

SAFETY ALERT

DANGERS OF POWERLINES WHEN PUMPING CONCRETE

This safety alert is published following investigation of an incident that occurred to the operator of a concrete-placing boom after they received a serious electric shock when the boom came into contact with 22,000-volt overhead power lines that crossed over the construction site. The work was being carried out in almost dark conditions in a fogbound area, where the overhead power lines were unsighted.

Concrete-placing boom operators and construction workers can be at risk of serious or fatal electric shock when operating their booms near live overhead power lines.

OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS

The *Occupational Health and Safety Regulation 2001* requires employers to ensure that those at work, their plant, tools or other equipment, and any materials used in or arising from the work, do not come into close proximity with overhead power lines – except if the work is done in accordance with a written risk assessment and a safe system of work, and the requirements of the relevant electricity network operator.

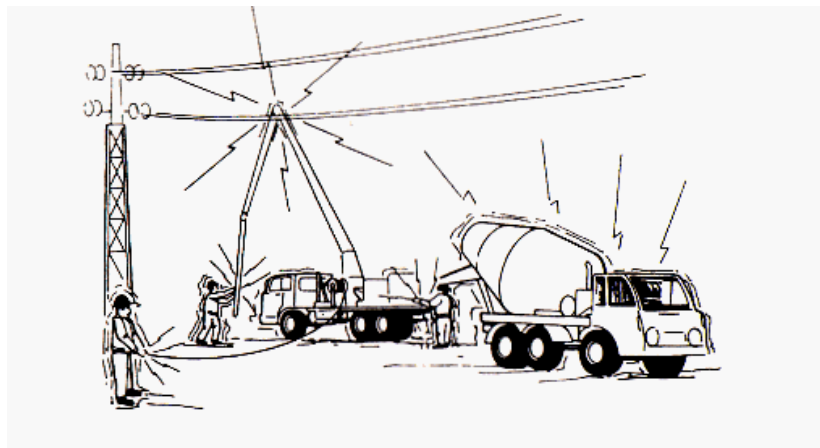


Fig. 1: Contact with an overhead power line is dangerous for everyone

RISK CONTROLS

In implementing a safe system of work for work near overhead power lines consideration should be given to the following risk control measures:

- overhead power lines, including overhead service lines to buildings, are clearly identified and the height and voltage of the power lines is established
- consult the relevant electricity network operator regarding the proposed work and comply with any special conditions imposed by them
- eliminate the risk by arranging for the electricity network operator to isolate or re-route the electricity supply for the duration of the work
- if the risk cannot be eliminated, separate the electrical hazard from the concrete placing boom and the workers by ensuring the following approach distances are maintained:
 - up to 132,000 volts – three metres
 - between 132,000 volts and 330,000 volts – six metres
 - above 330,000 volts – eight metres

Note: When applying the above distances, take into account the 'sag and swing' of the power lines, the movement of the boom when pumping and the strength of the wind, as well as possible operator error or equipment malfunction.

- ensure a trained safety observer is used whenever a concrete placing boom is in motion and is likely to come closer than the above approach distances
- ensure an effective communication system is in place for the workers' performing the work
- ensure a process is in place to monitor compliance with adopted risk control measures and safe work practices.

FURTHER INFORMATION

Further information regarding work near overhead power lines can be found in:

- *Occupational Health and Safety Regulation 2001*
- *Code of practice for work near overhead power lines* (Catalogue No 4705)
- *Code of practice: pumping concrete* (Catalogue No 305).

Further information is also available at www.workcover.nsw.gov.au or from the WorkCover Assistance Service on **13 10 50**.

Disclaimer

This publication may contain occupational health and safety and workers compensation information. It may include some of your obligations under the various legislations that WorkCover NSW administers. To ensure you comply with your legal obligations you must refer to the appropriate legislation.

Information on the latest laws can be checked by visiting the NSW legislation website (www.legislation.nsw.gov.au) or by contacting the free hotline service on 02 9321 3333.

This publication does not represent a comprehensive statement of the law as it applies to particular problems or to individuals or as a substitute for legal advice. You should seek independent legal advice if you need assistance on the application of the law to your situation.

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