

BULLETIN

Working Close to Overhead Power Lines

This information bulletin provides guidance on the safe operation of cranes, elevating work platforms, other extendible machinery and the erection of scaffolding near overhead power lines.

Legislation

The [Work Health and Safety \(National Uniform Legislation\) Regulations](#) (Regulation 166) requires that a person conducting a business or undertaking at a workplace must ensure, so far as is reasonably practicable, that no person, plant or thing at the workplace comes within an unsafe distance of an overhead electric line.

If it is not reasonably practicable to ensure the safe distance of a person, plant or thing from an overhead or underground electric line, the person conducting the business or undertaking at the workplace must ensure that:

- (a) a risk assessment is conducted in relation to the proposed work; and
- (b) control measures implemented are consistent with:
 - (i) the risk assessment; and
 - (ii) if an electricity supply authority is responsible for the electric line – regulations 11 to 15 of the [Electricity Reform \(Safety and Technical\) Regulations](#).

For the purpose of this information bulletin, **crane*** includes elevating work platforms and other extendible machinery.

Operation near overhead power lines

The load, or any part of a crane*, shall not approach closer than the following as defined by **AS 2550.1:2011, Cranes, hoists and winches – Safe use – Part 1: general requirements**.

- For distribution lines on poles 3 m as shown in Figure 6.20.3, Clause 6.20.3.
- For transmission lines on towers 8 m as shown in Figure 6.20.3, Clause 6.20.3.
- Operations above power lines are always in the permit zone and require a permit from PWC.

Refer to page 3 of this bulletin to view Figure 6.20.3 Clearances from Aerial Conductors

Permit from PWC

When it is necessary to operate within the no go zones shown in Figure 6.20.3, permission must first be obtained from PowerWater Corporation. See “Who to contact”.

Operation when permit is required

Precautions

The following precautions shall be observed by the operator and other persons when working with the crane*:

- Consider all conductors to be live unless it is proven that they have been de-energized and isolated. Documentary evidence of the continuing isolation of the power supply shall be obtained before approaching conductors.
- Provide ground barriers to warn operators. The recommended distance of the barriers from the line of conductors shall be as shown in Figure 1 and 2. Consider the effects of sag, wind and temperature on conductor movement, especially near the centre of large spans.
- Use non-conducting taglines when these are required.
- Do not allow any person, other than the crane operator (two persons for elevating work platforms), to be in contact with any part of the crane* or the load, except with a non-conducting tagline, once the lift has commenced.
- Ensure appropriate earthing systems are fitted to the crane* and are in contact with the ground.
- High visibility bunting may be applied to the conductors by PWC as an indication of location of the conductors.
- High visibility insulating materials (tiger tails) may allow a reduced approach distance.

Consideration should also be given to the above precautions when operating outside the permit zone.

Overhead power line contact

If the crane* or load contacts aerial conductors, NT WorkSafe and PWC shall be immediately notified of the situation and, until assistance is received, a responsible person shall remain near the crane* to warn of the danger of electric shock. For further information refer to **AS 2550.1:2011, Cranes, hoists and winches – Safe use – Part 1: general requirements**, Clause 6.24.

Use of scaffolding

- Where scaffolding is to be erected near low voltage power lines (less than 1000 volts) the clearance must not be less than 4.0 m where any metal scaffolding is used. **AS 4576:1995**, Clause 5.4.2.
- Permission must be obtained from PWC for any reduction of the clearance prior to the operation of any crane* or the erection of any scaffolding.
- Generally, scaffolding shall not be erected near high voltage power lines without having the electricity supply disconnected.

Work on live equipment

No person is to perform work on live equipment other than as prescribed by PWC.

Who to contact

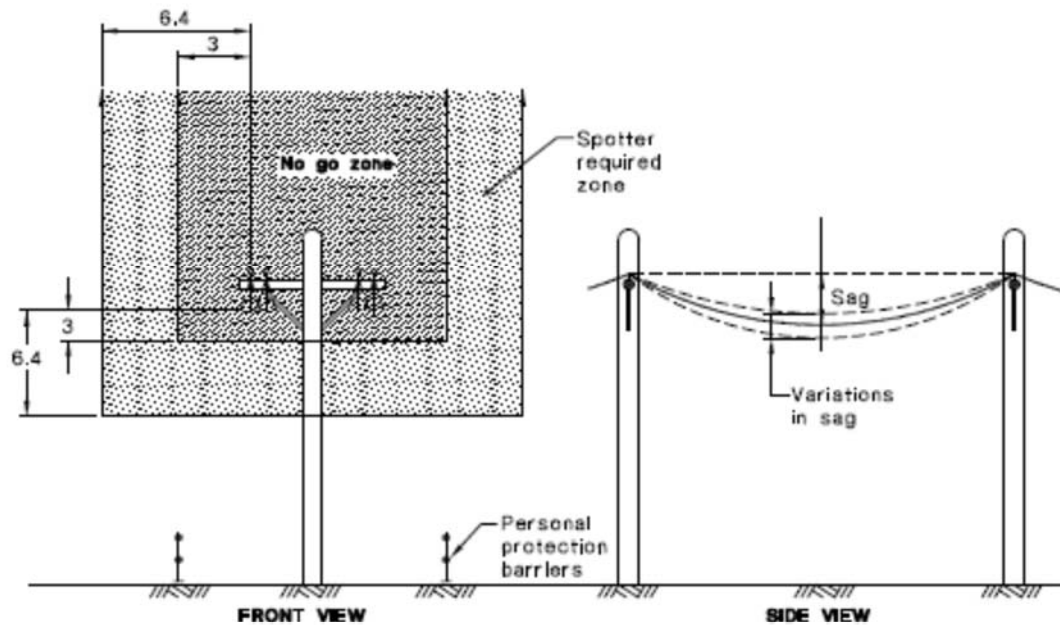
For further advice on approvals to work in proximity to overhead power lines contact PWC on:

FREECALL – 1800 245 091 – and ask for the Network Coordinator.

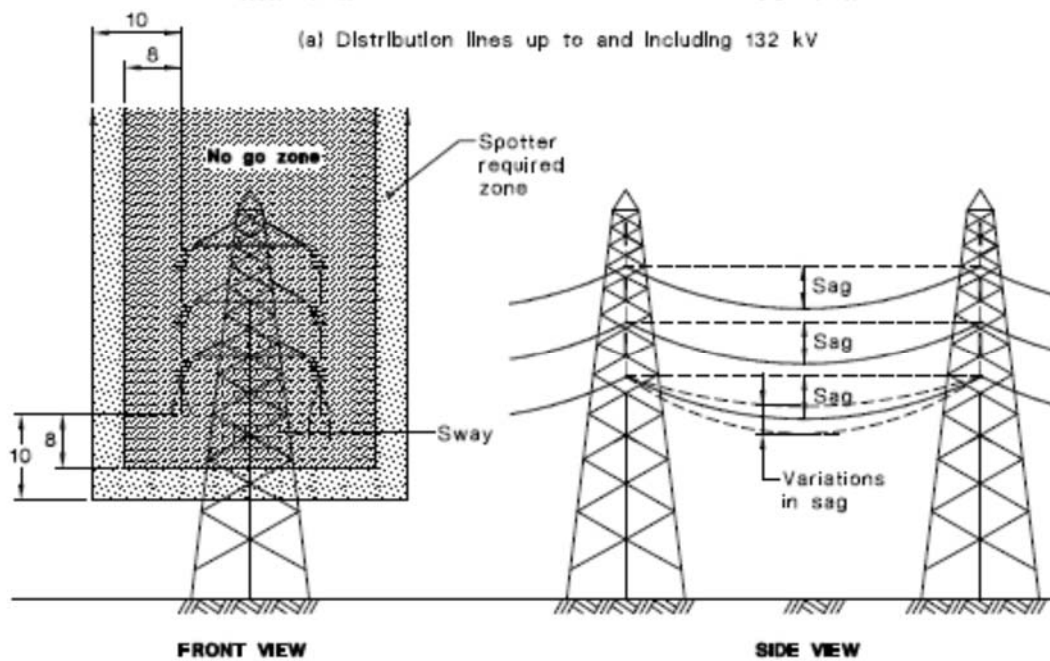
REMEMBER

You don't have to touch a high voltage power line to receive a fatal shock, just being too close can kill!

For further information please contact NT WorkSafe on 1800 019 115 or go to worksafe.nt.gov.au

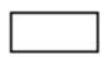
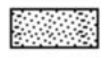



(a) Distribution lines up to and including 132 kV



(b) Transmission lines greater than 132 kV

LEGEND:

-  = No shading. In the front views, indicates no proximity requirements
-  = Light shading indicates spotter is required
-  = Heavy shading indicates the 'No go zone'

DIMENSIONS IN METRES

FIGURE 6.20.3 CLEARANCES FROM LIVE AERIAL CONDUCTORS