
55	K-2503	KN-KS	Pole	North Shore Mecca
56	K-2504	KN-KS	Pole	North Shore Mecca
57	KNKS2304	KN-KS	Tower	North Shore Mecca
58	N3404	N Line	Pole	North Shore Mecca
59	N3405	N Line	Pole	North Shore Mecca
60	KNKS1702	N Line	Tower	North Shore Mecca
61	N3406	N Line	Pole	North Shore Mecca
62	N3407	N Line	Pole	North Shore Mecca
63	N3408	N Line	Pole	North Shore Mecca
64	KNKS1701	N Line	Tower	North Shore Mecca
65	N3501	N Line	Pole	North Shore Mecca
66	N3502	N Line	Pole	North Shore Mecca
67	KNKS1604	N Line	Tower	North Shore Mecca
68	N3503	N Line	Pole	North Shore Mecca
69	N3504	N Line	Pole	North Shore Mecca
70	N3505	N Line	Pole	North Shore Mecca
71	KNKS1603	N Line	Tower	North Shore Mecca
72	N3506	N Line	Pole	North Shore Mecca
73	KNKS1602	N Line	Tower	North Shore Mecca
74	N3507	N Line	Pole	North Shore Mecca
75	N3601	N Line	Pole	North Shore Mecca
76	KNKS1601	N Line	Tower	North Shore Mecca
77	N3602	N Line	Pole	North Shore Mecca

III. Field Inspection Violations List

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

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 IID transmission facilities were not maintained properly:

- Tower KNKS0204: a ground wire near ground level at one of the tower legs was cut and crudely looped together to reconnect them.
- Transmission towers KNKS9033, KNKS9052, and KNKS9053: the ground wire was cut at the ground wire bracket (located on one of the legs near ground level).
- Pole K-2408-D: a loose down guy wire was attached to a down guy anchor that was deteriorated and no longer buried in the ground (i.e., the down guy anchor was lying on the ground)
- Pole K-2409-D: a loose down guy wire was attached to a down guy anchor that was deteriorated and no longer buried in the ground (i.e., the down guy anchor was lying on the ground)
- Pole K-2416-D: a section of the ground wire was missing.
- Pole N3408: a section of ground wire and moulding was missing.
- Pole N3501: a section of ground wire and moulding was missing.
- Pole N3502: a section of ground wire and moulding was missing.
- Pole N3503: a section of ground wire and moulding was missing.
- Pole N3504: a section of ground wire and moulding was missing.
- Pole N3505: a section of ground wire and moulding was missing.
- Pole N3506: a section of ground wire and moulding was missing.
- Pole N3502: an insulator bell was damaged.
- Pole N3505: a down guy wire was loose; additionally, the point of attachment between the down guy wire and the down guy anchor was buried in the ground.
- Pole N3506: multiple insulator bells were damaged.

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 following poles supported facilities greater than 750 volts and were missing “HIGH VOLTAGE” markings:

- K-2405-D
- K-2406-D
- K-2407-D
- K-2408-D
- K-2409-D
- K-2410-D
- K-2411-D
- K-2412-D
- K-2413-D
- K-2414-D
- K-2415-D
- K-2416-D
- K-2501-D
- K-2502-D
- K-2503-D
- K-2504-D
- N3406
- N3407
- N3501
- N3503
- N3504
- N3506
- N3507
- N3602

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:

- Pole 1240514: a section of ground moulding was separating from the pole, exposing an insulated ground wire
- Pole 1240510: a 2-foot section of ground moulding was missing at the base of the pole.
- Pole K-2405-D: there was a damaged section of ground moulding 3 feet above the ground that exposed the ground wire.
- Pole K-2406-D: there was a damaged section of ground moulding that exposed a small section of the ground wire.
- Pole K-2407-D: there was a damaged section of ground moulding around 30 feet above the ground that exposed the ground wire.
- Pole K-2408-D: there was a damaged section of ground moulding around 30 feet above the ground that exposed the ground wire, allowing it to contact a detached down guy wire (i.e., the down guy wire was not attached to any down guy anchor).
- Pole K-2409-D: there was a damaged section of ground moulding 5 feet above the ground that exposed the ground wire.

- Pole K-2410-D: there was a damaged ground moulding that was damaged at 8 feet above the ground, exposing the ground wire.
- Pole K-2411-D: there was a damaged section of ground moulding around 4 feet above the ground that exposed the ground wire.
- Pole K-2412-D: there was a damaged section of ground moulding around 10 feet above the ground that exposed the ground wire.
- Pole K-2409-D: there was a damaged section of ground moulding around 5 feet above the ground that exposed the ground wire.
- Pole K-2413-D: there were multiple damaged sections of ground moulding that exposed the ground wire.
- Pole K-2414: there was a damaged section of ground moulding around 30 feet above the ground that exposed the ground wire.
- Pole K-2502: there were damaged sections of ground moulding around 5 feet and 30 feet above the ground that exposed the ground wire.
- Pole K-2503: there was a damaged section of ground moulding around 8 feet above the ground that exposed the ground wire to the top of pole.
- Pole K-2504: there was a damaged section of ground moulding extending from the ground to 8 feet above the ground, exposing the ground wire.
- Pole N3405: starting at 8 feet above the ground, the ground moulding was missing, exposing the ground wire to top of the pole.
- Pole N3406: starting at 10 feet above the ground, the ground moulding was missing, exposing the ground wire to top of the pole.
- Pole N3407: starting at 16 feet above the ground, the ground moulding was missing, exposing the ground wire to top of the pole.
- Pole N3507: there was a damaged ground moulding near the base of the pole, exposing the ground wire.
- Pole N3601: starting at 16 feet above the ground, the ground moulding was missing, exposing the ground wire to top of the pole.
- Pole N3602: there was a damaged section of ground moulding that exposed the ground wire 6 feet above the ground.

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...

The climbing space on Pole 1240513 was obstructed by vegetation, which completely encircled the pole at the public level.

GO 95, Rule 61.6, Marking and Guarding, states in part:

All towers shall be equipped with signs designed to warn the public of the danger of climbing same. Additionally, such signs shall include a graphic depiction of the dangers of falling or electrocution associated with climbing the towers. Such signs shall be placed and arranged so that they may be read from the four corners of the tower.

The warning sign attached to Tower KNKS 9023 was severely damaged and illegible.

The following IID transmission tower structures did not display warning signs.

- KNKS0102
- KNKS9002
- KNKS01033
- KNKS0104
- KNKS0201
- KNKS0202
- KNKS0203
- KNKS0204
- KNKS0301
- KNKS0302
- KNKS9032
- KNKS9034
- KNKS9041
- KNKS9042
- KNKS9043
- KNKS9044
- KNKS9051
- KNKS9052
- KNKS9053
- KNKS2404
- KNKS2403
- KNKS2402
- KNKS2401
- KNKS2304
- KNKS170

GO 95, Rule 61.7, Stepping, states in part:

All towers which are required to be climbed by workmen shall be provided with steps or ladders. Steps or ladders shall start at not less than 7 feet 6 inches from the ground line or from any easily climbed foreign structure, within 6 feet of a tower, from which one could reach or step, including tower footings. The spacing between steps on the same side of the tower legs shall not exceed 36 inches.

Steps on the following transmission tower structures were lower than the minimum 7 feet 6 inches from the ground line or from any easily climbable foreign structure.

- KNKS0102
- KNKS0301
- KNKS9044
- KNKS9052
- KNKS9053