

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



December 31, 2015

EA2015-018

Mr. 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 Sonoma Division

Dear Mr. Babar:

On behalf of the Electric Safety and Reliability Branch (ESRB) of the California Public Utilities Commission, Wilson Tsai and Raymond Cho of my staff conducted an electric audit of PG&E's Sonoma Division from September 21 to September 24, 2015. 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 February 1, 2016, 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 Wilson Tsai at (415) 703-1359 or wilson.tsai@cpuc.ca.gov.

Sincerely,

A handwritten signature in cursive script 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
Charlotte TerKeurst, Program Manager, Safety and Enforcement Division, CPUC
Alok Kumar, Senior Utilities Engineer (Supervisor), ESRB, CPUC

AUDIT FINDINGS

I. Records Review

My staff reviewed the following records during the audit:

- a. GO95 detailed inspection records for 2015 for Maps HH19, GG22, KK2824, and MM3502 located in Cazadero, Guerneville, and Rohnert Park.
- b. GO128 detailed inspection records for 2015 for Maps LL3422 and JJ2709 located in Sonoma and Santa Rosa.
- c. GO165 inspection records for Sonoma division from Oct. 2010 to Sept. 2015.
- d. Completed work orders for overhead and underground facilities for Maps LL3301 and JJ2701 in Sonoma and Santa Rosa.
- e. Pole loading calculations for poles in Santa Rosa and Windsor.
- f. Pole Test and Treat records for poles in Maps GG22, GG2613, and JJ2605.
- g. Joint Pole Work forms for a pole in Rohnert Park.
- h. Cancelled work orders for facilities in Santa Rosa and Windsor.
- i. New Construction records for work order 110413216 in Windsor.

II. Records Review - Violations

GO 165, Section III-B, Standards for Inspection, states in part:

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.

The following PG&E facilities were not inspected on time as required by GO 165:

Maps with overhead (OH) facilities:

- Map KK3307 with 36 OH facilities was inspected late on 11/5/2012. The map should have been inspected in 2011.
- Map MM3205 with 5 OH facilities was inspected late on 12/10/2012. The map should have been inspected in 2011.
- Map KK3321 with 8 OH facilities was inspected late on 12/10/2012. The map should have been inspected in 2011.
- Map KK312 with 1 OH facility was inspected late on 11/5/2012. The map should have been inspected in 2011.
- Map GG1409 with 1 OH facility was inspected late on 12/4/2012. The map should have been inspected in 2011.
- Map JJ3215 with 10 OH facilities was patrolled late on 11/28/12. The map was not patrolled prior to 2012.

Maps with underground (UG) facilities:

- Map MM3205 with 13 UG facilities was inspected late on 11/28/2012. The map should have been inspected in 2010.
- Map FF28 with 9 UG facilities was patrolled late on 11/29/2012. The map should have been patrolled in 2011.

- Map GG2820 with 7 UG facilities was patrolled late on 11/28/2012. The map should have been patrolled in 2011.

GO 165, Section III-C, Record Keeping, states in part:

For all inspections records shall specify the circuit, area, facility or equipment inspected, the inspector, the date of the inspection, and any problems (or items requiring corrective action) identified during each inspection, as well as the scheduled date of corrective action.

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 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.

PG&E's records indicated that from August 2010 to September 21, 2015, a total of 3,527 work orders were completed past their scheduled date of corrective action per PG&E's Electric Notification Prioritization Standards. Late work orders included overhead and underground facilities.

III. Field Inspection

My staff inspected the following facilities:

Structure Number	Type of Structure	Location	Map Number
CTC-1014521	Pole	Cazadero	HH19
N/A	Pole	Cazadero	HH19
CTC-1023652	Pole	Cazadero	HH19
CTC-1152374	Pole	Cazadero	HH19
N/A	Pole	Cazadero	HH19
12653	Pole	Guerneville	GG22
93134	Pole	Guerneville	GG22
N/A	Pole	Guerneville	GG22
N/A	Pole	Rohnert Park	KK2824
N/A	Pole	Rohnert Park	KK2824
N/A	Pole	Rohnert Park	KK2824
N/A	Pole	Rohnert Park	KK2824
N/A	Pole	Rohnert Park	KK2824
N/A	Pole	Rohnert Park	KK2824
N/A	Pole	Rohnert Park	KK2824
4963	Pole	Sonoma	MM3502
N/A	Pole	Sonoma	MM3502
N/A	Pole	Sonoma	MM3502
N/A	Pole	Sonoma	MM3502
6805	Pole	Sonoma	MM3502
N/A	Pole	Sonoma	MM3502
N/A	Pole	Sonoma	MM3502
N/A	Pole	Sonoma	MM3502
N/A	Pole	Sonoma	MM3502
N/A	Pole	Sonoma	MM3502
N/A	Pole	Sonoma	MM3502
J209	Underground Junction Box	Sonoma	LL3422
T103	Subsurface Transformer	Sonoma	LL3422
1880/1888	Underground Two-Way Tap	Sonoma	LL3422
N/A	Underground Splice Box	Sonoma	LL3422
T5371	Underground Duplex Transformer	Sonoma	LL3422
J9466	Underground Load Breaker	Sonoma	LL3422
T3051	Underground Transformer	Sonoma	LL3422
T7106	Subsurface Transformer	Sonoma	LL3301
N/A	Underground Junction Box	Santa Rosa	JJ2709
J1397	Underground Load Breaker	Santa Rosa	JJ2709
J1336	Underground Load Breaker	Santa Rosa	JJ2709
T8718	Subsurface Transformer	Santa Rosa	JJ2709
J1381	Underground Load Breaker	Santa Rosa	JJ2709
T8863	Subsurface Transformer	Santa Rosa	JJ2709
N/A	Underground Junction Box	Santa Rosa	JJ2709
N/A	Pole	Windsor	N/A

Structure Number	Type of Structure	Location	Map Number
PT8726	Pole	Windsor	N/A
N/A	Pole	Santa Rosa	GG2613
2597	Pole	Santa Rosa	N/A
N/A	Pole	Santa Rosa	N/A
N/A	Overhead Transformer	Santa Rosa	JJ2701
N/A	Pole	Santa Rosa	JJ2605

IV. Field Inspection – Undocumented Violations List

We observed the following violations during our field inspection. None of these violations were documented and/or addressed by PG&E during its last inspections:

GO 95, Rule 56.2, Use, states in part:

Where guys are used with poles or similar structures capable of considerable deflection before failure, the guys shall be able to support the entire load, the pole below the point of guy attachment acting merely as a strut.

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.

A secondary anchor guy on a PG&E pole located at 2952 Lomitas Ave. was not attached to the ground. Therefore the anchor guy was not taut and able to support the entire load.

GO 95, Rule 18-B, Notification of Safety Hazards, states in part:

If a company, while performing inspections of its facilities, discovers a safety hazard(s) on or near a communications facility or electric facility involving another company, the inspecting company shall notify the other company and/or facility owner of such safety hazard(s) no later than 10 business days after the discovery.

A communications splice was hanging ten feet above ground at a PG&E pole located at 2952 Lomitas Ave. PG&E did not notify the communications company of this safety hazard when it last inspected the pole.

GO 95, Rule 37, Table 1, 13-E, requires a minimum radial clearance of 18 inches between bare line supply conductors 750-22,500 Volts and tree branches or foliage.

Vegetation was less than 18 inches from a primary conductor on Pole 6805.

GO 95, Rule 56.2, Use, states in part:

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.

There was noticeable slack on the span guy located at 1375 E. Napa St.

GO 95, Rule 54.7, Climbing and Working Space, states in part:

Climbing space, measured from center line of pole, shall be provided on one side or in one quadrant of all poles or structures

The climbing space on a PG&E pole at 1439 E Napa St. was obstructed by vegetation from all sides.

V. Field Inspection – Documented Violations List

We observed the following violations during our field inspection. These violations were documented and/or addressed by PG&E during its last 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.

PG&E TD-2305M-JA02, Guys/Anchors, requires the top of an anchor head to be above grade.

The poles at the following addresses had buried anchor guys:

- 516 Baron Dr.
- 2952 Lomas Ave.

GO 95, Rule 56.4-C – Clearances From Conductors, requires a 3 inch radial separation between guys and 0-750 Volt conductors.

The poles at the following addresses had an anchor guy in contact with secondary conductor:

- 4090 Cazadero Hwy.
- 4300 Cazadero Hwy.
- 1439 E Napa St.

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 poles at the following addresses did not have High Voltage signs:

- 18361 Sweetwater Springs Rd.
- 1383 E Napa St.

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

The poles at the following addresses had exposed ground moldings:

- 544 Baron Dr.
- 516 Baron Dr.