

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



May 30, 2017

EA2017-750

Adeel Babar  
Supervisor – Regulatory Compliance  
Pacific Gas and Electric Company  
3401 Crow Canyon Road, #221E  
San Ramon, CA 94583

**SUBJECT:** Audit of PG&E's Diablo Division

Mr. Babar:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission, Wilson Tsai of my staff conducted an electric audit of PG&E's Diablo Division from April 3, 2017 to April 7, 2017. The audit included a review of PG&E's records and field inspections of PG&E'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 June 30, 2017, 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 you can contact Wilson Tsai at (415) 703-1359 or [wilson.tsai@cpuc.ca.gov](mailto:wilson.tsai@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

Enclosure: Audit Findings

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

## AUDIT FINDINGS

### I. Records Review

My staff reviewed the following records during the audit:

- GO165 inspection records from 2012 to 2017
- Work order records for 2016 & 2017
- Completed 2016 and 2017 work orders for Maps B1520, B1717, B1718, and D1022
- Pole loading calculations
- Feeder reliability metrics from March 2013 to February 2017

### II. Records Violations

**GO 128, Rule 17.2, Inspection**, states in part:

*Systems shall be inspected by the operator frequently and thoroughly for the purpose of insuring that they are in good condition and in conformance with all applicable requirements of these rules.*

**GO 165, Section III-B, Standards for Inspection**, States:

*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.*

Padmounted transformer T-23357 on Map C2012 was inspected late. The underground inspection was due on 12/31/11 and completed on 5/16/15.

**GO 95, Rule 18-A2a**, states in part:

*All companies shall establish an auditable maintenance program for their facilities and lines. All companies must include a timeline for corrective actions to be taken following the identification of a Safety Hazard or nonconformances with General Order 95 on the company's facilities.*

**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.*

*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.*

PG&E's records (Request 2-A Late Work Orders) indicated that from March 2012 to April 2017, 1,699 overhead work orders were completed past their scheduled date of corrective action.

**GO 128, Rule 17.1, 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.*

*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.*

PG&E's records (Request 2-A Late Work Orders) indicated that from March 2012 to April 2017, 1,369 underground work orders were completed past their scheduled date of corrective action.

### III. Field Inspection

My staff inspected the following facilities:

Structure Number	Structure Type	Address	Map	City
	Pole	West of Trembath Street on E 18 <sup>th</sup> St.	B1718	Antioch
110153415	Pole	Intersection of Trembath & E 18 <sup>th</sup> St.	B1718	Antioch
110153417	Pole	North of E 18 <sup>th</sup> St. on Trembath Ln.	B1718	Antioch
110153418	Pole	Across from 1660 Trembath Ln.	B1718	Antioch
110153421	Pole	Intersection of Mike Yorba Way & Trembath Ln.	B1718	Antioch
110153419	Pole	1675 Trembath Ln.	B1718	Antioch
110153420	Pole	End of Mike Yorba Way	B1718	Antioch
110350199	Pole	1 Pole w/o Trembath Ln.	B1718	Antioch
40875645	Pole	Intersection of Hargrove St. & E 18 <sup>th</sup> St.	B1718	Antioch
SW-11070	Enclosure	1812 Trembath Ln.	B1717	Antioch
	Padmounted Transformer	1107 E 18 <sup>th</sup> St.	B1717	Antioch
110153358	Pole	Parsons Ln.	B1717	Antioch
110153114	Pole	983 Fitzuren Road		Antioch
110130796	Pole	2413 Kendree St.	B1520	Antioch
110130798	Pole	2423 Kendree St.	B1520	Antioch
110130777	Pole	2433 Kendree St.	B1520	Antioch
110130778	Pole	4011 Carla Ct.	B1520	Antioch
110130797	Pole	4004 Leticia Ct.	B1520	Antioch
SW-18937	Enclosure	838 Ygnacio Valley Blvd.	D1018	Walnut Creek
120002386	Pole	2055 N Broadway	D1018	Walnut Creek
110258331	Pole	2075 N Broadway	D1018	Walnut Creek
110258330	Pole	2085 N Broadway	D1018	Walnut Creek
110258329	Pole	Across from 2100 N Broadway	D1018	Walnut Creek
110258328	Pole	Across from 2140 N Broadway	D1018	Walnut Creek
110258327	Pole	2141 N Broadway	D1018	Walnut Creek
110258326	Pole	2155 N Broadway	D1018	Walnut Creek
110258375	Pole	2195 N Broadway	D1018	Walnut Creek
110253872	Pole	1332 Pine St.	D1018	Walnut Creek
110258373	Pole	1350 Pine St.	D1018	Walnut Creek
110160186	Pole	1949 Dora Ave.	D1022	Walnut Creek

<b>Structure Number</b>	<b>Structure Type</b>	<b>Address</b>	<b>Map</b>	<b>City</b>
110160187	Pole	1927 Dora Ave.	D1022	Walnut Creek
110160188	Pole	Side of 1521 Brooks St.	D1022	Walnut Creek
110160189	Pole	Front of 1521 Brooks St.	D1022	Walnut Creek
110160190	Pole	1505 Brooks St.	D1022	Walnut Creek
110160184	Pole	1895 Shuey Ave.	D1022	Walnut Creek
110160183	Pole	Across from 1918 Shuey Ave.	D1022	Walnut Creek
110160182	Pole	1939 Shuey Ave.	D1022	Walnut Creek
110160181	Pole	1971 Shuey Ave.	D1022	Walnut Creek
110160180	Pole	1975 Shuey Ave.	D1022	Walnut Creek
110258439	Pole	Intersection of Mt. Pisgah Rd. & Mt. Diablo Blvd.	D1023	Walnut Creek
110258438	Pole	Front of 1315 Mt. Pisgah Rd.	D1023	Walnut Creek
110258437	Pole	1315 Mt. Pisgah Rd.	D1023	Walnut Creek
110258436	Pole	1 <sup>st</sup> Pole on Alta Vista Ct.	D1023	Walnut Creek
110258435	Pole	1186 Alta Vista Ct.	D1023	Walnut Creek
110258434	Pole	1196 Alta Vista Ct.	D1023	Walnut Creek
110258433	Pole	Across from 1330 Mt. Pisgah Rd.	D1023	Walnut Creek
110258432	Pole	1365 Mt. Pisgah Rd.	D1023	Walnut Creek
110258426	Pole	Intersection of Mt. Pisgah Rd. & Alta Vista Ct.	D1023	Walnut Creek
110258427	Pole	Intersection of Mt. Pisgah Rd. & Village Ct.	D1023	Walnut Creek
110258428	Pole	130 Village Ct.	D1023	Walnut Creek
110258429	Pole	140 Village Ct.	D1023	Walnut Creek
	Enclosure	10 Mountain Valley Place	G1305	Danville
T-16400	Sub-surface Transformer	18 Mountain Valley Place	G1305	Danville
T-16401	Sub-surface Transformer	31 Mountain Valley Place	G1305	Danville
	Enclosure	39 Mountain Valley Place	G1305	Danville
T-16403	Sub-surface Transformer	209 Woodvalley Place	G1305	Danville
T-16402	Sub-surface Transformer	59 Woodvalley Dr.	G1305	Danville
	Enclosure	55 Woodvalley Dr.	G1305	Danville
T-16404	Sub-surface Transformer	107 Woodvalley Ct.	G1305	Danville
SW-18542	Sub-surface Switch	NE Corner of Maison Dr.	G1304	Danville
	Enclosure	Corner of Maison Dr. & Old Blackhawk Rd.	G1304	Danville

<b>Structure Number</b>	<b>Structure Type</b>	<b>Address</b>	<b>Map</b>	<b>City</b>
T-15758	Sub-surface Transformer	190 Old Blackhawk Rd.	G1304	Danville
	Enclosure	SW Corner of Maison Dr. & Old Blackhawk Rd.	G1304	Danville
SW-25876	Sub-surface Switch	Old Blackhawk Rd.	G1304	Danville
SW-25944	Sub-surface Switch	Fontaine Dr.	G1304	Danville

#### **IV. Field Inspection Violations**

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.*

The crossarm on pole #110160187 located at 1927 Dora Ave., was decayed.

**GO 95, Rule 54.6-E(2), Risers**, states in part:

***Covered from 8 Feet Above the Ground Level and Above:** All risers from underground cables or other conductors which pass through an unrelated conductor or cable level shall be covered or encased by material as described in Rule 54.6-E1 or by a suitable protective covering as described in Rule 22.8 from a distance of 8 feet above the ground to:*

- a) Not less than 18 inches above supply conductors.*
- b) Not less than 36 inches above communication conductors for supply risers of 750 volts or less; and*
- c) Not less than 48 inches above communication conductors for supply risers of 750 - 7500 volts; and*
- d) Not less than 60 inches above communication conductors for supply risers of more than 7500 volts.*

The riser from 8 feet above ground to the primary level on pole #110258426 located at the intersection of Mt. Pisgah Rd. and Alta Vista Ct., was not covered or encased by a suitable protective covering.

**GO 95, Rule 91.3-B, Location of Steps**, states in part:

*The lowest step shall not be less than 8 feet from the ground line, or any easily climbable foreign structure from which one could reach or step.*

The lowest pole step on pole #110160180 located at 1939 Shuey Ave., was approximately 7 feet from the ground.

**GO 95, Rule 51.6-A, High Voltage Marking**, states in part:

*Poles which support line conductors of more than 750 volts shall be marked with high voltage signs..... Such signs shall be of weather and corrosion-resisting material, solid or with letters cut out therefrom and clearly legible.*

The following poles were not marked with “High Voltage” signs:

- Pole #110130796 located at 2413 Kendree St., Antioch
- Pole #110130777 located at 2433 Kendree St., Antioch
- Pole #110130797 located at 4004 Leticia Ct., Antioch
- Pole #110258330 located at 2085 N Broadway, Walnut Creek
- Pole #110160190 located at 1505 Brooks St., Walnut Creek
- Pole #110258437 located at 1315 Mt. Pisgah Rd., Walnut Creek
- Pole #110160184 located at 1895 Shuey Ave., Walnut Creek

**GO 95, Rule 54.6-B, Ground Wires**, states in part:

*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).*

The ground wire on the following poles was exposed:

- Pole #110130777 located at 2433 Kendree St, Antioch
- Pole #110130797 located at 4004 Leticia Ct, Antioch
- Pole #110258328 located across from 2140 N Broadway, Walnut Creek
- Pole #110258436 located at 1<sup>st</sup> Pole on Alta Vista Ct., Walnut Creek
- Pole #110258435 located at 1186 Alta Vista Ct., Walnut Creek