

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



January 20, 2015

Joe Awad
Assistant General Manager of Power Delivery
City of Pasadena
150 South Los Robles Avenue, Suite 200
Pasadena, CA 91101

EA2014-029

SUBJECT: Electric Audit of Pasadena Water and Power

Dear Mr. Awad:

On behalf of the Electric Safety and Reliability Branch of the California Public Utilities Commission, Koko Tomassian of my staff conducted an electric audit of Pasadena Water and Power (PWP) from October 27, 2014 to October 31, 2014. The audit included a review of PWP's records and field inspections of PWP'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 20, 2015, by electronic or hard copy, of all corrective measures taken by PWP to remedy and prevent such violations.

If you have any questions, you can contact Koko Tomassian at (213) 576-7099 or koko.tomassian@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

Enclosure: Audit Findings

CC: Elizaveta Malashenko, Deputy Director, Safety and Enforcement Division, CPUC
Charlotte TerKeurst, Program Manager, Electric Safety and Reliability Branch, CPUC

AUDIT FINDINGS

The following violations were identified during the field inspection of the audit and were not documented and/or addressed by PWP during its last detailed inspection as required by General Order 165:

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| 1. | Location: | Pole No.: 14580MP |
| | Previous PWP Visit Details: | October 8, 2014 – Overhead (OH) Detailed Inspection |
| | Date of CPUC Inspection: | October 28, 2014 |
| Explanation of Violation(s): | | |
| <u>Vegetation in Contact with Primary Conductors</u> | | |
| <p>GO 95, Rule 35, Vegetation Management, States in part:</p> <p style="text-align: center;"><i>Where overhead conductors traverse trees and vegetation, safety and reliability of service demand that certain vegetation management activities be performed in order to establish necessary and reasonable clearances, the minimum clearances set forth in Table 1, Cases 13 and 14, measured between line conductors and vegetation under normal conditions shall be maintained.</i></p> <p>GO 95, Table 1, Case 13, Column E requires that supply conductors and supply cables between 750 – 22,500 Volts maintain a radial clearance of 18 inches from tree branches and foliage.</p> <p>There were two (2) palm fronds contacting primary supply cables.</p> | | |

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| 2. | Location: | Pole No.: 9225MP |
| | Previous PWP Visit Details: | October 8, 2014 – Overhead (OH) Detailed Inspection |
| | Date of CPUC Inspection: | October 28, 2014 |
| Explanation of Violation(s): | | |
| <p><u>Damaged/Missing High Voltage Sign</u></p> <p>GO 95, Rule 51.6-A, High Voltage Marking, States in part:</p> <p><i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs.</i></p> <p>The High Voltage sign on the crossarm was damaged.</p> <p><u>Damaged Secondary Pin</u></p> <p>GO 95, Rule 31.1, Design, Construction and Maintenance, States in part:</p> <p><i>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.</i></p> <p>The pole had a damaged secondary pin.</p> | | |

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| 3. | Location: | Pole No.: 2819MP |
| | Previous PWP Visit Details: | October 18, 2014 – Overhead (OH) Detailed Inspection |
| | Date of CPUC Inspection: | October 28, 2014 |
| Explanation of Violation(s): | | |
| <u>Vegetation in Contact with Primary Conductors</u> | | |
| <p>GO 95, Rule 35, Vegetation Management, States in part:</p> <p><i>Where overhead conductors traverse trees and vegetation, safety and reliability of service demand that certain vegetation management activities be performed in order to establish necessary and reasonable clearances, the minimum clearances set forth in Table 1, Cases 13 and 14, measured between line conductors and vegetation under normal conditions shall be maintained.</i></p> <p>GO 95, Table 1, Case 13, Column E requires the minimum radial clearance of supply conductors and supply cables between 750 – 22,500 Volts from tree branches and foliage to be 18 inches.</p> <p>A palm frond was contacting primary supply cables.</p> | | |

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| 4. | Location: | Pole No.: 20259MP |
| | Previous PWP Visit Details: | December 30, 2014 – Overhead (OH) Detailed Inspection |
| | Date of CPUC Inspection: | October 28, 2014 |
| Explanation of Violation(s): | | |
| <u>Damaged Ground Molding</u> | | |
| <p>GO 95, Rule 54.6-B, Ground Wires, States in part:</p> <p><i>That portion of the ground wire 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...</i></p> <p>The pole had damaged ground molding.</p> | | |

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| 5. | Location: | Pole No.: 3142MP |
| | Previous PWP Visit Details: | December 30, 2014 – Overhead (OH) Detailed Inspection |
| | Date of CPUC Inspection: | October 28, 2014 |
| Explanation of Violation(s): | | |
| <u>Climbing Space Obstructed</u> | | |
| GO 95, Rule 54.7, Climbing and Working Space, States in part: | | |
| <p><i>Climbing space shall be maintained from the ground level. Climbing space, measured from the center line of pole, shall be provided on one side or one quadrant of all poles or structures...</i></p> | | |
| The climbing space on this pole was obstructed by vegetation. | | |

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| 6. | Location: | Pole No.: 630614H |
| | Previous PWP Visit Details: | December 30, 2014 – Overhead (OH) Detailed Inspection |
| | Date of CPUC Inspection: | October 28, 2014 |
| Explanation of Violation(s): | | |
| <u>Climbing Space Obstructed</u> | | |
| GO 95, Rule 18-A1c, Resolution of Safety Hazards and GO 95 Nonconformances, States: | | |
| <p><i>Where a communications company's or an electric utility' actions result in GO nonconformances for another entity, that entity's remedial action will be to transmit a single documented notice of identified nonconformances to the communications company or electric utility for compliance.</i></p> | | |
| GO 95, Rule 54.7, Climbing and Working Space, States in part: | | |
| <p><i>Climbing space shall be maintained from the ground level. Climbing space, measured from the center line of pole, shall be provided on one side or one quadrant of all poles or structures...</i></p> | | |
| The climbing space on this pole was obstructed by communications cables. PWP did not notify the communications company of this GO nonconformance when it last visited the pole. | | |

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| 7. | Location: | Pole No.: 21030MP |
| | Previous PWP Visit Details: | December 11, 2014 – Overhead (OH) Detailed Inspection |
| | Date of CPUC Inspection: | October 28, 2014 |
| Explanation of Violation(s): | | |
| <u>Missing Guy Guard</u> | | |
| GO 95, Rule 56.9, Guy Marker (Guy Guard), States in part: | | |
| <i>A substantial marker of suitable material, including but not limited to metal or plastic, not less than 8 feet in length, shall be securely attached to all anchor guys.</i> | | |
| The pole supported a down guy wire which was not guarded with a substantial marker of suitable material. | | |

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| 8. | Location: | Pole No.: 6519MP |
| | Previous PWP Visit Details: | December 11, 2014 – Overhead (OH) Detailed Inspection |
| | Date of CPUC Inspection: | October 28, 2014 |
| Explanation of Violation(s): | | |
| <u>Damaged/Missing High Voltage Sign</u> | | |
| GO 95, Rule 51.6-A, High Voltage Marking, States in part: | | |
| <i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs.</i> | | |
| The High Voltage sign on the crossarm was damaged. | | |

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| 9. | Location: | Pole No.: 5172MP |
| | Previous PWP Visit Details: | December 11, 2014 – Overhead (OH) Detailed Inspection |
| | Date of CPUC Inspection: | October 28, 2014 |
| Explanation of Violation(s): | | |
| <p><u>Damaged/Missing High Voltage Sign</u></p> <p>GO 95, Rule 51.6-A, High Voltage Marking, States in part:</p> <p style="text-align: center;"><i>Poles which support line conductors of more than 750 volts shall be marked with high voltage signs.</i></p> <p>The High Voltage sign on the crossarm was missing.</p> | | |

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| 10. | Location: | Pole No.: 5717MP |
| | Previous PWP Visit Details: | December 11, 2014 – Overhead (OH) Detailed Inspection |
| | Date of CPUC Inspection: | October 28, 2014 |
| Explanation of Violation(s): | | |
| <p><u>Damaged and/or Broken “V-brace”</u></p> <p>GO 95, Rule 31.1, Design, Construction and Maintenance, States in part:</p> <p style="text-align: center;"><i>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.</i></p> <p>The pole had a damaged and/or broken “V-brace” on the secondary crossarm.</p> | | |

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| 11. | Location: | Pole No.: V8286 |
| | Previous PWP Visit Details: | August 6, 2014 – Overhead (OH) Detailed Inspection |
| | Date of CPUC Inspection: | October 29, 2014 |
| Explanation of Violation(s): | | |
| <p data-bbox="181 569 841 600"><u>Underground Vault Access Obstructed by Fence</u></p> <p data-bbox="181 642 1127 674">GO 128, Rule 17.1, Design, Construction, and Maintenance, states in part:</p> <p data-bbox="277 716 1344 863"><i>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.</i></p> <p data-bbox="181 905 1317 936">Access to the vault was obstructed by a third-party fenced perimeter with no access point.</p> <p data-bbox="181 978 570 1010"><u>Heavily Corroded Vault Lid</u></p> <p data-bbox="181 1052 911 1083">GO 128, Rule 35.2-A, Guarding Live Parts, states in part:</p> <p data-bbox="277 1125 1317 1199"><i>Live parts shall be enclosed, isolated, guarded, or insulated to prevent accidental contact.</i></p> <p data-bbox="181 1241 1425 1314">The vault lid was heavily corroded and did not sufficiently enclose, isolate, or guard the contained live parts.</p> | | |