

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



March 22, 2016

Melvin Stark
Principal Manager, Maintenance & Inspections/Asset Management
Southern California Edison
3 Innovation Way
Pomona, CA 91768

SA2015-005

SUBJECT: Substation Audit of SCE's Devers Switching Center

Dear Mr. Stark:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Koko Tomassian of my staff conducted a substation audit of Southern California Edison's (SCE) Devers Switching Center from December 7, 2015 to December 11, 2015. The audit included a review of SCE's records and field inspections of SCE'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 April 29, 2016, by electronic or hard copy, of all corrective measures taken by SCE to remedy and prevent such violations.

If you have any questions, you can contact Koko Tomassian at (213) 576-7099 or koko.tomassian@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:

- SCE Substation Inspection Practices
- SCE Substation physical security policies
- Counter operation policies
- Substation Log Books for selected substations
- Equipment lists and one-line diagram for selected substations
- The last two (2) visual inspection records for selected substations
- Circuit breaker testing records
- Battery testing records
- Dissolved gas analysis testing records
- Infrared inspection records
- Inspector training and qualifications records

II. Records Review – Violations List

GO 174, Rule 30.1, states in part:

Each Operator shall establish, update as needed, and follow an Inspection Program.

SCE's Inspection Program Practice, Section 5.1.1, states in part:

When the operator enters the station an entry is made in the station log book.

SCE's Inspection Program Practice, Section 5.1.2, states in part:

The performance of an unscheduled inspection is not typically documented except for entries made in the substation log book.

A review of the below substation log books in comparison with inspection forms for the particular substation revealed missed log book entries:

Twentynine Palms Substation

- Inspection on October 2, 2015 not logged in substation log book

Banning Substation

- Inspection on September 14, 2015 not logged in substation log book

III. Field Inspections

The following substations were inspected during the audit:

Name	Facility Type	City
Twentynine Palms	Substation	Twentynine Palms
Carodean	Substation	Twentynine Palms
Hi Desert	Substation	Twentynine Palms
Joshua Tree	Substation	Joshua Tree
Thunderbird	Substation	Palm Springs
Santa Rosa	Substation	Rancho Mirage
Silver Spur	Substation	Palm Desert
Palm Village	Substation	Palm Desert
Indian Wells	Substation	Indian Wells
Banning	Substation	Banning
Cabazon	Substation	Cabazon
Bottle	Substation	Cabazon
Banwind	Substation	Palm Springs

IV. Field Inspections – Undocumented Violations List

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

GO 174, Rule 30.1, states in part:

Each Operator shall establish, update as needed, and follow an Inspection Program.

SCE’s Inspection Program Practice, Section 5.1.1, states in part:

Identified discrepancies that require immediate action are communicated to the appropriate supervisor. The remaining discrepancies found during inspections are noted on the electronic inspection forms.

Listed below are the discrepancies identified at each substation during the audit, which were not noted on the inspection forms per SCE substation inspection requirements:

Hi Desert Substation

- A fence post/barbed wire support was not secured to its bracket
- A fence post in the southwest corner of the substation was corroded

Joshua Tree Substation

- The perimeter fence along the east side of the substation was damaged
- Several fence posts throughout the substation had no visible ground wires attached
- No. 1 Bank 33/12kV – oil temperature gauge indicated a “High” reading

Thunderbird Substation

- No. 1 Bank 33/4.8kV – pressure gauge reading indicated a negative pressure

Santa Rosa Substation

- Two (2) grounds at the southwest corner of the perimeter fence were cut and/or broken
- No. 2 Bank 115/33kV – oil leak in multiple locations

Palm Village Substation

- Batter Cell No. 42 – corrosion/build up on battery lead
- No. 1 Capacitor Fused Disconnect – oil seepage/leak

Indian Wells Substation

- No. 1 Bank 115/12kV (east unit) – oil seepage/leak
- No. 1 Bank 12kV – critter guard zip ties broken/need repair
- Mayan 12kV Capacitor – critter guard zip ties broken/need repair

Banning Substation

- Broken ground on south side fence (approximately midpoint)
- No warning sign on northwest perimeter fence

Cabazon Substation

- Broken chain link on east side fence perimeter
- Erosion at west side of perimeter fence
- No. 1 Bank (south unit) – oil level gauge indicated “low” oil level
- No. 1 Bank (east unit) – desiccant needs to be replaced

Bottle Substation

- Erosion at west side of perimeter fence
- Erosion at southeast corner of perimeter fence