



**Pacific Gas and
Electric Company**[®]

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February 1, 2016

Ms. Charlotte F. TerKeurst
Program Manager, CPUC, ESRB
California Public Utilities Commission
505 Van Ness Boulevard
San Francisco, CA 94102

Subject: Response to Safety and Enforcement Division (SED) 2015 Electric Audit Report of PG&E's Sonoma Division; CPUC ID: EA2015-18.

Dear Ms. TerKeurst:

During the week of September 21-24, 2015, staff from SED conducted a records and field audit of PG&E's Sonoma Division.

The records portion of the audit week included a review of 10 overhead and underground maps, 26 EC Notifications and 10 pole loading calculations. The field portion of the audit covered 32 overhead locations and 15 underground locations.

The SED submitted the audit summary to PG&E on December 31, 2015, which contained alleged violations of General Orders 165, 95 and 128. The audit summary letter requested that PG&E advise you no later than February 1, 2016, of all corrective measures taken by PG&E to remedy and prevent such alleged violations.

Section II lists PG&E's response, including corrective measures taken, to address items identified during the records review. Section IV and V lists PG&E's response, including corrective measures taken, to address GO 95 and GO 128 items identified during the field portion of the audit.

Please contact me at 415-973-7544 if you have any questions regarding this response.

Sincerely,

/x/

Eric Back
Director, Compliance and Risk Management

cc: Ms. Elizaveta Malashenko, Deputy Director, Office of Utility Safety and Reliability
Mr. Fadi Daye, P.E., Senior Utilities Engineer, Supervisor, CPUC-LA
Mr. Alok Kumar, P.E., Senior Utilities Engineer, Supervisor, CPUC-SF
Mr. Wilson Tsai, Utilities Engineer, CPUC, ESRB
Mr. Raymond Cho, Utilities Engineer, CPUC, ESRB

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.

PG&E Response:

In a comprehensive 2012 audit, the Maintenance Plan Gap Analysis (Analysis), PG&E identified six overhead maps¹ (a total of 61 facilities) and the three underground maps (a total of 29 facilities) with missing or incomplete maintenance plans. PG&E informed the CPUC's ESRB of the results and provided a copy of this Analysis during a November 27, 2012 meeting and included a copy of the Analysis in PG&E's Maintenance Plan Initiative Letter dated January 31, 2013.

Another copy of the Analysis was again provided to the ESRB in advance of this CPUC audit in response to Pre-audit Data Request #04B.

As stated in PG&E's Maintenance Plan Initiative Letter, dated January 31, 2013, to the CPUC,

PG&E has also completed implementation of the corrective actions discussed during the [November 27, 2012] meeting. For all maps identified as having a missing maintenance plan, corresponding maintenance plan(s) have been created. In addition, the automated process for identifying facilities on maps without existing maintenance plans has been implemented, the responsibility for monitoring the results has been assigned centrally within PG&E's Distribution Compliance Department [now within the Public Safety & Regulatory (PS&R) organization] and the monthly reconciliation and validation process has been established. PG&E believes these corrective actions will eliminate the gaps identified in this initiative.

PG&E believes the corrective actions described above are still effective and adequate to address this issue.

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

¹ The fourth bullet identified Map KK312 with 1 OH facility; however, the correct map name is Map KK3312

Prioritization Standards. Late work orders included overhead and underground facilities.

PG&E Response:

PG&E has reviewed its response to CPUC Pre-audit Data Request #3, which included all work orders (i.e., EC Notifications) completed late (i.e., not completed by their PG&E Required End Date). The 3,527 work orders referenced above include 2,958 “late” non-emergency notifications and 569 “late” emergency notifications.

Of the emergency work orders open past their scheduled due dates, 51 were generated during storms or outside of GO 165 patrols or inspections. For the reasons set forth below, PG&E does not agree that all “late” emergency notifications are violations of GO 165, Section III-C; GO 95, Rule 31.1; or GO 128, Rule 17.1.

First, while GO 165 requires utilities to conduct regular inspections of its facilities and to identify and prioritize maintenance or replacement work orders, GO 165 does not apply to work orders generated as a result of storms. Work orders generated during storms or outside of GO 165 inspections and patrols would not be subject to GO 165 and would not be violations of Section III-C.

Second, emergency response involves three distinct steps: (1) make safe, (2) damage assessment, and (3) restoration. It is common, especially during storms with multiple outages, that crews responding to one outage will only have time to make the area safe and assess the work required for restoration before that crew must respond to a second outage to make the second area safe. In these instances, the emergency crew will indicate the “scheduled date of corrective action” on the work order as either the same date the condition was assessed or the following date. The express purpose of this immediate “schedule date of corrective action” is to indicate that PG&E customers are currently “out of service” and that service to these customers cannot be restored until this work order is completed – therefore, this work order should be completed as soon as practicable. In fact, however, during a multiple outage storm, an individual work order will necessarily be closed past the “schedule date.” This will happen for three reasons: (1) the responding crew is called away to another outage, (2) the restoration requires equipment or material which must be delivered to the outage site, (3) the physical work extends past midnight to the following day or even later. There is yet a fourth reason that an outage repair work order may not be officially closed until after the “schedule date” – that is where special accounting work is required. For example, where an errant vehicle has left the road and knocked down the pole (car-pole accident). To ensure that that driver’s insurance, and not PG&E customers, is charged for the cost of the restoration, the work order requires special “back office” handling to complete the accounting. That “back office” accounting work is often done and the work order officially “closed” after the schedule date.

Therefore, PG&E does not believe that such “late” emergency work orders are violations of any of these General Orders.

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
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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.

PG&E Response:

PG&E does not believe that this situation constitutes a violation of GO 95, Rule 56.2. As described below, PG&E has identified the condition and initiated corrective action. However, the scheduled date for that corrective action is not yet due.

During the most recent GO 165 inspection, the inspector noted that the customer had disconnected the down guy from the anchor and constructed a sheet-metal fence between PG&E's pole and that anchor. PG&E sent a third-party notification to the customer to remove sheet metal and fencing. The work order, EC Notification 105286850, was issued to replace the anchor and down guy after the customer completed fence removal. Consistent with Electric Rule 11, the customer is given a reasonable time to complete the corrective actions. In this case, the deadline for the customer action and the required end date for this replacement work is April 4, 2016.

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 Lomas Ave. PG&E did not notify the communications company of this safety hazard when it last inspected the pole.

PG&E Response:

GO 95, Rule 18 requires PG&E to notify another utility of a hazard involving its equipment or facilities within ten business days following discovery by PG&E. From the rule, PG&E must have actual notice of the hazard obtained during an inspection of our facilities. As described below, the hazard condition was not present during the last PG&E inspection (April 4, 2011) and, therefore, PG&E had no duty to notify the communication utility.

At the time of the field audit on September 24, 2015, PG&E along with CPUC engineers Wilson Tsai and Raymond Cho approached an AT&T van parked in front of the site. PG&E notified the AT&T representative of the hanging communication splice. PG&E visited 2952 Lomas Ave on January 12, 2016 and confirms that the communication splice has been repaired (see attachment 1).

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.

PG&E Response:

PG&E disagrees with this finding. At the time of the audit on September 23, 2015, PG&E observed the vegetation (flowering stalk of century plant) to be more than 18 inches from the primary conductor, so there was no violation. The fast-growing flowering stalk had also been inspected by PG&E on April 30, 2015.^[1] PG&E had the flowering stalk of the century plant removed the next day, September 24, 2015, see attachment 2.

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.

^[1] This location is not Pole 6805; correct location is cutout # 6805.

PG&E Response:

PG&E agrees that there was some sag in the subject span guy, however, PG&E disagrees with the finding that the guy was not taut as required by Rule 56.2.

The span guy itself is a pole-to-pole span guy. The subject span guy is attached at the 16 foot level and supports less than 500 pounds without an anchor. This is in accord with PG&E's overhead electric standards (see attachment 3, PG&E Standard 022178, pg. 16, Figure 32). The span guy supports less than 500 pound, therefore it is tensioned for no more than 500 pounds. If the span guy were tensioned more than 500 pound lateral load, it could cause one or both of the poles to lean. In this case, the 500 pound tension will result in some sag in the guy wire. However, when properly tensioned, as in this case, the span guy is taut, not slack, and it is supporting exactly the 500 pound load it was designed for.

At the time of the audit, PG&E and the CPUC discussed the span guy and the poles associated with it. Both poles are straight and show no signs of leaning due to lateral strain.

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.

PG&E Response:

PG&E notes that while this location has year-round bucket access, to resolve this matter, PG&E will add clearing of vegetation within the climbing space to existing EC Notification, 110365577.

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 Lomitas Ave.

PG&E Response:

PG&E created an EC Notification for the identified condition during the last inspection. Corrective measures will be scheduled accordingly.

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.

PG&E Response:

PG&E created an EC Notification for the identified condition during the last inspection. Corrective measures will be scheduled accordingly.

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.

PG&E Response:

PG&E created an EC Notification for the identified condition during the last inspection. Corrective measures will be scheduled accordingly.

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.

PG&E Response:

PG&E created an EC Notification for the identified condition during the last inspection. Corrective measures will be scheduled accordingly.