

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



October 27, 2010

Paul D. Foster
Assistant Director, Energy Distribution
City of Santa Clara
1500 Warburton Ave.
Santa Clara, CA 95050

CPUC File No.: EA2010-20

SUBJECT: Electric Audit of the city of Santa Clara's Electric Department

On behalf of the Utilities Safety and Reliability Branch (USRB) of the California Public Utilities Commission, Terence Eng and I conducted an Electric Audit of the city of Santa Clara's Electric Department from July 19-21, 2010. The audit included a review of your records for the period of 2007-2010.

During the inspection, we identified violations of one or more General Orders. A copy of the audit summary itemizing the violations is enclosed. Please advise me by December 27, 2010 of all corrective measures taken by the Utility regarding the violation(s) and the date on which they were corrected.

If you have any questions, please contact me at (415) 703-1817.

Sincerely,

A handwritten signature in cursive script that reads "Paul Penney".

Paul Penney, PE
Utilities Engineer
Utilities Safety and Reliability Branch (USRB)
Consumer Protection and Safety Division

Enclosure: Audit Summary
(1) Records Review
(2) Field Findings

cc: Terence Eng, Utilities Engineer, USRB
Dave Padilla, Division Manager of Transmission & Distribution, City of Santa Clara

Audit Summary

1. Records Violations

A. General Order 165 (GO165), Section IV, Standards for Inspection, Record-keeping, and Reporting

Section IV, states in part:

"Each utility subject to this General Order shall submit an annual report detailing its compliance with this General Order under penalty of perjury. The first report required under this section shall be filed with the Commission by no later than July 1, 1998. Each utility shall file subsequent annual reports for every following year by no later than July 1..."

The city of Santa Clara currently does not submit Annual Reports to the Commission as required by General Order 165. Although the city of Santa Clara argues that it is not subject to General Order 165 (GO165) and by extension the Annual Report, Commission Decisions D98-03-036, D98-10-059 and D99-12-052 state otherwise. Specifically, these Decisions uphold GO165's applicability to "publicly-owned utilities." The city of Santa Clara is required to submit annual reports to the California Public Utilities Commission. Please send Annual Reports by July 1st of each year to the following address:

California Public Utilities Commission
320 West 4th Street, Suite 500
Los Angeles, CA 90013

Attention: Raymond Fugere, Program and Project Supervisor
Utilities Safety and Reliability Branch

Alternately, the city of Santa Clara may email the reports to Mr. Fugere at raymond.fugere@cpuc.ca.gov.

Also, with regard to repair work, the following paragraph of Section IV states:

"...For all inspections, within a reasonable period, company records shall specify the circuit, area, or equipment inspected, the name of the inspector, the date of the inspection, and any problems identified during each inspection, as well as the scheduled date of corrective action. For detailed and intrusive inspections, companies shall also

rate the condition of inspected equipment. Upon completion of corrective action, company records will show the nature of the work, the date, and the identity of persons performing the work. [Underline Added]

Most repair tags did not show the nature of the work completed in the "Repair Comments" field.

B. GO 165, Section IV (Standards for Inspection, Record-keeping

Paragraph one of Section IV states:

"Each utility subject to this General Order shall conduct inspections of its distribution facilities, as necessary, to assure reliable, high-quality, and safe operation, but in no case may the period between inspections (measured in years) exceed the time specified in the attached table..."

There are three types of inspections identified in GO165: patrol, detailed and intrusive, where detailed inspection is defined as:

"...one where individual pieces of equipment and structures are carefully examined, visually and through use of routine diagnostic test, as appropriate, and (if practical and if useful information can be so gathered) opened, and the condition of each rated and recorded" (emphasis added).

The city of Santa Clara's inspection program only conducts visual examination of its field capacitors as part of its five year detailed inspections. General Order 165 requires that diagnostic tests be done on equipment if appropriate, practical and useful information can be gathered.

Diagnostic testing of in field capacitor banks is appropriate, practical and useful. Thus, the city of Santa Clara must perform diagnostic testing on in field capacitor banks.

2. Field Violations

This section lists the GO 95 and 128 violations that were identified during the field portion of the audit. The locations that were audited were recently inspected by city of Santa Clara or had completed repair tags. The following violations should have either been identified or corrected by city of Santa Clara staff during their inspection or tag repair work.

A.	Location:	766 Purdue Ct, Santa Clara
	Pole No.:	Pole 21F23
	Previous Inspection Details:	Overhead Inspection Block Map 21 Tag completed 6/3/2010
	Date of CPUC Inspection:	7/20/2010
Explanation of Violation(s):		
<u>Broken or Missing Ground Molding</u>		
GO 95 Rule 54.6 B:		
<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 (see Rule 22.8)...</i>		
The ground molding is in need of repair at several locations.		
<u>Slack Down Guy</u>		
GO 95 Rule 31.6:		
<i>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.</i>		
The down guy appears to not be needed at this location. ¹		

¹ The down guy was slack, and if the down guy is needed, the guy must be tightened.

B.	Location:	764 Yale Lane, Santa Clara
	Pole No.:	Pole 21F37
	Previous Inspection Details:	Overhead Inspection Block Map 21 Completed May 2010
	Date of CPUC Inspection:	7/20/2010
Explanation of Violation(s):		
<p data-bbox="292 709 803 745"><u>Broken or Missing Ground Molding</u></p> <p data-bbox="292 783 592 819">GO 95 Rule 54.6 B:</p> <p data-bbox="381 852 1388 961"><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 (see Rule 22.8)...</i></p> <p data-bbox="292 999 1144 1035">The ground molding is missing at the communication level.</p>		

C.	Location:	e/s Lawrence Expressway s/o Lochinvar, Santa Clara
	Pole No.:	Pole 21D11
	Previous Inspection Details:	Overhead Inspection Block Map 21 Tag Completed (Repair Date): 6/3/2010
	Date of CPUC Inspection:	7/21/2010
Explanation of Violation(s):		
<p data-bbox="293 688 803 726"><u>Broken or Missing Ground Molding</u></p> <p data-bbox="293 762 592 800">GO 95 Rule 54.6 B:</p> <p data-bbox="391 835 1388 947"><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 (see Rule 22.8)...</i></p> <p data-bbox="293 982 1453 1056">The ground molding had a small gap at ~6 feet 5 inches from ground level. This item was from a repair tag.</p>		

D.	Location: 889 Bing Dr., Santa Clara
	Pole No.: Pole 21B3
	Previous Inspection Details: Overhead Inspection Block Map 21 Completed May 2010
	Date of CPUC Inspection: 7/21/2010
	Explanation of Violation(s):
	<p><u>Broken or Missing Ground Molding</u></p> <p>GO 95 Rule 54.6 B:</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 (see Rule 22.8)...</i></p> <p>The ground molding is in disrepair from ground level up to 8 feet above ground level and at the communication level.</p>
	<p><u>Missing or Damaged "High Voltage" sign</u></p> <p>GO 95 Rule 51.6-A:</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 letters not less than 3 inches in height. A pair of signs may be stacked to a height of no more than 12 inches. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible...</i></p> <p>The high voltage sign was missing on one side of the crossarm.</p>

E.	Location:	3511 Wehner Dr., Santa Clara.
	Pole No.:	Pole 21A30
	Previous Inspection Details:	Overhead Inspection Block Map 21 Completed May 2010
	Date of CPUC Inspection:	7/21/2010
Explanation of Violation(s):		
<p><u>Broken or Missing Ground Molding</u></p> <p>GO 95 Rule 54.6 B:</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 (see Rule 22.8)...</i></p> <p>Ground molding is missing at ~8 feet above ground level.</p>		
<p><u>Missing or Damaged "High Voltage" sign</u></p> <p>GO 95 Rule 51.6-A:</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 letters not less than 3 inches in height. A pair of signs may be stacked to a height of no more than 12 inches. Such signs shall be of weather and corrosion-resisting</i></p> <p>The "VOLTAGE" portion of the high voltage sign was missing</p>		

F.	Location:	3531 Wehner Dr.
	Pole No.:	Pole 21A28
	Previous Inspection Details:	Overhead Inspection Block Map 21 Completed May 2010
	Date of CPUC Inspection:	7/21/2010
Explanation of Violation(s):		
<p data-bbox="292 672 1510 714"><u>Broken or Missing Ground Molding</u></p> <p data-bbox="292 735 1510 777">GO 95 Rule 54.6 B:</p> <p data-bbox="389 808 1380 924"><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 (see Rule 22.8)...</i></p> <p data-bbox="292 955 1201 997">Ground molding is in need of repair at the communication level.</p>		

G.	Location:	895 Burbank Dr., Santa Clara
	Pole No.:	Pole 21A26
	Previous Inspection Details:	Overhead Inspection Block Map 21 Completed May 2010
	Date of CPUC Inspection:	7/21/2010
Explanation of Violation(s):		
<p><u>Broken or Missing Ground Molding</u></p> <p>GO 95 Rule 54.6 B:</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 (see Rule 22.8)...</i></p> <p>T ground molding was warped away from the pole at several spots along the vertical run.</p>		

H.	Location:	892 Gallatin Dr., Santa Clara
	Pole No.:	Pole 21A33
	Previous Inspection Details:	Overhead Inspection Block Map 21 Completed May 2010
	Date of CPUC Inspection:	7/21/2010
Explanation of Violation(s):		
<u>Broken or Missing Ground Molding</u>		
GO 95 Rule 54.6 B:		
<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 (see Rule 22.8)...</i></p>		
T ground molding was in disrepair at ground level.		

I.	Location:	872 Gallatin Dr., Santa Clara
	Pole No.:	Pole 21A35
	Previous Inspection Details:	Overhead Inspection Block Map 21 Completed May 2010
	Date of CPUC Inspection:	7/21/2010
Explanation of Violation(s):		
<u>Broken or Missing Ground Molding</u>		
GO 95 Rule 54.6 B:		
<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 (see Rule 22.8)...</i></p>		
T ground molding was warped away from the pole at ~8 feet above ground level.		

J.	Location:	879 Bing Dr., Santa Clara
	Pole No.:	Pole 21B2
	Previous Inspection Details:	Overhead Inspection Block Map 21 Completed May 2010
	Date of CPUC Inspection:	7/21/2010
Explanation of Violation(s):		
<u>Missing or Damaged "High Voltage" sign</u>		
<p>GO 95 Rule 51.6-A:</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 letters not less than 3 inches in height. A pair of signs may be stacked to a height of no more than 12 inches. Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible...</i></p> <p>The "VOLTAGE" portion of the high voltage sign was missing on one side of the crossarm.</p>		

K.	Location:	899 Bing Dr., Santa Clara
	Pole No.:	Pole 21B5
	Previous Inspection Details:	Overhead Inspection Block Map 21 Completed May 2010
	Date of CPUC Inspection:	7/21/2010
Explanation of Violation(s):		
<u>Guys in Proximity to Supply Conductors of Less than 35,500 Volts</u>		
GO 95 Rule 56.6-A:		
<p><i>All portions of guys within both a vertical distance of 8 feet from the level of supply conductors of less than 35,500 volts and a radial distance of 6 feet from the surface of wood poles or structures shall not be grounded, through anchors or otherwise. Where necessary to avoid the grounding of such portions, guys shall be sectionalized by means of insulators installed at locations as specified in Rule 56.7.</i></p>		
Foliage was touching the anchor guy above the insulating bob.		

L.	Location:	3379 Vanderbilt Way, Santa Clara
	Pole No.:	Pole 21F31
	Previous Inspection Details:	Overhead Inspection Block Map 21 Completed May 2010
	Date of CPUC Inspection:	7/21/2010
Explanation of Violation(s):		
<p data-bbox="305 676 457 709"><u>Slack Guy</u></p> <p data-bbox="305 747 561 781">GO 95, Rule 56.2</p> <p data-bbox="386 819 1393 928"><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="305 966 669 999">The down guy was slack.</p>		

M.	Location:	3359 Vanderbilt Way, Santa Clara
	Pole No.:	Pole 21F32
	Previous Inspection Details:	Overhead Inspection Block Map 21 Completed May 2010
	Date of CPUC Inspection:	7/21/2010
Explanation of Violation(s):		
<p data-bbox="305 680 532 711"><u>Climbing Space</u></p> <p data-bbox="305 747 558 779">GO 95, Rule 54.7</p> <p data-bbox="386 821 1377 963"><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 with dimensions as specified in the following:...</i></p> <p data-bbox="305 1041 1073 1073">A tree is surrounding a pole that needs to be trimmed.</p>		

F.	Location:	3370 Princeton Ct., Santa Clara
	Pole No.:	Pole 21F28
	Previous Inspection Details:	Overhead Inspection Block Map 21 Completed?
	Date of CPUC Inspection:	7/21/2010
Explanation of Violation(s):		
<p><u>Stepping</u></p> <p>GO 95 Rule 51.7</p> <p><i>The lowest step on any stepped pole, tower or structure shall be not less than 7 feet 6 inches from the ground line and above this point the spacing between steps on the same side of pole, tower or structure shall not exceed 36 inches.</i></p> <p>This pole had a low pole step.</p>		
<p><u>Slack Guy</u></p> <p>GO 95, Rule 56.2</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>The span guy was slack.</p>		