

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



November 9, 2018

SA2018-001

Tracy Cooke
Electric Operation Manager
Field Activities
Anaheim Public Utilities
909 E. Vermont Avenue
Anaheim, CA 92808

SUBJECT: Substation Audit of Anaheim Public Utilities

Mr. Cooke:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), James Miller and other members of my staff conducted a substation audit of Anaheim Public Utilities (APU) from September 10, 2018 to September 13, 2018. The audit included a review of APU's records and field inspections of APU'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 December 10, 2018, by electronic or hard copy, of all corrective measures taken by APU to remedy and prevent such violations.

If you have any questions concerning this audit, you can contact James Miller at (213) 266-4715 or James.Miller@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: CPUC 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:

- Substation Monthly Inspections Checklist
- Anaheim Public Utilities Substation Inspection Program
- Spill Prevention, Control, and Countermeasure Plan
- Unresolved Issues List
- Thermographic Survey
- Apprentice Substation Electrician Records
- Hazard Communication Program
- Relay Maintenance Schedule
- SF₆ Monitoring Plan
- SF₆ Inventory Management
- SF₆ Safety Guide
- Substation Power Circuit Breaker – Overhauls
- Training Overview
- Dissolved Gas Analysis for Major and Consumer Substations
- Dispatch Orders Completed in 2018

II. Records Review – Violations List

My staff observed the following violations during the records review portion of the audit:

GO 174, Rule 12, General, requires that substation equipment be properly maintained.

APU's records indicate that scheduled maintenance for a total of 117 circuit breakers had not been completed by their respective due dates.

III. Field Inspections

My staff inspected the following substations during the field inspection:

Name	Facility Type	City
Vermont	Substation	Anaheim
Katella	Substation	Anaheim
Lewis	Substation	Anaheim
Park	Substation	Anaheim
Fairmont	Substation	Anaheim
Yorba	Substation	Anaheim
Dowling	Substation	Anaheim
Canyon	Substation	Anaheim
Sharp	Substation	Anaheim
Anaheim	Substation	Anaheim
Hannum	Substation	Anaheim
Clair	Substation	Anaheim

IV. 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.

Vermont Substation

- The digital displays on the following transformers were cloudy and unreadable: No. 5A Bank Transformer, No. 6A Bank Transformer, and No. 7A Bank Transformer.
- Oil was leaking from the following transformers: No. 5A Ground Bank Transformer, No. 6A Bank Transformer, and No. 7A Bank Transformer.

Katella Substation

- 69 kV circuits were mislabeled as 66 kV.

Lewis Substation

- Oil was leaking from the following transformers: No. 2A Bank Transformer, No. 1B Bank East Transformer, and No. 1B Bank West Transformer.
- One of the fans on the No. 2 Bank Transformer was broken.

Park Substation

- The upper entrance to the substation was missing a warning sign.

Fairmont Substation

- Oil was leaking from the No. 2B Bank Transformer.

Dowling Substation

- Oil was leaking from the No. 2B Bank Transformer.

Sharp Substation

- One of the fans on the No. 1B Bank Transformer was broken.
- One of the surge protector monitors on the No. 2 Bank Transformer was not functioning properly.
- The handle on the regulator valve on the No. 2B Bank transformer was corroded.

Hannum Substation

- Oil was leaking from the No. 2B Bank Transformer.

Southwest Substation

- Two of the fans on the No. 2B Bank Transformer were broken.
- The battery racks in the battery room lacked secondary containment for spills.