

# NATF Redacted Operating Experience Report

## Cutting DC Cable While Energized

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## Topic

Cutting DC Cable While Energized

## Description

During work on a panel, wiremen were landing the new power supply cable per the design drawing specifications. An arc-flash occurred while cutting the power supply cable. Unknown to the wiremen, the cable had been energized the previous day by a relay testing crew.

## Lessons Learned

1. Use wiring and schematic diagrams to perform wire checks and validate schematics against wiring diagrams.
2. Use peer checks for energizing new circuits.
3. Communicate with all crews involved when changing circuit status.

## Actions Taken

1. Operating experience and lessons learned presented during department.
2. Unintended event stand-down performed.
3. Operating experience and lessons learned will be made available to all substation groups and posted on a company intranet.

## Extent of Condition

N/A

## Additional Information

See subsequent pages for pictures and additional information.

## Cable wires being cut



### Event Details

- Crew was wiring a relay and control panel as part of upgrade work.
- While cutting a new two-conductor cable to be used as DC supply to the panel, the cable shorted, causing an arc-flash.
- The arc extinguished, and the crew found the source and deenergized the cable.
- Worker had black marks on his hand but no signs of burns or injuries.



## Event Causes

- The day prior to the incident, relay testers proceeded to energize a newly installed relay panel.
- Referring to a schematic, testers verified what components would be energized.
- The schematic they used did not show the new cable that was cut the day of the incident.
- Relay testers did not consult with the commissioning engineer about energizing the panel.
- Relay testers did not verify panel wiring against the detailed wiring diagram.