

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE

SAN FRANCISCO, CA 94102-3298



January 29, 2013

EA2010-024

Jadwindar Singh  
Manager, Distribution Compliance  
Pacific Gas and Electric Company  
245 Market St, #926  
San Francisco, CA 94105

**SUBJECT:** Electric Audit of PG&E's San Francisco Division

Dear Mr. Singh:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission, Paul Penney of my staff conducted an electric audit of PG&E's San Francisco Division from August 30, 2010 to September 3, 2010. The audit included a review of PG&E's records and field inspections of PG&E's 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 May 3, 2013, by electronic or hard copy, of all corrective measures taken by PG&E to remedy and prevent such violations.

If you have any questions concerning this audit please contact, Raymond Fugere at (213) 576-7015 or [raymond.fugere@cpuc.ca.gov](mailto:raymond.fugere@cpuc.ca.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Raffy Stepanian".

Raffy Stepanian, P.E.  
Program Manager  
Electric Safety and Reliability Branch  
Safety and Enforcement Division

Enclosure: Audit Summary

CC: Raymond Fugere, Program and Project Supervisor, CPUC  
Curtis Todd Ryan, Supervisor, PG&E Gas & Electric System Support

## Audit Summary

### (1) Records Review Findings

#### (A) Late Detailed Inspections

During our records review, we noted the following violations of GO165, Section IV, regarding inspection time intervals. Paragraph one of this section 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... "*

The following underground (UG) inspections were all due in 2007, but were not completed until 2008. These four inspections are violations of the 3-year detailed inspection requirement.

<b>Notification</b>	<b>Plat Map</b>	<b>Due Date</b>	<b>Date Completed</b>
102622141	C-0407	12/31/2007	5/30/2008
102368660	B-0324D	11/2/2007	2/22/2008
102308173	B0225B	12/27/2007	1/14/2008
102308171	B0225B	12/27/2007	1/17/2008

PG&E documents detailed inspections by highlighting facilities on each map. The following facilities were not highlighted, and are therefore in violation of the 3-year detailed inspection requirement.

<b>Plat Map</b>	<b>Description of Violation</b>
A-03-25D	For the 2009 UG inspection, two discrepancies were noted: (1) an enclosure between Alhambra and Toledo was not inspected; and (2) an enclosure on Alhambra was not inspected.
A-04-21 21-Y	For the 2009 UG inspection, manhole "D" was not inspected.
B-04-06 24-Q	For the 2009 UG inspection, enclosure "Q" was not inspected.
B-04-12 92-G	For the 2009 UG inspection, enclosure "K" was not inspected.
B-04-12 101-K	For the 2009 UG inspection, enclosure 7290 was not inspected.
B-04-16 76-P	For the 2009 UG inspection, 11 splices in the tunnel were not inspected.
<b>Plat Map</b>	<b>Description of Violation</b>
B-04-15 B-43	For the 2009 UG inspection, two discrepancies were noted: (1) All enclosures on Harrison St. were missed; (2) A padmount on 3 <sup>rd</sup> Street between Brannon and Townsend was missed.
B-04-01 D-100	For the 2009 UG inspection, two discrepancies were noted: (1) Transformer T-1384 was not inspected; (2) An enclosure near T-1384 was not inspected. This enclosure may be secondary.
B-03-10C	For the 2009 UG inspection, three discrepancies were noted: (1) Two enclosures on Pine St. (Left and Right edges of plat) were not inspected; (2) Two enclosures on Divisadero between Sutter and Post were not inspected; and (3) Manhole 2733 was not inspected.
A-03-24C	For the 2009 UG inspection, two discrepancies were noted: (1) Eight enclosures located throughout the map were not inspected; (2) A transformer located at the palace of fine arts was not inspected.

### **(B) Late Equipment Inspections**

PG&E's Equipment Testing and Maintenance standard (UO Standard S2302) identifies the appropriate type of testing to be done and time intervals for testing. S2302 is, therefore, PG&E's standard for complying with GO165.

Three types of equipment missed their required testing intervals per S2302 and are listed below. They include auto transfer switches, capacitors and reclosers. The testing time intervals for each type of equipment are identified in S2302, Table 1.

### B.1 Auto Transfer Switches

<b>Equipment Number</b>	<b>Type of Control</b>	<b>Description of Violation</b>
1038	Microprocessor	Not tested in 2007, 2008 and 2009.
1036	Microprocessor	Not tested in 2007, 2008 and 2009.
1066	Component	Not tested in 2007, 2008 and 2009.
1054	Component	Not tested in 2007, 2008 and 2009.
SWGR	Component	Not tested in 2007, 2008 and 2009.
LR 10385	Component	Not tested in 2007, 2008 and 2009.
152-J	Component	Not tested in 2007, 2008 and 2009.
3680	Component	Not tested in 2007, 2008 and 2009.
3612	Component	Not tested in 2007, 2008 and 2009.
606	Component	Not tested in 2007, 2008 and 2009.
3810	Component	Not tested in 2007, 2008 and 2009.
6506	Component	Not tested in 2007, 2008 and 2009.
1882	Component	Not tested in 2007, 2008 and 2009.
LR 2259	Component	Not tested in 2007, 2008 and 2009.
2642	Component	Not tested in 2007, 2008 and 2009.
20576	Component	Not tested in 2007, 2008 and 2009.
20604	Microprocessor	Not tested in 2007, 2008 and 2009.

### B.2 Capacitors

<b>Equipment Number</b>	<b>Description of Violation</b>
C486	Not tested in 2007 and 2009.
C617	This capacitor was listed twice in the table provided by PG&E as part of your response to the CPUC data request. Therefore, It is uncertain as to which years testing was not conducted; however it appears no testing was done in 2007.
C415	This capacitor was listed twice in the table provided by PG&E as part of your response to the CPUC data request. Therefore, It is uncertain as to which years testing was not conducted; however it appears no testing was done in 2007.
C736	Not tested in 2007 and 2008
C415	Not tested in 2007 and 2008
C139	Not tested in 2007 and 2008
C747	Not tested in 2007 and 2008

### B.3 Reclosers

<b>Equipment Number</b>	<b>Description of Violation</b>
L60	Not tested in 2008 and 2009
2425	Not tested in the fall of 2008 and 2009
3433	Not tested in the Fall of 2007 and in 2008 and 2009
12451	Not tested in the Spring of 2008 and 2009
13889	Not tested in the Fall of 2007, 2008 and 2009
12373	Not tested in 2007 and 2008

**(C) Missing Records**

During our records review, we noted the following violations of GO165, Section IV, regarding missing records. The last paragraph of this section 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.” (Emphasis added)*

The following detailed inspection records were missing for both overhead (OH) and UG inspection records.

<b>Plat Map</b>	<b>Description of Violation</b>
C-05-21	2009 OH Inspection records were missing
B-04-13 39-M	2006 UG Inspection records were missing
B-04-14 39-R	2006 UG Inspection records were missing

**(2) GO95 and GO128 Inspection Field Notes**

This section lists the GO 95 violations that were identified during the field portion of the audit. The locations that were audited were recently inspected by PG&E . If the violations contained in this section were present during PG&E’s last inspection the violations should have been either identified for corrective action or corrected by PG&E staff during the inspections.

<b>A.</b>	<b>Location:</b>	Service Drop to 2667 44 <sup>th</sup> Street, San Francisco
	<b>Pole No.:</b>	11021535
	<b>Previous Inspection Details:</b>	Overhead Inspection Map C0212A Completed 4/9/10
	<b>Date of CPUC Inspection:</b>	9/3/10
<b>Explanation of Violation(s):</b>		
<p>GO 95, Rule 31.1:</p> <p>Paragraph two of this rule states:</p> <p><i>“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 [the] communication or supply lines and equipment.”</i></p> <p>The triplex service drop had a broken “preform,” which is used at the pole to support the triplex conductors. This item was field repaired.</p>		

<b>B.</b>	<b>Location:</b>	Service Drop to 2667 44 <sup>th</sup> Street, San Francisco
	<b>Pole No.:</b>	110021534
	<b>Previous Inspection Details:</b>	Overhead Inspection Map C0212A Completed 4/9/10
	<b>Date of CPUC Inspection:</b>	9/3/10
<b>Explanation of Violation(s):</b>		
<p>GO 95, Rule 49.1(D):</p> <p>This rule states:</p> <p><i>Gains or equivalent means shall be provided for increasing surface contact of crossarms with round wood poles. Where gains are cut, the depth shall be not less than one-half inch or more than one inch. "Slab" gains, metal gains, pole bands, or assemblies of wood or metal supports that provide suitable surface contact and adequate strength are permitted.</i></p> <p>The secondary crossarm appeared to not have a gain.</p>		

<b>C.</b>	<b>Location:</b>	Corner of Wawona and 45 <sup>th</sup> Streets, San Francisco
	<b>Pole No.:</b>	110021587
	<b>Previous Inspection Details:</b>	Overhead Inspection Map C0212A Completed 4/9/10
	<b>Date of CPUC Inspection:</b>	9/3/10
<b>Explanation of Violation(s):</b>		
<p>GO 95, Rule 34:</p> <p>Paragraph one of this rule states:</p> <p><i>“Nothing in these rules shall be construed as permitting the unauthorized attachment, to supply, street light or communication poles or structures, of antennas, signs, posters, banners, decorations, wires, lighting fixtures, guys, ropes and any other such equipment foreign to the purposes of overhead electric line construction.”</i></p> <p>There was a wooden third party attachment on the pole. It was removed by PG&amp;E.</p>		



<b>D.</b>	<b>Location:</b>	2667 45 <sup>th</sup> Street, San Francisco
	<b>Pole No.:</b>	110006064
	<b>Previous Inspection Details:</b>	Overhead Inspection Map C0212A Completed 4/9/10
	<b>Date of CPUC Inspection:</b>	9/3/10
<b>Explanation of Violation(s):</b>		
<p>GO 95, Rule 54.8 C4:</p> <p>This rule states:</p> <p><i>“The radial clearance between supply service drop conductors and communication service drop conductors may be less than 48 inches as specified in Table 2, Column C, Cases 4 and 9; Column D, Cases 3 and 8, but shall be not less than 24 inches. Where within 15 feet of the point of attachment of either service drop on a building, this clearance may be further reduced but shall be not less than 12 inches.”</i></p> <p>The triplex service drop to 2679 45<sup>th</sup> Street was touching a phone service. This item was field repaired by PG&amp;E.</p>		

<b>E.</b>	<b>Location:</b>	Corner of Wawona and 46 <sup>th</sup> Street, San Francisco
	<b>Pole No.:</b>	110021580
	<b>Previous Inspection Details:</b>	Overhead Inspection Map C0212A Completed 4/9/10
	<b>Date of CPUC Inspection:</b>	9/3/10
<b>Explanation of Violation(s):</b>		
GO 95, Rule 58.6(C):		
This rule states in part:		
<p style="text-align: center;"><i>“Boxes or enclosures containing switches, meters, or other apparatus having accessible live parts, which are located 8 feet or less above the ground shall be effectively locked or sealed...”</i></p>		
An enclosure owned by and supplying power to AT&T facilities had a missing front cover, exposing live parts.		

<b>F.</b>	<b>Location:</b>	Across from 3530 Wawona Street, San Francisco
	<b>Pole No.:</b>	110021578
	<b>Previous Inspection Details:</b>	Overhead Inspection Map C0212A Completed 4/9/10
	<b>Date of CPUC Inspection:</b>	9/3/10
<b>Explanation of Violation(s):</b>		
GO 95, Rule 54.8 C4:		
This rule states:		
<p style="text-align: center;"><i>“The radial clearance between supply service drop conductors and communication service drop conductors may be less than 48 inches as specified in Table 2, Column C, Cases 4 and 9; Column D, Cases 3 and 8, but shall be not less than 24 inches. Where within 15 feet of the point of attachment of either service drop on a building, this clearance may be further reduced but shall be not less than 12 inches.”</i></p>		
The triplex service drop to 3536 Wawona Street was touching a phone service. This item was field repaired by PG&E.		