

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



July 9, 2025

EA2025-1252/TA2025-1317/SA2025-1316

Kevin Estabrook
Electric Operation Manager
Shasta Lake Electric Utilities
P.O. Box 777
Shasta Lake, CA 96019

SUBJECT: Electric Facilities and Substation Audit of Shasta Lake Electric Utilities (Shasta)

Mr. Estabrook:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Monica Hoskins and Nora Nguyen conducted an audit of Shasta's electric facilities and substation from May 5 through May 9, 2025. During the audit, ESRB staff conducted field inspections of Shasta's distribution, transmission and substation facilities, equipment and reviewed pertinent documents and records.

As a result of the audit, ESRB staff identified violations of General Order (GO) 95, GO 128, GO 165 and GO 174. A copy of the audit findings itemizing the substation and electric facilities violations and observations is enclosed.

Please provide a response no later than August 11, 2025, via electronic copy of all corrective actions and preventive measures taken by Shasta to correct the identified violations and prevent the recurrence of such violations. Please note that ESRB will be posting the audit report and your response to our audit on the CPUC website. If there is any information in your response that you would like us to consider as confidential, we request that in addition to your confidential response, you provide us with a public version (a redacted version of your confidential response) to be posted on our website.

If you have any questions concerning this audit, please contact Monica Hoskins at monica.hoskins@cpuc.ca.gov or (415) 652-1847.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Rickey Tse'.

Rickey Tse, P.E.
Program and Project Supervisor
Electric Safety and Reliability Branch
Safety and Enforcement Division
California Public Utilities Commission

Enclosure: CPUC Electric Facilities and Substation Audit Report for Shasta Lake Electric Utilities.

Cc: Lee Palmer, Director, Safety and Enforcement Division (SED), CPUC
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Madonna Ebrahimof, Staff Services Analyst, ESRB, SED, CPUC

**SHASTA LAKE ELECTRIC UTILITIES (SHASTA)
ELECTRIC DISTRIBUTION, TRANSMISSION, AND SUBSTATION AUDIT
FINDINGS
MAY 5 – 9, 2025**

I. Records Review

Electric Safety and Reliability Branch (ESRB) staff reviewed the following distribution and transmission documents, procedures, and records for Shasta Lake Electric Utilities (Shasta):

- City of Shasta description of Electric Maintenance Practices on Overhead Electric Assets, September 2019
- City of Shasta Lake Vegetation Management Plan.
- City of Shasta Lake Wildfire Mitigation Plan, version 1.2, March 1, 2022.
- Overhead and underground facilities statistics.
- Service area map with HFTD Tier 2 identified, April 15, 2020.
- Transmission single line diagram, November 10, 2018.
- Reliability metrics and unscheduled sustained outages, 2020 through 2024.
- Pole loading calculations list and corresponding locations.

ESRB staff reviewed the following substation documents, procedures, and records for Shasta Lake Electric Utilities:

- Statistics and data for two substations operated by Shasta.
- Map showing location of all substations.
- Last two monthly visual inspection checklists for each substation.
- Last two monthly reclosures inspection checklists for all field reclosures.
- The most recent oil test results for transformers and LTCs in each substation.
- Western Area Power Administration 5-year inspection maintenance work orders, July 2022 through August 2023.

II. Records Violations

Part A. Distribution and Transmission

ESRB observed the following electric distribution and transmission violations during the record review portion of the audit:

1. General Order (GO) 95, Rule 18-A, Resolution of Potential Violations of General Order 95 and Safety Hazards states in part:

“For purposes of this rule, “Safety Hazard” means a condition that poses a significant threat to human life or property.

- (1) Each company (including electric utilities and communications companies) is responsible for taking appropriate corrective action to remedy potential violations of GO 95 and Safety Hazards posed by its facilities.*

Upon completion of the corrective action, the company’s records shall show, with sufficient detail, the nature of the work, the date, and the identity of persons performing the work. These records shall be preserved by the company for at least ten (10) years.

- (2) Where a communications company’s or an electric utility’s (Company A’s) actions result in potential violations of GO 95 for another entity (Company B), that entity’s (Company B’s) remedial action will be to transmit a single documented notice of identified potential violations to the communications company or electric utility (Company A) within a reasonable amount of time not to exceed 180 days after the entity discovers the potential violations of GO 95. If the potential violation constitutes Safety Hazard, such notice shall be transmitted within ten (10) business days after the entity discovers the Safety Hazard.*

- (3) If a company, while performing inspections of its facilities, discovers a Safety Hazard(s) on or near a communications facility or electric facility involving another company, the inspecting company shall notify the other entity of such Safety Hazard(s) no later than ten (10) business days after the discovery.*

- (4) To the extent a company that has a notification requirement under (2) or (3) above cannot determine the facility owner/operator, it shall contact the pole owner(s) within ten (10) business days if the subject of the notification is a Safety Hazard, or otherwise within a reasonable amount of time not to exceed 180 days after discovery. The notified pole owner(s) shall be responsible for promptly (normally not to exceed five business days) notifying the company owning/operating the facility if the subject of the notification is a Safety Hazard, or otherwise within a reasonable amount of time not to exceed 180 days, after being notified of the potential violation of GO 95.*

(5) A company receiving a notification under (2), (3), or (4) above shall take appropriate corrective action consistent with the provisions of this rule. For at least ten (10) years, the documentation of the notice shall be maintained by both the notifying and receiving parties and documentation of the correction shall be maintained by the receiving party.”

Shasta records the third-party issues identified during their field inspections on the Partner Software, which Shasta uses to map their facilities, track inspections records, and maintain work orders. However, Shasta calls other utilities when they identify safety hazards and do not maintain any records of the notifications to the appropriate utility for the third-party issues, as required by GO 95, Rule 18-A(5).

2. GO 95, Rule 18-B, Maintenance Programs states in part:

“Each company (including electric utilities and communications companies) shall establish and implement an auditable maintenance program for its facilities and lines for the purpose of ensuring that they are in good condition so as to conform to these rules. Each company must describe in its auditable maintenance program the required qualifications for the company representatives who perform inspections and/or who schedule corrective actions. Companies that are subject to GO 165 may maintain procedures for conducting inspections and maintenance activities in compliance with this rule and with GO 165.

The auditable maintenance program must include, at a minimum, records that show the date of the inspection, type of equipment/facility inspected, findings, and a timeline for corrective actions to be taken following the identification of a potential violation of GO 95 or a Safety Hazard on the company’s facilities.

Companies shall undertake corrective actions within the time periods stated for each of the priority levels set forth below.

Scheduling of corrective actions within the time periods below may be based on additional factors, including the following factors, as appropriate:

- *Type of facility or equipment;*
- *Location, including whether the Safety Hazard or potential violation is located in the High Fire-Threat District;*
- *Accessibility;*
- *Climate;*
- *Direct or potential impact on operations, customers, electrical company workers, communications workers, and the general public.*

The maximum time periods for corrective actions associated with potential violation of GO 95 or a Safety Hazard are based on the following priority levels:

(i) Level 1 -- An immediate risk of high potential impact to safety or reliability:

- *Take corrective action immediately, either by fully repairing or by temporarily repairing and reclassifying to a lower priority.*
- (ii) *Level 2 -- Any other risk of at least moderate potential impact to safety or reliability:*
- *Take corrective action within specified time period (either by fully repair or by temporarily repairing and reclassifying to Level 3 priority). Time period for corrective action to be determined at the time of identification by a qualified company representative, but not to exceed: (1) six months for potential violations that create a fire risk located in Tier 3 of the High Fire-Threat District; (2) 12 months for potential violations that create a fire risk located in Tier 2 of the High Fire-Threat District; (3) 12 months for potential violations that compromise worker safety; and (4) 36 months for all other Level 2 potential violations.*
- (iii) *Level 3 -- Any risk of low potential impact to safety or reliability:*
- *Take corrective action within 60 months subject to the exception specified below.”*

GO 165, Section III-C, Record Keeping states in part:

“For all inspections records shall specify the circuit, area, facility or equipment inspected, the inspector, the date of the inspection, and any problems (or items requiring corrective action) identified during each inspection, as well as the scheduled date of corrective action.”

- a. *The City of Shasta Lake Description of Electric Maintenance Practices on Overhead Electric Assets*, published September 2019, outlines Shasta’s maintenance practices and use of Partner Software. However, Shasta’s procedure does not include the timelines required for completing maintenance work. Shasta must have procedures that outline timelines and priority levels for all identified non-conformances and maintenance work to comply with GO 95, Rule 18-B.
- b. Shasta uses Partner Software to track their inspections and the resulting work orders. Partner has a built-in prioritization system that assigned each asset a color depending on its status: green for no issues, red for immediate/emergency issues, and yellow for minor/non-emergency issues. The prioritization level “red” fits the timeline associated with Level 1 from the GO 95 requirements, but Partner does not differentiate between GO 95 Level 2 and Level 3 for the non-emergency “yellow” issues. Therefore, Shasta’s current color-coded priority levels are not aligned with the requirements in GO 95, Rule 18-B.¹
- c. Partner Software does not assign due dates for the issues identified during inspections and Shasta does not have a consistent process for prioritizing work. Shasta does not record completion dates for work orders but instead reinspects the assets to ensure the

¹ The previous Shasta Lake Electric Utilities Audit, June 7-11, 2021 (EA2021-915/SA2021-916) identified the same issues with the color-coded priority levels.

work is completed and then creates a new inspection sheet on Partner. Because a reinspection is required, some work orders are left open even after Shasta completes the work. Shasta must specify due dates to ensure the timely resolution of non-conformances and maintain their records as required by GO 95 and GO 165.²

3. GO 165, Rule III-B, Standards for Inspections states:

“Each utility subject to this General Order shall conduct inspections of its distribution facilities, as necessary, to ensure reliable, high quality, and safe operation, but in no case may the period between inspections (measured in years) exceed the time specified in Table 1.”

Table 1: Distribution Inspection Cycles (Maximum Intervals in Years)

	Patrol		Detailed		Intrusive	
	Urban	Rural	Urban	Rural	Urban	Rural
Transformers						
Overhead	1	2 ¹	5	5	---	---
Underground	1	2	3	3	---	---
Padmounted	1	2	5	5	---	---
Switching/Protective Devices						
Overhead	1	2 ¹	5	5	---	---
Underground	1	2	3	3	---	---
Padmounted	1	2	5	5	---	---
Regulators/Capacitors						
Overhead	1	2 ¹	5	5	---	---
Underground	1	2	3	3	---	---
Padmount	1	2	5	5	---	---
Overhead Conductor and Cables	1	2 ¹	5	5	---	---
Streetlighting	1	2	x	x	---	---
Wood Poles under 15 years	1	2	x	x	---	---
Wood Poles over 15 years which have not been subject to intrusive inspection	1	2	x	x	10	10
Wood poles which passed intrusive inspection	---	---	---	---	20	20

(1) Patrol inspections in rural areas shall be increased to once per year in Tier 2 and Tier 3 of the High Fire-Threat District. (See GO 95, Rule 21.2-D)

Note: For the purpose of implementing the patrol and detailed inspection intervals in Table 1 above, the term “year” is defined as 12 consecutive calendar months starting the first full calendar month after an inspection is performed, plus three full calendar months, not to exceed the end of the calendar year in which the next inspection is due. A required inspection may be completed any time before the expiration of the associated inspection interval using this definition of “year,” but not after. The completion of an inspection starts a new inspection interval that must be completed within the

² The previous Shasta Lake Electric Utilities Audit, June 7-11, 2021 (EA2021-915/SA2021-916) identified the same issues with the completion dates for corrective actions.

prescribed timeframe using this definition of “year.” However, inspection intervals may be extended by up to six months in areas where the Governor of California or the President of the United States has declared an emergency or a disaster following a major earthquake or other catastrophe using the procedure set forth in Decision 13-06-011 issued in Rulemaking 08-11-005. The extension shall not exceed six months from the date that an emergency is declared or the date that a disaster is declared, whichever is earlier.

Note: For wood pole intrusive inspections, the term “year” is defined as a calendar year

City of Shasta Lake Description of Electric Maintenance Practices on Overhead Electric Assets, published September 2019, states that Shasta follows the GO 165 patrol and inspection requirements. Shasta performs two patrols annually on the distribution and transmission lines, as well as detailed and intrusive inspections “more frequent than the recommended requirement, but at no specific interval”. Shasta must provide specific intervals and assign due date to appropriately track their inspections and ensure that they are completed in the timeframes required by GO 165, Rule III-B.

4. GO 165, Section III-D, Reporting states

“By July 1st each utility subject to this General Order shall submit an annual report for the previous year under penalty of perjury.

The report shall list four categorical types of inspections: Patrols, Overhead Detailed, Underground Detailed and Wood Pole Intrusive. The report shall denote the total units of work by inspection type for the reporting period and the number of outstanding (not completed) inspections within the same reporting period for each of the four categories.”

Shasta does not submit annual GO 165 reports to the Commission as required by GO 165, Section III-D. Shasta must submit the annual reports by July 1st of each year.

Part B. Substation

ESRB observed the following substation violations during the record review portion of the audit:

1. GO 174, Rule 30.1, General states:

“Each Operator shall establish, update as needed, and follow an Inspection Program. At a minimum, this Program shall specify for each piece of equipment and system listed in Rule 32.1:

- *Inspection activities*
- *Frequency of Inspections*
- *Record Keeping and retention”*

GO 174, Rule 33, Records states:

331. "Electronic or hard copy records of completed Inspections shall include, at a minimum:

- Inspector name or identification*
- Inspection date*
- Brief description of identified discrepancies*
- Condition rating (where applicable)*
- Scheduled date of corrective action (where applicable).*

33.2 Electronic or hard copy records of completed Inspections shall be retained for not less than five (5) years."

- a. Shasta does not have a written inspection and maintenance program for their substations. Shasta performs monthly inspections on their two substations, but there are no procedures for the inspections. While the substations are also inspected by the Western Area Power Administration (WAPA) and any needed repair or maintenance is performed by WAPA, Shasta needs to have a written procedure detailing their inspection and maintenance practices, as required by GO 174, Rule 30.1.
- b. Shasta performs infrared (IR) testing on their substations annually to identify needed maintenance or issues. Shasta will inform WAPA of their findings and WAPA will complete any necessary repairs, however Shasta does not document the inspections and does not have any inspection procedures for the annual IR inspections.

III. Field Inspection

During the field inspection, ESRB inspected the following distribution and transmission facilities:

Location	Asset Type	Asset Number	GPS Coordinates
1	Pole	F2-007	(40.6868332, -122.3980852)
2	Pole	F2-006	(40.6870865, -122.3982072)
3	Pole	F2-005	(40.6875044, -122.3980842)
4	Pole	F2-020	(40.6879290, -122.3980795)
5	Pole	F2-021	(40.6879150, -122.3985811)
6	Pole	F2-022	(40.6879087, -122.3989837)
7	Pole	10-030	(40.7034228, -122.3886146)
8	Pole	10-029	(40.7038671, -122.3887467)
9	Pole	10-031	(40.7032830, -122.3878170)
10	Pole	10-032	(40.7032182, -122.3874033)
11	Pole	E3-020	(40.6915474, -122.3864048)
12	Pole	E3-019	(40.6915779, -122.3861356)
13	Pole	E3-021	(40.6912959, -122.3861825)
14	Pole	E3-023	(40.6908284, -122.3862714)
15	Pole	E3-024	(40.6904334, -122.3863750)
16	Pole	E3-027	(40.6899608, -122.3864964)
17	Pole	E3-026	(40.6896140, -122.3865986)
18	Pole	H4-039	(40.6789223, -122.3764974)
19	Pole	H4-038	(40.6793609, -122.3764833)
20	Pole	H4-034	(40.6796896, -122.3764746)
21	Pole	H4-035	(40.6796561, -122.3769085)
22	Pole	H4-036	(40.6796352, -122.3773993)
23	Pole	G5-082	(40.6849788, -122.3756462)
24	Pole	G5-083	(40.6848395, -122.3756173)
25	Pole	G5-113	(40.6849679, -122.3753820)
26	Pole	G5-084	(40.6844660, -122.3756535)
27	Pole	G5-105	(40.6840084, -122.3753967)
28	Pole	G5-095	(40.6838772, -122.3756150)
29	Pole	G5-106	(40.6835090, -122.3756217)
30	Pole	H6-068	(40.6793576, -122.3608035)
31	Pole	H6-139	(40.6794552, -122.3607944)
32	Pole	H6-069	(40.6793461, -122.3603864)
33	Pole	H6-024	(40.6793718, -122.3613148)
34	Pole	H6-023	(40.6795043, -122.3614727)
35	Pole	H6-067	(40.6793860, -122.3618412)
36	Pole	H7-048	(40.6781223, -122.3546954)
37	Pole	H7-047	(40.6780239, -122.3547125)
38	Pole	H7-046	(40.6776868, -122.3540728)

Location	Asset Type	Asset Number	GPS Coordinates
39	Padmount Transformer	TX-1701	(40.7140280, -122.4131746)
40	Padmount Transformer	TX-2186	(40.7132875, -122.4137124)
41	Underground Pullbox	16230	(40.6819980, -122.3873865)
42	Underground Pullbox	16220	(40.6819871, -122.3874727)
43	Underground Pullbox	16250	(40.6823151, -122.3875039)
44	Padmount Transformer	TX-2408	(40.6824740, -122.3874854)
45	Pole	H2-005	(40.6790458, -122.3967558)
46	Pole	H2-020	(40.6799014, -122.3966857)
47	Pole	H2-017	(40.6798829, -122.3974401)
48	Pole	H2-051	(40.6798829, -122.3983326)
49	Pole	H2-015	(40.6798808, -122.3992543)
50	Pole	FL-CV-32	(40.6662905, -122.3847120)
51	Pole	FL-CV-33	(40.6662762, -122.3837350)
52	Padmount Transformer	TX-974	(40.6682774, -122.3774372)
53	Underground Vault	J-116	(40.6682832, -122.3774211)
54	Underground Pullbox	K4-014	(40.6682733, -122.3778774)
55	Padmount Transformer	TX-2198	(40.6682817, -122.3781047)
56	Underground Pullbox	15470	(40.6682634, -122.3784541)
57	Underground Vault	J-117	(40.6682637, -122.3790596)
58	Padmount Transformer	TX-2193	(40.6632717, -122.3608105)
59	Underground Vault	J-PRIMARY (Vault-018)	(40.6632717, -122.3608105)
60	Surface Structure	J-558	(40.6631092, -122.3607542)
61	Underground Pullbox	15560	(40.6624195, -122.3599690)
62	Padmount Transformer	TX-2196	(40.6625588, -122.3600220)
63	Underground Pullbox	15540	(40.6624551, -122.3591398)
64	Padmount Transformer	TX-2026	(40.6625504, -122.3595670)
65	Underground Vault	J-360	(40.6527078, -122.3697000)
66	Underground Pullbox	11450	(40.6529479, -122.3699012)
67	Underground Vault	J-359	(40.6531646, -122.3696990)
68	Pole	KE-Kn-84(A)	(40.6532579, -122.3894438)
69	Pole	KN-CV-2	(40.6533371, -122.3892212)
70	Pole	KE-KN-83(A)	(40.6525317, -122.3894575)
71	Pole	KN-CV-3	(40.6527060, -122.3891792)
72	Pole	KE-KN-82(A)	(40.6518645, -122.3893120)
73	Pole	KE-KN-81	(40.6511981, -122.3891816)
74	Pole	O3-001	(40.6518584, -122.3891115)
75	Pole	N3-005	(40.6528006, -122.3890227)
76	Pole	N3-010	(40.6535395, -122.3889660)
77	Pole	N3-009	(40.6541299, -122.3888711)
78	Pole	KE-KN-61	(40.6357112, -122.3923721)
79	Pole	KE-KN-60	(40.6352011, -122.3925387)

Location	Asset Type	Asset Number	GPS Coordinates
80	Pole	FL-KN-20	(40.6681579, -122.4019254)
81	Pole	FL-KN-19	(40.6689915, -122.4021833)
82	Pole	FL-CV-17	(40.6695047, -122.4020649)
83	Pole	FL-KN-18	(40.6698619, -122.4024532)
84	Pole	FL-CV-16	(40.6707194, -122.4024300)
85	Pole	FL-KN-17	(40.6707405, -122.4027076)
86	Pole	J5-012	(40.6713892, -122.3706646)
87	Pole	J5-015	(40.6717618, -122.3706355)
88	Pole	J5-017	(40.6721798, -122.3706539)
89	Pole	J5-018	(40.6721709, -122.3711464)
90	Pole	J5-019	(40.6721600, -122.3720668)
91	Pole	J5-021	(40.6724692, -122.3706710)
92	Pole	J5-022	(40.6729506, -122.3706522)
93	Pole	E6-025	(40.6917650, -122.3601142)
94	Pole	E6-028	(40.6925805, -122.3593772)
95	Pole	E6-029	(40.6933190, -122.3588126)
96	Pole	G7-038	(40.6839794, -122.3560815)
97	Pole	G7-037	(40.6839855, -122.3566424)
98	Pole	G7-072	(40.6845809, -122.3566303)
99	Pole	G7-073	(40.6849125, -122.3566343)
100	Pole	G7-036	(40.6839830, -122.3572355)
101	Pole	G7-035	(40.6838759, -122.3572288)
102	Pole	J7-015	(40.6695143, -122.3560003)
103	Pole	K7-043	(40.6690268, -122.3560174)
104	Pole	K7-041	(40.6686525, -122.3560305)
105	Pole	K7-036	(40.6680986, -122.3560677)
106	Pole	K7-033	(40.6675717, -122.3560778)

During the field inspection, ESRB inspected the following substation facilities:

Substation	Location
Knauf Substation	3100 Ashby Road, Shasta Lake
Central Valley Substation	4332 Vallecito Street, Shasta Lake

IV. Field Inspection Violations

Part A. Distribution and Transmission

ESRB identified the following violations during the field inspection of distribution and transmission facilities:

1. GO 95, Rule 31.1, Design, Construction and Maintenance states in part:

“Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.”

ESRB’s findings related to the above rule are listed in Table 1:

Table 1: GO 95, Rule 31.1 Findings

Location	Finding
1	The pole is decayed and needs replacement. Shasta has an existing work order for this issue.
23	The pole has loose visibility strips.
26	The pole has a buried anchor. Shasta has an existing work order for this issue.
50	The pole has woodpecker holes at the transmission level. Shasta has an existing work order for this issue.
78	The pole has woodpecker holes. Shasta has an existing work order for this issue.
79	The pole has woodpecker holes.
80	The pole has woodpecker holes. Shasta has an existing work order for this issue.
87	The pole has an abandoned ground wire at the base.
100	The secondary conductor to 4950 Red Bluff Street is damaged. Shasta has an existing work order for this issue.

2. GO 95, Rule 35, Vegetation Management states in part:

“Where overhead conductors traverse trees and vegetation, safety and reliability of service demand that certain vegetation management activities be performed in order to establish necessary and reasonable clearances, the minimum clearances set forth in Table 1, Cases 13 and 14, measured between line conductors and vegetation under normal conditions shall be maintained. (Also see Appendix E for tree trimming

guidelines.) These requirements apply to all overhead electrical supply and communication facilities that are covered by this General Order, including facilities on lands owned and maintained by California state and local agencies.

Communication and electric supply circuits, energized at 750 volts or less, including their service drops, should be kept clear of vegetation in new construction and when circuits are reconstructed or repaired, whenever practicable. When a supply or communication company has actual knowledge, obtained either through normal operating practices or notification to the company, that its circuit energized at 750 volts or less shows strain or evidences abrasion from vegetation contact, the condition shall be corrected by reducing conductor tension, rearranging or replacing the conductor, pruning the vegetation, or placing mechanical protection on the conductor(s)."

ESRB's findings related to the above rule are listed in Table 2:

Table 2: GO 95, Rule 35 Findings

Location	Finding
2	Excessive vegetation is surrounding the pole and needs trimming.
25	Excessive vegetation is limiting visibility and needs trimming.
86	Excessive vegetation is causing strain on the secondary lines. Shasta has an existing work order for this issue.

3. GO 95, Rule 38, Minimum Clearance of Wires from Other Wires states in part:

"The minimum vertical, horizontal or radial clearances of wires from other wires shall not be less than the values given in Table 2 and are based on a temperature of 60° F. and no wind. Conductors may be deadended at the crossarm or have reduced clearances at points of transposition, and shall not be held in violation of Table 2, Cases 8–15, inclusive.

Table 2, Case 19C: The radial separation between guys and span wires passing communication conductors (including open wire, cables, and service drops) supported on the same poles must be at least 3 inches."

ESRB's finding related to the above rule is listed in Table 3:

Table 3: GO 95, Rule 38 Finding

Location	Finding
4	The primary anchor down guy is in contact with the communication conductors above the guy insulator.

4. GO 95, Rule 49.2-C, Crossarms, Strength states in part:

“Crossarms shall be securely supported by bracing, where necessary, to withstand unbalanced vertical loads and to prevent tipping of any arm sufficiently to decrease clearances below the values specified in Section III. Such bracing shall be securely attached to poles and crossarms. Supports in lieu of crossarms shall have means of resisting rotation in a vertical plane about their attachment to poles or shall be supported by braces as required for crossarms. Metal braces or attachments shall meet the requirements of Rules 48.2 and 49.8.”

ESRB’s findings related to the above rule are listed in Table 4:

Table 4: GO 95, Rule 49.2-C Findings

Location	Finding
18	The primary crossarm (streetside) is splitting and shows signs of failure. Shasta has an existing work order for this issue.
50	The primary crossarm (streetside) is splitting at the insulator and shows signs of failure.

5. GO 95, Rule 51.6-A, High Voltage Marking states in part:

“Poles which support line conductors of more than 750 volts shall be marked with high voltage signs. This marking shall consist of a single sign showing the words “HIGH VOLTAGE”, or pair of signs showing the words “HIGH” and “VOLTAGE”, not more than six (6) inches in height with letters not less than 3 inches in height. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.

The top of such sign(s) shall be located between the level of the lowest line conductor, energized in excess of 750 volts, on the pole to no more than 40 inches below that conductor level (see Figure51–1).”

ESRB’s findings related to the above rule are listed in Table 5:

Table 5: GO 95, Rule 51.6-A Findings

Location	Finding
8	The pole has a damaged high voltage sign.
13	The pole has a damaged high voltage sign.
14	The pole has a damaged high voltage sign.
22	The pole has a damaged high voltage sign.
26	The pole has a damaged high voltage sign.
35	The pole has a damaged high voltage sign.
80	The pole has a low high voltage sign.
81	The pole has a low high voltage sign.
82	The pole has a low high voltage sign.

6. GO 95, Rule 54.6-B, Ground Wires states in part:

“That portion of the ground wire attached on the face or back of wood crossarms or on the surface of wood poles and structures shall be covered by a suitable protective covering (see Rule 22.8).”

ESRB’s finding related to the above rule is listed in Table 6:

Table 6: GO 95, Rule 54.6-B Finding

Location	Finding
36	The pole has an exposed ground wire not covered by the secondary riser.

7. GO 95, Rule 54.6-I, Attachment of Protective Covering states in part:

“Protective covering shall be attached to poles, structures, crossarms, and other supports by means of corrosion-resistant materials (straps, plumbers tape, lags, nails, staples, screws, bolts, etc.) which are adequate to maintain such covering in a fixed position.”

ESRB’s findings related to the above rule are listed in Table 7:

Table 7: GO 95, Rule 54.6-I Findings

Location	Finding
19	The pole has damaged and unsecured ground moulding exposing the transformer ground wire.
37	The pole has damaged and unsecured ground moulding exposing the transformer ground wire.

8. GO 95, Rule 56.2, Overhead Guys, Anchor Guys and Span Wires, Use states in part:

“Guys shall be attached to structures, as nearly as practicable, at the center of load. They shall be maintained taut and of such strength as to meet the safety factors of Rule 44.”

ESRB’s findings related to the above rule are listed in Table 8:

Table 8: GO 95, Rule 56.2 Findings

Location	Finding
70	The anchor down guy is slack.
85	The anchor down guy is slack.
101	The anchor down guy is slack.

9. GO 95, Rule 56.7-B, Location of Sectionalizing Insulators, Anchor Guys states in part:

“In order to prevent trees, buildings, messengers, metal–sheathed cables or other similar objects from grounding portions of guys above guy insulators, it is suggested that anchor guys be sectionalized, where practicable, near the highest level permitted by this Rule.”

ESRB’s findings related to the above rule are listed in Table 9:

Table 9: GO 95, Rule 56.7-B Findings

Location	Finding
90	The pole has vegetation above the guy insulator that is contacting and grounding the primary anchor down guy.

Location	Finding
93	The pole has vegetation above the guy insulator that is contacting and grounding the primary anchor down guy.
99	The pole has vegetation above the guy insulator that is contacting and grounding the primary anchor down guy.

10. GO 95, Rule 56.9, Guy Marker (Guy Guard) states:

“A substantial marker of suitable material, including but not limited to metal or plastic, not less than 8 feet in length, shall be securely attached to all anchor guys. Where more than one guy is attached to an anchor rod, only the outermost guy is required to have a marker.”

ESRB’s findings related to the above rule are listed in Table 10:

Table 10: GO 95, Rule 56.9 Finding

Location	Finding
50	The anchor down guy is missing a guy guard.

11. GO 128, Rule 17.1, Design, Construction and Maintenance states in part:

“Electrical supply and communication systems shall be designed, constructed, and maintained for their intended use, regard being given to the conditions under which they are to be operated, to enable the furnishing of safe, proper, and adequate service.

For all particulars not specified in these rules, design, construction, and maintenance should be done in accordance with accepted good practice for the given local conditions known at the time by those responsible for the design, construction, or maintenance of [the] communication or supply lines and equipment.”

ESRB’s findings related to the above rule are listed in Table 11:

Table 11: GO 128, Rule 17.1 Findings

Location	Finding
42	The vault enclosure is broken and needs replacement. Shasta has an existing work order for this issue
52	The padmount transformer has an oil leak and shows signs of corrosion. Shasta has an existing work order for this issue

Location	Finding
65	The vault enclosure is full of water and needs to be drained. Shasta has an existing work order for this issue

12. GO 128, Rule 17.8, Identification of Manholes, Handholes, Subsurface and Self-contained Surface-mounted Equipment Enclosures states:

“Manholes, handholes, subsurface and self-contained surface-mounted equipment enclosures shall be marked as to ownership to facilitate identification by persons authorized to work therein and by other persons performing work in their vicinity.”

ESRB’s findings related to the above rule are listed in Table 12:

Table 12: GO 128, Rule 17.8 Findings

Location	Finding
41	The pullbox is missing an ownership marking.
42	The pullbox is missing an ownership marking.
43	The pullbox is missing an ownership marking.
54	The pullbox is missing an ownership marking.
56	The pullbox is missing an ownership marking.
61	The pullbox is missing an ownership marking.
63	The pullbox is missing an ownership marking.

13. GO 128, Rule 34.2-C, Transformers states in part:

“Transformers operating at more than 600 volts, other than current and potential transformers and transformers which constitute a component part of other apparatus and which conform to the requirements of such apparatus, shall be readily accessible for operation, inspection, maintenance, and replacement.

Transformers shall be installed in such a manner as to permit safe operation, maintenance, or replacement of other equipment.”

ESRB’s findings related to the above rule are listed in Table 13:

Table 13: GO 128, Rule 34.2-C Findings

Location	Finding
60	The junction box has vegetation impeding safe access.
64	The padmount transformer has vegetation impeding safe access. Shasta fixed this issue in the field.

Part B. Substation

ESRB identified the following violations during the field inspection of substation facilities:

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.”

1. Knauf Substation

1.1. Two eyewash stations in the control room are expired.



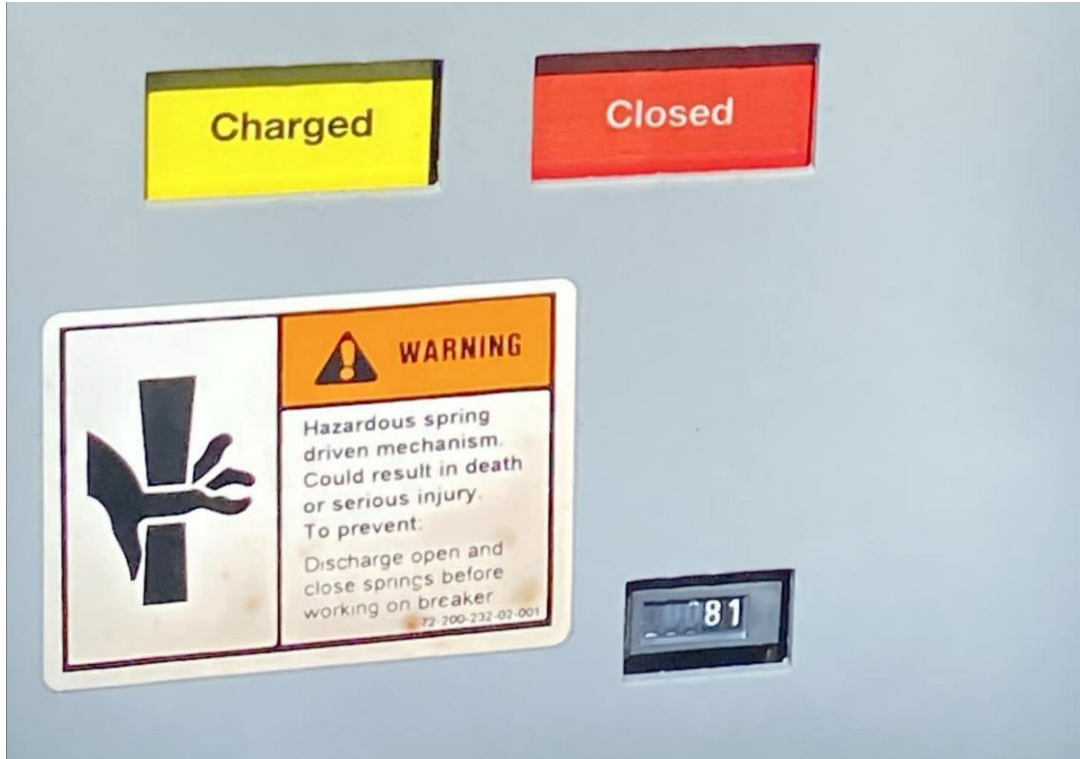


2. Central Valley Substation

2.1. Circuit Breaker DB72 has a faded counter.



2.2. Circuit Breaker DB52 has a faded counter.



V. Observations

1. GO 95, Rule 18, Reporting and Resolution of Safety Hazards Discovered by Utilities states in part:

“For purposes of this rule, “Safety Hazard” means a condition that poses a significant threat to human life or property...”

GO 95, Rule 18-A, Resolution of Potential Violations of General Order 95 and Safety Hazards states in part:

- “(3) If a company, while performing inspections of its facilities, discovers a Safety Hazard(s) on or near a communications facility or electric facility involving another company, the inspecting company shall notify the other entity of such Safety Hazard(s) no later than ten (10) business days after the discovery.*
- (4) To the extent a company that has a notification requirement under (2) or (3) above cannot determine the facility owner/operator, it shall contact the pole owner(s) within ten (10) business days if the subject of the notification is a Safety Hazard, or otherwise within a reasonable amount of time not to exceed 180 days after discovery. The notified pole owner(s) shall be responsible for promptly (normally not to exceed five business days) notifying the company owning/operating the facility if the subject of the notification is a Safety Hazard, or otherwise within a reasonable amount of time not to exceed 180 days, after being notified of the potential violation of GO 95.”*

During the field inspection, ESRB observed the third-party safety concerns listed in Table 14:

Table 14: Third-Party Observations

Location	Observation
11	The pole has an abandoned cable drop.
15	The pole has unsecured phone and cable service drops.
21	The pole has vegetation causing excessive strain and abrasion on communication facilities.
22	The pole has communication drops in contact.
23	The pole has an abandoned communications drop.
25	The pole has vegetation above the cable and phone anchor down guy insulator bobs.
27	The pole has an unsecured communications conductor and a loose communications lashing wire.

Location	Observation
30	The pole has a temporary communications rope attachment.
31	Phone and cable have an incomplete pole transfer.
36	The pole has vegetation causing excessive strain and abrasion on communication service drops and an abandoned communications drop.
45	The pole has vegetation above the cable and phone anchor down guy insulator bobs.
47	The pole has an exposed cable ground wire.
87	The pole has communications drops in contact.
88	The pole has unsecured communications drops.
89	The pole has a low communications riser guard less than 8ft.
91	The pole has a broken support bracket on the communications crossarm.
92	The pole has an abandoned phone drop.
94	The pole has an unsecured and abandoned communications drop.
96	The pole has an abandoned phone drop.
99	The pole has vegetation above the cable and phone anchor down guy insulator bobs.
100	The pole has an abandoned phone drop.
102	Phone and cable have an incomplete pole transfer.
104	Phone and cable have an incomplete pole transfer.
105	Phone and cable have an incomplete pole transfer.