

15/12/2021

Contact with overhead powerlines

15 November 2021

A 24-year-old operator received an electric shock resulting in serious injuries. He was in the process of moving a drilling rig to a new hole location when the pendant control drill rig he was using struck overhead high voltage powerlines.



Drilling rig involved in incident

Safety information

Contact between mobile plant and equipment with energised overhead powerlines is one of the biggest workplace killers.

Persons conducting a business or undertaking (usually the business or employer) who are working in the vicinity of energised overhead power lines and associated electrical apparatus must do the following before commencing work.

Before the job starts:

- conduct a risk assessment of the proposed work
- consult with the relevant electricity supply authority about the work and ask them to assist you in identifying the height and voltage of overhead power lines. Comply with any special conditions they impose.
- if necessary, eliminate the risk by arranging for the electricity supply authority to isolate the electricity supply for the duration of the work

The information contained in this publication is based on knowledge and understanding at the time of writing and the findings are not yet confirmed. SafeWork NSW has commenced an investigation in response to the incident to determine its cause and circumstances. No conclusions should be drawn from the information in this publication about the cause of the incident or the culpability of any party.

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Establish safe approach distances:

- if the risk is not eliminated, separate the electrical hazard from the mobile plant and the workers by ensuring the following approach distances are maintained:
 - Up to and including 132,000 volts – 3 metres
 - Above 132,000 volts and up to and including 330,000 volts – 6 metres
 - Above 330,000 volts – 8 metres

Note: when applying the above approach distances, it is important to take into account the 'sag and swing' of the powerlines, the movement of the mobile plant and the strength of the wind, as well as possible operator error or equipment malfunction.

- ensure a trained safety observer is used whenever a mobile plant is in motion and could come closer than the above approach distances

Ensure effective communication systems:

- ensure an effective communication system is in place for the workers performing the work



Remember the safe work procedure when working near overhead power lines - **LOOK UP AND LIVE.**

More information

- [Work near overhead powerlines](#) - Code of Practice
- [Operating cranes & mobile plant near overhead electric lines](#) - Safe Work Australia
- [Mobile plant operating near overhead power lines safety alert](#) – SafeWork NSW
- [Look up and live](#) - Powerline & safety tool planning app

Electricity network operators

- [Ausgrid](#) - 13 13 65
- [Endeavour Energy](#) - 13 37 18
- [Essential Energy](#) - 13 23 91
- [Transgrid](#) - 1800 222 537
- [Sydney Trains](#) - 131 500

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