SHEQ ALERT: LESSONS LEARNED

Transmission lines work received an induction shock on TKU-WKM Cct 2

DATE OF INCIDENT	20th April 2026	VENTIA ALERT ID	**30666**
LOCATION	Whakamaru	MAXIMO EVENT NUMBER	**183383**
SECTOR/PROJECT	Central Region	CLASSIFICATION ACTUAL	**Level 4**
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WHAT HAPPENED?

On Monday 20 April 2026 at approximately 1 pm during quad jumper/conductor replacement work, the Transmission line Mechanic (TLM) moved a portable recipient applied earth head without the use of an insulated stick.

This occurred in conditions where recipient earthing arrangements and control verification were not fully understood or consistently applied by the team on site.

The worker in the EWP should have been protected by an equipotential zone meaning failure to use a stick when touching the portable earth head clamp/dropper conductor should not have resulted in any significant/detectable voltage difference.

The TLM transferred the earth head on the quad conductor from his right-hand side to his left. This was done without the use of an insulated handle.

Importantly, the lines team should not have been working on the transfer span between the tower and the gantry. They did not have permission to do so (no permit was issued to the team for work on the TKU WKM_Cct2.they were working under a work authority until permits were issued for the planned reconnection to Bus A and Bus D later that week.
This meant the team were working on a bounded by point, as ES 119 was an issuer applied safety measure.

A methodology tailored to the specific stages of work being undertaken on site was not in place, which elevated the risk of this occurring.

At the time of the incident, the work environment was characterised by:

- Unclear and poorly managed recipient applied earthing plan.
- Recipient applied control measures being shared across teams without formal transfer or verification.
- Absence of an issued Access Permit aligned to the work scope (installation of the terminal span droppers to DIS 116).
- Lack of a sequential (step-by-step) methodology/execution plan.
- Reactive planning and communication processes.
- Fragmented understanding of outage sequencing and operational state by the team on site.

WHAT ARE THE LESSONS LEARNED

- **Contributing Factor 1:** Permit and earthing controls were not in place for the works on the transfer span to tower 598.
- **Contributing Factor 2:** The heavy wiring project team were not aware the recipient earths applied by them at tower 598 were being used by the substation team as a recipient applied safety measure.
- **Contributing Factor 3:** The TLM decided to move the recipient earth head from their left-hand side to the right-hand side without the use of the insulated operating stick.
- **Contributing Factor 4:** Methodology / execution plan was not aligned to onsite sequence requirements.
- **Contributing Factor 5:** Decision-making frameworks were unclear. Identifying what work could/should be completed using work authority and access permits. This needed to be addressed before the works commenced.

WHAT ARE THE LESSONS LEARNED

- **Key Learning 1:** The investigation revealed while there is very good supporting evidence of the planned works, including the need to assign the lines crew as the best fit for the works, there was no follow-up or robust review of the work methodology and how this aligned to the sequence of outage requests, required for the completion of the works safely.

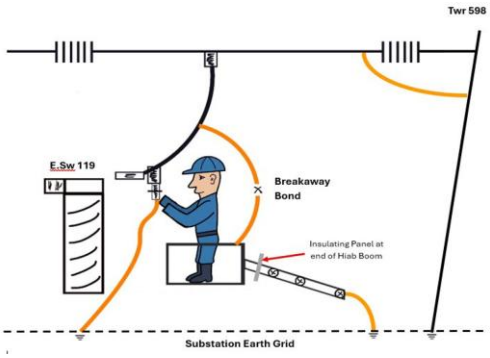
- **Key Learning 2:** The level of detail in the planning process and the completed IPV documentation reveal the team had good knowledge of the works to be competed and all necessary steps to be taken to ensure the physical works were completed.

- **Key Learning 3:** There was an assumption the stations work (bay 112,113) awarded to Ventia Central Generation team would ensure there was a direct line of communication to the transmission lines team completing the reconductoring works. This did not happen.

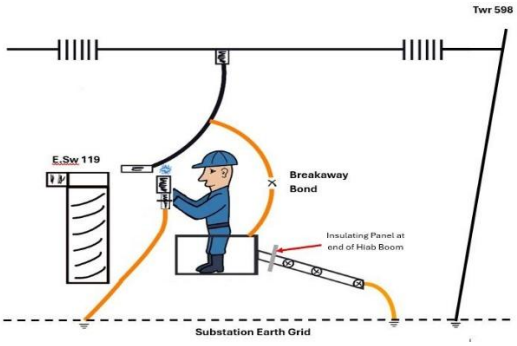
- **Key Learning 4:** A thorough handover process shall be completed between the team responsible for tender preparation and the team responsible for methodology development. Both teams shall undertake a final review before works commence on site to confirm readiness, alignment, and completeness.

- **Key Learning 5:** A detailed summary of outages including duration and high-level description of work activities must be created (in the absence of an SPO) prior to being submitted to the outage co-ordinators to enable a clear understanding of the outage requirements.

- **Key Learning 6:** All permit documentation must include a marked up SLD or marked up switching diagram confirming issuer applied safety measures.



Work position just prior to incident



The moment worker received the induction shock.

- Reinforce the correct use of portable earths both fixed and bayonet head type. This also will be covered in the trainee videos, “application and use of issuer and recipient earths”.
- Engage Mike Taylor to present the earthing road show to the Rotorua team and conduct site audit.
- Raise with Transpower the option to extend the operating SLD initiative to all sites. This is Ventia presentation to MS forum August 12-13th 2026.
- Review the attachment points of all Ventia HIAB EWP buckets. Confirm the attachment to the truck’s bodies is compliant.
- Issue safety alert to service provider community to check for insulating packers fitted to their man cages.
- Review earthing plans, confirming they align to the task-specific risk assessments.
- Work methodologies must consider access permits or work authority, requirements. Reinforce in planning reviews, training.
- Where outage requests lack sufficient information, the outage coordinators must decline and request a resubmission.

FOR ACTION

- **Share** with service provider communities (e.g. Toolbox Talks and WHS Committees).
- **Display** on your site noticeboards,
- **Save** in your project site library.

Safety is our licence to operate. Stay safe and take care.

INTERNAL