TRANSPOWER

SAFETY ALERT!

19-December-2017

Update on event dated
10 Jan 2005
Maximo REF No. N/A

Reminder: AHA-OTI-A 2005 pole replacement accident

WHAT HAPPENED?

This safety alert serves to remind the industry of corrective actions taken following the AHA-OTI 2005 pole replacement accident. The work plan for the day was to replace an armless angle pole. The pole supported only one circuit of a double circuit line, and the work was carried out under a single circuit outage. Whilst the required circuit was de-energized, the other circuit remained energized (Figure 1). While re-terminating conductors onto the new structure, a conductor was raised above it's intended sag. This caused the belly of the conductor two spans away from the work site to be pulled up and flash over to the energised phase above (middle phases in Figure 2). The denergized conductor therefore becoming energised and the line mechanic tensioning the conductor was electrocuted.

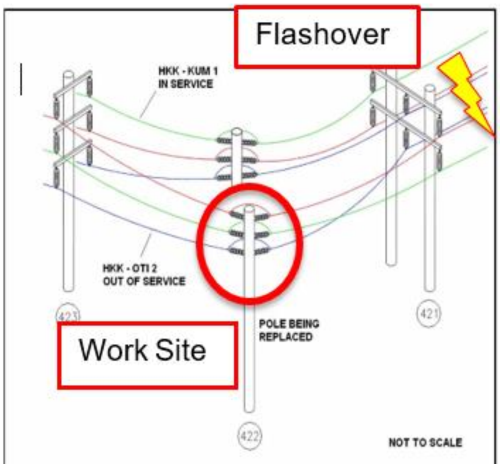

Figure 1

IMPROVEMENTS FOLLOWING EVENT

- All conductor displacement work on AHA-OTI-A0001 to A0361 and COL-OTI **<u>must</u>** now be completed under double cct outage.
- All similar structures on AHA-OTI line where a double cct outage was not possible (HKK-361) were redesigned and replaced to eliminate this hazard.
- Crossed phase configurations (such as in Figure 2) on AHA-OTI and COL-OTI are being replaced at end of life with standard vertical configuration structures to ensure circuit separation.
- SM-EI and TP.SS 07.23 were in the process of being updated to require equipotential bonding at the time of the accident. Equipotential bonding is now a standard industry practice to protect workers from fault current.

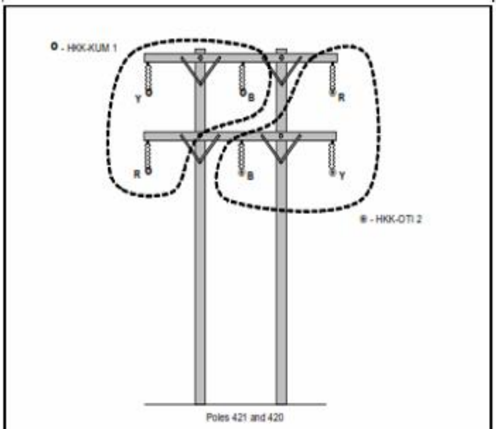

Figure 2

LEARNINGS

- **Hazard ID for any works displacing conductors should extend beyond the immediate work site**
- **Conductor tensioning will affect all structures between strain structures**
- **A small decrease in conductor length by tensioning may raise conductor in nearby spans by a larger amount**
- **Equipotential bonding is an extremely important safety measure in any accidental energisation, always establish your equipotential zone**
- **"stand back" from the detail of the work-space in order to gain an overall view of the work area and safety implications. Stop and consult with Transpower when uncertain**

safe WORK SAFE

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