

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



December 2, 2013

EA2013-016

Heide Caswell
PacifiCorp
Asset Performance
825 NE Multnomah St, Suite 1500
Portland, OR 97232

Subject: Audit of PacifiCorp, Siskiyou County

Dear Ms. Caswell:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission, Yusef Collins and Raymond Cho conducted an audit of PacifiCorp, Siskiyou County on August 26 to 30, 2013. The audit included a review of PacifiCorp's maintenance records and inspection of PacifiCorp facilities.

During the audit, we identified violations of one or more General Orders. A copy of the audit summary itemizing the violations is enclosed. Please advise me no later than January 10, 2014, by electronic or hard copy, of all corrective measures taken by PacifiCorp to remedy and prevent such violations.

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

Sincerely,

A handwritten signature in dark ink, appearing to read "Raymond Fugere", with a stylized flourish at the end.

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

Enclosures: CPUC Audit Summary

CC: Elizaveta Malashenko, Deputy Director, Safety and Enforcement Division
Heide Caswell, Director, PacifiCorp T&D Asset Performance
Alok Kumar, Senior Utilities Engineer (Supervisor), CPUC
Yusef Collins, Utilities Engineer, CPUC
Raymond Cho, Utilities Engineer, CPUC

AUDIT SUMMARY

Company: PacifiCorp California – Siskiyou County
Electric Infrastructure Provider Audit
Date: August 26 to August 30, 2013

Violations

A.	Location:	PacifiCorp – Siskiyou County
	Date Visited by CPUC:	8/26/2013-8/30/2013
	Explanation of Violation(s):	
	<p><u>GO 165, Section III-B, – Standards for Inspection, states:</u></p> <p style="text-align: center;"><i>Each utility subject to this General Order shall conduct inspections of its distribution facilities, as necessary, to ensure reliable, high quality, and safe operation, but in no case may the period between inspections (measured in years) exceed the time specified in Table 1.</i></p> <p>A pre-audit data request response indicated that 821 underground detail inspections were due in 2012 but not completed.</p>	

B.	Location:	Map 06239004.0 Point 244410, Dunsmuir, Siskiyou County
Previous Visit by PacifiCorp:		11/23/2011
Date Visited by CPUC:		08/28/2013
Explanation of Violation(s):		
<p data-bbox="261 485 1127 520"><u>GO 95, Rule 51.6-A, High Voltage Marking, states in part:</u></p> <p data-bbox="355 556 1317 814"><i>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 letter 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.</i></p> <p data-bbox="261 850 1273 921">We observed the high voltage sign was broken. This condition was not documented when PacifiCorp last inspected this location.</p> <p data-bbox="261 961 1430 1033"><u>GO 95, Rule 56.2, Overhead Guys, Anchor Guys, and Span Wires Use, states in part:</u></p> <p data-bbox="355 1073 1321 1182"><i>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.</i></p> <p data-bbox="261 1222 1300 1289">A messenger guy attached to this pole was slack. This condition was not documented when PacifiCorp last inspected this location.</p>		

C.	Location:	Map 06239004.0 Point 244941, Dunsmuir, Siskiyou County
	Previous Visit by PacifiCorp:	11/21/2011
	Date Visited by CPUC:	08/28/2013
	Explanation of Violation(s):	
	<p><u>GO 95, Rule 54.6-D, Vertical Runs, states in part:</u></p> <p><i>Risers and vertical runs shall be covered from ground level to 8 ft. above ground...</i></p> <p>The riser guard was not attached securely to the pole and exposed the vertical run. This condition was not documented when PacifiCorp last inspected this location.</p> <p><u>GO 95, Rule 54.6-B, Ground Wires, states:</u></p> <p><i>Ground Wires of supply circuits must be protected by suitable covering and be in good repair throughout their length....</i></p> <p>The ground wire was exposed within 8 feet of the bottom of the pole at this location. This condition was not documented when PacifiCorp last inspected this location.</p>	

D.	Location:	Map 06239004.0 Point 135048, Dunsmuir, Siskiyou County
Previous Visit by PacifiCorp:		12/01/2011
Date Visited by CPUC:		08/28/2013
Explanation of Violation(s):		
<p data-bbox="261 478 1203 512"><u>GO 95, Rule 54.7, Climbing and Working Space, states in part:</u></p> <p data-bbox="334 550 1354 659"><i>Climbing space shall be maintained from the ground level. Climbing space, measured from center line of pole, shall be provided on one side, or in one quadrant of all poles or structures...</i></p> <p data-bbox="261 697 1414 800">The pole was surrounded by vegetation, with no single quadrant available for climbing. This condition was not documented when PacifiCorp last inspected this location.</p>		

E.	Location:	Map 06239004.0 Point 244951, Dunsmuir, Siskiyou County
Previous Visit by PacifiCorp:		11/21/2011
Date Visited by CPUC:		08/28/2013
Explanation of Violation(s):		
<p data-bbox="261 478 787 514"><u>GO 95, Table 2, Case 19-C, states:</u></p> <p data-bbox="332 550 1339 655"><i>Guys and span wires passing conductors supported on the same poles must have a minimum clearance of 3 inches from communication conductors.</i></p> <p data-bbox="261 699 1393 804">The PacifiCorp down guy was in contact with a communication conductor at this pole. This condition was not documented when PacifiCorp last inspected this location.</p> <p data-bbox="261 848 998 884"><u>GO 95, Rule 56.7-B, Anchor Guys, states in part:</u></p> <p data-bbox="332 919 1360 1024"><i>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...</i></p> <p data-bbox="261 1068 1409 1173">A tree limb was in contact with a PacifiCorp down guy—at an elevation above the guy insulator—at this pole. This condition was not documented when PacifiCorp last inspected this location.</p>		

F.	Location:	Map 06239004.0 Point 134047, Dunsmuir, Siskiyou County
Previous Visit by PacifiCorp:		12/02/2011
Date Visited by CPUC:		08/28/2013
Explanation of Violation(s):		
<p><u>GO 95, Rule 35, Vegetation Management, states in part:</u></p> <p><i>When a supply or communication company has actual knowledge, obtained either through normal operating practices or notification to the company, that dead, rotten or diseased trees or dead, rotten or diseased portions of otherwise healthy trees overhang or lean toward and may fall into a span of supply or communication lines, said trees or portions thereof should be removed.</i></p> <p>A broken tree limb was in contact with a PacifiCorp secondary conductor at this pole. This condition was not documented when PacifiCorp last inspected this location.</p>		

G.	Location:	Map 06240004.0 Point 151801, Mount Shasta, Siskiyou County
Previous Visit by PacifiCorp:		09/27/2011
Date Visited by CPUC:		08/28/2013
Explanation of Violation(s):		
<p><u>GO 95, Rule 54.8-B(1), states:</u></p> <p><i>Service drop conductors shall have a vertical clearance of not less than 18 feet above public thoroughfares, except that this clearance may grade from 18 feet at a position of not more than 12 feet horizontally from the curb line to a clearance of not less than 16 feet at the curb line, provided the clearance at the centerline of any public thoroughfare shall in no case be less than 18 feet. Where there are no curbs the foregoing provisions shall apply using the outer limits of possible vehicular movement in lieu of a curb line.</i></p> <p>A PacifiCorp service drop extending from this pole was 15 feet and 5 inches from the thoroughfare. This condition was not documented when PacifiCorp last inspected this location.</p> <p><u>GO 95, Rule 54.6-D, Vertical Runs, states in part:</u></p> <p><i>Risers and vertical runs shall be covered from ground level to 8 ft. above ground...</i></p> <p>The riser guard was not attached securely to the pole and exposed the vertical run. This condition was not documented when PacifiCorp last inspected this location.</p> <p><u>GO 95, Rule 51.6-A, High Voltage Marking, states in part:</u></p> <p><i>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 letter 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.</i></p> <p>We found a broken high voltage sign at this location. This condition was not documented when PacifiCorp last inspected this location.</p>		

H.	Location:	Map 06240004.0 Padmount 161980, Mount Shasta, Siskiyou County
Previous Visit by AT&T:		1/27/2012
Date Visited by CPUC:		08/28/2012
Explanation of Violation(s):		
<p><u>GO 128, Rule 34.3-B, Guarding Live Parts states:</u></p> <p><i>Compartments and enclosures which will, during normal operation, contain exposed live parts shall be designed and installed to prevent a person from passing a wire or other conducting material into such compartment from the outside when it is closed. This requirement is not intended to prevent normal work operations such as fishing ducts and installing cable.</i></p> <p>A PacifiCorp padmount transformer could not be opened for CPUC auditors because PacifiCorp representatives determined that opening the padmount would be unsafe. PacifiCorp representatives stated that the padmount was improperly positioned on the pad, which allowed vegetation and animals access to the transformer; vegetation was actively growing inside the padmount; and the transformer experienced frequent flash arcs.</p>		

I.	Location:	Map 06240004.0 Point 176501, Mount Shasta, Siskiyou County
	Previous Visit by PacifiCorp:	11/23/2011
	Date Visited by CPUC:	08/28/2013
	Explanation of Violation(s):	
	<p><u>GO 95, Rule 56.2, Overhead Guys, Anchor Guys, and Span Wires Use, states in part:</u></p> <p><i>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.</i></p> <p>A down guy attached to this pole was slack. This condition was not documented when PacifiCorp last inspected this location.</p>	

J.	Location:	Map 06240004.0 Point 085502, Mount Shasta, Siskiyou County
	Previous Visit by PacifiCorp:	11/23/2011
	Date Visited by CPUC:	08/28/2013
	Explanation of Violation(s):	
	<p><u>GO 95, Rule 56.2, Overhead Guys, Anchor Guys, and Span Wires Use, states in part:</u></p> <p><i>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.</i></p> <p>A down guy attached to this pole was broken off from the anchor. This condition was not documented when PacifiCorp last inspected this location.</p>	

K.	Location:	Map 06241005.0 Point 367080, Mount Shasta, Siskiyou County
Previous Visit by PacifiCorp:		11/23/2011
Date Visited by CPUC:		08/28/2013
Explanation of Violation(s):		
<p><u>GO 128, Rule 34.3-B, Guarding Live Parts, states:</u></p> <p><i>Compartments and enclosures which will, during normal operation, contain exposed live parts shall be designed and installed to prevent a person from passing a wire or other conducting material into such compartment from the outside when it is closed. This requirement is not intended to prevent normal work operations such as fishing ducts and installing cable.</i></p> <p>Padmount was badly damaged and dislodged from the pad; PacifiCorp representatives could not open the padmount transformer. There were visible openings on the padmount, for ingress of vegetation or animals. This condition was not documented when PacifiCorp last inspected this location.</p>		

L.	Location:	Map 06244009.0 Point 285001 Fort Jones, Siskiyou County
Previous Visit by PacifiCorp:		6/19/2013
Date Visited by CPUC:		8/29/2013
Explanation of Violation(s):		
<u>GO 95, Rule 44.3, Replacement, states in part:</u>		
<p><i>Lines or parts thereof shall be replaced or reinforced before safety factors have been reduced (due to deterioration and/or installation of additional facilities) in Grades "A" and "B" construction to less than two-thirds of the construction safety factors specified in Rule 44.1...</i></p>		
<u>GO 95, Rule 18-A3, Resolution of Safety Hazards And General Order 95 Nonconformances, states in part:</u>		
<p><i>Companies that have existing General Order 165 auditable inspection and maintenance programs that are consistent with the purpose of Rule 18A shall continue to follow their General Order 165 programs.</i></p>		
<p>Two (2) cross-arms were damaged and required repair or replacement at this pole. This violation was documented as a Priority A condition when PacifiCorp last inspected the pole. The condition was not corrected within the 30 day timeframe outlined by PacifiCorp Policy #192-CA Condition Correction.</p>		

M.	Location:	Map 06244009.0 Point 360004 Fort Jones, Siskiyou County
	Previous Visit by PacifiCorp:	6/27/2013
	Date Visited by CPUC:	8/29/2013
Explanation of Violation(s):		
<p><u>GO 95, Rule 54.6-B, Ground Wires, states in part:</u></p> <p><i>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 Rules 52.7-B and 52.7-C</i></p> <p><i>That portion of the ground wires 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...</i></p> <p><u>PacifiCorp T&D Engineering Policy No. 009, 3.5-C, states in part:</u></p> <p><i>All grounding conductors attached to the face or underside of the wood cross-arm and the surface of wood poles shall be covered with an approved molding.</i></p> <p>Ground moulding was missing exposing the ground wire at about 20' above ground. This was noted on the 6/12/13 inspection but new moulding was not installed when the crew came back out to replace the cross arm.</p>		

N.	Location:	Map 06244008.0 Point 297580 Fort Jones, Siskiyou County
Previous Visit by PacifiCorp:		8/21/2012
Date Visited by CPUC:		8/29/2013
Explanation of Violation(s):		
<p data-bbox="261 485 683 516"><u>GO 128, Rule 34.3A, states:</u></p> <p data-bbox="334 558 1016 590"><i>Self-contained Surface-mounted Equipment</i></p> <p data-bbox="334 596 1365 663"><i>Equipment installed partially or completely above the ground surface and not enclosed by a vault, room or fence shall conform to the following:</i></p> <p data-bbox="334 669 537 701"><i>A. Strength</i></p> <p data-bbox="334 707 1317 810"><i>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.</i></p> <p data-bbox="261 852 1430 1066">The pad-mount transformer at this location was not completely secured to the pad. Only one side of the case was held down by the metal bracket. The opposite side had a bracket but it was not properly attached to the enclosure. The 2010 detail inspection only noted the hill eroding and pushing the transformer forward but did not note the metal bracket out of place. These conditions were not documented when PacifiCorp last inspected this location.</p>		

O.	Location:	Map 06244006.0 Point 155002 Montague, Siskiyou County
	Previous Visit by PacifiCorp:	8/2/2012
	Date Visited by CPUC:	8/29/2012
	Explanation of Violation(s):	
	<p><u>GO 95, Rule 56.7B, states in part:</u></p> <p><i>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.</i></p> <p>We found the anchor guy in contact with the nearby tree above the insulator bob. This condition was not documented when PacifiCorp last inspected this location.</p>	

P.	Location:	Map 6244007.0 Point 038909 Montague, Siskiyou County
Previous Visit by PacifiCorp:		4/1/2013
Date Visited by CPUC:		8/29/2013
Explanation of Violation(s):		
<p><u>GO 95, Rule 54.6-B, Ground Wires, states in part:</u></p> <p><i>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 Rules 52.7-B and 52.7-C. That portion of the ground wires 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...</i></p> <p><u>PacifiCorp T&D Engineering Policy No. 009, 3.5C, states in part:</u></p> <p><i>All grounding conductors attached to the face or underside of the wood cross-arm and the surface of wood poles shall be covered with an approved molding.</i></p> <p>Some ground moulding was missing exposing the ground wire. This condition was documented to have been removed on 4/1/13. The loose and/or missing moulding condition existed the day of our field visit.</p>		

Q.	Location:	PacifiCorp – Siskiyou County		
Date Visited by CPUC:		8/26/2013-8/30/2013		
Explanation of Violation(s):				
<u>GO 165, Section III-B, Standards for Inspection, states in part:</u>				
<i>Each utility subject to this General Order shall conduct inspections of its distribution facilities, as necessary, to ensure reliable, high-quality, and safe operation, but in no case may the period between inspections (measured in years) exceed the time specified in Table 1.</i>				
<u>GO 95, Rule 18-A3, Resolution of Safety Hazards And General Order 95 Nonconformances, states in part:</u>				
<i>Companies that have existing General Order 165 auditable inspection and maintenance programs that are consistent with the purpose of Rule 18A shall continue to follow their General Order 165 programs.</i>				
<u>PacifiCorp Condition Correction Policy No. 192-CA, 4.2, states in part:</u>				
<i>...Priority A: All A-conditions are to be made safe immediately. Those conditions deemed to have been made safe must be brought into any necessary further compliance within 30 days of discovery...</i>				
Map	Point	Date Found	Condition Documented	General Order Violation
06240004.0	161980	1/29/2013	Bad order pad mount.	GO 128, Rule 17.1 & 34.3
07216001.0	150503	7/22/2013	Bad order insulators.	GO 95, Rule 49.5
06244009.0	285001	6/19/2013	Rotten cross arm.	GO 95, Rule 44.3
06243009.0	038000	6/5/2013	Exposed wire B to A.	GO 95, Rule 54.6-D
06242005.0	360000	6/27/2012	Low clearance over yard < 7'.	GO 95, Rule 37 – Table 1, Case 5-D
Based on our review of PacifiCorp's Detailed Facility Point Reports dated August 28 th , 2013, these conditions were not corrected within the allowed timeframe.				

Area of Concern

1. **Priority Codes and Timeframes**

Priority C and D conditions do not have a timeframe for correction. For example, Condition code 57 needs reevaluation. This condition notes obstructions that need to be corrected prior to inspectors' scheduled inspections.

2. **Updated Safety and Detailed Inspections Spreadsheet**

Some priority A conditions were documented on the spreadsheet as outstanding or late but were already corrected prior to the audit. For future audits, an updated spreadsheet would prove more worth.