

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
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August 12, 2019

SA2019-841

Randy Smith
Principal Manager, T&D Compliance Integration
T&D Compliance Integration
Southern California Edison
1 Innovation Way
Pomona, California 91768

SUBJECT: Substation Audit of Southern California Edison Vincent District

Mr. Smith:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission, Howard Huie and Calvin Choi of my staff conducted a substation audit of Southern California Edison (SCE) Vincent District from May 20 to May 24, 2019. 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 September 12, 2019, by electronic or hard copy, of all corrective measures taken by SCE to remedy and prevent the recurrence of such violations in the future.

If you have any questions concerning this audit, please contact Howard Huie at (213) 620-6503 or howard.huie@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
Howard Huie, Utilities Engineer, ESRB - CPUC

AUDIT FINDINGS

I. Records Review

During the audit, my staff reviewed the following records:

- Substation Inspections Practices Documents
- Summary of Substation Inspections in the Vincent District for 2018 and any late inspections
- Equipment Lists and One-Line Diagrams for randomly selected substations
- Inspection Checklists for randomly selected substation
- Pending and Completed Workorders for randomly selected substations
- Policy and Procedures for Infrared Testing at Substations
- Results of Infrared Testing at randomly selected substations
- Substation Dissolved Gas Analysis Procedure (DGA)
- Results from randomly selected substation DGA
- Policy and Procedure for Substation Battery Test and Circuit Breaker Analysis Test (CBA)
- Results from randomly selected substation Battery Tests and CBA
- Policy and Procedure for Circuit Breaker Counters
- Training Records for all SCE Vincent District Substation Inspectors

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.

SCE's procedure requires corrective measures within 30 days for Priority 1 work orders. The following work orders were rated as Priority 1, however, SCE did not take corrective measures within 30 days:

Workorder Number	Notification Number	Discover Date	Completion Date
900407220	403413634	2/14/2011	7/5/2016
900407227	403413637	2/14/2011	7/5/2016

SCE's procedure requires that corrective actions for Priority 2 work orders not to exceed five years. The corrective action for Priority 2 work order number 900522618 was taken on 7/5/2019, almost eight years after SCE issued the work order on 7/22/2011.

III. Field Inspections

My staff inspected the following substations during the field inspection:

Name	City
Frazier Park	Frazier Park
Gorman Substation	Gorman
Westpac	Gorman
Elizabeth Lake	Castaic
Saugus	Santa Clarita
Lockheed	Saugus
North Oaks	Saugus
Acton	Acton
Ritter Ranch	Palmdale
Anaverde	Palmdale
Riteaid	Lancaster
Lancaster	Lancaster

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.

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.

Gorman Substation

- The “Knife Switch” label on knife switch cabinet door was damaged and was not legible.
- Portable Fire Extinguisher cabinet was not marked or labeled.

Saugus Substation

- Oil was leaking from No. 2A Bank Transformer and No. 3A Bank Transformer.
- High voltage sign at capacitor banks was faded/not readable.

North Oaks Substation

- No. 3 Bank Transformer was leaking oil from the maintenance hatch.

Lancaster Substation

- Elm 4 kV Bus Side Transformer was leaking oil.

GO 174, Rule 30.1, requires each operator to establish and follow an inspection program that includes inspection activities, frequencies of inspections and record keeping retention.

SCE requires Substation regulators be inspected once every other month.

Lancaster Substation

- Elm 4 kV 200 Amp Regulator inspection card indicated that the last inspection date of the Regulator was 2007.