

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



August 22, 2023

SA2023-1064

Jesse Medina
Assistant Manager, Substation Operations and Maintenance
Imperial Irrigation District (IID)
2151 W. Adams Ave.
El Centro, CA 92243

SUBJECT: Substation Audit of IID El Centro District

Mr. Medina:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Stacey Ocampo of my staff conducted a substation audit of Imperial Irrigation District (IID) El Centro District from June 12-16, 2023. The audit included a review of IID's records and field inspections of IID's substation 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 September 22, 2023, by electronic or hard copy, of all corrective measures taken by IID to remedy and prevent such violations.

If you have any questions concerning this audit, you can contact Stacey Ocampo at (213) 266-4712 or Stacey.Ocampo@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, SED, CPUC
Majed Ibrahim, Senior Utilities Engineer, ESRB, SED, CPUC
Stacey Ocampo, Utilities Engineer, ESRB, SED, CPUC

AUDIT FINDINGS

I. Records Review

During the audit, my staff reviewed the following records:

- IID GO 174 Substation Inspection Process
- IID GO 174 Substation Inspection Program
- IID SOP Protection System Maintenance Program.
- Summary of IID El Centro District Substation Operators Training Records
- Summary of Substation Inspections in the El Centro District
- Inspection Checklists and One-Line Diagrams for ten substations
- Pending and Completed Workorders for the year 2022
- Summary of results of Infrared Testing in 2022

II. Field Inspections

My staff inspected the following facilities during the field inspection:

No.	Substation Name
1	EUCLID
2	DAHLIA
3	CLARK
4	MALL
5	HEBER
6	EL CENTRO SWITCHING CENTER
7	HIGHLINE
8	HOLTVILLE
9	ATEN
10	BRAWLEY DIESEL
11	BRAWLEY
12	PARKVIEW
13	BEEF PLANT
14	PANNO

III. Field Inspection - Violations List

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

GO 174, Rule 12, General, states in part:

Substations shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to promote the safety of workers and the public and enable adequacy of service.

Design, construction, and maintenance should be performed in accordance with accepted good practices for the given local conditions known at the time by those responsible.

Facilities at the following substations were not maintained for their intended use:

Euclid Substation

- The cooling fan on Transformer Bank 4 failed to start as expected.
- A communication wire was exposed on the ground and poses a tripping hazard.

Clark Substation

- Bird nests were found under the LUWO circuit breaker A and C phase bushings.
- A bird nest was found under the H1D1 switch A phase bushing.
- Bird nests were found under the LUEO circuit breaker A and C phase bushings.

Mall Substation

- A bird nest was found under the EDNO circuit breaker C phase bushing.
- A bird nest was found under the EDSD2 switch B phase bushing.
- The Transformer Bank 1 was leaking oil from the bottom valve.
- The ground wire on Transformer Bank 1 was damaged.

Heber Substation

- A bird nest was found under the PED2 switch A phase bushing.

El Centro Switching Center

- The control wires under LXD4 switch (34 kV) were abandoned and pose a tripping hazard.
- The Transformer Bank 3 was leaking oil under the radiators.
- The U4 INO oil breaker was leaking oil from inside the cabinet.

- The JNO oil breaker was leaking oil from inside the cabinet.
- The Transformer Bank 2 was leaking oil underneath the fans.
- The Transformer Bank 1 was leaking oil from the oil analyzer inside the cabinet.
- The Transformer Bank 1 was leaking oil from the top of the phase 3 tank.
- The Transformer Bank 1 was leaking oil from the bottom of the phase 1 tank.
- The Transformer Bank 4 was leaking oil from radiators.
- The Transformer Bank 4 was leaking oil from the motor junction box underneath the fans.
- A bird nest was found under the TED3 switch C phase bushing.
- A bird nest was found under the BSO circuit breaker A phase bushing.

Highline Substation

- The Transformer Bank 1 was leaking oil from the bottom valve.
- A bird nest was found under the ED1 switch B phase bushing.

Holtville Substation

- The Transformer Bank 2 was leaking oil from the bottom valve.
- The Transformer Bank 3 was leaking oil from the radiator.

Brawley Diesel Substation

- The substation perimeter fence located on the southside of the substation was damaged (potentially due to vandalism).
- The control wires were abandoned and pose a tripping hazard.

Brawley Substation

- A bird nest was found under the COD1 switch A phase bushing.

Parkview Substation

- A bird nest was found under the COWD1 switch A, B and C phase bushings.
- A bird nest was found under the COED2 switch A, B and C phase bushings.

Panno Substation

- One fan on Transformer Bank 1 failed to start as expected.

Beef Plant Substation

- A bird nest was found under the JSD2 switch A, B and C phase bushings.
- A bird nest was found under the JSO circuit breaker A and C phase bushings.
- A bird nest was found under the JNO circuit breaker A and C phase bushings.
- A bird nest was found under the JND2 switch A, B and C phase bushings.