



Karapiro Circuit Breaker 42 and 110kV Bus Trip (SA566)

Human Element Incident (HEI) – Live Electricity

Incident	Description	
Event Date: 03/02/2025	Time: 12:46PM	Location: Karapiro Substation (Cnr Hydro and Maungatautari Road)
Investigation Status:	Closed	NP Reference / External Reference: OCC14966 / Maximo #177270

What happened?

On 03 February 2025, during the first day of a two-day outage to execute Stage 5 of the Karapiro Substation COPS installation, testing revealed a fault.

During the fault-finding, the Technician operated a live circuit breaker, resulting in a loss of generation from Karapiro Mercury Generation and tripping Transpower's 110kV bus.



What happened?

- Loss of supply to Hinuera (HIN) substation for an estimated 40 minutes, impacting Powerco.
- Loss of generation at the KPO Mercury Power Station
- The incident could have potentially impacted KPO Mercury's plant and equipment.

Actions Required / Messages:

- **Ensure correct equipment operation:** The incident was triggered by the incorrect operation of a circuit breaker during investigation activities.
- **Update the Work Method Statement (WMS) as work progresses:** The WMS was not updated to reflect changes in project stages, leading to potential confusion and misalignment with actual steps.
- **Consider all potential risks during a Risk Assessment:** The tailgate meeting failed to address key site-specific risks, particularly the presence of connected generation and the shared nature of the site.
- **Follow the correct Permit process:** The permit was accepted without confirming that the safety measures were in place on site. These confirmation checks would have identified the equipment to the work party beforehand.
- **Apply change management principles:** When the work scope shifted to include fault-finding, no formal change management process was followed. Work continued without a revised plan or risk assessment.

Supporting References:	Managing Permits Procedure (v5)
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