

Safety and health alert

01/03 Contact with overhead power lines fatally injures worker

Incident

A worker was electrocuted and another seriously injured during the installation of street lighting at a new housing subdivision site. A truck-mounted self-loading crane was being used to erect a light pole when the pole made contact with a 132,000 volts overhead power line.

Electric current from the overhead conductor passed through the light pole and the workers' bodies to earth.

Factors

Western Power must be contacted prior to working near overhead power lines and a permit must be obtained to work close to high voltage overhead power lines.

The light pole entered the "danger zone" during the lift.

No work must be undertaken within the "danger zone" of a power line.

Recommendations

1. Ensure that an employee intending to work near overhead power lines is aware of the extent of the "danger zone" for each type of power line:
 - Within 0.5 metres of a live insulated 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.
2. Western Power or the local supply authority must be contacted before work starts to confirm the type of overhead power lines near the work area, and to obtain the appropriate permits.
3. No person, plant, equipment or material used at the workplace must enter the "danger zone" of an overhead power line.
4. Where a safe clear distance from live overhead powerlines cannot be maintained, overhead power lines must be adequately insulated and cordoned off or otherwise made safe in accordance with the requirements of Western Power or the local supply authority.
5. A risk assessment needs to be carried out for all work where there is a risk of workers being exposed to electrical hazards such as overhead power lines. All persons involved need to understand the work to be carried out and their respective roles and obligations.
6. Where there is any doubt concerning work near overhead power lines, Western Power or the local supply authority must be contacted before the work commences.

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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