

PUBLIC UTILITIES COMMISSION

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December 2, 2025

TA2025-1419

Daniel Kushner
Sr. Director - Electric Regulatory Compliance
Pacific Gas & Electric Company (PG&E)
300 Lakeside Drive
Oakland, CA 94612

SUBJECT: Electric Transmission Audit of PG&E Pismo Beach Work Center

Mr. Kushner:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Emiliano Solorio and Joseph Murphy of ESRB staff conducted an electric transmission audit of PG&E's Pismo Beach Work Center from September 29, 2025 through October 3, 2025. During the audit, ESRB staff conducted field inspections of PG&E's transmission facilities and equipment and reviewed pertinent documents and records.

As a result of the audit, ESRB staff identified violations of one or more General Orders (GOs). A copy of the audit findings itemizing the violations is enclosed. Please provide a response no later than January 7, 2026, by electronic copy of all corrective actions and preventive measures taken by PG&E 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 Emiliano Solorio at (916) 216-0249 or emiliano.solorio@cpuc.ca.gov.

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
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California Public Utilities Commission

Enclosure: CPUC Electric Transmission Audit Report for PG&E Pismo Beach Work Center

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**PG&E Pismo Beach Work Center
Electric Transmission Audit Findings
September 29 – October 3, 2025**

I. Records Review

During the audit, ESRB staff reviewed the following records:

- PG&E's Electric Transmission Preventive Maintenance (ETPM) Manual, TD-1001M, in effect June 1, 2020 through April 6, 2025.
- PG&E's Electric Transmission Preventive Maintenance (ETPM) Manual, TD-1001M, in effect April 6, 2025 through May 31, 2025.
- PG&E's utility procedures, standards, guidelines, and job aids for electric transmission facility inspections.
- Overhead transmission facilities statistics.
- PG&E Pismo Beach Territory Map and list of all transmission facilities owned or jointly owned by PG&E.
- Patrol, detailed, aerial, climbing, infrared, drone, and helicopter inspection records from June 1, 2020 to May 31, 2025.
- Third Party Safety Hazard notifications sent and received from June 1, 2020 to May 31, 2025.
- PG&E's utility procedures, standards, guidelines, and job aids for electric transmission vegetation management.
- A list of vegetation management inspection records and tree work orders for transmission circuits from June 1, 2020 to May 31, 2025.
- PG&E's policies and procedures related to transmission right-of-way maintenance, and associated performance records from June 1, 2020 to May 31, 2025.
- PG&E's policies and procedures for insulator washing, and associated performance records from June 1, 2021 to May 31, 2025.
- PG&E's policies and procedures for pole intrusive tests, foundation tests, and all other tests related to transmissions structure safety, and associated performance records from June 1, 2021 to May 31, 2025.
- A list of non-routine patrols for electric transmission facilities from June 1, 2020 to May 31, 2025.
- PG&E's policies and procedures for assigning priority levels to transmission deficiencies from June 1, 2021 to May 31, 2025.
- A list of all open, closed, and canceled notifications from June 1, 2020 to May 31, 2025.
- Pole loading and safety factor calculations completed from June 1, 2024 to May 31, 2025.
- New construction projects completed from June 1, 2024 to May 31, 2025.
- PG&E's utility standard and procedures for transmission work verification and vegetation management quality control (QC) and quality assurance (QA).
- The results of all internal quality management audits from June 1, 2020 to May 31, 2025.
- A list of PG&E inspector training courses from June 1, 2020 to May 31, 2025.

II. Records Violations

ESRB staff found the following violations during the records review portion of the audit:

1. General Order (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.

(a) 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 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.

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 communication or supply lines and equipment.”

PG&E’s Electric Transmission Preventive Maintenance (ETPM) and Utility Procedure TD-8123P-103 establish when corrective actions for problems must be completed. For the time period reviewed in this audit, two versions of the ETPM are relevant. PG&E's versions of its ETPM, Revision 4¹ and Revision 5², define the priority codes and associated due dates for the corrective actions shown in Table 1 and Table 2. Additionally, PG&E Utility Procedure TD-8123P-103 Rev. 2 provides guidance for setting priority codes effective March 18, 2025³, shown in Table 3.

Table 1. PG&E ETPM TD-1001M Rev 4, Priority Codes through 8/30/2020

Priority Code	Priority Code Priority Description
A ⁴	The condition is urgent and requires immediate response and continued action until the condition is repaired or no longer presents a potential hazard. SAP due date will be 30 days to allow time for post-construction processes and notification close-out.
B ⁵	Corrective action is required within 3 months from the date the condition is identified. The condition must be reported to the transmission line supervisor as soon as practical.
E	Corrective action is required within 12 months from the date the condition is identified.
F	Corrective action is recommended within 24 months from the date the condition is identified, (due beyond 12 months, not to exceed 24 months). Requires Director approval.

¹ Revision date: 11/20/2018

² Revision date: 8/31/2020

³ Utility Procedure TD-8123P-103, Rev 2 (Published 2/6/2025, effective 3/18/2025).

⁴ Footnote from the ETPM: QCRs must report immediately any “Priority Code A” abnormal condition to the transmission line supervisor and GCC.

⁵ Footnote from the ETPM: In addition, QCRs must report any “Priority Code B” condition to the transmission line supervisor as soon as practical, to ensure that correction occurs within the appropriate time.

Table 2. PG&E ETPM TD-1001M Rev 5, Priority Codes, through 1/2/2023

Priority Code ⁶	Priority Description
A⁷	The condition is urgent and requires immediate response and continued action until the condition is repaired or no longer presents a potential hazard. SAP due date will be 30 days to allow time for post-construction processes and notification close-out.
B ⁸	Corrective action is required within 3 months from the date the condition is identified. The condition must be reported to the transmission line supervisor as soon as practical.
E	Corrective action is required within 12 months from the date the condition is identified. <i>EXCEPT FOR ITEMS WITHIN HFTD TIER 3 ARE REQUIRED WITHIN 6 MONTHS.⁹</i>
F	Corrective action is recommended within 24 months from the date the condition is identified, (due beyond 12 months, not to exceed 24 months). <i>EXCEPT FOR ITEMS WITHIN HFTD TIER 3 ARE REQUIRED WITHIN 6 MONTHS AND WITHIN HFTD TIER 2 ARE REQUIRED WITHIN 12 MONTHS.¹⁰</i>

⁶ Refer to 2.3.5.2, “Priority Code Due Dates for High Fire Risk Conditions within HFTDs” and 2.3.5.3, “Priority Code Due Dates for Non-Fire Risk Conditions within HFTDs.”

⁷ Footnote from the ETPM: QCRs must report immediately any “Priority Code A” abnormal condition to the transmission line supervisor, and the transmission supervisor or QCR contacts GCC.

⁸ Footnote from the ETPM: In addition, QCRs must report any “Priority Code B” condition to the transmission line supervisor as soon as practical, to ensure that correction occurs within the appropriate time.

⁹ Footnote from the ETPM: If the condition in the HFTD Tier 3 does NOT create a fire risk (non-threatening) the corrective action is required within 12 months.

¹⁰ Footnote from the ETPM: If the condition in the HFTD Tier 3 OR Tier 2 does NOT create a fire risk (non-threatening) the corrective action is required within 24 months.

Table 3. PG&E Utility Procedure TD-8123P-103, Rev. 0, 1, and 2, Electric Transmission Line Guidance for Setting Priority Codes since 1/3/2023

Priority Code	G.O. 95, Rule 18 Level	Priority Description – Time Frame ¹¹
A	1	<p>Immediately make safe, including standby as necessary, and then complete one of the following:</p> <ul style="list-style-type: none"> i. Full/permanent repair within 14 days, SAP due date is 30 days to allow time for notification close-out. ii. Temporary repair within 14 days, SAP due date is 30 days to allow time for notification close-out. Create a second notification for permanent repairs with a lower priority. Cross-reference each LC in the long text. iii. Seek extended duration (if applicable under CPUC G.O. 95, Rule 18 B(1)(b)). Contact M&C Compliance within 3 days of notification creation for further instruction. If extension is denied, complete either (i) or (ii) above.
B	-	Not used for maintenance corrective action priority.
E	2	<p>Corrective action is required, as follows:</p> <ul style="list-style-type: none"> • Within 6 months for HFTD Tier 3¹² • Within 12 months for HFTD Tier 2/HFRA/Zone 1¹³ • Within 12 months for potential violations that compromise worker safety • Within 36 months for all other potential violations.
F	3	Corrective action is required within 60 months.

- a. ESRB staff reviewed work orders created within the Pismo Beach Work Center from June 2020 through May 2025 and determined that PG&E did not address a total of 1,842 of 8,935 work orders (5,990 open/closed and 2,945 cancelled) by their required assigned due date (20.6%). Table 4 below breaks down the 1,842 late work orders by their given priority, including the total number of late work orders completed, open (pending completion), and canceled work orders, which are included in the total.

¹¹ Footnote from TD-8123P-103: Time frames listed are “Not to Exceed” and QCR/CIRT may define time frames according to site-specific conditions.

¹² Footnote from TD-8123P-103: IF the condition in the HFTD Tier 3 OR Tier 2/HFRA/Zone 1 does **not** create a fire risk (non-threatening), THEN the corrective action is required **within 36 months**.

¹³ Footnote from TD-8123P-103: IF the condition in the HFTD Tier 3 OR Tier 2/HFRA/Zone 1 does **not** create a fire risk (non-threatening), THEN the corrective action is required **within 36 months**.

Table 4. Number of Late Notifications by Priority and Type

Priority Code	Late Closed Notifications	Late Open Notifications	Late Canceled Notifications	Total Late Notifications
A	2	0	0	2
B	22	0	8	30
E	1059	207	537	1803
F	4	0	3	7
Total	1087	207	548	1842

Table 5 shows the most overdue pending notifications.

Table 5. Most Overdue Pending Notifications

Priority Code	Notification Number	Creation Date	Due Date	Days Late ¹⁴
E	121629153	6/29/2021	6/29/2022	1067
E	121683714	7/8/2021	7/8/2022	1058
E	122965340	2/10/2022	8/10/2022	1025
E	122019135	9/9/2021	9/9/2022	995
E	122081566	9/21/2021	9/15/2022	989

PG&E shall provide ESRB with its corrective action plan to complete the 207 late pending work orders and its preventive measures to prevent any work orders from being addressed late in the future.

- b. ETPM TD-1001M Rev. 5 states “(Priority Code E) corrective action is required within 12 months from the date the condition is identified, except for items within HFTD Tier 3 are required within 6 months.” ESRB staff reviewed work orders within the Pismo Beach Work Center¹⁵ created under ETPM TD-1001M Rev. 5 from August 31, 2020 through January 2, 2023 and determined that PG&E established Required End Dates later than the 12 months required for Priority E work orders. PG&E extended due dates without a Field Safety Reassessment.

PG&E’s Utility Procedure: TD-8123P-103 Electric Transmission Line Guidance for Setting Priority Codes provides guidance for establishing priorities and due dates for **new** work orders but does not address extending due dates on **existing** work orders.

PG&E’s Utility Procedure: TD-8123P-101 Transmission Line Corrective (LC) Notification Maintenance Strategy addresses Line Corrective (LC) notifications

¹⁴ Days late are determined to be the difference between the Completion Date (or May 31, 2025 if the notification was open) and the Required End Date.

¹⁵ DRU16175_Q16_Atch01_Pismo Beach_Master List of Notifications.XLSX received 9/12/2025

that become past due and outlines the Field Safety Reassessment (FSR) process. An FSR requires a qualified electrical worker (QEW) to confirm the current condition of the facility.¹⁶

PG&E’s Utility Procedure: TD-1001P-10 Transmission Centralized Inspection Review Team (CIRT) provides for review and prioritization of incoming notifications.¹⁷ The procedure does not provide for extending due dates after a work order is prepared unless an FSR has been conducted by a QEW.

Neither TD-8123P-101 nor TD-1001P-10 provides for changing the end date when Job Aid guidance revises the standard repair interval for similar repairs without an FSR. Unless the site has been visited by conducting an FSR, the required end date cannot be changed.

The work orders referenced in Tables 6 and 7 have no FSR Reason or Date. Table 6 breaks down the 252 work orders with incorrectly established Required End Dates by status.

Table 6. Priority E Work Orders with Incorrect Required End Dates

	Open Work Orders	Closed Work Orders	Total Work Orders
Work Order with Incorrect Required End Dates	180	72	252

Table 7 shows selected work orders with due dates that exceed ETPM TD-1001M requirements for Priority E work orders.

Table 7. Selected Work Orders with Required End Dates exceeding PG&E ETPM TD-1001M

Priority Code ¹⁸	Notification Number	Creation Date	Due Date by Required End Date	Status	Repair Interval (Months)	Repair Interval (Days) ¹⁹
E	123749227	6/3/2022	6/3/2025	Open	36	1096
E	124287150	8/12/2022	7/15/2025	Open	35	1068
E	123853254	6/15/2022	5/26/2025	Open	35	1076
E	122929648	2/7/2022	2/7/2025	Closed	36	1096
E	122095219	9/24/2021	9/21/2024	Closed	36	1093
E	124285218	8/12/2022	7/14/2025	Closed	35	1067

PG&E shall provide ESRB with its corrective action plan to review the open priority

¹⁶ DRU16175_Q02_DRU16175_TD-8123P-101 (Rev 2, 2024) Section 4.6.1.

¹⁷ DRU16175_Q02_DRU16175_TD-1001P-10 (Rev 1, 2023)_Redacted_CONF Section 2.1.1.

¹⁸ Ibid.

¹⁹ Days late are determined to be the difference between the Completion Date (or May 31, 2025 if the notification was open) and the Required End Date.

E work orders for appropriate Required End Dates.

- c. ESRB staff reviewed work orders created within the Pismo Beach Work Center ²⁰ and found six work orders (five closed, one open) with erroneous latitude and longitudes. Work orders with locations outside the area covered by Pismo Beach transmission lines are listed in Table 8. ESRB could not assess the accuracy of work orders with latitudes and longitudes within the Pismo Beach Work Center.

Table 8. Work Orders with Locations outside the Pismo Beach Work Center

Priority Code	Notification Number	Status	Latitude	Longitude
B	121808094	Closed	39.112954000000	-121.332194000000
E	123186883	Closed	35.180480000000	120.538770000000
E	123187372	Closed	35.176230000000	120.531870000000
E	123150848	Closed	35.094190000000	120.498220000000
E	123086302	Closed	40.251843000000	-122.267832000000
E	130994319	Open	0.000000000000	0.000000000000

PG&E shall provide ESRB with its corrective action plan to resolve the six work orders with erroneous locations noted above and its preventive measures to assure correct location information on future work orders.

- d. ESRB staff reviewed work orders created within the Pismo Beach Work Center and found 15 work orders where the priority codes were lowered in priority from E to F despite having no FSR Reason or Date. These are summarized in Table 9.

Table 9. Revised Priority Codes without Reassessment Dates

Notification Number	Original Priority Code	Current Priority Code	Status	Created On Date
123308155	E	F	Closed	4/12/2022
123037861	E	F	Closed	3/1/2022
124340831	E	F	Closed	8/2/2022
123713728	E	F	Open	5/28/2022
124343514	E	F	Open	8/22/2022
125494498	E	F	Closed	2/13/2022
125521145	E	F	Closed	2/17/2022
125822135	E	F	Open	4/7/2023
128192470	E	F	Open	2/17/2024
128281319	E	F	Closed	3/13/2024
128281472	E	F	Closed	3/13/2024

²⁰ DRU16175_Q16_Atch01_Pismo Beach Master List of Notifications received 9/12/2025

Notification Number	Original Priority Code	Current Priority Code	Status	Created On Date
128281557	E	F	Closed	3/13/2024
128293235	E	F	Open	3/15/2024
128443810	E	F	Open	4/3/2024
128577784	E	F	Open	4/18/2024

PG&E shall provide ESRB with the method used to reassess the priority of each of the 15 work orders.

- e. ESRB reviewed selected work orders and found the following discrepancy:
 - a. LC 126880610
 - i. Open work order to repair a splice
 - ii. Work was found complete during field visit.

PG&E shall provide ESRB with its corrective action plan to update the status of work orders in a timely manner.

- f. ESRB reviewed work orders created within the Pismo Beach Work Center and found four Priority A work orders with due date extensions and reassessment reasons. Utility Procedure: TD-8123P-101 Transmission Line Corrective (LC) Notification Maintenance Strategy Section 2 states, “*NOTE: Notifications that are Level 1 (Priority “A”) do not qualify for G.O. 95 due date extensions or exemptions from their original RED [Required End Date].*”²¹

Table 9A. Priority A Notifications with Due Date Extensions²²

Notification Number	Created on Date	Required End Date	Reassessment Date	Reassessment Reason
125488672	2/11/2023	3/11/2023	5/8/2023	Time Dependent
126005649	4/27/2023	5/27/2023	5/2/2023	Time Dependent
126022058	4/30/2023	5/30/2023	5/2/2023	Time Dependent
125488672	4/30/2023	5/30/2023	5/2/2023	Time Dependent

PG&E shall provide ESRB with its corrective action plan to avoid extending due dates of Priority A work orders.

²¹ DRU16175_Q02_Guidance Documents_CONF TD-8123P-101 (Rev 1 & 2, 2023 & 2024)_Redacted

²² DRU16175_Q16_Atch01_Pismo Beach_Master List of Notifications

2. GO 165, Section IV. Transmission Facilities states in part:

“Each utility shall prepare and follow procedures for conducting inspections and maintenance activities for transmission lines.

Each utility shall maintain records of inspection and maintenance activities. Commission staff shall be permitted to inspect records and procedures consistent with Public Utilities Code Section 314 (a).”

PG&E’s Utility Procedure TD-8123P-100 Rev. 2 Transmission Patrols and Enhanced Inspection Frequency Guidelines Rev 2, Section 3.3 provide inspection intervals shown in Table 10.

Table 10. Overhead Enhanced Inspection and Patrol Baseline Frequencies

Voltage (kV)	Inspection Type	Structure Type	Non-HFTD (Years)	HFTD Tier 3, Tier 2, Zone 1, and HFRA (Years)	DCPP/Morro Bay/ WECC Lines (Years)
500	Detail ground and aerial	Steel	3	3	Annually
	Climbing	Steel (critical)	3 (and as triggered)	3	Annually
		Steel (non-critical)	12 (and as triggered)	3	Annually
230 115 70 60	Detailed ground and/or aerial	Steel or wood	5 (at least one method)	3	Annually
	Climbing or aerial lift	Steel or wood	As triggered	As triggered	As triggered
All Voltages	High Water Table Inspection (Bay Waters Foundation)	Steel	5	NA	NA
	Infrared	Steel or wood	5 (and as triggered)	Tier 3 – Annually Tier 2, Zone 1, and HFRA – 3	Annually
	Patrol	Annually, unless enhanced inspected. See Appendix A on Page 10 for DCPP and Morro Bay lines requiring quarterly patrol.			

- a. ESRB staff reviewed inspection records from the Pismo Beach Work Center²³ and found two structure inspections conducted past the Inspection Due Date. Table 11 lists the late inspection work.

Table 11. Late Inspections by Structure

Inspection Year	Inspection Type	Function Location	Structure	Due Date	Inspection Date
2023	Climbing	ETL.5980	042/172	7/31/2023	11/9/2023

²³ DRU16175_Q07_Atch01_202Y Inspections (Y, year: 0-5)

Inspection Year	Inspection Type	Function Location	Structure	Due Date	Inspection Date
2023	Climbing	ETL.5980	042/174	7/31/2021	11/9/2023

PG&E shall provide ESRB with its corrective action plan to conduct inspections by their required due date.

- b. Utility Procedure TD-8123P-100 Rev. 2 Section 3.1 states *“Patrols are performed by ETL. Each structure requires at least one patrol per calendar year. A detailed inspection within the calendar year counts toward a patrol for that structure.”*²⁴ PG&E’s inspection records indicate that PG&E is using “Air +” to meet patrol inspection requirements.

TD-8123P-100 does not define nor provide the scope of Air +. TD-8123P-100 calls out Air + only in Section 2.6.3.b which states *“CGIs [Can’t Get In] for aerial inspections are tracked through an internal AIR+ process. Inspections for aerial CGIs are due 3 months after the CGI OR the original inspection due date – whichever is later.”*²⁵

PG&E shall provide ESRB with its evidence that Air + meets the requirements of a patrol inspection and revise TD-8123P-100 or other procedures to explicitly call out Air + as a patrol inspection substitute.

3. GO 95, Rule 44.1 Installation and Reconstruction states in part:

“Lines and elements of lines, upon installation or reconstruction, shall provide as a minimum the safety factors specified in Table 4. The design shall consider all supply and communication facilities planned to occupy the structure. For purposes of this rule, the term “planned” applies to the facilities intended to occupy the structure that are actually known to the constructing company at the time of design”.

- a. ESRB staff reviewed the pole loading calculation for the pole at Location 44 (004/085 Templeton-Atascadero). The crossarm M15-0024 is listed to have a required safety factor of 1.0 on the pole load calculation.²⁶ GO 95 Table 4 requires a safety factor of 1.25 – 1.5 for “other engineered material”. Crossarms of other engineered materials shall follow the minimum safety factors listed in GO 95 Table 4.

²⁴ DRU16175_Q02_Guidance Documents_CONF TD-8123P-100 (Rev 2, 2024)_Redacted

²⁵ Ibid

²⁶ DRU16572_Q03_Atch07_TEMPLETON-ATASCADERP_004.085_PLC_CONF

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

“A supply or communications company is in compliance with this rule if it designs, constructs, and maintains a facility in accordance with the particulars specified in General Order 95, except that if an intended use or known local conditions require a higher standard than the particulars specified in General Order 95 to enable the furnishing of safe, proper, and adequate service, the company shall follow the higher standard.

For all particulars not specified in General Order 95, a supply or communications company is in compliance with this rule if it designs, constructs and maintains a facility in accordance with accepted good practice for the intended use and known local conditions.”

- a. PG&E’s TD-1001M-JA14, Job Aid: Identifying Condition of Splices, Connectors, Dampers, and Spacers on Transmission Line Structures and Supports, Rev. 4, Effective March 18, 2025 has no clearance requirement between the insulator (support) and the splice.

Previous versions of PG&E’s TD-1001M-JA14 through March 3, 2023 (Revision 2) states *“Splices installed within 10 feet of clamps, armor rod, other equipment might be exposed to more movement, causing cracking or breakage.”*²⁷

Manufacturer specifications require a minimum bend radius of 12 diameters to avoid permanent deformation of ACSR conductors.²⁸ Repeated flexing of aluminum and other metals beyond their elastic limit causes cyclic fatigue and fatigue crack growth.²⁹ Compression and automatic splices are more rigid than the adjoining wire and the installation of a splice creates an unbendable section.³⁰ Splices in proximity to insulators create rigid supports where strain and fatigue on the conductor are increased at the ends of the splices.^{31, 32} Fatigue breakage of conductor strands occurs at points where the conductor movement is restricted and at rigid splices.³³ Industry practice is to have a minimum clearance between the insulator (support) and a splice.³⁴

Per GO 95, Rule 31.1, a supply or communications company is in compliance with this rule if it designs, constructs and maintains a facility in accordance with accepted good practice for the intended use and known local conditions. PG&E’s current Job Aid allows less clearance between splices and insulators than accepted good practice.

²⁷ PG&E’s TD-1001M-JA14, p. 6 Rev 9, Effective data: February 20, 2022.

²⁸ Southwire, Guide for the Installation of ACSR & ACSR/TW Conductors, p. 4.

https://www.southwire.com/medias/sys_master/installation-manuals/installation-manuals/h21/h22/8887676272670/ACSRAndACSRTWConductorsInstallationGuidepdf.pdf

²⁹ Fatigue of Aluminum Alloys, ASM Handbook, Volume 2B, Properties and Selection of Aluminum Alloys, Kaufman

³⁰ The Use of Splices, Lectromec, Michael Traskos, February, 2024.

³¹ ANSI-IEEE Std 524-1980, 10.3.5

³² Overhead Distribution Line Repair Manual, Preformed Line Products, Fatigue Breaks under Aeolian Vibration

³³ Ibid.

³⁴ RUS Bulletin 1728F-803, US Dept of Agriculture, Rural Utilities Bulletin

PG&E's TD-1001M-JA14 Identifying Condition of Splices, needs revision to comply with accepted good practice with respect to splice clearance to insulators and supports.

III. Field Inspection

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

Table 12. Audit Locations

Location Number	Structure Type	ID	Circuit	Voltage (kV)	Latitude	Longitude
1	Metal Lattice	008/034	Diablo-Mesa	230	35.3021105	-120.8011392
2	Metal Lattice	007/034	Diablo-Gates	500	35.3019852	-120.8007841
3	Metal Lattice	009/045	Morro Bay-Mesa	230	35.2823346	-120.7262680
4	Metal Lattice	011/060	Morro Bay-SLO	115	35.2838273	-120.7019290
5	Metal Lattice	010/057	Morro Bay-SLO	115	35.2891030	-120.7073866
6	Metal Pole	000/001	Goldtree Tap	115	35.2945855	-120.7131755
7	Metal Lattice	010/054	Morro Bay-SLO	115	35.2946509	-120.7130484
8	Metal Pole	014/178	Atascadero-SLO	70	35.2710545	-120.6341009
9	Metal Pole	015/179	Atascadero-SLO	70	35.2673100	-120.6344392
10	Metal Pole	015/180	Atascadero-SLO	70	35.2651967	-120.6346779
11	Metal Lattice	057/316	Temblor-SLO	115	35.2623628	-120.6323256
12	Metal Lattice	000/001	SLO-Oceano	115	35.2624597	-120.6341448
13	Metal Lattice	057/317	Temblor-SLO	115	35.2626713	-120.6342136
14	Metal Lattice	000/005	SLO-Santa Maria	115	35.2539440	-120.6269438
15	Metal Lattice	001/007	SLO-Oceano	115	35.2483640	-120.6210590
16	Metal Pole	002/021	Santa Ynez Tap	70	34.6355296	-120.1468666
17	Wood Pole	002/023	Santa Ynez Tap	70	34.6343917	-120.1442394
18	Wood Pole	002/025	Santa Ynez Tap	70	34.6337447	-120.1418331

Location Number	Structure Type	ID	Circuit	Voltage (kV)	Latitude	Longitude
19	Metal Pole	020/279	Sisquoc-Santa Ynez	115	34.6643406	-120.1765959
20	Wood Pole	000/017	Buellton Tap	115	34.6356002	-120.1866478
21	Wood Pole	000/018	Buellton Tap	115	34.6349357	-120.1869314
22	Wood Pole	001/026	Buellton Tap	115	34.6282460	-120.1887218
23	Metal Pole	007/060	Cabrillo-Santa Ynez	115	34.6493391	-120.3015476
24	Metal Pole	007/059	Cabrillo-Santa Ynez	115	34.6492580	-120.3009813
25	Metal Pole	007/063	Cabrillo-Santa Ynez	115	34.6499481	-120.3073676
26	Wood Pole	001/014	Manville Tap	115	34.6475430	-120.4326080
27	Wood Pole	002/037	Manville Tap	115	34.6436966	-120.4358216
28	Wood Pole	015/132	Cabrillo-Santa Ynez	115	34.6437324	-120.4363343
29	Wood Pole	014/194	Divide-Cabrillo 1	115	34.6437923	-120.4437761
30	Wood Pole	014/193	Divide-Cabrillo 1	115	34.6438061	-120.4443578
31	Wood Pole	013/181	Divide-Cabrillo 1	115	34.6422884	-120.4547530
32	Wood Pole	013/180	Divide-Cabrillo 1	115	34.6422837	-120.4554524
33	Wood Pole	000/011	City Tap 2	115	34.6588930	-120.4487918
34	Wood Pole	006/099	San Miguel-Paso Robles	70	35.6651045	-120.6912038
35	Wood Pole	007/122	San Miguel-Paso Robles	70	35.6485757	-120.6832011
36	Metal Pole	007/123	San Miguel-Paso Robles	70	35.6477082	-120.6828424
37	Wood Pole	001/024	Paso Robles-Templeton	70	35.5970308	-120.6817507
38	Wood Pole	001/023	Paso Robles-Templeton	70	35.5979727	-120.6818875

Location Number	Structure Type	ID	Circuit	Voltage (kV)	Latitude	Longitude
39	Lattice Tower	002/010	Templeton-Gates	230	35.5796319	-120.6578338
40	Lattice Tower	017/071	Templeton-Gates	230	35.5651725	-120.6717977
41	Lattice Tower	028/113	Diablo-Gates	500	35.5653377	-120.6721092
42	Wood Pole	003/061	Templeton-Atascadero	70	35.5336674	-120.7171941
43	Wood Pole	003/062	Templeton-Atascadero	70	35.5330518	-120.7174469
44	Wood Pole	004/085	Templeton-Atascadero	70	35.5155788	-120.7081456
45	Lattice Tower	012/051	Morro Bay-Templeton	230	35.5143025	-120.7172618
46	Lattice Tower	023/095	Diablo-Gates	500	35.5145202	-120.7175461
47	Wood Pole	004/079	Templeton-Atascadero	70	35.5206355	-120.7118645
48	Lattice Tower	013/054	Morro Bay-Templeton	230	35.5206833	-120.7115038
49	Wood Pole	008/151	Templeton-Atascadero	70	35.4685732	-120.6738878
50	Metal Pole	000/004	Atascadero-Cayucas	70	35.4662080	-120.6750666

IV. Field Inspection Violations

ESRB staff observed the following violations during the field inspection:

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.

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 communication or supply lines and equipment.”

Table 13. GO 95, Rule 31.1 Violations

Location	Violation Description	Notes
2	Rust going through mastic	LC 131830350 created
4	Peeling mastic	LC 131831050 created
7	Rust going through mastic	LC 131831438 created
14	Peeling mastic	LC 131834371 created
14	Steel tower within touching distance of metal fence	LC 131834470 created
48	Rust going through mastic	LC 131844081 created
50	Tripping hazard	LC 131844373 created

2. 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.”

Table 14. GO 95, Rule 51.6-A Violations

Location	Violation Description	Notes
23	High voltage sign is faded	LC 131838455 created
24	High voltage sign is faded	LC 131838466 created
38	High voltage sign is broken	LC 131842249 created

3. GO 95, Rule 51.6-B, Guarding states in part:

“Where the pole or structure is of latticed metal or of similar construction and supports supply conductors in excess of 750 volts and is located in urban districts, or in rural areas adjacent to schools, dwellings, permanent or seasonal camps, or in orchards, or near roads, or trails which are frequently traveled, a barrier shall be so located on the pole or structure as to prevent easy climbing. If the bottom of the barrier is within 12 feet of the ground line, the top shall not be less than 15 feet above the ground line, but in no event shall the barrier be less than 8 feet in length. If the bottom of the barrier is more than 12 feet above the ground line, it shall not be less than 6 feet in length.”

Table 15. GO 95, Rule 51.6-B Violations ³⁵

Location	Violation Description	Notes
1	Anti-climb guards are less than 6 feet in length.	LC 131830202 created
3	Anti-climb guards are less than 6 feet in length.	LC 131830722 created
4	Anti-climb guards are less than 6 feet in length.	LC 131830981 created
5	Anti-climb guards are less than 6 feet in length.	LC 131831298 created
7	Anti-climb guards are less than 6 feet in length.	LC 131831446 created
11	Anti-climb guards are less than 6 feet in length.	LC 131833312 created
12	Anti-climb guards are less than 6 feet in length.	LC 131833708 created
13	Anti-climb guards are less than 6 feet in length.	LC 131833827 created
14	Anti-climb guards are less than 6 feet in length.	LC 131834218 created
15	Anti-climb guards are less than 6 feet in length.	LC 131834558 created
39	Anti-climb guards are less than 6 feet in length.	LC 131842348 created
40	Anti-climb guards are less than 6 feet in length.	LC 131842676 created
41	Anti-climb guards are less than 6 feet in length.	LC 131842678 created
45	Anti-climb guards are less than 6 feet in length.	LC 131843782 created
48	Anti-climb guards are less than 6 feet in length.	LC 131844061 created

4. 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.”

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

³⁵ PG&E CAP 126418275, Initiated 6/21/2023 addressed PG&E Standard 022168 Anti-climbing Guard Assemblies for Steel lattice towers do not conform with GO 95 Rule 51.6-B. CAP 126418275 noted additional inspection and a repair process for facilities found to be out of compliance with GO 95 Rule 51.6-B.

are to be operated, to enable the furnishing of safe, proper, and adequate service.”

During the field audit, ESRB observed the following existing non-conformances with past due corrective actions.

Table 16: Observed Field Findings with Past Due Work Orders

Location	Non-conformance	GO / Rule	LC Job number	Due Date
29	Replace insulator	95/31.1	122132444	Sept 2024
30	Replace pole	95/49.1-A(1)	123588548	May 2025
31	Replace pole	95/49.1-A(1)	126642671	August 2024
34	Replace insulator	95/31.1	129412730	August 2025
43	Tripping hazard	95/31.1	124289990	July 2025
43	Structure repair	95/31.1	124289975	July 2025

5. 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 observed the following non-conformances during the field portion of the audit. PG&E has previously noted these non-conformances and has pending on-time work orders to correct the non-conformances.

Table 17: Observed Field Findings with Pending On-Time Work Orders

Location	Non-conformance	GO / Rule	LC Job number
1	Add Mastic	95/31.1	128366354
2	Replace hanger plate	95/31.1	130826961
7	Missing animal guards	95/31.1	130885378
9	Remove debris	95/31.1	127108820
11	Conductor steel no good	95/31.1	126880610
11	Jumper steel no good	95/31.1	131474775
16	Climbing steps missing	95/31.1	125591623
18	Bond wire needs replacement	95/31.1	125594773
22	Insulator wood pole needs repair	95/31.1	125678102
26	Replace guy wire fish rods	95/31.1	124389500
26	Crossarm insulator replacement	95/31.1	119913924
27	Insulator needs replacement	95/31.1	127689815
32	Replace guy wire	95/49.6-C	129671740
34	Replace pole	95/49.1-A(1)	129413723
35	Replace pole	95/49.1-A(1)	129335841
37	Replace pole	95/49.1-A(1)	129540082
38	Hardware replacement	95/31.1	129539337
38	Replace pole	95/49.1-A(1)	129530200

Location	Non-conformance	GO / Rule	LC Job number
39	Missing visibility strips	95/31.1	128207576
39	Metal touch potential	95/31.1	130913164
40	Repair foundation	95/48.7	130736813
44	Install a second guy wire	95/31.1	131460842
46	Install climbing guard	95/51.6-B	124856395
49	Woodpecker hole repair	95/31.1	130877922

PG&E shall provide ESRB with a plan to correct each of the findings noted above.

V. Observations

1. GO 95, Rule 18, Maintenance Programs and 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...”

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.”

Table 18. GO 95, Rule 18 Observations

Location	Observation Description
20	Ground rod was exposed
37	Communication ground wire was broken
49	Broken communications lashing wire
49	Ground wire not secured along pole

2. 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 observed the following non-conformances on the distribution level during the field portion of the audit.

Table 19. Observed Field Findings on the Distribution Level

Location	Non-conformance	GO / Rule	Notes
20	Common neutral exposed	95/31.1	EC 131838190 created
29	Broken insulator on distribution line middle phase	95/31.1	Existing EC 122317519
37	Bond wire loose	95/31.1	