

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



April 28, 2017

Rick Keyner
Construction Supervisor
Charter Spectrum
7337 Central Avenue
Riverside, CA 92504

CA2017-776

Subject: Audit of Charter Spectrum's Riverside Operating System

Mr. Keyner:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission (CPUC), Richard Kyo of my staff conducted a Communication Infrastructure Provider (CIP) audit of Charter Spectrum's Riverside Operating System from March 13, 2017 to March 17, 2017. The audit included a review of Charter Spectrum's records and field inspections of Charter'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 May 29, 2017, by electronic or hard copy, of all corrective measures taken by Charter to remedy and prevent such violations.

If you have any questions concerning this audit, you can contact Richard Kyo at (213) 576-7081 or richard.kyo@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, 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:

- Overhead and underground inspections records.
- Completed and pending corrective action work orders.
- Pole loading calculations.
- Safety hazard notifications.
- Charter Spectrum's documented inspection program.

II. Field Inspections

My staff inspected the following facilities during the field inspection:

No.	Structure ID.	Type of Structure	Location
1	J38172	Pole	Riverside
2	30248J	Pole	Riverside
3	30249J	Pole	Riverside
4	30250J	Pole	Riverside
5	30253J	Pole	Riverside
6	J34217	Pole	Riverside
7	27148J	Pole	Riverside
8	27640J	Pole	Riverside
9	J36961	Pole	Riverside
10	J36962	Pole	Riverside
11	832783H	Pole	Riverside
12	J36565	Pole	Riverside
13	28412J	Pole	Riverside
14	28414J	Pole	Riverside
15	28889J	Pole	Riverside
16	30920J	Pole	Riverside
17	J38578	Pole	Riverside
18	30774J	Pole	Riverside
19	30776J	Pole	Riverside
20	30805J	Pole	Riverside
21	28886J	Pole	Riverside
22	30931J	Pole	Riverside
23	J39703	Pole	Riverside
24	J34986	Pole	Riverside
25	30478J	Pole	Riverside
26	J34039	Pole	Riverside
27	J39306	Pole	Riverside
28	27176J	Pole	Riverside
29	6833 Magnolia Avenue	Pole	Riverside
30	466J	Pole	Riverside
31	1015102H	Pole	Riverside
32	25997J	Pole	Riverside
33	13797J	Pole	Riverside
34	J88106	Pole	Riverside
35	737434H	Pole	Riverside
36	73747J	Pole	Riverside
37	25507J	Pole	Riverside
38	J39486	Pole	Riverside
39	J37274	Pole	Riverside

40	4441800E	Pole	Jurupa Valley
41	4140946E	Pole	Jurupa Valley
42	4507919E	Pole	Jurupa Valley
43	4507920E	Pole	Jurupa Valley
44	4507910E	Pole	Jurupa Valley
45	4507905E	Pole	Jurupa Valley
46	1859819E	Pole	Jurupa Valley
47	5323	Pole	Jurupa Valley
48	11241 Sweetwater Drive	Pedestal	Riverside
49	11152 Sweetwater Drive	Pedestal	Riverside
50	11155 Sweetwater Drive	Pedestal	Riverside
51	N/A11241 Platte Drive	Pedestal	Riverside
52	11196 Springfield Street	Pedestal	Riverside
53	11221 Buffalo Drive	Pedestal	Riverside
54	11205 Springfield Street	Pedestal	Riverside
55	11264 Yucca Drive	Pedestal	Riverside
56	11284 Yucca Drive	Pedestal	Riverside
57	11250 Yearling Street	Pedestal	Riverside
58	11285 Coolwater Drive	Pedestal	Riverside
59	11246 Coolwater Drive	Pedestal	Riverside
60	11216 Coolwater Drive	Pedestal	Riverside
61	11203 Coolwater Drive	Pedestal	Riverside
62	3444 Revere Road	Pedestal	Riverside
63	3453 Revere Road	Pedestal	Riverside
64	16727 Pienza Court	Pedestal	La Sierra
65	16775 Pienza Court	Pedestal	La Sierra
66	12202 Cortona Place	Pedestal	La Sierra
67	12154 Cortona Place	Pedestal	La Sierra
68	12058 Cortona Place	Pedestal	La Sierra
69	12034 Cortona Place	Pedestal	La Sierra
70	13122 Capricornio Street	Pedestal	La Sierra
71	13134 Capricornio Street	Pedestal	La Sierra
72	13158 Capricornio Street	Pedestal	La Sierra
73	13194 Capricornio Street	Pedestal	La Sierra

III. 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 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. Such covering may be omitted providing the ground wire in this 7 foot section has a mechanical strength at least equal to the strength of No. 6 AWG medium–hard–drawn copper.

Pole number 27176J had damaged Charter Spectrum ground moulding.

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.

Pole number 30805J supported a damaged Charter Spectrum riser.

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).

Pole number 28414J supported a service drop that was strained by a tree branch.

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 and are based on a temperature of 60° F. and no wind.

Charter Spectrum drip loops supported on poles numbered 832783H and J34986 and an amplifier box supported on pole number 27176J were touching third-party CIP cables, therefore not meeting the clearance requirement in Table 2, Case 16, Column C.

The vertical clearance between a Charter Spectrum cable and a third-party CIP cable at their attachment on pole number J36565 was less than 12 inches; therefore, the clearance did not meet the requirement in Table 2, Case 8, Column C.

GO 95, Rule 91.3-A1, Stepping – 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...

Poles numbered 73747J and 25507J – jointly-used poles supporting supply and Charter Spectrum vertical risers – did not have pole steps.

GO 95, Rule 93, Climbing Space, states:

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 Charter Spectrum cable on pole number 27148J obstructed the climbing space.
- Vegetation obstructed the climbing space of pole numbered 30774J.

GO 128, Rule 17.1, Design, Construction, and Maintenance, states in part:

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 (Also See Rule 17.8 and Appendix B, Figure 9).

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.

Covers for Charter Spectrum pedestals at the following locations were not secured (could be easily removed by unauthorized people):

- 11155 Sweetwater Drive, La Sierra
- 11196 Springfield Street, La Sierra
- 11221 Buffalo Drive, La Sierra
- 11216 Coolwater Drive, La Sierra
- 3453 Revere Road, La Sierra
- 12154 Cortona Place, La Sierra
- 13134 Capricornio Street, La Sierra