

Safety and health alert

05/00 Fatal accident - electrocution of rigger

Incident

On 12 January 2000 a rigger was electrocuted during the erection of a precast concrete panel at a construction site in Belmont. Another person received an electric shock in the same incident, resulting in injuries to his right hand and foot.

The panel was being moved into position by crane when the fatal accident occurred. Electric current from overhead power lines passed through the metal slings attached to the panel, and then travelled via the wet panel surface through the two persons' bodies to earth. The concrete panel surface was wet because it had rained overnight.

Factors

- A permit was not obtained from Western Power to work close to overhead power lines with a crane.
- The overhead power lines were not insulated or made safe by other methods such as isolation.
- The crane slings entered the "danger zone" of three metres during the lift. This came about because the final position of the panel would have been below the live overhead power aerials. The aerials were both high and low voltage.
- No risk assessment was made on site before erecting the panel.

Recommendations

Persons intending to work in the vicinity of overhead power lines should be aware of the "danger zone" for each type of power line:

- Within 0.5 metres of a live insulated overhead power line or aerial bundled conductor line of a voltage of not more than 1,000 volts;
- Within 1.0 metre of a live uninsulated overhead power line of a voltage of not more than 1,000 volts;
- Within 3.0 metres of a live overhead power line, whether insulated or not, of a voltage exceeding 1,000 volts but not more than 33,000 volts; or
- Within 6.0 metres of a live overhead power line, whether insulated or not, of a voltage exceeding 33,000 volts.
- Contact Western Power or the local supply authority to confirm the type of overhead power lines in the vicinity of the work area, and to obtain the appropriate permit.



- Make sure there is always a safe clear distance between live overhead power lines and cranes, elevating work platforms, hoists, scaffolds, formwork and portable ladders. Where this is not going to be possible, contact Western Power or the local supply authority.
- Working within these danger zones should only take place if the overhead power lines have been adequately insulated and effectively cordoned off or otherwise made safe, according to the requirements of Western Power or the local supply authority.
- When there is a risk of workers being exposed to an electrical hazard, do not start work until a pre-start / job meeting and a risk assessment have been completed, and all persons understand their role and the work to be carried out.

Further Information

Further information can be obtained from the WorkSafe internet site www.worksafe.wa.gov.au, or by contacting customer service on 1300 307 877 or email: safety@docep.wa.gov.au.

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