

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



April 11, 2022

SA2022-948

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

SUBJECT: Substation Audit of Southern California Edison Mira Loma District

Mr. Stark:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Richard Le and Saimon Islam of my staff conducted a substation audit of Southern California Edison (SCE) Mira Loma District from February 28, 2022 to March 4, 2022. 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 May 9, 2022, 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 Richard Le at (213) 999-9053 or Richard.le@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: Lee Palmer, Director, Safety and Enforcement Division, CPUC
Nika Kjensli, Program Manager, Electric Safety and Reliability Branch, CPUC
Majed Ibrahim, Senior Utilities Engineer, ESRB, SED, CPUC
Richard Le, Utilities Engineer, ESRB, SED, CPUC

AUDIT FINDINGS

I. Records Review

During the audit, my staff reviewed the following records and documents:

- Map of the Mira Loma Switching Center AOR
- Listing of addresses of all substations in SCE Ventura AOR
- GO 174 Sub Inspection Program Summary 2021 Final Signed
- Section 6.9 Substation Inspections, of SCE's Operators Manual
- SCE Substation Policies and Procedures
- SCE Mira Loma Substation Inspector Training Records
- SCE Substation Inspection Records from January 2019 to December 2021
- Visual inspection checklist, substation equipment list, one-line diagrams and most recent electrical test for six selected substations
- Four most recent oil sample test results
- Pending and Completed Workorders for the year 2021
- Infrared testing for three selected substations in 2021

II. Field Inspections

My staff inspected the following substations during the field inspections:

Functional Location	Substation	Address	City
ES-8159	El Sobrante	TBD El Sobrante Rd. Near Mc Allister St.	Lake Matthews
ES-5659	Archibald	TBD N/E C/O Edison Ave. And Archibald Ave.	Ontario
ES-5663	Milliken	1600 Commerce Parkway.,	Ontario
ES-5694	Databank	1850 California Ave.	Corona
ES-5626	Pedley	TBD 200' E/O Crestview Dr. 1/4 mi N/O Arlington Ave.	Norco
ES-5176	Kimball	8516 KIMBALL AVE, N/E C/O KIMBALL & WALKER	Chino
ES-5677	Cucamonga	TBD S/E C/O Archibald & 6Th Street.	Rancho Cucamonga
ES-5635	Upland	86 Stowell St.	Upland
ES-5186	Cortez	560 E. Edna Pl.	Covina
ES-5655	Nogales	TBD N/E C/O Lemon Rd. & Currier Rd.	Walnut
ES-8275	Jefferson	TBD Ontario Ave., W/O Lincoln Ave.	Corona
ES-5189	Grand Crossing	TBD Southwest C/O Valley Blvd. And Grand Ave.	Industry
ES-5631	San Antonio	TBD Arrow Hwy., C/O Monte Vista Ave.	Montclair
ES-5639	Francis	11641 East End Ave., N/O Francis Ave.	Pomona
ES-5633	San Dimas	TBD S/W C/O Allen Ave. And San Dimas Ave.	San Dimas
ES-5123	Weymouth	700 Moreno Avenue	La Verne
ES-5611	Live Oak	TBD Baseline Rd., W/O Mountain Ave.	Claremont
ES-5656	Bain	TBD C/O Union St. And Bain St.	Mira Loma
ES-5680	Diamond Bar	TBD N/E C/O Grand Ave. And Diamond Bar Blvd.	Diamond Bar
ES-5617	Ganesha	1685 W. Second St.	Pomona
ES-5184	Bassett	14 Fairgrove Ave., 700' W/O California Ave.	La Puente
ES-8269	Cleargen	1350 Railroad Street	Corona

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.

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:

Cortez Substation

- A bird guard was damaged on the No. 1 bank of the north 12 kV bus.
- The No. 2 bank, west unit had two inoperable cooling fans.
- The No. 1 bank, east unit had one inoperable cooling fan.

Nogales Substation

- The No. 1 bank, west unit had a faded danger sign.
- The No.1 bank, east unit had one inoperable cooling fan.
- The No. 2 bank, east unit had an unreadable, yellowed gauge.

Diamond Bar Substation

- The No. 2 12 kV capacitor had a faded, unreadable sign.
- The No. 1 12 kV capacitor had a faded, unreadable sign.

San Dimas Substation

- An outward facing high voltage sign on the substation perimeter fence was unreadable and obstructed by vegetation.
- The No. 3 bank, north unit had a faded danger sign and an oil leak.
- The No. 3 bank, south unit had a faded danger sign.
- The No. 1 bank, south unit had one inoperable cooling fan.
- The No. 1 bank, north unit had one inoperable cooling fan.
- The Rhoads 12 kV circuit breaker had an unreadable oil sight glass.
- The Carlet 12 kV circuit breaker had an unreadable oil sight glass.
- The No. 2 capacitor bus had a faded danger sign.

Live Oak Substation

- The No. 1 bank, south unit had a faded danger sign.
- The No. 1 bank, north unit had a faded danger sign.

Upland Substation

- A compressed gas canister was improperly tied and affixed to the No. 1 bank, east unit.
- The No. 4 bank, south unit had a faded danger sign and an oil leak.

Cucamonga Substation

- The No. 2 bank had an unreadable hot spot indicator gauge.

Pedley Substation

- The No. 2 bank had an oil leak and a damaged danger sign.
- The Arlington 12 kV circuit breaker line disconnect had a frayed conductor.
- The Quarry 12 kV circuit breaker line disconnect had a frayed conductor.

Bain Substation

- The 66 kV circuit breaker had an unreadable sight glass

Milliken Substation

- The No. 2 12 kV bank had a damaged bird guard.

Archibald Substation

- The No.1 bank, south unit had an oil leak.

Ganesha Substation

- Two spare, unused capacitors were left out by the capacitor rack.
- The Roselawn North 12 kV circuit breaker had an exposed, unconnected ground conductor.
- The No. 1 bank, east unit had one inoperable cooling fan.
- The No. 3 12/4 kV bank had an unreadable gauge.

Jefferson Substation

- The Lester 12 kV circuit breaker had an exposed, unconnected ground.
- The No. 1 bank, north unit had six inoperable cooling fans.
- The No. 2 bank, north unit had one inoperable cooling fan.

Cleargen Substation

- The Jefferson 66 kV line pot was leaking oil.

Databank Substation

- A fire extinguisher in the control building did not have up-to-date monthly inspections as required by California Code of Regulations (CCR) Title 19, Division 1, Chapter 3, Article 6,

Section 574.1. This extinguisher also had its last annual maintenance conducted in 2017 in violation of CCR Title 19, Division 1, Chapter 3, Article 6, Section 575.1.

Bassett Substation

- A fire extinguisher in the control building did not have an annual maintenance conducted on it as required by CCR Title 19, Division 1, Chapter 3, Article 6, Section 575.1.