

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



October 9, 2015

CA2015-003

Asia M. Powell  
Verizon  
2535 W Hillcrest Drive  
Thousand Oaks, CA 91320

**SUBJECT:** Audit of Verizon's San Bernardino County District

Dear Ms. Powell:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Zelalem Ewnetu of my staff conducted a Communication Infrastructure Provider (CIP) audit of Verizon's San Bernardino County district from August 31, 2015 to September 4, 2015. The audit included a review of Verizon's maintenance records and field inspection of the San Bernardino County district's 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 November 13, 2015, by electronic or hard copy, of all corrective measures taken by Verizon to remedy and prevent such violations.

If you have any questions concerning this audit, you can contact Zelalem Ewnetu at (213) 576-7042 or [zel@cpuc.ca.gov](mailto:zel@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:

- Construction records and pole loading calculations for six cable installation projects located in San Bernardino County, completed in 2014 and 2015.
- 2013, 2014, and 2015 open work orders resulting from third-party notifications.
- Records of scheduled detailed inspections for facilities located in San Bernardino County.
- Records of 2015 Verizon technician “T-zone” field inspections – conducted during the course of normal duties – in San Bernardino County.

### **II. Records Review – Violations List**

#### **GO 95, 31.2, Inspection of Lines, states:**

*Lines shall be inspected frequently and thoroughly for the purpose of ensuring 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.*

#### **GO 95, Rule 80.1-A2, Statewide Inspection Requirements, states in part:**

*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*

Verizon performs its inspection on a 25-year cycle (once each 25 years). This cycle does not comply with the intention of the above rules. Inspecting communications facilities once every 25 years is not considered “frequently” and does not allow Verizon, or any other company, to ensure that their facilities are kept in good condition and in conformance with the requirements of GO 95.

### III. Field Inspection

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

Structure Number	Type of Structure	City
4385447E	Pole	Rancho Cucamonga
4383448E	Pole	Rancho Cucamonga
1892025E	Pole	Rancho Cucamonga
1292026E	Pole	Rancho Cucamonga
1892027E	Pole	Rancho Cucamonga
2064842E	Pole	Rancho Cucamonga
1533626E	Pole	Rancho Cucamonga
4308663E	Pole	Rancho Cucamonga
1386896E	Pole	Rancho Cucamonga
1386888E	Pole	Rancho Cucamonga
1386895E	Pole	Rancho Cucamonga
1533624E	Pole	Rancho Cucamonga
1533623E	Pole	Rancho Cucamonga
1533622E	Pole	Rancho Cucamonga
4326620E	Pole	Rancho Cucamonga
1386755E	Pole	Rancho Cucamonga
263636S	Pole	Victorville
4200112E	Pole	Victorville
4827135E	Pole	Victorville
263632	Pole	Victorville
367072S	Pole	Victorville
263631S	Pole	Victorville
4200111E	Pole	Victorville
4206110E	Pole	Victorville
2252752E	Pole	Victorville
363618	Pole	Victorville
363617S	Pole	Victorville
4714936E	Pole	Victorville
4615995E	Pole	Hesperia
4615996E	Pole	Hesperia
32104CIT	Pole	Hesperia
4219171E	Pole	Hesperia
4219172E	Pole	Hesperia
1552821E	Pole	Hesperia
1847911E	Pole	Barstow
1847920E	Pole	Barstow

1847909E	Pole	Barstow
1847908E	Pole	Barstow
1847907	Pole	Barstow
1847906	Pole	Barstow
4572908E	Pole	Barstow
4545876E	Pole	Barstow
4545877E	Pole	Barstow
28161S	Pole	Barstow
4785384E	Pole	Barstow
229391S	Pole	Barstow
328937S	Pole	Barstow
28163S	Pole	Barstow
9998BV	Pole	Big Bear Lake
9999BV	Pole	Big Bear Lake
10000BV	Pole	Big Bear Lake
10001BV	Pole	Big Bear Lake
10002BV	Pole	Big Bear Lake
CIT35691	Pole	Big Bear Lake
CIT35690	Pole	Big Bear Lake
5559BV	Pole	Big Bear Lake
10675BV	Pole	Big Bear Lake
10674BV	Pole	Big Bear Lake
10673BV	Pole	Big Bear Lake
5099BV	Pole	Big Bear Lake
CTC1211625	Pole	Big Bear Lake
35950CIT	Pole	Big Bear Lake
4844BV	Pole	Big Bear Lake
4843BV	Pole	Big Bear Lake
10671BV	Pole	Big Bear Lake
10672BV	Pole	Big Bear Lake
35530CIT	Pole	Big Bear Lake
BV10808	Pole	Big Bear Lake
BV10809	Pole	Big Bear Lake
BV11024	Pole	Big Bear Lake
4132BV	Pole	Big Bear Lake
BV11547	Pole	Big Bear Lake
10474BV	Pole	Big Bear Lake
5493BV	Pole	Big Bear Lake
6535BV	Pole	Big Bear Lake
5068BV	Pole	Big Bear Lake
5067BV	Pole	Big Bear Lake

42909	Pole	29 Palms
348921E	Pole	29 Palms
42910S	Pole	29 Palms
40047	Pole	29 Palms
4748128E	Pole	29 Palms
2389701E	Pole	29 Palms
33731	Pole	29 Palms
33201	Pole	29 Palms
26457	Pole	29 Palms
1137328E	Pole	Rancho Cucamonga
H6380Y	Pole	Rancho Cucamonga
787683E	Pole	Rancho Cucamonga
H4974Y	Pole	Rancho Cucamonga
Pole at 5987 Mt Baldy Rd	Pole	Upland
H30492	Pole	Upland
BB-3	Manhole	Upland
T271031	Hand-hole	Upland
T1271028	Hand-hole	Upland

#### **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 Verizon 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.*

The following pole supported Verizon cables with loose/broken lashing wires:

- 1386896E

The following poles supported Verizon cables that were cut and/or hanging low:

- 4545876E
- 9998BV
- BV11024
- H6380Y

##### **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.*

**GO 95, Rule 44.3, Replacement**, requires guy wires in Grade A construction to be replaced or reinforced before safety factors have been reduced to less than 1.33.

The following pole supported a broken Verizon down guy wire:

- 4326620E

##### **GO 95, Rule 86.2, Guys, Use, states in part:**

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

The following poles supported Verizon down guy wires that were not taut:

- 263631S
- H30492

**GO 95, Rule 44.3, Replacement**, requires wood crossarms in Grade A construction to be replaced or reinforced before safety factors have been reduced to less than 1.33.

The following pole supported a broken Verizon crossarm:

- 1386755E

**GO 95, Rule 84.6-B, Ground Wires, states in part:**

*Ground wires, other than lightning protection wires not attached to equipment or ground wires on grounded structures, shall be covered by metal pipe or suitable covering of wood or metal, or of plastic conduit material as specified in Rule 22.8–A, for a distance above ground sufficient to protect against mechanical injury, but in no case shall such distance be less than 7 feet.*

The following poles supported Verizon ground wires that were not suitably covered:

- 4326620E
- 363618
- 363617S

**GO 95, Rule 38, Table 2, Column C, Case 8**, requires the minimum vertical separation between communication conductors supported at different levels on the same pole to be 12 inches.

The following poles supported Verizon and third party communications cables that had less than 12 inches of vertical separation:

- 2252752E
- 5068BV
- 348921E

**GO 95, Rule 38, Table 2, Column C, Case 18**, requires the minimum radial separation between guys and communications conductors to be 3 inches.

The following poles supported Verizon cables and supply system down guy wires that had less than 3 inches of radial separation:

- 367072S
- 5559BV

**GO 95, Rule 87.7-D1, Covered from Ground Level to 8 Feet above the Ground, states in part:**

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

The following pole supported a Verizon riser that was not suitably covered.

- BV11547

**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.*

**GO 95, Rule 86.9, Guy Marker (Guy Guard), states in part:**

*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.*

The following pole supported a Verizon down guy wire that had a broken guy guard:

- 5067BV

**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.*

**GO 95, Rule 84.6-B, Ground Wires, states in part:**

*Ground wires, other than lightning protection wires not attached to equipment or ground wires on grounded structures, shall be covered by metal pipe or suitable covering of wood or metal, or of plastic conduit material as specified in Rule 22.8-A, for a distance above ground sufficient to protect against mechanical injury, but in no case shall such distance be less than 7 feet.*

The following pole supported a Verizon ground wire that had damaged ground molding:

- 40047

## **V. Field Inspection – Documented Violations List**

We observed the following violation during the field inspection. The violation was documented and/or addressed by Verizon during its last inspection:

### **GO 95, Rule 35, Vegetation Management, states in part:**

*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).*

The following pole supported a Verizon cable that was being strained by a tree:

- 1533626E