

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3298



December 21, 2016

SA2016-001

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

SUBJECT: Substation Audit of SCE's Orange County and Lighthipe Switching Centers

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) Orange County and Lighthipe Switching Centers from October 10, 2016 to October 14, 2016. 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 January 23, 2017, 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
Lee Palmer, Deputy Director, Office of Utility Safety, SED
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. Field Inspections

We inspected the following substations during the audit:

Name	Facility Type	City
Lucas	Substation	Lakewood
Old Field	Substation	Lakewood
Dom Hill	Substation	Dominguez Hills
College	Substation	Long Beach
Hathaway	Substation	Long Beach
Los Cerritos	Substation	Long Beach
Hinson	Substation	Long Beach
Carbonic	Substation	Carson
Seabright	Substation	Long Beach
Cherry	Substation	Long Beach
State Street	Substation	Long Beach
Larder	Substation	Long Beach
GATX	Substation	Long Beach
Chestnut	Substation	Santa Ana
Sullivan	Substation	Santa Ana
Vera	Substation	Garden Grove
Lampson	Substation	Garden Grove
Orange	Substation	Orange
University	Substation	Irvine
Cabrillo	Substation	Irvine
Bayside	Substation	Costa Mesa
Kiwi	Substation	Fountain Valley

III. Field Inspections – Violations List

My staff observed the following violations during the field inspection:

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.

Lucas Substation

- The barbed wire along the southwestern perimeter fence was broken.

Hathaway Substation

- The barbed wire along the west side of the perimeter fence was not attached to its support.

Hinson Substation

- The perimeter fence along the east side of the substation was broken.
- There was erosion at west side of the perimeter fence.
- There was erosion at south side of the perimeter fence.
- The cable trench covers located northeast of the North Bus A Section 66 kV disconnect were damaged.

Seabright Substation

- The barbed wire along the northwestern corner of the perimeter fence was broken.
- The barbed wire along the north side of the perimeter fence was broken.

State Street Substation

- A barbed wire V-brace support along the east side of the perimeter fence was dislodged from the fence post/cap.

Chestnut Substation

- The Peanut 12 kV Circuit Breaker had a leak on the bottom of tank

Sullivan Substation

- A berm along the south side of the substation was damaged.

Lampson Substation

- The No. 2 Bank (12 kV Circuit Breaker) was missing an animal guard.

Cabrillo Substation

- A ground wire along the northeast perimeter fence was cut.
- A ground wire along the east side of the perimeter fence was cut.
- The 66 kV No. 2 Bank (south unit) was leaking oil.

Bayside Substation

- The barbed wire along the east side of the perimeter fence was broken.
- The Perch 12 kV Circuit Breaker was leaking oil.

Kiwi Substation

- A barbed wire V-brace support along the east side of the perimeter fence was broken.