

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



June 15, 2016

EA2016-007

David Porath
Turlock Irrigation District, Water and Power
Supervising Electrical Engineering Tech
333 East Canal Drive
Post Office Box 949
Turlock, CA 95381-0949

Subject: Electric Audit of Turlock Irrigation District Power

Dear Mr. Porath:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Ivan Garcia of my staff conducted an Electric Audit of Turlock Irrigation District (TID), from April 19, 2016, to April 22, 2016. The audit included a review of TID's maintenance records and field inspection of its 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 July 15 2016, by electronic or hard copy, of all corrective measures taken by TID to remedy and prevent such violations.

If you have any questions concerning this audit please contact Ivan Garcia at (916) 928-5875 or ivan.garcia@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: Elizaveta Malashenko, Director, Safety and Enforcement Division, CPUC
Charlotte TerKeurst, Program Manager, Electric Safety and Reliability Branch, CPUC

Audit Findings

I. Records Review

During the audit, my staff reviewed the following records:

- Completed overhead and underground work orders from January 1, 2012 through April 19, 2016.
- Pole Test and Treat Records from January 1, 2007 through March 21, 2016
- GO 165 Patrol and Inspection Records from January 1, 2006 to March 21, 2016
- Equipment Diagnostic Test Records for reclosers and capacitors from 2014, 2015, and 2016
- New construction records for the following projects: Pole Intent #2105-0060, Hatch Rd. and Tully Rd.; Pole Intent #2016-0057, Kinser Rd. and Farris Ave.; Job #14001937, Fowler Rd. and Highway 165

II. Records Review – Violations

GO 165, Table 1, Distribution Inspection Cycles, requires underground equipment to be patrolled once a year in urban areas and every two years in rural areas.

TID does not conduct patrols of its underground equipment, as required per GO 165.

GO 165, Table 1, Distribution Inspection Cycles requires underground equipment to be detailed inspected every three years in urban and rural areas.

TID does not conduct detailed inspections of underground equipment as required per GO 165.

GO 165, III-D, Distribution Facilities, Reporting states in part:

By July 1st each utility subject to this General Order shall submit an annual report for the previous year under penalty of perjury. The report shall list four categorical types of inspections: Patrols, Overhead Detailed, Underground Detailed and Wood Pole Intrusive. The report shall denote the total units of work by inspection type for the reporting period and the number of outstanding (not completed) inspections within the same reporting period for each of the four categories.

TID does not submit annual reports to the CPUC.

Field Inspection

My staff inspected the following facilities in TID's Service Area:

Structure Number	Type of Structure	Location
87	Pole	585 Daubenberger Rd., Turlock
N/A	Underground Secondary Box	3963 Mulberry Dr., Turlock
22	Pole	Esmar Rd. Redwood Rd., Ceres
TXJ-41125	Pad Mount Transformer	1805 Charles St., Hughson
K085-012	Pole	Tully Rd. and Hatch Rd., Hughson
43	Pole	Alley on Glenn Ave. between Spokane St. and Eureka St., Modesto
44	Pole	Alley on Glenn Ave. between Spokane St. and Eureka St., Modesto
58	Pole	Alley on Glenn Ave. between Spokane St. and Eureka St., Modesto
57	Pole	Alley on Glenn Ave. between Spokane St. and Eureka St., Modesto
56	Pole	Alley on Glenn Ave. between Spokane St. and Eureka St., Modesto
55B	Pole	Alley on Glenn Ave. between Spokane St. and Eureka St., Modesto
55	Pole	Alley on Glenn Ave. between Spokane St. and Eureka St., Modesto
54	Pole	Alley on Glenn Ave. between Spokane St. and Eureka St., Modesto
53	Pole	Alley on Glenn Ave. between Spokane St. and Eureka St., Modesto
113	Pole	Alley on Butte Ave. between Spokane St. and Eureka St., Modesto
52	Pole	Alley on Butte Ave. between Spokane St. and Eureka St., Modesto
11	Pole	Kinser Rd. and Farris Ave.,

		Ceres
12	Pole	2912 Farris Ave., Ceres
97	Pole	Highway 165 and Fowler Road, Turlock
A	Pad Mount Transformer	7975 Joanna Dr., Hilmar
N/A	Underground Secondary Box	7967 Joanna Dr., Hilmar
N/A	Underground Secondary Box	20364 Carsean Dr., Hilmar
B	Pad Mount Transformer	7925 Joanna Dr., Hilmar
C	Pad Mount Transformer	7928 Michelle Dr., Hilmar
D	Pad Mount Transformer	7826 Michelle Dr., Hilmar
A	Subsurface Transformer	8042 Shoreen St., Hilmar
B	Subsurface Transformer	8082 Shoreen St., Hilmar
N/A	Underground Secondary Box	8083 Shoreen St., Hilmar
C	Subsurface Transformer	20209 Earl St., Hilmar
D	Subsurface Transformer	20148 Earl St., Hilmar
N/A	Underground Secondary Box	20137 Earl St., Hilmar
H	Subsurface Transformer	8055 Roberts St., Hilmar
I	Subsurface Transformer	8014 Roberts St., Hilmar
12	Pole	Lander Ave and E Linwood Ave., Turlock

III. Field Inspection – Undocumented Violations List

We observed the following violations during the field inspection. None of the violations were documented and/or addressed by TID during its last inspections:

GO 95, Rule 54.6B, Vertical and Lateral Conductors, Ground Wires, states in part:

Ground Wires of supply circuits must be protected by suitable covering and be in good repair throughout their length.

- TID pole #87, located at 585 Daubenberger Rd, in Turlock has an exposed ground wire at the base of the pole.
- TID pole #56, located at the alley on Glenn Ave. between Spokane St. and Eureka St. in Modesto has an exposed ground wire along the pole.
- TID pole #54, located at the alley on Glenn Ave. between Spokane St. and Eureka St. in Modesto has an exposed ground wire along the pole.
- TID pole #113, located at the alley on Butte Ave. between Spokane St. and Eureka St., Modesto has an exposed ground wire along the pole.

GO 128, Rule 17.8, Identification of Manholes, Handholes, Subsurface and Self-contained Surface-mounted Equipment Enclosures, states:

Manholes, handholes, subsurface and self-contained surface-mount equipment enclosures shall be marked as to ownership to facilitate identification by persons authorized to work therein and by other persons performing work in their vicinity.

The following subsurface equipment and surface-mount enclosures were missing TID's ownership marker:

- A, Pad Mount Transformer, 7975 Joanna Dr., Hilmar
- B, Pad Mount Transformer, 7925 Joanna Dr., Hilmar
- C, Pad Mount Transformer, 7928 Michelle Dr., Hilmar
- I, Subsurface Transformer, 8014 Roberts. St., Hilmar

IV. Field Inspection – Documented Violations List

We observed the following violations during the field inspection. All of the violations were documented and/or addressed by TID during its last inspections:

GO 95, Rule 38, Minimum Clearances of Wires for Other Wires, Table 2, Case 1A, requires the minimum radial clearance between messengers and communication conductors not supported on the same pole to be 24 inches.

TID has a fiber communication cable that is in contact with an AT&T messenger at the intersection of Tully Rd. and Hatch Rd. in Hughson.

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.

Pole #43 at the alley on Glenn Ave. between Spokane St. and Eureka St. in Modesto has damaged (cracked) primary crossarms.

Pole #44 at the alley on Glenn Ave. between Spokane St. and Eureka St. in Modesto has damaged (cracked) primary crossarms.

Pole #11 at the intersection of Kinser Rd. and Farris Ave. in Ceres has a buddy pole that needs to be removed.

Pole #12 at 2912 Farris Ave. in Ceres has a buddy pole that needs to be removed.

GO 128, Rule 34.3-C, Locking, states:

Compartments and enclosures shall be made secure against entry by unauthorized persons by means of locks or other suitable means.

The secondary junction box #8083 cover at 8083 Shoreen St. in Hilmar is not locked.

The secondary junction box #20137 cover at 20137 Earl St. in Hilmar is not locked.