

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



EA2016-003

June 2, 2016

Bradley A. Recker  
Manager, Electrical Distribution  
Burbank Water and Power (BWP)  
164 W Magnolia Blvd  
Burbank, CA 91768

**SUBJECT:** Audit of Burbank Water and Power

Dear Mr. Recker:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission, Zelalem Ewnetu of my staff conducted an audit of BWP from March 7, 2016 to March 11, 2016. The audit included a review of BWP's records and field inspections of BWP'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 July 5, 2016, by electronic or hard copy, of all corrective measures taken by BWP to remedy and prevent such violations.

If you have any questions, you can contact Zelalem Ewnetu at (213) 576-7042 or [ze1@cpuc.ca.gov](mailto:ze1@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  
Charlotte TerKeurst, Program Manager, Electric Safety and Reliability Branch, CPUC

## Audit Findings

### I. Records Review

During the audit, my staff reviewed the following records:

- Detailed inspection records
- Recently completed work order records
- Pole intrusive inspection records
- BWP's inspection program
- Safety hazard notifications
- Pole loading records for recent pole replacements and repair projects

### II. Records Review – Violations List

We observed the following violations during the records review portion of the audit.

**GO 165, Table 1**, require electric utilities to conduct detailed inspections of their overhead electric facilities at least once every 5 years.

BWP does not have a detailed inspection program for its overhead electric facilities.

**GO 165, Table 1**, require electric utilities to patrol its underground electric facilities at least once every year in urban areas and once every two years in rural areas.

BWP does not have a patrol inspection program for its underground electric facilities.

**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.*

BWP does not have formal repair work order records associated with its inspections. BWP's inspectors and maintenance crews communicate informally, e.g. via e-mail, to resolve discovered issues. The communications that take the place of formal work order records do not always contain a scheduled date of corrective action, as required by the above rule.

**GO 95, Rule 18-A2a, Resolution of Safety Hazards and General Order 95 Nonconformances**, states in part:

*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.*

BWP has priority levels in its inspection manual for issues discovered during inspections, however, BWP does not consistently document and track timeline for corrective action based on its priority system.

### III. Field Inspection

The following are the facilities we inspected during the field inspection:

Structure Number (Location)	Type of Structure	City
22182B	Pole	Burbank
24785B	Pole	Burbank
24784B	Pole	Burbank
22353B	Pole	Burbank
24505B	Pole	Burbank
26373B	Pole	Burbank
24506B	Pole	Burbank
24507B	Pole	Burbank
24508B	Pole	Burbank
13883B	Pole	Burbank
21106B	Pole	Burbank
21105B	Pole	Burbank
22817B	Pole	Burbank
21103B	Pole	Burbank
29343B	Pole	Burbank
21978B	Pole	Burbank
25871B	Pole	Burbank
28530B	Pole	Burbank
20822B	Pole	Burbank
22595B	Pole	Burbank
22596B	Pole	Burbank
24717B	Pole	Burbank
27889B / Pole next to 27889B	Pole	Burbank
28495B	Pole	Burbank
26277B	Pole	Burbank
26278B	Pole	Burbank
26279B	Pole	Burbank
26280B	Pole	Burbank
26281B	Pole	Burbank
26282B	Pole	Burbank
Pole at Bonita/Parish	Pole	Burbank
21750B	Pole	Burbank
22154B	Pole	Burbank
24568B	Pole	Burbank
24569B	Pole	Burbank
24570B	Pole	Burbank

24571B	Pole	Burbank
24572B	Pole	Burbank
24092B	Pole	Burbank
26053B	Pole	Burbank
14715B	Pole	Burbank
Pole at Amber/Eton	Pole	Burbank
Pole at 825 Eton Rd	Pole	Burbank
Pole at Harvard/Bellaire	Pole	Burbank
25602B	Pole	Burbank
25601B	Pole	Burbank
25600B	Pole	Burbank
25599B	Pole	Burbank
25598B	Pole	Burbank
27656B	Pole	Burbank
27615B	Pole	Burbank
27657B	Pole	Burbank
25603B	Pole	Burbank
25604B	Pole	Burbank
Pole next to 25604B	Pole	Burbank
22764B	Pole	Burbank
25605B	Pole	Burbank
25312B	Pole	Burbank
Pole next to 25312B	Pole	Burbank
Pole at 1083Elmwood	Pole	Burbank
Pole at 1011 Elmwood	Pole	Burbank
Pole next to 1011 Elmwood	Pole	Burbank
16895B	Pole	Burbank
Pole next to 16895B	Pole	Burbank
24227B	Pole	Burbank
24226B	Pole	Burbank
24536B	Pole	Burbank
24535B	Pole	Burbank
20486B	Pole	Burbank
24217B	Pole	Burbank
Pole next to 24217B	Pole	Burbank
Pole next to 24217B	Pole	Burbank
Pole at Providence/Verdugo	Pole	Burbank
26695B	Pole	Burbank
28255B	Pole	Burbank
27930B	Pole	Burbank
25429B	Pole	Burbank

25427B	Pole	Burbank
Pole next to 25427B	Pole	Burbank
25425B	Pole	Burbank
25424B	Pole	Burbank
Pole next to 25424B	Pole	Burbank
24228B	Pole	Burbank
29215B	Pole	Burbank
29216B	Pole	Burbank
29217B	Pole	Burbank
29218B	Pole	Burbank
29219B	Pole	Burbank
29220B	Pole	Burbank
23322B	Pole	Burbank
27957B	Pole	Burbank
27958B	Pole	Burbank
21895B	Pole	Burbank
27959B	Pole	Burbank
27960B	Pole	Burbank
27932B	Pole	Burbank
27956B	Pole	Burbank
29258B	Pole	Burbank
22681B	Pole	Burbank
27956B	Pole	Burbank
27953B	Pole	Burbank
27933B	Pole	Burbank
29342B	Pole	Burbank
Pole next to 29342B	Pole	Burbank
Pole next to 15189B	Pole	Burbank
15189B	Pole	Burbank
15188B	Pole	Burbank
22224B	Pole	Burbank
22223B	Pole	Burbank
21714B	Pole	Burbank
19900B	Pole	Burbank
8061B	Pole	Burbank
MH36	Manhole	Burbank
V29	Vault	Burbank
P235	Pad-mounted Structure	Burbank
PB113	Pull-box	Burbank
MH209	Manhole	Burbank
P1268	Pad-mounted Structure	Burbank

#### IV. Field Inspection – Undocumented Violations List

We observed the following violations during the field inspection. None of the violations were documented and/or addressed by BWP during its last inspections.

##### **GO 95, Rule 51.6-A, Marking and Guarding,** states in part:

*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”*

##### **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 following BWP poles supported high voltage signs that were damaged:. These signs had broken and/or missing letters which made them illegible.

- 24507B
- 26282B
- Pole at Harvard/Bellaire
- Pole next to 1011 Elmwood
- 24217B
- 22224B
- 21103B
- Pole at Bonita/Parish
- 25603B
- 16895B
- Pole next to 25427B
- 22223B
- 26277B
- 22156B
- Pole next to 25604B
- Pole next to 16895B
- 24228B
- 21714B
- 26281B
- Pole at 825 Eton Rd
- Pole at 1011 Elmwood
- 24227B
- 21895B

##### **GO 95, Rule 56.2, Overhead Guys, Anchor Guys and Span Wires,** 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.*

The following BWP poles supported down guy wires that were not taut.

- 21103B
- 19900B

**GO 95, Rule 38, Table 2, Case 19-C**, requires the radial clearance between supply guy wires and communication conductors attached to the same pole to be three inches.

The following BWP poles supported supply guy wires and communication cables that had less than three inches of radial clearance.

- 25871B
- 25600B
- 25598B
- 25312B
- 29219B
- 29258B

**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 following BWP poles supported ground wires with damaged ground molding.

- 22595B
- 21714B
- Pole next to 1011 Elmwood
- 25428B
- 24535B

**GO 128, Rule 36.5 and GO 128, Rule 21.5** require a transformer's winding to be grounded, and the grounding to have impedance no more than 25 ohms. If this is not attained, these rules require at least two grounding rods to be used.

A transformer inside BWP vault number V29 was grounded using a single grounding rod. BWP was unable to verify that the impedance of the ground connection was less than 25 ohms, as required by GO 128, Rule 36.5.