



Melvin Stark
Principal Manager
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June 8, 2023

Fadi Daye, P.E.
Program & Project Supervisor
Electric and Safety Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission
320 West 4th St., Ste. 500
Los Angeles, California 90013

SA2023-1048

Subject: Substation Audit of Southern California Edison's Vista Switching Center

Dear Mr. Daye:

Your letter, dated May 8, 2023, requested that we advise you of actions taken by Southern California Edison Company (SCE) to address conditions identified during the Safety and Enforcement Division's (SED's) substation audit of Vista's Switching Center from March 6, 2023, to March 10, 2023.

Your letter requested a response by June 8, 2023. Attached are the conditions mentioned in your letter, and our responses and corresponding actions.

A handwritten signature in black ink, appearing to read "Mel Stark".

Mel Stark
Principal Manager, OE-T&D Compliance & Quality
1 Innovation Way
Pomona, CA 91768

Enclosures: SED Audit Findings and SCE's Responses

Cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC
Nika Kjensli, Program Manager, ESRB, SED, CPUC
Majed Ibrahim, Senior Utilities Engineer, ESRB, SED, CPUC
Stacey Ocampo, Utilities Engineer, ESRB, SED, CPUC

AUDIT FINDINGS

I. Records Review

During the audit, my staff reviewed the following records:

- Map of the Vista Switching Center AOR
- Listing of addresses of all substations in SCE Vista AOR
- GO 174 Sub Inspection Program Summary 2022 Final Signed
- Section 6.9 Substation Inspections, of SCE's Operators Manual
- SCE Substation Policies and Procedures
- SCE Vista Substation Inspector Training Records
- SCE Substation Inspection Records from January 2020 to December 2022
- 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 2022
- Infrared testing for three selected substations in 2022

II. Field Inspections

My staff inspected the following substation facilities during the field inspection:

| Functional Location | Substation | Address | City |
|---------------------|------------------|--|------------------|
| ES-8075 | Highgrove | 12700 Taylor St. | Colton |
| ES-5610 | Colton | TBD Mt. Vernon And 'M' Streets, | Colton |
| ES-8021 | Pepper | TBD Pepper St. | Rialto |
| ES-5636 | Yucaipa | TBD Fourth St. & 'H' St. (Turn On 5Th St) | Yucaipa |
| ES-5628 | Tennessee | TBD N/E C/O 18Th St. & Avenue 'E', S/O Yucaipa Blvd | Redlands |
| ES-5653 | Smiley | TBD Henrietta St. 500 ft. S/W of Pepper Way | Redlands |
| ES-5629 | Redlands | 504 High Ave. | Redlands |
| ES-5604 | Timoteo | TBD Mountain View Ave. & Redlands Blvd. | Redlands |
| ES-5650 | Linde | TBD Slover Ave., E/O Etiwanda Ave. | Fontana |
| ES-5630 | Grapeland | 8996 ETIWANDA AVE | Rancho Cucamonga |
| ES-5654 | Reduction | 12550 Arrow Hwy. | Etiwanda |
| ES-5662 | Arbors | 8300 Rochester Ave (Orange Ave) B/T Foothill Bl. & Arrow Rou | Rancho Cucamonga |
| ES-5601 | Randall | 7700 Citrus Ave. | Fontana |
| ES-5139 | Genamic | TBD Cleveland Ave., N/O 7Th. St. | Rancho Cucamonga |
| ES-8093 | Shandin | TBD State St., Btwn. Kendall Dr. And Barstow Fwy. | San Bernardino |
| ES-5641 | Mt. Vernon | TBD Orange St. S/O Baseline St., E/O Garner Ave. | San Bernardino |
| ES-8239 | Sixteenth Street | TBD 16Th St. Off Mt. Vernon Ave. | San Bernardino |
| ES-5602 | Arro | TBD 28Th St. And Arrowhead Ave. | San Bernardino |
| ES-5608 | Cardiff | 151 N. Waterman Ave. | San Bernardino |
| ES-5670 | Del Rosa | TBD N/E C/O Del Rosa Ave. And Marshall Blvd. | San Bernardino |

III. Field Inspection - Violations List

My staff observed the following violations during the field inspections portion of the audit:

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:

Colton Substation

- The grounding tail located near the No. 3 Bank 66 kV was exposed on the ground and poses a tripping hazard.
- The cable trench cover in front of the No.3 Bank 66 kV was damaged.
- The grounding tail located near the No. 2 Bank 66kV CB was exposed on the ground and poses a tripping hazard.

SCE Response:

The conditions listed above have been recorded in SCE's Work Management System and will be addressed in accordance with SCE's maintenance program.

- *The grounding trail located near the No. 3 Bank 66kV was exposed on the ground and poses a tripping hazard. SCE Response: Due Date 02/24/2029.*
- *The cable trench cover in front of the No.3 Bank 66 kV was damaged. SCE Response: Due Date 03/02/2029.*
- *The grounding tail located near the No. 2 Bank 66kV CB was exposed on the ground and poses a tripping hazard. SCE Response: Due Date 02/24/2029.*

Pepper Substation

- The No. 3 Bank 115/12 kV transformer was leaking oil from the main tank.
- The No.2 Bank, west unit had one inoperable cooling fan.

SCE Response:

The conditions listed above have been recorded in SCE's Work Management System and will be addressed in accordance with SCE's maintenance program.

- *The No. 3 Bank 115/12 kV transformer was leaking oil from the main tank. SCE Response: Due Date 03/02/2029.*
- *The No.2 Bank, west unit had one inoperable cooling fan. SCE Response: Due Date 02/13/2026.*

Yucaipa Substation

- A bushing on the ground side of the 66 kV Bus Pot SEC Knife Switch had a low temperature gauge reading.

SCE Response:

The condition listed above has been recorded in SCE's Work Management System and will be addressed in accordance with SCE's maintenance program.

- *A bushing on the ground side of the 66 kV Bus Pot SEC Knife Switch had a low temperature gauge reading **SCE Response:** Due Date 04/20/2027.*

Redlands Substation

- The No. 1 Bank 66/4 kV transformer was leaking oil from the lower radiator flange gasket between the radiator and the main tank.
- The No. 2 Bank 66/4 kV transformer was leaking oil from the lower radiator flange gasket between the radiator and the main tank.

SCE Response:

The conditions listed above have been recorded in SCE's Work Management System and will be addressed in accordance with SCE's maintenance program.

- *The No. 1 Bank 66/4 kV transformer was leaking oil from the lower radiator flange gasket between the radiator and the main tank **SCE Response:** Due Date 02/26/2029.*
- *The No. 2 Bank 66/4 kV transformer was leaking oil from the lower radiator flange gasket between the radiator and the main tank **SCE Response:** Due Date 03/10/2028.*

Arbors Substation

- Two bushings on the Archline 66 kV Relay Pot SEC were missing temperature gauges.
- A bushing on the ET-Forge-Reduction Pot SEC Knife Switch was missing a temperature gauge.

SCE Response:

The conditions listed above have been recorded in SCE's Work Management System and will be addressed in accordance with SCE's maintenance program.

- *Two bushings on the Archline 66 kV Relay Pot SEC were missing temperature gauges. **SCE Response:** Due Date 03/02/2029.*
- *A bushing on the ET-Forge-Reduction Pot SEC Knife Switch was missing a temperature gauge. **SCE Response:** Due Date 03/02/2029.*

Reduction Substation

- The danger sign on the outside perimeter of the entrance gate was damaged.

SCE Response:

The condition listed above has been recorded in SCE's Work Management System and will be addressed in accordance with SCE's maintenance program.

- *The danger sign on the outside perimeter of the entrance gate was damaged
SCE Response: Due Date 03/02/2029.*

Mt. Vernon Substation

- The No. 2 Bank 33/4 kV had one inoperable cooling fan.

SCE Response:

The condition listed above has been recorded in SCE's Work Management System and will be addressed in accordance with SCE's maintenance program.

- *The No. 2 Bank 33/4 kV had one inoperable cooling fan. SCE Response: Due Date 10/07/2028.*

Cardiff Substation

- The No. 1 Bank 66/33 kV had two inoperable cooling fans.

SCE Response:

The condition listed above has been recorded in SCE's Work Management System and will be addressed in accordance with SCE's maintenance program.

- *The No. 1 Bank 66/33 kV had two inoperable cooling fans. SCE Response: Due Date 01/12/2026.*