



# 5 Minute Meeting

Effective Date:

**February 8, 2022**

Topic:

**Neutral Identification  
& Voltage Testing  
Requirements**

AUDIENCE:

**Project & Construction  
Organization and  
Contract Crews**

There have been several incidents in the Projects & Construction organization related to energizing customer neutral conductors. In some cases, these incidents have resulted in significant property damage to our customers.

The purpose of this communication is to clarify and implement enhancements to the neutral identification & voltage testing requirements in TD-2901-P. These enhancements are required for all Project & Construction Inspectors & contract crews.

## Key Discussion Points

- Effective immediately, ALL services that will be disconnected at the weather head are required to have the CUSTOMERS weather head neutral conductor clearly marked with white tape BEFORE they are disconnected. This marking MUST occur in a way that WILL NOT be removed by the service reconnection activity.
- It is the expectation of ALL P&C Inspectors to OBSERVE this identification and marking activity, VERIFY it is correct, and REQUIRE this task being completed BEFORE services are disconnected.
- If for ANY reason the identification and marking step is missed an ohm meter will be used to ring out and mark the customers neutral.
- White tape is the ONLY acceptable means of clearly marking the customer neutral. No other method of marking may be employed.
- Two voltage tests will be completed and verified by the Inspector before the customer premises is energized.
  - The first is to test the integrity and output voltage of the transformer. This test is made with the secondary hot legs disconnected.
  - The second is made at the customers meter base before the meter is set and the main breaker is closed energizing the customer premises. The results of this voltage test will be verified with a picture taken by the P&C Inspector.
  - The results of both of these voltage tests will be recorded in the Inspectors daily iAuditor log.
- A Supervisor must be immediately contacted if field conditions prevent the crew or P&C Inspector from recording the results of these voltage tests or implementing any of the procedural enhancements of this communication. The results of this discussion must be documented in the Inspectors daily log.
- When jobs are PRE-FIELDED by contract personnel, attention must be specifically given the accessibility of weather heads and customer metering installation. Should access be restricted, access must be ARRANGED with the customer BEFORE work can be scheduled.



# 5 Minute Meeting

## **Frequently Asked Questions**

**Question:** If we are working on a pole replacement with 6 services and a new transformer installation, do we have to mark all customers service neutrals at the weather head with white tape?

**Answer:** Yes, all services that will be disconnected at the weather head must have the neutral conductor clearly marked with white tape.

**Question:** What if we are not able to get to the meter location to test voltage.

**Answer:** After attempts have been made to reach someone on the property for access, leave the hot legs open at the weather head and call in a customer service tag.

**Question:** Who do I call when I have to leave the hot legs open?

**Answer:** The inspector will notify the DO and leave a customer service tag on the customers premises to contact PG&E when the meters are accessible.

**Question:** How do I order Customer Service tags?

**Answer:** Your clerical support can order the customer service tags.



# SIF Alert: **FINAL** communication

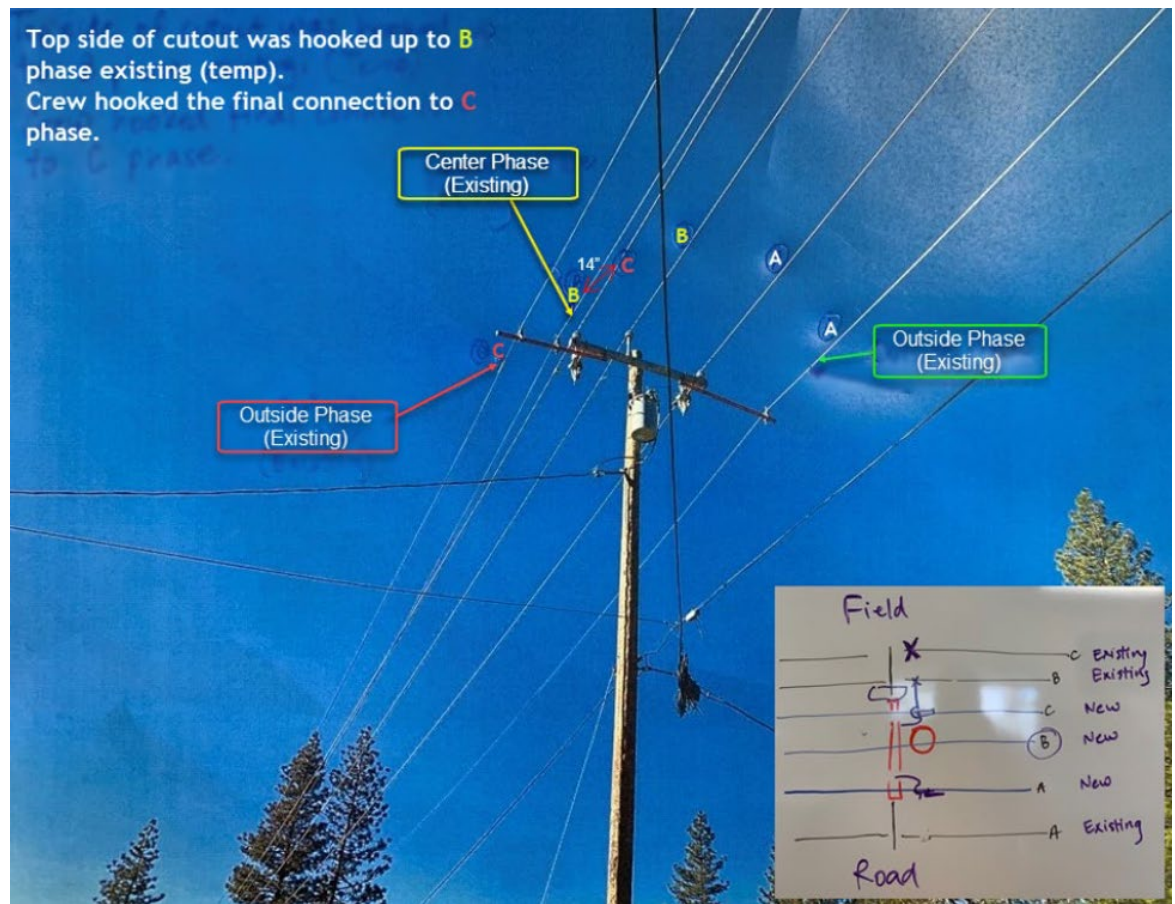
For leaders to discuss with their team



SIF Alert

<b>Title:</b>	Electric Operations, Sierra Village Arc Flash
<b>Purpose:</b>	Reviewing what was learned from this Serious Injury and Fatality (SIF) Potential event will allow us to improve our safety practices. Please engage with your employees about the incident takeaways at your next safety tailboard.
<b>Incident summary:</b> <b>CAP 122437016</b>	<p>On December 1, 2021, a 5-person crew from Sonora was performing energized reconductor work in Sierra Village. The crew had split between two work locations, two spans approximately 250ft apart with the journeyman lineman and apprentice lineman at the incident pole location (Loc 49) and the remainder of the crew at the second work site. At approximately 10:45 a.m., the journeyman lineman and apprentice lineman worked aloft in a 55ft double bucket truck making up the top side of a transformer cutout. The jumper wire was inadvertently connected to the outside and middle phases. The new C phase was connected to the center existing B phase due to the previous positioning by another crew on the hot arm, creating an arc flash. The arc flash burned the left side of the face and ear of the journeyman lineman. The journeyman lineman was transported to the hospital for treatment and was released with restrictions.</p>
<b>Cause:</b>	<p>The cause of this incident was:</p> <ul style="list-style-type: none"><li>• The tracing conductor's process does not adequately standardize the work methods in identifying correct phase connections when performing critical electric hot work operations.</li></ul>
<b>Summary of findings:</b>	<p>The findings of this incident were:</p> <ul style="list-style-type: none"><li>• There were some levels of damage to the PPE due to the arc flash incident. The recommended action is to inspect the FR clothing PPE worn during the incident to evaluate the performance of the FR clothing after exposure to arc-flash incident energy.</li><li>• SMEs from Field Operations and Regional Safety Electric suggested that using a non-test method could help prevent an employee from suffering an arc flash injury when performing hot reconductor work.</li></ul>
<b>Corrective actions summary:</b>	<p>The Corrective Actions (CA) of this incident were:</p> <ul style="list-style-type: none"><li>• In partnership with the Work Methods &amp; Procedures Team, a tracing of conductor's process will be established and implemented to standardize the work methods in identifying correct phase connections when performing critical electric hot work operations.</li><li>• PG&amp;E Academy will conduct a Training Needs Analysis to address gaps identified in the SIF investigation related to training.</li></ul>

**Pictures:**



Picture 1: Identification of all phases on pole

**Justin Wright**

Director, General Construction

**Natasha Rose**

Director, Enterprise Corrective Action Program

## **2.15 Setting or Removing Poles**

- (a) All persons not engaged in pole setting operations shall be kept out of the work area.
- (b) No one shall be allowed on a gin pole when it is being used to raise another pole.
- (c) When setting or removing poles between or near exposed energized conductors where danger of contact with conductors or equipment may exist:
  - (1)
    - i. Ground wires, guy wires or metallic hardware running the length of the pole shall not be attached to the pole.
    - ii. The conductors shall be spread to minimize accidental contact or covered with approved protective devices or the pole shall be covered with an approved guard or the conductors shall be de-energized.
  - (2) All personnel who may handle the butt of the pole shall wear approved rubber gloves and sleeves rated for the nominal voltage of the line whether or not cant hooks or slings are used.
- (d) No one shall step on or off the truck or vehicle or touch any part of the truck or associated equipment from the ground, while the pole is being set, or until it is secured in such a manner that it could not possibly come in contact with energized conductors or apparatus.
- (e) Guy ropes may be used to control the pole.

## **AIRCRAFT RULES AND INSURANCE**

- 6.16 When employees are transported, working around, near, with or underneath aircraft they shall be protected by a life and casualty insurance policy in the amount of \$300,000 in addition to regular Workers Compensation coverage.

A Journeyman Lineman or qualified employee designated by the Employer that has met the JATC Training Requirements, shall perform the necessary rigging of any material or equipment to be carried by a helicopter and to unhook the rigging when it is carried to the job site by helicopter. Loads received aloft will be rigged by Journeyman Lineman.

Long-Lining/Short Haul Helicopter Operations. Each employee that is suspended on a Long-Line for any activity performed while Short Hauling will receive one-half (1/2) hour of double time pay per day which is the equivalent to one (1) hour of straight time pay per day, at the wage rates provided for in Exhibit A.

## PG&E ED Contractor Safety Call Notes

**02/11/2022**

- Alvah Contracting
  - Crew was moving trucks at job site to accommodate an area homeowner
  - While in the process, a member backed into a customer owned gate causing minor damage to the fence
    - There was no spotter at the time of incident
- Pinnacle
  - Crew was terminating cable in J-box
  - After energizing the box, the crew noticed smoke coming from the location
  - After the crew de-energized the location, the crew found that the elbows were not completely made up and finished
    - The JL working on the cable was pulled away from the task to help with another
    - Upon arriving back at the location, the JL found that the concentric of the cable was made up and ASSUMED everything was completed
- Par
  - Crew was tasked with replacing a house service
  - After completing the task, the crew energized the customer panel and noticed lights having flickering / dimming
  - After de-energizing the service, the crew found that the neutral was energized
    - The AP working the service did not mark the neutral leg
    - There was no direct JL supervision at the time the connection was made