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

August 15, 2023 EA2023-1073

Andre Basler
Assistant General Manager
Alameda Municipal Power
2000 Grand Street,
Alameda, CA 94501

SUBJECT: Electric Distribution Audit of Alameda Municipal Power

Dear Mr. Basler:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission (CPUC), Monica Hoskins, Joe Murphy, and Matthew Yunge of ESRB staff conducted an electric distribution audit of Alameda Municipal Power (AMP) from May 15 through May 18, 2023. During the audit, ESRB staff conducted a field inspection of AMP's distribution 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. In addition, please respond no later than September 15, 2023, by electronic copy of all corrective actions and preventive measures taken by AMP to correct the identified violations and prevent the recurrence of such violations.

The response should indicate each remedial action's date and completed preventive measure. In addition, 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 Monica Hoskins at (415) 652-1847 or monica.hoskins@cpuc.ca.gov.

Sincerely,

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

Enclosure: CPUC Electric Distribution Audit Findings

Cc: Lee Palmer, Director, Safety and Enforcement Division (SED), CPUC
Nika Kjensli, Program Manager, ESRB, SED, CPUC
Nathan Sarina, Senior Utilities Engineer (Supervisor), ESRB, SED, CPUC
Monica Hoskins, Utilities Engineer, ESRB, SED, CPUC
Joe Murphy, Utilities Engineer, ESRB, SED, CPUC
Matthew Yunge, Senior Utilities Engineer (Specialist), ESRB, SED, CPUC

ALAMEDA MUNICIPAL POWER
ELECTRIC DISTRIBUTION AUDIT FINDINGS
MAY 15 - 18, 2023

I. Records Review

Electric Safety and Reliability Branch (ESRB) staff reviewed the following standards, procedures, and records for Alameda Municipal Power (AMP):

- Alameda Municipal Power Overhead/Underground Preventative Inspection Program.
- Alameda Municipal Power Service Map.
- Statistics on distribution facilities and circuit maps.
- Completed maintenance tags, January 2018 to December 2020.
- Patrol and detailed inspection records with identified maintenance tags, June 2022 to March 2023.
- Reliability metrics, January 2018 to March 2023.
- New completed construction project list, January 2022 to March 2023.
- Pole loading calculations, January 2022 to March 2023.
- Outgoing third-party notifications list, January 2022 to March 2023.
- List of inspectors and qualifications, January 2018 to March 2023.
- Equipment test records, December 2021 to March 2023.

II. Records Review Violations

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

1. **General Order (GO) 165, Section III-C, Record Keeping** states in part:

   "The utility shall maintain records for (1) at least ten (10) years of patrol and detailed inspection activities, and (2) the life of the pole for intrusive inspection activities. Such records shall be made available to parties or pursuant to Commission rules upon 30 days notice. Commission staff shall be permitted to inspect such records consistent with Public Utilities Code Section 314 (a).

   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."

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

"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."

Per GO 165, Section III-C, utilities are required to maintain records of patrol and detailed inspections for at least 10 years (effective as of 2012) and per GO 95, Rule 18-A(1) utilities are required to retain work order records for at least 10 years (effective as of January 2015).

ESRB requested that AMP provide the underground and overhead patrols and inspections completed from January 2018 to December 2022 and the resulting maintenance tags. AMP provided the completed maintenance tags from January 2018 to December 2020 and the patrols and inspections from June 2022 to March 2023 with the resulting maintenance tags. However, AMP was unable to provide the records for the patrols and inspections from January 2018 to May 2022 and the maintenance tags created from January 2021 to May 2022. AMP acknowledged the record keeping issues and stated they are currently developing a new asset management system to track their patrols, inspections, and work orders.

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."

GO 128, Rule 17.2, Inspection states:

"Systems shall be inspected by the operator frequently and thoroughly for the purpose of insuring that they are in good condition and in conformance with all applicable requirements of these rules."

GO 128, Rule 22.4, A Maintenance Program states:

> *"A Maintenance Program means a written policy that shall include the following key elements:*
> *(1) Inspection intervals*
> *(2) Rejection criteria*
> *(3) Corrective actions"*

AMP's *Preventative Inspection Program* for overhead and underground facilities outlines the priority codes and associated time frames for response as follows:

- **Priority 1 – Immediate Hazard:**
  Conditions that immediately affect the integrity of the system or present a hazard to workers or the public. Tags will be responded to immediately and appropriate action taken until the hazardous condition is remedied.
- **Priority 2 – Non-emergency repair condition:**
  Conditions that require maintenance or repair, but that can be scheduled. Tags will be prioritized by urgency and will be scheduled to have appropriate action taken correct the condition within 6 months, or as practicable.
- **Priority 3 & 4 – Non-emergency repair condition:**
  Conditions that do not present a situation that could jeopardize the safety of the system. Tags will be issued by the inspector with the time interval recommended:
  - 1 year for priority 3 tags
  - 3 years for priority 4 tags
- **Satisfactory Conditions:**
  Facilities that are found to be within standards and do not require maintenance or repair shall have the completion of their inspections recorded with the date and name of the inspector.

AMP currently uses Excel spreadsheets and a geospatial information system (GIS) to track their assets, work orders, and inspections. The tracking spreadsheet uses six priority codes for the overhead and underground inspections. This includes a Priority 5 to indicate a completed inspection with no work needed and a Priority 6 for an issue completed in the field by the inspector. However, AMP's *Preventative Inspection Manual* only outlines four priority codes for staff to use during patrols and inspections, as shown above. The *Prevention Inspection Manual* also does not outline the procedure for sending or receiving third-party notifications for issues found during patrols and inspections, and it does not have a standard inspection guideline that includes objective standards and measurements that meet repair criteria to ensure consistency with patrols and inspections.

Additionally, in the current system AMP does not track the history of the work orders or past inspections. When AMP adds additional data, the old information is overridden, and the system does not record past notes on work orders, inspections, or assets. Without the work order and inspection history, AMP is unable to see the full extent of potential issues with their assets or track if there are any reoccurring or chronic problems within their system.

AMP shall update its *Preventative Inspection Program* to align directly with the requirements and workings of the new asset management system, including updating the priority codes and the third-party notification process, incorporating a standard inspection guideline, and implementing a way to track the history of work orders and assets.

III. Field Inspection

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

Location	Equipment Number/ Equipment Address	Structure Type
1	CA5860	Pole
2	Corner of 5th Street and Central Avenue	Pole
3	CA01863	Pole
4	CA01834	Pole
5	Pole with switch A303 at 503 Central Avenue	Pole
6	511 Central Avenue	Pole
7	523 Central Avenue	Pole
8	1500 Santa Clara Avenue at corner of Benton Street and Santa Clara Avenue	Pole
9	1448 Benton Street	Pole
10	1440 Benton Street	Pole
11	1424 Benton Street	Pole
12	CA24030 at 1316 Chestnut Street	Pole
13	CA24040 at 2001 Alameda Avenue	Pole
14	CA24050 at 1228 Chestnut Street	Pole
15	Corner of Armitage Street and Pattinson Way	Underground Vault
16	Corner of Armitage Street and Pattinson Way	Underground Vault – Primary Pull Box
17	Corner of Armitage Street and Pattinson Way	Underground Vault – Secondary Pull Box
18	L-725	Pad Mount Transformer
19	Corner of Mecartney Road and Aughinbaugh Way	Underground Vault – Primary Box
20	L-584	Pad Mount Switch
21	2901 Bay View Parkway	Underground Vault – Primary Pull Box
22	LT-631	Pad Mount Transformer
23	LT632	Pad Mount Transformer
24	122 Gainsborough Court	Underground Vault – Splice Box
25	LT-642	Pad Mount Transformer
26	L-921	Pad Mount Transformer
27	L-920	Pad Mount Transformer
28	Across the street from Suite 300 near L-920/L-921	Underground Vault – Primary Pull Box
29	L-917	Pad Mount Transformer
30	L-919	Pad Mount Transformer
31	CA26000	Pole

32	CA15070	Pole
33	CA38210	Pole
34	CA14290	Pole
35	CA23750	Pole
36	CA10380	Pole
37	CA23740	Pole
38	CA11250	Pole
39	CA23720	Pole
40	CA60980	Pole
41	West Corner of Grand Avenue and Clement Street	Pole
42	CA60970	Pole
43	CA60960	Pole
44	1801 Grand Street	Pole
45	CA60950	Pole
46	CA61370	Pole
47	CA61360	Pole
48	CA61350	Pole
49	CA61340	Pole
50	1311 Fernside Boulevard	Pole
51	1305 Fernside Boulevard	Pole
52	3286 Encinal Avenue	Pole
53	Corner of Encinal Avenue and Fernside Boulevard	Pole
54	CA20300 at 3304 Encinal Avenue	Pole
55	3312 Encinal Avenue	Pole
56	LX-193	Pad Mount Transformer
57	LX-225	Pad Mount Transformer
58	In front of LX-225	Underground Vault – Primary Pull Box
59	L-161	Pad Mount Transformer
60	L-159	Pad Mount Transformer
61	L-164	Pad Mount Transformer
62	2620 Washington Street	Pole
63	CA27650	Pole
64	CA27640 at 1109 Pearl Street	Pole
65	CA27630	Pole
66	CA27620	Pole
67	1174 Park Avenue	Pole
68	1190 Park Avenue	Pole
69	South Corner of San Jose Avenue and Park Avenue near 1196 San Jose Avenue	Pole
70	CA11100	Pole
71	1206 Park Avenue	Pole
72	2820 Barbers Point Road (backyard)	Pole

73	CA454400 at 2840 Barbers Point Road	Pole
74	LX-335	Pad Mount Transformer
75	CA45430 at Corner of Main Street and Ferry Street	Pole
76	CA46230	Pole
77	CA46220	Pole
78	CA46210	Pole
79	CA46170	Pole
80	CA46090	Pole
81	CA46100	Pole
82	CA46110	Pole
83	LX-383	Pad Mount Transformer
84	LX-374	Pad Mount Transformer
85	LM-424	Pad Mount Motorized Switch
86	Near LM-424	Underground Vault – Splice Box
87	LM-350	Pad Mount Motorized Switch
88	LX-353	Pad Mount Transformer
89	LM-616	Pad Mount Motorized Switch
90	1701 Wood Street	Pole
91	Corner of Wood Street and Pacific Avenue near 1629 Wood Street	Pole
92	919 Lincoln Avenue	Pole
93	915 Lincoln Avenue	Pole
94	901 Lincoln Avenue	Pole
95	Corner of Lincoln Avenue and Wood Street near 917 Lincoln Avenue	Pole
96	Corner of Hawthorne Street and San Antonio Avenue near 1050 San Antonio Avenue	Pole
97	Corner of Hawthorne Street and San Antonio Avenue, along Hawthrone Street	Pole
98	1036 San Antonio Avenue	Pole
99	1035 San Antonio Avenue	Pole
100	1026 San Antonio Avenue	Pole
101	Corner of Caroline Street and San Antonio Avenue	Pole

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."

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

Table 1: GO 95, Rule 31.1 Findings

Location	Finding
33	Pole CA38210 is located along a paved road and is missing visibility strips. The down guy anchor head for Pole CA38210 is buried in the ground.
34	Pole CA14290 has a tree that is pressing against and deflecting the anchor guy.
35	Pole CA23750 has a rusted overhead transformer.
45	The down guy anchor head for Pole CA60950 is partially buried in the ground.
76	Pole CA46230 is located along a paved road and is missing visibility strips. Pole CA46230 has bolts along the pole that are extending more than 1.5 inches from the pole and require trimming.
81	The secondary down guy anchor head for Pole CA46100 is buried in the ground.
91	The Pole at the corner of Wood Street and Pacific Avenue (1629 Wood Street) has an unsecured bolt with a loose nut.
92	The Pole at 919 Lincoln Avenue has a tree that is pressing against and deflecting the anchor guy.
95	The Pole at the corner of Lincoln Avenue and Wood Street (917 Lincoln Avenue) is located along a paved road and is missing visibility strips.

99	The Pole at 1035 San Antonio Avenue is located along a paved road and is missing visibility strips.
100	The Pole at 1026 San Antonio Avenue is located along a paved road and is missing visibility strips.
101	The Pole at the corner of Caroline Street and San Antonio Avenue is located along a paved road and is missing visibility strips.

2. **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's finding related to the above rule is listed in Table 2:

Table 2: GO 95, Rule 31.6 Finding

Location	Finding
98	The Pole at 1036 San Antonio Avenue has an abandoned wire in the underarm bus.

3. **GO 95, Rule 34, Foreign Attachments** states in part:

   "Nothing in these rules shall be construed as permitting the unauthorized attachment, to supply, street light or communication poles or structures, of antennas, signs, posters, banners, decorations, wires, lighting fixtures, guys, ropes and any other such equipment foreign to the purposes of overhead electric line construction.

   Nothing herein contained shall be construed as requiring utilities to grant permission for such use of their overhead facilities; or permitting any use of joint poles or facilities for such permanent or temporary construction without the consent of all parties having any ownership whatever in the poles or structures to which attachments may be made; or granting authority for the use of any poles, structures or facilities without the owner's or owners' consent.)."

   ESRB's findings related to the above rule are listed in Table 3:

Table 3: GO 95, Rule 34 Findings

Location	Finding
41	The Pole at the west corner of Grand Avenue and Clement Street has an unauthorized third-party attachment.
43	Pole CA60960 has an unauthorized third-party attachment.
76	Pole CA46230 has an unauthorized third-party attachment.
49	Pole CA61340 has an unauthorized third-party attachment.

4. **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 4:

Table 4: GO 95, Rule 35 Findings

Location	Finding
5	Excessive vegetation is surrounding the service drop to 507 Central Avenue from the Pole at 503 Central Avenue and causing possible strain and abrasion.

10	Excessive vegetation is surrounding the service wires on the Pole at 1440 Benton Street and causing possible strain and abrasion.
11	Excessive vegetation is surrounding the service wires on the Pole at 1424 Benton Street and causing possible strain and abrasion.
79	Excessive vegetation is surrounding the secondary lines on Pole CA46170 and causing possible strain and abrasion.
90	Excessive vegetation is surrounding the service drop on the Pole at 1701 Wood Street and causing possible strain and abrasion.

5. **GO 95, Rule 37, Minimum Clearances of Wires above Railroads, Thoroughfares, Buildings, Etc.** states in part:

> *"Clearances between overhead conductors, guys, messengers or trolley span wires and tops of rails, surfaces of thoroughfares or other generally accessible areas across, along or above which any of the former pass; also the clearances between conductors, guys, messengers or trolley span wires and buildings, poles, structures, or other objects, shall not be less than those set forth in Table 1, at a temperature of 60° F. and no wind.*
>
> *Table 1, Case 13: Radial clearance of bare line conductors from tree branches or foliage must be at least 18 inches from Supply Conductors and Supply Cables, 750-22,500 Volts."*

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

Table 5: GO 95, Rule 37 Findings

Location	Finding
6	The vegetation is less than 18 inches from the primary lines on the Pole at 523 Central Avenue.
50	The vegetation is less than 18 inches from the primary lines on the Pole at 1311 Fernside Boulevard.
79	Pole CA46170 has bare secondary lines on the primary level traveling through dense vegetation with less than 18 inches of radial clearance.

6. **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).

Poles that support risers of more than 750 volts, which are not supporting line conductors of more than 750 volts, shall be marked with a high voltage sign(s). The top of such sign(s) shall be located between the level of the lowest exposed energized portion of the riser to no more than 40" below that portion of the riser."

ESRB's findings related to the above rule are listed in Table 6:

Table 6: GO 95, Rule 51.6-A Findings

Location	Finding
7	The Pole at 511 Central Avenue has loose high voltage signs.
13	Pole CA24040 at 2001 Alameda Avenue has damaged high voltage signs.
36	Pole CA10380 has a damaged high voltage sign.
41	The Pole at the west corner of Grand Avenue and Clement Street is missing a high voltage sign.
43	Pole 60960 has a broken high voltage sign.
72	The Pole in the backyard at 2820 Barbers Point Road has a damaged high voltage sign.
97	The Pole along Hawthorne Street at the corner of San Antonio Avenue and Hawthorne Street has a damaged high voltage sign.

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

"Ground wires shall have a conductivity and mechanical strength at least equal to that of No. 8 AWG medium–hard–drawn copper wire; they shall not be installed on the top surfaces of crossarms; and they shall have clearances of not less than 1.5 inches from hardware in accordance with the provisions of Rules52.7–B and 52.7–C.

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

Table 7: GO 95, Rule 54.6-B Findings

Location	Finding
48	Pole CA61350 has an exposed ground wire leading to the transformer.
72	The Pole in the backyard at 2820 Barbers Point Road has an exposed secondary ground wire.

8. **GO 95, Rule 54.8-C(4), Service Drops 0-750 Volts, Clearances between Supply Service Drops and Other Conductors** states in part:

“The clearances of supply service drop conductors from other conductors shall be not less than the minimum clearances specified in Rule 38, Table 2, Column D, with the following modifications:

(4) From Communication Service Drops: The radial clearance between supply service drop conductors and communication service drop conductors may be less than 48 inches as specified in Table 2, Column C, Cases 4 and 9; Column D, Cases 3 and 8, but shall be not less than 24 inches. Where within 15 feet of the point of attachment of either service drop on a building, this clearance may be further reduced but shall be not less than 12 inches.”

ESRB’s finding related to the above rule is listed in Table 8:

Table 8: GO 95, Rule 54.8-C(4) Finding

Location	Finding
62	The service drop and communication cable on the Pole at 2620 Washinton Street are making contact and do not have the required 12 inches of clearance.

9. **GO 95, Rule 56.4-A.(1)(a)(2), Clearances, Above Ground, Over Across or Along Public Thoroughfares** states in part:

“A clearance of not less than 14 feet is permitted for the portions of guys over that part of the public thoroughfare which is an entrance to or exit from private residential premises.”

ESRB's finding related to the above rule is listed in Table 9:

Table 9: GO 95, Rule 56.4-A(1)(a)(2) Finding

Location	Finding
39	The anchor guy attached to Pole CA23720 is less than 14 feet above a residential driveway.

10. **GO 95, Rule 56.4-C(4), Clearances, From Conductors, Passing on Same Poles** states:

"The radial clearances between guys and conductors supported by or attached to the same poles or crossarms shall not be less than as specified in Table 2, Case 19."

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

Table 10: GO 95, Rule 56.4-C(4) Findings

Location	Finding
13	Pole CA24040 has an anchor guy that is less than the required 3 inches away from the communication line and is contacting the secondary conductor above the guy insulator.
32	Pole CA15070 has an anchor guy that is less than the required 3 inches away from the communication line.
34	Pole CA14290 has an anchor guy that is less than the required 3 inches away from the communication line.
55	The Pole at 3312 Encinal Avenue has an anchor guy that is less than the required 3 inches away from the secondary lines and there is contact between the secondary and communication lines. AMP has the Pole at 3312 Encinal Avenue scheduled for replacement after Osmose testing revealed rotting in the pole, and all issues with the pole will be resolved when it is replaced.
78	Pole CA46210 has an anchor guy that is less than the required 3 inches away from the communication line and is contacting the communication line.
97	The Pole along Hawthrone Street at the corner of Hawthorne Street and San Antonio Avenue has an anchor guy that is less than the required 3 inches away from the communication line and is contacting the communication line.

95	The Pole at corner of Lincoln Avenue and Wood Street near 917 Lincoln Avenue has a communications ground wire attached to distribution down guy above the guy insulator.

11. GO 95, Rule 56.4-D(2), Clearances, From Guys or Span Wires, Passing and Attached to Same Pole states:

"Passing and Attached to Same Pole: The radial clearance between different guys, different span wires, or different guys and span wires, attached to the same pole shall not be less than 3 inches."

ESRB's finding related to the above rule is listed in Table 11:

Table 11: GO 95, Rule 56.4-D(2) Finding

Location	Finding
46	Pole CA61370 has anchor guy that is less than the required 3 inches away from another anchor guy. AMP has Pole CA61370 scheduled for replacement after Osmose testing revealed rotting in the pole, and all issues with the pole will be resolved when it is replaced.

12. GO 95, Rule 56.7-A, Location of Sectionalizing Insulators, Overhead Guys states in part:

"Insulators installed in overhead guys to sectionalize such guys as required by any portion of Rule 56.6 shall be located at a distance of not less than 6 feet and not more than 9 feet, measured along the guys, from the points of attachment of the guys to poles, crossarms or structures."

ESRB's finding related to the above rule is listed in Table 12:

Table 12: GO 95, Rule 56.7-A Finding

Location	Finding
98	The guy insulator is located less than 6 feet along the overhead guy attached to the Pole at 1036 San Antonio Avenue.

13. 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 13:

Table 13: GO 95, 56.7-B Findings

Location	Finding
34	Pole CA14290 has vegetation above the guy insulator that is contacting and grounding the anchor guy.
48	Pole CA61350 has vegetation above the guy insulator that is contacting and grounding the anchor guy.
49	Pole CA61340 has vegetation above the guy insulator that is contacting and grounding the anchor guy.
51	The Pole at 1305 Fernside Boulevard has vegetation above the guy insulator that is contacting and grounding the anchor guy.
92	The Pole at 919 Lincoln Avenue has vegetation above the guy insulator that is contacting and grounding the anchor guy.

14. 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 14:

Table 14: GO 95, Rule 56.9 Findings

Location	Finding
32	The outermost guy guard on Pole CA15070 has shifted up and is no longer securely attached to the lowest portion of the anchor guy.
33	The outermost guy guard on Pole CA38210 is missing high visibility markers.

34	The outermost guy guard on Pole CA14290 is missing high visibility markers.
95	The outermost guy guard on the Pole at the corner of Lincoln Avenue and Wood Street (917 Lincoln Avenue) is missing high visibility markers.

15. 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 15:

Table 15: GO 128, Rule 17.1 Findings

Location	Finding
18	Pad Mount Transformer L-725 has rust and corrosion on the enclosure.
27	The Pad Mount Transformer L-920 has a faded number tag and a gauge showing low oil levels.
56	Pad Mount Transformer LX-193 has a gauge showing low oil levels.
88	Pad Mount Transformer LX-353 has a gauge showing low oil levels and was leaking oil from the C Phase primary elbow inside the transformer and onto the pad outside of the transformer.

16. GO 128, Rule 32.7, Manholes, Handholes and Subsurface Equipment Enclosures, Covers states in part:

> *"Manholes, handholes, and subsurface equipment enclosures while not being worked in, shall be securely closed by covers of sufficient strength to sustain such loads as may reasonably be imposed upon them and arrangements shall be such that a tool or appliance shall be required for their opening and cover removal. (Also see Rule 17.8, and Appendix B, Figs. 9 and 17.)"*

ESRB's findings related to the above rule are listed in Table 16:

Table 16: GO 128, Rule 32.7 Findings

Location	Finding
15	The underground vault at the corner of Armitage Street and Pattinson Way has a damaged lid. AMP has placed a temporary cover over the underground vault until it can be replaced.
21	The underground vault at 2901 Bay View Parkway was lifted off the ground with tree roots growing into the interior, making it accessible by the public, creating a tripping hazard, and keeping the enclosure lid from being secured.
58	The underground primary vault in front of Pad Mount Transformer LX-193 has no bolts securing the lid and is accessible by the public.

17. GO 128, Rule 34.2-C, Equipment in Manholes, Vaults, Rooms and Other Enclosures, 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 17:

Table 17: GO 128, Rule 34.2-C Findings

Location	Finding
23	Vegetation obstructed access to Pad Mount Transformer LT-632
84	Vegetation obstructed access to Pad Mount Transformer LT-374

18. GO 128, Rule 34.3-A, Self-contained Surface-mounted Equipment, Strength states:

> *"The equipment case or enclosure shall be secured in place and be of sufficient strength to resist entrance or damage to the equipment by unauthorized persons."*

ESRB's findings related to the above rule are listed in Table 18:

Table 18: GO 128, Rule 34.3-A Findings

Location	Finding
84	The Pad Mount Transformer LX-374 was not bolted down or secured to the pad.
88	The Pad Mount Transformer LX-353 was not bolted down or secured to the pad.

19. GO 128, Rule 35.3, Warning Signs states:

> *"Warning signs indicating high voltage shall be installed on an interior surface, or barrier if present, inside the entrance of vaults, manholes, handholes, pad mounted transformer compartments, and other above ground enclosures containing exposed live parts above 750 volts. Such warning signs shall also be installed on an exterior surface of all such pad mounted transformer compartments and other above ground enclosures. Such signs shall be clearly visible to a person in position to open any such access door, other opening, or barrier."*

ESRB's findings related to the above rule are listed in Table 19:

Table 19: GO 128, Rule 35.3 Findings

Location	Finding
87	Pad Mount Motorized Switch LM-350 has a faded high voltage sign.
89	Pad Mount Motorized Switch LM-616 has a faded high voltage sign.

20. GO 128, Rule 36.5-C, Grounding and Bonding of Conductors and Equipment, Grounding Methods states in part:

> *"Conductors and equipment required by Rule 36.5–A to be grounded shall be effectively grounded by one or more of the following methods:*

(1) Burial in Earth: Bare neutral conductors, metallic cable sheaths and shields, metal pipes and metal conduits may be grounded by burying them directly in the earth.
(2) Grounding Electrodes: Conductors and equipment may be grounded by connections at one or more locations to driven ground rods or other suitable grounding electrodes.
(3) Bonding: Conductors and equipment may be grounded by bonding at one or more locations to conductors or equipment grounded in accordance with Rule 36.5–C1 or Rule 36.5–C2."

ESRB's finding related to the above rule is listed in Table 20:

Table 20: GO 128, Rule 36.5-C Finding

Location	Finding
59	Pad Mount Transformer L-161 has no grounding rod or other grounding method.

V. Observations

1. ESRB staff observed various issues with splices on AMP facilities that present a potential safety hazard. During the field inspection, ESRB and AMP staff discussed that the splices should not be installed closer than 18 inches from the pole connection point.

ESRB recommends addressing and resolving the following issues listed in Table 21:

Table 21: AMP Audit Observations

Location	Observations
31	The automatic splices on the conductor span on Pole CA26000 are tied in too close to the supporting insulator and may be preventing free movement of the splice with the conductor.
48	The automatic splices on the conductor span on Pole CA61350 are tied in too close to the supporting insulator and may be preventing free movement of the splice with the conductor.
53	The automatic splices on the conductor span on the Pole at the corner of Encinal Avenue and Fernside Boulevard are tied in too close to the supporting insulator and may be preventing free movement of the splice with the conductor.
70	The automatic splices on the conductor span on Pole CA11100 are tied in too close to the supporting insulator and may be preventing free movement of the splice with the conductor.

2. 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 following third-party safety concerns listed in Table 22:

Table 22: Third-Party Audit Observations

Location	Observations
2	The Pole at the corner of 5th Street and Central Avenue has an exposed communications grounding wire.
6	The conductor span between the Poles at 511 Central Avenue and 523 Central Avenue has a broken communications lashing wire. The Pole at 511 Central Avenue has strain and abrasion from vegetation on the communications line.
7	The Pole at 523 Central Avenue has an abandoned communications line.
14	Pole CA24050 has a loose communications cable that is not secured to the pole.
32	Pole CA15070 has an exposed communications grounding wire.
33	Pole CA38210 has an unattached communications guy wire that needs to be anchored.
37	Pole CA23740 has an abandoned communications line.
39	Pole CA23720 has a slack communications down guy that is hanging low over a residential driveway.
40	Pole CA60980 has an abandoned communications line.
45	Pole CA60950 has an exposed and damaged communications grounding wire.
48	Pole CA61350 has an exposed communications grounding wire.

55	The Pole at 3312 Encinal Avenue has a loose communications lashing wire. The Pole at 3312 Encinal Avenue has a communications line contacting the secondary conductor, which could potentially lead to an energized communications line.
62	The Pole at 2620 Washington Street has an abandoned communications line.
64	Pole CA27640 has an incorrect connection between the service drop and weatherhead.
72	The Pole at 2820 Barbers Point Road has an abandoned communications line.
75	Pole CA45430 has a slack communications down guy.
77	Pole CA46220 has missing visibility strips on the communications down guy.
79	Pole CA46170 has a loose communications line that is pulling away from the building.
80	Pole CA46090 has a slack communications down guy.
81	Pole CA46100 has an exposed communications grounding wire.
82	Pole CA46110 has an exposed communications grounding wire.
92	The Pole at 919 Lincoln Avenue has an exposed communications grounding wire.
93	The Pole at 915 Lincoln Avenue has loose communications hardware.
95	The Pole at corner of Lincoln Avenue and Wood Street (917 Lincoln Avenue) has a communications ground/messenger attached to an electrical service guy above the guy insulator.
96	The Pole at Corner of Hawthorne Street and San Antonio Avenue (1050 San Antonio Avenue) has an abandoned communications line and a loose communications line.
99	The Pole at 1035 San Antonio Avenue has a loose communications messenger not secured to the pole.