

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



August 24, 2016

CA2016-013

Steve Stone
Engineering Manager, Outside Plant
Volcano Communications
20000 Hwy 88
Pine Grove, CA 95662

Subject: Audit of Volcano Communications

Mr. Stone:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Raymond Cho of my staff conducted a Communication Infrastructure Provider (CIP) audit of Volcano Communications from July 27, 2016 to July 29, 2016. The audit included a review of Volcano Communications' maintenance records and field inspection of Volcano Communications' facilities.

During the audit, my staff identified violations of one or more General Orders (GOs). A copy of the audit findings itemizing the violations is enclosed. Please advise me no later than September 26, 2016, by electronic or hard copy, of all corrective measures taken by Volcano Communications to remedy and prevent such violations.

If you have any questions concerning this audit, you can contact Raymond Cho at (415) 703-2236 or raymond.cho@cpuc.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Fadi Daye".

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

Enclosure: Audit Findings

Cc: Elizaveta Malashenko, Director, Safety and Enforcement Division, CPUC
Charlotte TerKeurst, Program Manager, Electric Safety and Reliability Branch, CPUC

Audit Findings

I. Records Review

During the audit, my staff reviewed the following records:

- Inspections conducted after December 29, 2015
- Pole Loading Calculations for poles near Ridge Rd. and Conductor Ct.
- Completed Work Orders – March 2011 through June 2016
- Detail Inspections – February 2011 through June 2016
- “Communications Outside Plant Reference Guide” – Handbook of best practices

II. Records Review – Violations

GO 95, Rule 80.1-A2, Statewide Inspection Requirements, states:

Each company shall prepare, follow, and modify as necessary, procedures for conducting patrol or detailed inspections for all of its Communication Lines throughout the State. Consistent with Rule 31.2, the type, frequency and thoroughness of inspections shall be based upon the following factors:

- *Fire threat*
- *Proximity to overhead power line facilities*
- *Terrain*
- *Accessibility*
- *Location*

Each company that discovers a safety hazard on or near a communications facility or electric facility involving another company while performing inspections of its own facilities pursuant to this rule shall notify the other company and/or facility owner of such safety hazard in accordance with Rule 18(B).

Each company’s procedures shall describe (i) the methodology used to ensure that all Communication Lines are subject to the required inspections, and (ii) the procedures used for specifying what problems should be identified by the inspections. The procedures used for specifying what problems should be identified by the inspections shall include a checklist for patrol inspections.

Volcano Communication’s program does not describe the methodology used to ensure all of Volcano’s facilities are inspected and what problems should be identified.

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 these rules.

Volcano Communications does not inspect its underground facilities.

III. Field Inspection

The following are the facilities we inspected during the field inspection:

Identification	Type of Structure	Location
J&M Fiber Extension Project	4 Poles	Ione
300013	Pole	Mokelumne Hill
300014	Pole	Mokelumne Hill
300015	Pole	Mokelumne Hill
300016	Pole	Mokelumne Hill
300017	Pole	Mokelumne Hill
300983	Pole	Mokelumne Hill
300018	Pole	Mokelumne Hill
300019	Pole	Mokelumne Hill
304940	Pole	Pioneer
302732	Pole	Lodi
300877	Pole	Pioneer
300902	Pole	Pioneer
300919	Pole	Pioneer
302821	Pole	Pioneer
300918	Pole	Pioneer
304709	Pole	Pioneer
20414	Pole	Jackson
10	Pole	Pioneer
20053	Pole	Jackson
20131	Pole	Pine Grove
20048	Pole	Jackson
20130	Pole	Pine Grove
1019	Pole	Pioneer
303548	Pole	Pioneer
1020	Pole	Pioneer
20048	Pole	Jackson
20369	Pole	Jackson
20328	Pole	Pine Grove
1096	Pole	Pine Grove
300947	Pole	Pioneer
20416	Pole	Fiddletown
305026	Pole	Jackson
301035	Pole	Pioneer
1003	Pole	Pioneer
301536	Pole	Pioneer
301539	Pole	Pioneer

IV. Field Inspection – Undocumented Violations List

We observed the following violations during the field inspection. None of the violations were documented and/or addressed by Volcano Communications during its last inspections:

GO 95, Rule 38, Case 9-C, requires a 48 inches clearance between supply service drops and communication conductors on the same pole when a guard arm is installed.

A Volcano Communications conductor installed at pole number 300013 was about 36 inches away from an electric service drop on the same pole.

GO 95, Rule 84.7-A, Climbing Space, states in part:

Climbing space shall be maintained on one side or quadrant of all poles or structures supporting communications conductors excepting at the level of the one pair of conductors attached to the pole below the lowest crossarm (Rules 84.4-C1c , 84.4-D1 and 87.4-C3) and the top 3 feet of poles carrying communication conductors only which are attached directly to pole in accordance with the provisions of Rule 84.4-C1c.

Vegetation impeded climbing space on pole number 300947.

GO 95, Rule 87.7-D, Risers, states in part:

Risers shall be protected from the ground level to a level not less than 8 feet above the ground by:

(a) Securely or effectively grounded iron or steel pipe (or other covering at least of equal strength). When metallic sheathed cable rising from underground non-metallic conduit is protected by metallic pipe or moulding, such pipe or moulding shall be effectively grounded as specified in Rule 21.4-A, or

(b) Non-metallic conduit or rigid U-shaped moulding. Such conduit or moulding shall be of material as specified in Rule 22.8.

A ground wire on pole number 20131 was exposed.

GO 95, Rule 91.3-A1, Poles with Vertical Runs or Risers, states in part:

All jointly used poles which support supply conductors shall be provided with pole steps if vertical runs or risers are attached to the surface of such poles, unless the conditions described in the following subparagraphs (a), (b) or (c) are met...

GO 95, Rule 18-A1c, Resolution of Safety Hazards and GO 95 Nonconformances, states in part:

Where a communications company's or an electric utility's actions result in GO nonconformances for another entity, that entity's remedial action will be to transmit a single documented notice of identified nonconformances to the communications company or electric utility for compliance.

Pole number 20131 is a jointly used pole with vertical runs but was not stepped. In addition, Volcano did not notify the other pole users of this violation.

V. Field Inspection – Documented Violations List

We observed the following violations during the field inspection. These violations were documented and/or addressed by Volcano Communications during its last inspections:

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.

Poles numbered 20048 and 10 were not stepped, however, Volcano Communications' records indicated that work to install steps on the poles was complete.

GO 95, Rule 86.6-B2, Guys in Proximity, states in part:

Every overhead or anchor guy, any portion of which is in proximity to a wood pole and supply conductors of 0 - 35,500 volts (see Appendix G, Figures 45 , 48 and 49) shall be sectionalized by means of insulators as specified in Rule 86.7–A2 or Rule 86.7–B , and no portion in proximity to such supply conductors shall be grounded...

An insulator was missing on a Volcano Communications down guy wire installed on pole number10.