STATE OF CALIFORNIA GAVIN C. NEWSOM, *Governor*

PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

March 29, 2022 TA2022-994

Lise Jordan, Sr. Director
Regulatory Compliance and Quality Assurance
Pacific Gas and Electric Company (PG&E)
77 Beale Street
San Francisco, CA 94105

SUBJECT: Electric Transmission Audit of PG&E's Sacramento Division

Dear Ms. Jordan:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Samuel Mandell, Emiliano Solorio, and Dmitriy Lysak of ESRB staff conducted an electric transmission audit of PG&E's Sacramento Division from February 07, 2022, through February 11, 2022. During the audit, ESRB staff conducted field inspection 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 April 26, 2022, 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. The response should indicate the date of each remedial action and preventive measure completed. For any outstanding items not addressed, please provide the projected completion dates of all corrective actions for the violations outlined in Sections II & IV of the enclosed Audit Findings.

If you have any questions concerning this audit, please contact Samuel Mandell at (916) 217-8294 or samuel.mandell@cpuc.ca.gov.

Sincerely,

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

Enclosure: CPUC Audit Report

Cc: Lee Palmer, Director, Safety and Enforcement Division, CPUC
Nika Kjensli, Program Manager, ESRB, SED, CPUC
Nathan Sarina, Senior Utilities Engineer (Supervisor), ESRB, SED, CPUC
Rickey Tse, Senior Utilities Engineer (Supervisor), ESRB, SED, CPUC

Samuel Mandell, Utilities Engineer, ESRB, SED, CPUC
Emiliano Solorio, Utilities Engineer, ESRB, SED, CPUC
Dmitriy Lysak, Utilities Engineer, ESRB, SED, CPUC

CPUC AUDIT REPORT OF PG&E SACRAMENTO DIVISION
ELECTRIC TRANSMISSION AUDIT
February 07 – 11, 2022

I. Records Review

During the record review part of the audit, ESRB staff reviewed the following records for the Sacramento Division provided by PG&E:

- PG&E's "Electric Transmission Preventive Maintenance Manual (ETPM) TD-1001M" Rev 3, Rev 4, and Rev 5
- PG&E's utility procedures, standards, guidelines, and job aids for electric transmission facility inspections
- Maps of transmission circuits
- A list of transmission circuits and tower count
- A list of transmission facilities
- Lists of patrol, enhanced inspection, and drone inspections for electric transmission facilities
- A list of non-routine patrols for electric transmission facilities
- Third-Party Notification and Resolution of Potential Violations and Safety Hazards
- Notification to Third-Party Non-Utility of Nonconformance
- PG&E's utility procedures, standards, guidelines, and job aids for electric transmission vegetation management
- A list of vegetation management for transmission circuits
- Open, closed, and cancelled notifications
- Pole loading calculations from the 12 months prior to the audit
- A list of PG&E's training courses
- PG&E's utility standard and procedures for transmission work verification, vegetation management quality assurance, and vegetation management audit

II. Records Violations

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

General Order (GO) 95, Rule 31.2, Inspection of Lines states in part**:**

> *"Lines shall be inspected frequently and thoroughly for the purpose of insuring that they are in good condition so as to conform with these rules. Lines temporarily out of service shall be inspected and maintained in such condition as not to create a hazard."*

1. PG&E's TD-1001M, Rev 04, Section 2.2 Climbing Inspections states in part**:**

"A climbing inspection is a detailed, supporting-structure-based observation of the facilities installed to determine if there are any abnormal or hazardous conditions that adversely impact safety, service reliability, or asset life, and to evaluate when each identified abnormal condition warrants maintenance.
Perform routine, time-based 500 kV climbing inspections, focusing primarily on structural components, on all 500 kV structures, in accordance with the inspection frequencies listed in Section 2.1.3 Overhead Inspection Frequency."

PG&E's Overhead Inspection Frequency Table in the **TD-1001MRev 04 section 2.1.3** listed overhead inspection frequencies:

Table 1: Overhead Inspection Frequencies

Voltage (kV)	Inspection Type	Structure Type	Inspection Frequency (years)
500	Detailed inspection (ground)	Steel	3
	* Climbing	Steel (non-critical)	12 (and as triggered)
	* Climbing	Steel (critical)	3 (and as triggered)
	Infrared	Steel	5 (and as triggered)
230	Detailed inspection (ground or aerial)	Steel	5
	Detailed climbing or aerial lift	Steel	As triggered
	Bay Waters Foundation Inspection	Steel	5
	Detailed inspection (ground or aerial)	Wood	2
	Climbing or aerial lift	Wood	As triggered
	Infrared	Steel or Wood	5 (and as triggered)
115	Detailed inspection (ground or aerial)	Steel	5
	Detailed climbing or aerial lift	Steel	As triggered
	Bay Waters Foundation Inspection	Steel	5
	Detailed inspection (ground or aerial)	Wood	2
	Climbing or aerial lift	Wood	As triggered
	Infrared	Steel or Wood	5 (and as triggered)
60/70	Detailed inspection (ground or aerial)	Steel	5
	Detailed climbing or aerial lift	Steel	As triggered
	Bay Waters Foundation Inspection	Steel	5
	Detailed inspection (ground or aerial)	Wood	2
	Climbing or aerial lift	Wood	As triggered
	Infrared	Steel or Wood	5 (and as triggered)

* **Note:** Detailed 500 KV climbing inspections must include information about guy tensions.

PG&E did not meet patrol and inspection frequency requirements as prescribed above for climbing inspections assigned to the ETL. 6090 Table Mountain – Vaca Dixon 500 kV circuit. Table 2 shows the inspections conducted past due dates.

Table 2: Late Inspections

Inspection Type	Structure Number	Functional Location	Inspection Due Date	Inspection Completion Date
Climbing Inspection	003/012	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	006/024	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	007/029	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	008/034	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	009/036	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	009/038	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	010/042	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	011/043	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	011/045	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	011/046	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	013/050	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	013/052	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	013/054	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	014/055	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	014/057	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	015/058	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	015/059	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	019/075	ETL.6090	12/31/2019	1/28/2020
Climbing Inspection	025/100	ETL.6090	12/31/2019	1/28/2020

2. **PG&E's last two versions of its ETPM, Revision 4, effective 11/20/2018 and Revision 5, effective August 31, 2020,** define the priority codes and associated due dates for the corrective actions:

Table 3: PG&E ETPM Rev 04, Published on 11/20/2018, Priority Codes

Priority Code	Priority Code Priority Description
A	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	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. QCRs must report immediately any "Priority Code A" abnormal condition to the transmission line supervisor and GCC.	
2. 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 4: PG&E ETPM Rev 05, Published on 08/31/2020, Priority Codes

Priority Code[1]	Priority Description
A[2]	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[3]	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. ***EXCEPT FOR ITEMS WITHIN HFTD TIER 3 ARE REQUIRED WITHIN 6 MONTHS[4].***
F	Corrective action is recommended within **24 months** from the date the condition is identified, (due beyond 12 months, not to exceed 24 months). ***EXCEPT FOR ITEMS WITHIN HFTD TIER 3 ARE REQUIRED WITHIN 6 MONTHS AND WITHIN HFTD TIER 2 ARE REQUIRED WITHIN 12 MONTHS[5].***
1) 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."	
2) QCRs must report immediately any "Priority Code A" abnormal condition to the transmission line supervisor, and the transmission supervisor or QCR contacts GCC.	
3) 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.	
4) If the condition in the HFTD Tier 3 does NOT create a fire risk (non-threatening) the corrective action is required within 12 months.	
5) 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.	

PG&E did not correct identified deficiencies according to PG&E's assigned due dates. ESRB staff reviewed notifications from "DR 15 – Master List of Notifications" and found a total of 9,097 past due notifications, including 752 past due exempt notifications. Table 5 below is a breakdown of the 9,097 past due work orders for each priority.

Table 5: Number of work orders past their scheduled completion dates by priority codes.

Priority Code	Total Late Notifications	Late Exempt Open/Closed Notifications	Late Non-Exempt Open/Closed Notifications	Total Late Cancelled Notifications
A	22	0	9	13
B	702	1	663	38
E	7,848	602	6,293	953
F	525	149	294	82
Total	**9,097**	**752**	**7,259**	**1,086**

Table 6 below shows the longest overdue notification for each priority.

Table 6: Latest Open or Closed Non-Exempt Notification

Priority Codes	Most Overdue Notification	Corrective Action Completion Date	Required End Date	Days Overdue
A	118114140	03/02/2020	11/26/2019	97
B	115772642	11/16/2021	07/29/2019	841
E	115515787	Open	6/15/2019	935*
F	115684673	Open	7/14/2019	906*

*As of January 05, 2022

III. Field Inspection List

During the field inspection, ESRB staff inspected PG&E's transmission facilities listed in the following Table 7:

Table 7: Structures Inspected During Field Visit

Location	Structure Number	Circuits	Voltage (kV)
1	015/061	Rio Oso – Atlantic Rio Oso – Gold Hill	230
2	002/031	Atlantic – Pleasant Grove 2	115
3	002/032	Atlantic – Pleasant Grove 1	115
4	002/030	Atlantic – Pleasant Grove 2	115
5	002/030	Atlantic – Pleasant Grove 1	115
6	002/029	Atlantic – Pleasant Grove 2	115
7	015/062	Rio Oso – Atlantic Rio Oso – Gold Hill	230
8	002/030	Atlantic – Pleasant Grove 2	115
9	044/199	Colgate – Rio Oso Table Mountain – Rio Oso	230
10	066/429	Poe – Rio Oso Cresta – Rio Oso	230
11	066/430	Poe – Rio Oso Cresta – Rio Oso	230
12	044/200	Colgate – Rio Oso Table Mountain – Rio Oso	230
13	000/003	Rio Oso – Lincoln	115
14	000/004	Rio Oso – Lincoln	115
15	000/005	Rio Oso – Lincoln	115
16	000/001	Rio Oso – Brighton Rio Oso – Lockeford	230
17	014/127B	Missouri Flat – Gold Hill 2	115
18	014/127	Missouri Flat – Gold Hill 1 Missouri Flat – Gold Hill 2	115
19	014/127A	Missouri Flat – Gold Hill 1	115
20	016/144	Missouri Flat – Gold Hill 1 Missouri Flat – Gold Hill 2	115
21	017/264	Gold Hill 1	60
22	017/265	Gold Hill 1	60
23	017/266	Gold Hill 1	60
24	017/152	Missouri Flat – Gold Hill 1 Missouri Flat – Gold Hill 2	115

Location	Structure Number	Circuits	Voltage (kV)
25	017/151	Missouri Flat – Gold Hill 1 Missouri Flat – Gold Hill 2	115
26	004/030	Gold Hill – Clarksville Gold Hill 1	115/60
27	003/029	Gold Hill – Clarksville Gold Hill 1	115/60
28	003/028	Gold Hill – Clarksville Gold Hill 1	115/60
29	014/093A	Missouri Flat – Gold Hill 1 Missouri Flat – Gold Hill 2	115
30	014/094	Gold Hill – Clarksville	115
31	010/049	Gold Hill – Clarksville	115
32	030/228	Missouri Flat – Gold Hill 1 Missouri Flat – Gold Hill 2	115
33	030/226	Missouri Flat – Gold Hill 1 Missouri Flat – Gold Hill 2	115
34	032/240	Missouri Flat – Gold Hill 1 Missouri Flat – Gold Hill 2	115
35	001/008	Gold Hill – Clarksville	115
36	033/239	Missouri Flat – Gold Hill 1 Missouri Flat – Gold Hill 2	115
37	001/009	Gold Hill – Clarksville	115
38	032/239	Missouri Flat – Gold Hill 1 Missouri Flat – Gold Hill 2	115
39	001/010	Gold Hill – Clarksville	115
40	032/238	Missouri Flat – Gold Hill 1 Missouri Flat – Gold Hill 2	115
41	001/011	Gold Hill – Clarksville	115
42	000/009	Spalding 1 – Spalding 3	60
43	000/008	Spalding 1 – Spalding 3	60
44	000/007	Spalding 1 – Spalding 3	60
45	000/005	Spalding 1 – Spalding 3	60
46	000/004	Spalding 1 – Spalding 3	60
47	001/032	Drum – Spalding	60
48	001/015	Drum – Summit 1	115
49	001/015	Drum – Summit 2	115
50	001/033	Drum – Spalding	60
51	001/016	Drum – Summit 1	115
52	001/034	Drum – Spalding	60
53	001/016	Drum – Summit 2	115
54	001/017	Drum – Summit 1	115
55	001/035	Drum – Spalding	60

Location	Structure Number	Circuits	Voltage (kV)
56	021/494	Drum – Grass Valley – Weimar	60
57	021/493	Drum – Grass Valley – Weimar	60
58	000/001	Weimar – Halsey	60
59	000/002	Weimar – Halsey	60
60	000/003	Weimar – Halsey	60
61	000/004	Weimar – Halsey	60
62	000/002	Weimar 1	60
63	000/003	Weimar 1	60
64	000/004	Weimar 1	60
65	000/006	Weimar 1	60
66	035/665	Glenn 2	60
67	035/664	Glenn 2	60
68	035/663	Glenn 2	60
69	035/662	Glenn 2	60
70	035/666	Glenn 2	60
71	C029/552	Cortina 4	60
72	C029/551A	Cortina 4	60
73	C029/551	Cortina 4	60
74	C029/550	Cortina 4	60
75	C029/527	Cortina 4	60
76	C029/526	Cortina 4	60
77	C029/525	Cortina 4	60
78	C029/524	Cortina 4	60
79	C029/523	Cortina 4	60
80	C029/522	Cortina 4	60
81	076/511	Delevan – Cortina Delevan – Vaca 1	230
82	135/1055	Delevan – Vaca 2 Delevan – Vaca 3	230
83	075/510	Delevan – Cortina Delevan – Vaca 1	230
84	135/1054	Delevan – Vaca 2 Delevan – Vaca 3	230
85	000/003	Cortina 1	60
86	000/002	Cortina 1	60
87	000/001	Cortina – Mendocino Eagle Rock – Cortina	115
88	000/001	Cortina 1	60
89	000/002	Cortina – Mendocino Eagle Rock – Cortina	115
90	002/034	Cortina 1	60
91	002/035	Cortina 1	60

Location	Structure Number	Circuits	Voltage (kV)
92	002/036	Cortina 1	60
93	002/037	Cortina 1	60
94	002/038	Cortina 1	60
95	047/313	Cortina – Vaca Delevan – Vaca 1	230
96	195/1453	Delevan – Vaca 2 Delevan – Vaca 3	230
97	78/322	Table Mountain – Vaca	500
98	196/1454	Delevan – Vaca 2 Delevan – Vaca 3	230
99	047/314	Cortina – Vaca Delevan – Vaca 1	230
100	047/315	Cortina – Vaca Delevan – Vaca 1	230
101	196/1455	Delevan – Vaca 2 Delevan – Vaca 3	230
102	78/323	Table Mountain – Vaca	500
103	77/321	Table Mountain – Vaca	500
104	195/1452	Delevan – Vaca 2 Delevan – Vaca 3	230
105	047/312	Cortina – Vaca Delevan – Vaca 1	230
106	006/084	Vaca – Plainfield	60
107	006/083	Vaca – Plainfield	60
108	007/178	Dixon – Vaca 1	60
109	007/178	Dixon – Vaca 2	60
110	008/179	Dixon – Vaca 2	60
111	008/180	Dixon – Vaca 1	60
112	008/181	Dixon – Vaca 1 Dixon – Vaca 2	60

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 communications 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."

   ESRB identified the following tower structures which either need to be repaired or replaced, shown in Table 8.

Table 8: Bent Tower Members

Location	Structure Number	Deficiencies	Comments
38	032/238	Bent tower member	LC122043118 Existing tag
96	195/1453	Bent tower member	LC122292663 Existing tag

2. **GO 95, Rule 61.7, Stepping** states in part:

   "All towers which are required to be climbed by workmen shall be provided with steps or ladders. Steps or ladders shall start at not less than 7 feet 6 inches from the ground line or from any easily climbed foreign structure, within 6 feet of a tower, from which one could reach or step, including tower footings. The spacing between steps on the same side of the tower legs shall not exceed 36 inches."

   The first climbing step at the location given in Table 9 is less than 7 feet 6 inches and needs to be corrected.

Table 9: Climbing Step Issue

Location	Structure Number	Deficiencies	Comments
72	C029/551A	The first climbing step is less than 7 feet 6inches above the ground	Corrected in field
100	47/314	The first climbing step is less than 7 feet 6inches above the ground	Corrected in field

3. **GO 95, Rule 51.6 – Marking and Guarding, High Voltage Marking** states:

"A. High Voltage Marking

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."

GO 95, Rule 61.6 – Marking and Guarding states*:*

"A. Marking

All towers shall be equipped with signs designed to warn the public of the danger of climbing same. Additionally, such signs shall include a graphic depiction of the dangers of falling or electrocution associated with climbing the towers. Such signs shall be placed and arranged so that they may be read from the four corners of the tower. Such signs shall be neither less than 8 feet nor more than 20 feet above the ground except where the lowest horizontal member of the tower is more than 20 feet above the ground in which case the sign shall be not more than 30 feet above the ground."

ESRB identified the following missing signage and high visibility strips given in Table 10.

Table 10: Structures Missing Signs

Location	Structure Number	Deficiencies	Comments
11	066/430	Missing "High Voltage" sign	LC119495661 – Existing tag
12	044/200	Missing "Danger - Do Not Climb" sign	
16	000/001	Missing "High Voltage" sign	LC119855344 – Existing tag
27	003/029	Missing "High Voltage" sign	LC120938125 – Existing tag
32	030/228	Missing "High Voltage" sign	LC121691509 – Existing tag
37	001/009	Missing "High Voltage" sign	LC122043118 – Added to existing tag
39	001/010	Missing "High Voltage" sign	LC122947468 – Created in field
41	001/011	Damaged "High Voltage" sign	LC122947555 – Created in field
52	001/034	Missing "High Voltage" sign	LC121397561 – Existing tag
55	001/035	Missing "High Voltage" sign	LC122950433 – Created in field
74	C029/550	Missing "High Voltage" sign	LC121790710 – Existing tag
98	196/1454	Missing "High Voltage" sign	LC120808409 – Existing tag
104	195/1452	Missing "Danger - Do Not Climb" sign	LC120812124 – Existing tag

4. **GO 95, Rule 31.6 – Abandoned Lines** states:

   "Lines or portions of lines permanently abandoned shall be removed by their owners so that such lines shall not become a public nuisance or a hazard to life or property. For the purposes of this rule, lines that are permanently abandoned shall be defined as those lines that are determined by their owner to have no foreseeable future use."

   ESRB identified the following abandoned facilities listed in Table 11 below:

Table 11: Abandoned Facilities not Removed

Location	Structure Number	Deficiencies	Comments
21	017/264	Abandoned pole butt needs to be removed	LC119917459 – Existing tag

5. **GO 95, Rule 35 – Vegetation Management** states:

   "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 onlands owned and maintained by California state and local agencies."

   ESRB identified the following vegetation management issues shown in Table 12.

Table 12: Vegetation Management Issues

Location	Structure Number	Deficiencies	Comments
11	066/430	Vegetation needs removal	LC122263990 – Existing tag
67	035/664	Vegetation needs removal	LC120857906 – Existing tag
71	C29/552	Vegetation needs removal	LC122260950 – Existing tag

6. **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 identified missing anti-climb guards. Table 13 below shows locations where anti-climb guards need to be replaced or repaired.

Table 13: Deficient Anti-Climb Guards

Location	Structure Number	Deficiencies	Comments
81	076/511	Missing climbing guard	LC122965661 – Created in field
82	135/1055	Missing climbing guard	LC120773189 – Existing tag
83	075/510	Missing climbing guard	LC122965682 – Created in field
84	135/1054	Missing climbing guard	LC120785888 – Existing tag

7. **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."

   PG&E TD-1001M-JA12 – Identifying Foundation Condition on Transmission Line Structures and Supports provides foundation condition levels and priority code levels based on foundation condition. ESRB identified the following deficiencies related to structure foundations. Table 14 shows the locations that have foundations that require repair.

Table 14: Deficient Foundations

Location	Structure Number	Deficiencies	Comments
1	015/061	Apply mastic sealant to foundation	LC121991760 – Existing tag
7	015/062	1. One footing is buried 2. Apply mastic to foundation	1. Addressed in field 2. LC121993367 – Existing tag
9	044/199	Apply mastic sealant to foundation	LC120232943 – Existing tag
10	066/429	Buried footing	
12	044/200	Buried footing	
82	076/511	Apply mastic sealant to foundation	LC122213554 – Existing tag
84	075/510	1. Apply mastic sealant to foundation 2. Buried foundation	1. LC122212334 – Existing tag 2. Addressed in field
95	47/313	Repair damaged foundation	LC122969514 – Created in field
96	195/1453	Repair damaged foundation	LC122969533 – Created in field
101	195/1455	Repair damaged foundation	LC122123246 – Existing tag
104	195/1452	Repair foundation	LC122969777 – Created in field
105	047/312	Repair damaged foundation	LC120812317 – Existing tag
111	008/180	Apply mastic sealant to foundation	LC122970146 – Created in field
112	008/181	Apply mastic sealant to foundation	LC122970186 – Created in field

8. **GO 95, Rule 31.1 - Design, Construction, and Maintenance** states:

"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."

ESRB identified the following guy wires in Table 15 were not in conformance with PG&E guidelines in TD-1001M-JA13.

Table 15 – Tower Components with Atmospheric Corrosion

Location	Asset Number	Deficiencies	Comments
57	021/493	Slack down guy	LC122951184 – Created in field
58	000/001	Need to bond guy wire to pole	LC118338771 – Existing tag
66	035/665	Need to bond guy wire to pole	LC122398025 – Existing tag
67	035/664	Install sectionalizer rod	LC121693556 – Existing tag
73	C029/551	Need to bond guy wire to pole	LC122378443 – Existing tag
88	036/168	Repair guy wire	LC122035972 – Existing tag
107	006/083	Install sectionalizer rod	LC122969898 – Created in field

9. **GO 95, Rule 31.1 - Design, Construction, and Maintenance** states:

"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 maintenanceshould 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."

ESRB identified the following poles shown in Table 16 as being deficient or damaged.

Table 16: Structure Label Deficiencies

Location	Structure Number	Deficiencies	Comments
22	017/265	Multiple woodpecker holes	LC122945784 – Created in field
42	000/009	Pole is degraded	LC116733110 – Existing tag
75	C028/527	Damaged near pole top	LC113819702 – Existing tag

10. GO 95, Rule 31.1 - Design, Construction, and Maintenance states:

"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."

ESRB identified the following insulator issue given in Table 17.

Table 17: Insulator Deficiency

Location	Structure Number	Deficiency	Comments
79	C028/523	Insulator is missing hardware	LC122274950 – Existing tag