

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
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November 30, 2016

CA2016-014

Scott L. Schrock
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Time Warner Cable – Southern California
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Subject: Audit of Time Warner Cable's North Division

Mr. Schrock:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Koko Tomassian and Eric Ujiye of my staff conducted a Communications Infrastructure Provider (CIP) audit of Time Warner Cable's (TWC) North Division from August 8, 2016 to August 12, 2016. The audit included a review of TWC's records and field inspections of TWC'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 December 30, 2016, by electronic or hard copy, of all corrective measures taken by TWC to remedy and prevent such violations.

If you have any questions concerning this audit, you can contact Koko Tomassian at (213) 576-7099 or koko.tomassian@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

Enclosures: CPUC Audit Findings

Cc: Elizaveta Malashenko, Director, Safety and Enforcement Division, CPUC
Lee Palmer, Deputy Director, Office of Utility Safety, SED
Charlotte TerKeurst, Program Manager, Electric Safety and Reliability Branch, CPUC

AUDIT FINDINGS

I. Records Review

During the audit, my staff reviewed the following records:

- Overhead and underground inspections records.
- Completed and pending corrective action (i.e. work orders).
- Pole loading calculations.
- Safety hazard notifications.
- TWC's documented inspection program.

II. Records Review – Violations List

My staff observed the following violations during the records review portion of the audit:

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

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.

TWC's records indicated that from 2013 to 2016, seven work orders were completed past their scheduled date of corrective action.

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'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 identifying what problems should be identified by the inspections. The procedures used to identify what problems should be identified by the inspections shall include a checklist for patrol inspections.

TWC's documented inspection program did not describe the methodology used to ensure that all Communication Lines are subject to the required inspections. Additionally, the program did not include a checklist of problems to be identified during patrol inspections.

III. Field Inspections

My staff inspected the following facilities during the field inspection:

No.	Structure ID.	Type of Structure	Location
1	4335938E	Pole	Quartz Hill
2	2015165E	Pole	Quartz Hill
3	4312861E	Pole	Quartz Hill
4	2015166E	Pole	Quartz Hill
5	2273563E	Pole	Quartz Hill
6	4090150E	Pole	Quartz Hill
7	4683845E	Pole	Quartz Hill
8	2014908E	Pole	Quartz Hill
9	1661123E	Pole	Quartz Hill
10	4830496E	Pole	Quartz Hill
11	2259633E	Pole	Quartz Hill
12	2038086E	Pole	Quartz Hill
13	2038087E	Pole	Quartz Hill
14	2238174E	Pole	Quartz Hill
15	2135278E	Pole	Quartz Hill
16	K6512Y	Pole	Quartz Hill
17	K6513Y	Pole	Quartz Hill
18	K695Y	Pole	Quartz Hill
19	548708E	Pole	Quartz Hill
20	2109415E	Pole	Quartz Hill
21	2139448E	Pole	Lancaster
22	4010382E	Pole	Lancaster
23	2111002E	Pole	Lancaster
24	2111001E	Pole	Lancaster
25	2175814E	Pole	Lancaster
26	1586341E	Pole	Lancaster
27	1586338E	Pole	Lancaster
28	1586337E	Pole	Lancaster
29	4107524E	Pole	Lancaster
30	K6896Y	Pole	Lancaster
31	K6897Y	Pole	Lancaster
32	K6898Y	Pole	Lancaster
33	K6899Y	Pole	Lancaster
34	4144600E	Pole	Lancaster
35	1573580E	Pole	Lancaster
36	2334162E	Pole	Palmdale
37	2334163E	Pole	Palmdale
38	233416E	Pole	Palmdale
39	4077801E	Pole	Palmdale
40	4313220E	Pole	Palmdale
41	1023181E	Pole	Palmdale
42	991660E	Pole	Palmdale

43	1070043E	Pole	Palmdale
44	1070044E	Pole	Palmdale
45	26941 Alder Ct.	Handhole	Valencia
46	26927 Alder Ct.	Handhole	Valencia
47	31990 Castaic Rd. #7	J- Box	Castaic Lake
48	23860 Toscana Dr.	Lock Box	Valencia
49	23809 Claymore Way	Handhole	Valencia
50	23825 Claymore Way	Pedestal	Valencia
51	26615 Millhouse Dr.	Handhole	Valencia
52	29109 Maryland	Pedestal	Canyon Country
53	29318 Begonius Ln.	Handhole	Canyon Country
54	Heaton Ave. and West Ave. J12	2'x3' pull box (UG)	Lancaster
55	4205850E	Pole	Lancaster
56	1122557E	Pole	Lancaster
57	673876H	Pole	Palmdale
58	673877H	Pole	Palmdale
59	673878H	Pole	Palmdale
60	673879H	Pole	Palmdale
61	673880H	Pole	Palmdale
62	673881H	Pole	Palmdale
63	673882H	Pole	Palmdale
64	673883H	Pole	Palmdale
65	673884H	Pole	Palmdale
66	4147714E	Pole	Palmdale
67	Rear of 533 East Palmdale Blvd.	2'x3' Pull Box	Palmdale
68	1805353E	Pole	Palmdale
69	1805352E	Pole	Palmdale
70	1805351E	Pole	Palmdale
71	29941 Alter Ct.	Handhole	Valencia
72	31990 Castaic Rd. #7	J-Box	Castaic Lake
73	23860 Toscano Dr.	Lock Box	Valencia
74	26615 Millhouse Dr.	Handhole	Valencia
75	29318 Begonias	Handhole	Canyon Country
76	938034E	Pole	Quartz hill
77	310 West Ave. J-13	Pole	Lancaster
78	970917E	Pole	Lancaster
79	11 th West 240 South of Ave H-12	Pole	Lancaster
80	1014565E	Pole	Lancaster

IV. Field Inspection Violations List

My staff observed the following violations during the field inspection.

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 18-A1c, Resolution of Safety Hazards and General Order 95 Nonconformances, states:

Where a communications company's or an electric utility' 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.

A third party communication conductor lashing wire on poles numbered K6512Y and 1586341E was broken.

GO 95, Rule 38, Minimum Clearances of Wires from Other Wires, states in part:

The minimum vertical, horizontal or radial clearances of wires from other wires shall not be less than the values given in Table 2...

GO 95, Table 2, Case 8, Column D requires the minimum vertical separation of communication conductors from supply conductors of 0 – 750 volts – supported at different levels on the same pole – to be 48 inches.

A TWC cable and a supply conductor of 0 – 750 volts on the following poles did not have at least a 48 inch vertical separation:

- 1586341E
- 2015166E
- 233416E

GO 95, Table 2, Case 8, Column C requires the minimum vertical separation of communication conductors from other communication conductors – supported at different levels on the same pole – to be 12 inches.

A TWC cable and a communication conductor of a different company on the following poles did not have at least a 12 inch vertical separation:

- 2015166E
- 2273563E
- 4683845E
- 2014908E
- 2038086E
- 2038087E
- K6512Y
- K695Y
- 548708E
- 2111001E
- 1586341E
- 1586338E
- 1586337E
- 4107524E
- 4107524E
- K6899Y
- 1122557E

GO 95, Table 2, Case 16, Column C requires the minimum radial clearance between communication conductors of different circuits on the same crossarm, pole, or structure to be 3 inches.

A TWC service drop and a communication service drop of a different company on the following poles were in contact:

- 4312861E
- 548708E
- 1070044E
- 211002E

Incidental wiring of a TWC facility and a communication conductor of a different company on poles numbered 2773563E and 1661123E were in contact.

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

Clearance 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 clearances between conductors, guys, structures, or other objects, shall not be less than those set forth in Table 1...

GO 95, Table 1, Case 3, Column D requires the minimum ground clearance of communication conductors crossing or along thoroughfares in urban districts to be 18 feet.

The TWC conductor supported on pole number 2111001E had a ground clearance of only 15 feet, 3 inches above a vehicle-accessible driveway.

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.

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 wood molding covering the TWC ground wire on poles numbered 1122557E and 2015165E was either damaged or missing.

GO 95, Rule 18.B, Notification of Safety Hazard, states in part:

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 company and/or facility owner of such safety hazard(s) no later than 10 business days after the discovery. To the extent the inspecting company cannot determine the facility owner/operator; it shall contact the pole owner(s), who shall be responsible for promptly notifying the company owning/operating the facility with the safety hazard(s), normally not to exceed five business days after being notified of the safety hazard. The notification shall be documented and such documentation must be preserved by all parties for at least ten years.

GO 95, Rule 93, Climbing space, states in part:

Climbing space shall be provided on all jointly used poles which support conductors and the provisions of Rules 54.7 and 84.7 are directly applicable to such poles. Climbing space on jointly used poles shall be so correlated between conductor levels that its position in relation to the pole is not changed by more

than 90 degrees in a vertical distance of less than 8 feet. Climbing space shall be maintained from the ground level.

A third party communications down guy wire supported on pole number 4090150E was wrapped around the pole and obstructing the climbing space.

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.

A pole step on pole number 2015165E was bent.

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.

A riser strap on pole number K6896Y was damaged and not properly secured.

GO 95, Rule 31.6, Abandoned Lines, states in part:

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.

TWC service drops supported on poles numbered 991660E and 1573580E were abandoned.

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). Strain on a conductor is present when vegetation contact significantly compromises the structural integrity of supply or communication facilities.

TWC communication conductors on the following poles were strained by vegetation:

- 2038087E
- 1023181E
- 233416E

GO 95, Rule 49.2.C, Crossarms, Strength, states in part:

Crossarms shall be securely supported by bracing, where necessary, to withstand unbalanced vertical loads and to prevent tipping of any arm sufficiently to decrease clearances below the values specified in Section III. Such bracing shall be securely attached to poles and crossarms. Supports in lieu of crossarms shall have means of resisting rotation in a vertical plane about their attachment to poles or shall be supported by braces as required for crossarms. Metal braces or attachments shall meet the requirements of Rules 48.2 and 49.8 .

The brace supporting the TWC crossarm on pole number 4077801E was not securely attached.

GO 95, Rule 56.2, Uses (Guy Wires), states in part:

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

A TWC down guy wire on pole number 2038086E was not maintained taut.

GO 95, Rule 38, Minimum Clearances of Wires from Other Wires, states in part:

The minimum vertical, horizontal or radial clearances of wires from other wires shall not be less than the values given in Table 2...

GO 95, Table 2, Case 19, Column C requires the minimum radial separation of guy and span wires from communication conductors supported on the same pole to be 3 inches.

GO 95, Rule 56.2, Uses (Guy Wires), states in part:

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

GO 95, Rule 18-A1c Resolution of Safety Hazards and General Order 95 Nonconformances, states:

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.

The supply down guy wire on pole number 4144600E was not maintained taut, which resulted in the down guy wire contacting TWC communication conductors supported on the same pole.

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.

The outermost down guy wire on poles numbered 4312861E and 1070044E did not have a guy guard.

GO 95, Rule 91.3.A.1 Stepping, Use of Steps, Pole with Vertical Runs and 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.

Poles numbered 4683845E and 1573580E did not have pole steps.

GO 95, Rule 91.5, Marking, states in part:

Each communication cable and conductor as defined by Rules 20.4, 20.6(A), 20.9, 84.1, 87.4(C), and 89.1 that is attached to a joint-use pole shall be marked as to ownership. The marker shall (1) identify the owner of the cable and/or conductor; (2) provide a 24 hour contact number for emergencies or information; (3) be made of weather and corrosion resistant material; and (4) be clearly visible to workers who climb the pole or ascend by mechanical means. This marking requirement applies only to (A) new construction, (B) reconstruction of facilities, and (C) existing aerial communication cables and conductors that a technician works on when the technician ascends the joint-use pole for regular maintenance.

TWC communication conductors on the following poles did not have a marker identifying the owner of the conductor:

- 4335938E
- 4312861E
- 2015166E
- 4090150E
- 4683845E
- 2014908E
- 2259633E
- 2038086E
- K6513Y
- K695Y
- 548708E
- 2139448E
- 4010382E
- 1586341E
- 1573580E
- 991660E
- 4205850E
- 1805351E

GO 95, Rule 93, Climbing space, states in part:

Climbing space shall be provided on all jointly used poles which support conductors and the provisions of Rules 54.7 and 84.7 are directly applicable to such poles. Climbing space on jointly used poles shall be so correlated between conductor levels that its position in relation to the pole is not changed by more than 90 degrees in a vertical distance of less than 8 feet. Climbing space shall be maintained from the ground level.

The TWC facilities on pole number 4090150E encroached upon the climbing space.

GO 128, Rule 32.3, Materials and Strength, states:

The materials, design and construction of manholes, handholes, subsurface equipment enclosures, and other underground boxes shall be such as to provide sufficient strength to sustain, with a suitable margin of safety, the loads which may reasonably be imposed on them.

The handhole located at 26927 Alder Ct. in Valencia, CA had an enclosure that was bowing (deforming).

GO 128, Rule 42.7, Covers, states:

Manholes and handholes, 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 arrangement shall be such that a tool or appliance shall be required for their opening and cover removal.

Handhole covers at the following locations were not secured in such a manner that a tool or appliance would be required to open the cover:

- 26927 Alder Ct. in Valencia, CA.
- 26615 Millhouse Dr. in Valencia, CA.