



Learning Event



OPERATING MOBILE PLANT

HAZARD
Electrical
(High Voltage –
overhead power line)

**Contact
With Live
Electricity**

CONSEQUENCES
Actual: No harm to persons
Potential: This could have
caused multiple fatalities

WHAT ARE YOU DOING TO AVOID CONTACT WITH LIVE OVERHEAD POWERLINES WHEN OPERATING MOBILE PLANT?

What Happened?

The boom arm of a 25-tonne excavator contacted a 12,700 V overhead powerline causing the powerline to fall to the ground adjacent to the excavator. The excavator was in the process of clearing an access track. The incident occurred at 3pm. Wet weather the night before had brought this work scope forward. No injuries were sustained from this event.

Overhead high voltage powerline from excavator operator's view

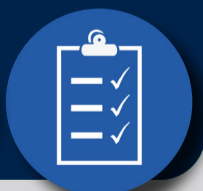


Why did it Happen?

- The excavator operator had prepared a dirt bund to act as a warning barrier. However it was later removed by the grader operator, who was unaware that the bund was in place to stop the excavator operator from getting too close to the overhead powerline.
- At the time of the incident the excavator operator was travelling back along the access track behind the grader. The excavator boom arm was raised and the bucket extended to not disturb the 600mm windrow the grader operator was making. As the excavator continued along the access track the operator lost sight of the powerline due to the clear blue sky, and the raised excavator boom blocked the operator's view of the single yellow "safety man" being used to identify the location of the powerline.

IOGP Life-Saving Rule

- ✓ Understand and use safety critical equipment and procedures which apply to the task.
- ✓ Confirm that hazards are controlled and it is safe to start.
- ✓ Stop and reassess if conditions change.



What did they Learn?

- When plans change due to unforeseen events (e.g. wet weather), verify that alternative worksites are ready for work to start. Confirm that all risks have been assessed at the alternative worksite and the appropriate controls put in place prior to starting work.
- Confirm that a written procedure is in place for working around overhead powerlines and required exclusion zones. Confirm that field personnel know about the procedure and verify that they understand it.
- Ensure human performance elements are addressed in critical procedures, to support improved procedural discipline.
- When agreed controls are in place, verify they are fit-for-purpose, clearly identifiable, and continuous improvement opportunities discussed.
- When setting up alert markers/barriers, consider blind spots and limited visibility from within mobile plant cabs.
- Visually check and confirm powerline heights, install suitable flagging and warning signage, consider alternate mobile plant and, when required, have competent spotter(s) in place.

Ask yourself or your Crew:

- Do you operate mobile plant near live powerlines?
- How do you identify the hazards prior to operating mobile plant near live overhead powerlines? What controls do you have in place?
- When errors occur at your workplace, do you and your colleagues pause to discuss how and why they occurred, and what can be done to prevent them reoccurring?

Further information:

Assist & Assure – Step 7 Transition to Work



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Safe Work Australia – Guide for operating cranes and mobile plant near overhead electric lines



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