

# SAFETY ALERT



## Working near Power Lines



As your employer TAPS are committed to ensuring all employees are safe from injury and risks whilst at work. I would like to remind you of your obligations in creating a safe working environment by identifying any potential hazards associated with the job you are about to undertake and addressing them before commencing work.

Please utilise all the safety equipment and clothing that you are provided with and when necessary, do everything reasonably practicable to eliminate hazards and control risks to your health and safety. If you do not feel safe, don't do it. Simply stop and phone us to discuss further.

## Working safely around overhead and underground powerlines

There are many hazards associated with working in proximity to powerlines. In order to manage these hazards, the clearance distances to powerlines that apply in South Australia are outlined in this Safety Alert. It is important to take these distances into account when designing structures or planning to work near powerlines as it may affect the work practices or the use of equipment or structures such as scaffolding.

### What should I do before commencing any work at a work site?

- Talk to the person in control of the work site about any work areas which may be hazardous.
- Be aware of electrical safety legislation relating to working around electricity.
- Know the location of powerlines on the worksite and their proximity to your work.
- Complete a risk assessment for the worksite.
- Implement appropriate control measures, if required.
- Be aware of exclusion zones around powerlines.

### Fascias – point of attachment

- Guttering and roofing refurbishments or replacements could contact the service wire.
- Take care when working around mains boxes or the point of attachment to a premise.
- Be aware of powerlines when moving equipment and ladders around the property. This includes cleaning and painting.

At risk areas are overhead powerlines and the point of attachment at the fascia.

### What are the exclusion zones when working near powerlines?

Workers and their equipment should not approach overhead powerlines any closer than 3m for most voltages – See table below (light green column)

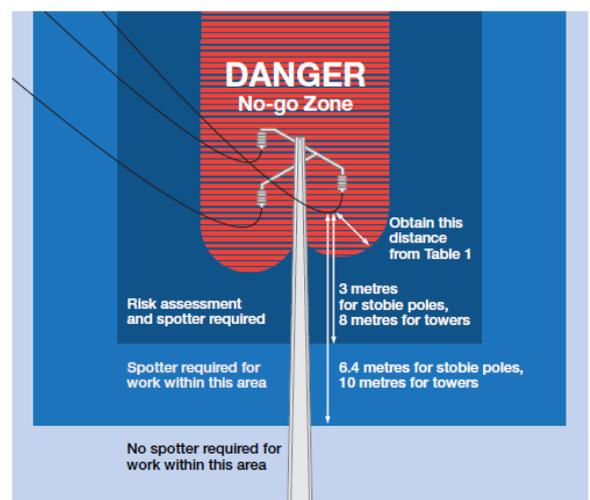
### Safe Approach Limits for People

In addition to the minimum clearance distances set out in the *Electricity (General) Regulations 2012* for machinery and structures, there are **safe approach limits for people working near powerlines** as shown in Table 1 below (light green column).

The minimum safe approach limit is measured from the closest conductor on the powerline, to the closest part of the person or an object held by the person. Subject to a documented risk assessment taking into account the movement of tools, materials and structures, it is possible to use reduced approach limits as shown in Table 1 below (dark green column).

### Safety First

- Know the location of the powerlines on the worksite
- Ensure safety clearances are maintained
- DID YOU KNOW....  
You can still be injured without directly contacting overhead powerlines, as electricity can arc across open spaces.



		<b>Cranes</b>	<b>Machinery</b>	<b>Safe Approach Limits</b>		<b>Buildings and Structures, including Scaffolds</b>	
		AS 2550.1 Crane Code (Approved Code of Practice) Earthmoving machinery and Elevating Work Platforms	Electricity Act/Regulations Schedule 6 – Distance to operation of machinery, vehicle or vessel with elevating component or shear legs	Electricity Regulations 64A(3) Safe Approach Limits		Electricity Regulations Schedule 2, Table 1	
<b>Voltage (in volts)</b>	<b>No Spotter</b>	<b>Spotter Required</b>	<b>Risk Assessment and spotter required</b>	<b>Approach Limit – Normal Persons</b>	<b>Approach Limit – with risk assessment</b>	<b>Horizontal direction</b>	<b>Vertical direction</b>
240	6.4m	3.0m	1.0m	3.0m	1.0m	1.5m	3.7m
415	6.4m	3.0m	1.0m	3.0m	1.0m	1.5m	3.7m
7,600	6.4m	3.0m	1.5m	3.0m	2.0m	3.1m	5.5m
11,000	6.4m	3.0m	1.5m	3.0m	2.0m	3.1m	5.5m
19,000	6.4m	3.0m	1.5m	3.0m	3.0m	3.1m	5.5m
33,000	6.4m	3.0m	1.5m	3.0m	3.0m	3.1m	5.5m
66,000	6.4m	3.0m	3.0m	4.0m	4.0m	5.5m	6.7m
132,000 pole	6.4m	3.0m	3.0m	5.0m	5.0m	15m	NA
132,000 tower	10.0m	8.0m	3.0m	5.0m	5.0m	20m	NA
275,000	10.0m	8.0m	4.0m	6.0m	6.0m	25m	NA

It is important when planning to carry out work near powerlines that all the approach limits are taken into account. They may affect the work practices you need to use.

### Scaffolding

The *Electricity (General) Regulations 1997* prescribe the legal clearances to powerlines from structures, which includes scaffolds. These clearances are dependent on the voltage of the powerline. This recognises that the higher the voltage, the more dangerous it is to work close to the powerlines, and therefore requires greater clearances. These clearances are shown in the Buildings column of Table 1.

Australian Standard *AS/NZS 4576 – Guidelines for Scaffolding* may in some situations define different clearances than the Electricity Regulations. This Standard uses the same clearances for all voltages and recommends that where practical the powerlines be de-energised when erecting scaffolds in close proximity to powerlines. You must ensure that no part of the scaffold, persons, or other equipment or materials can breach the safe approach limits (discussed above), especially during the erection of the scaffold. If these clearances cannot be achieved, it will be necessary to contact the electricity supply authority (usually SA Power Networks) to make arrangements for the safe completion of the works. This may require a Network Access Permit to be issued.

### Tiger Tails

When working near overhead powerlines, whether using machinery such as a crane or erecting a scaffold, it is recommended that you contact SA Power Networks to have 'Tiger Tails' installed on the low voltage powerlines. These 'Tiger Tails' are a visual indicator only and do not reduce the prescribed safe working clearances

### Determining the voltage and type of powerline

Find out the voltage of the powerlines by:

- visiting [www.sa.gov.au/energysafe](http://www.sa.gov.au/energysafe)
- contacting the Office of the Technical Regulator on 8226 5500
- contacting SA Power Networks on 1300 650 014.

High voltage powerlines are those of more than 1,000 V (1 kV) of electricity. Low voltage powerlines refer to lines of less than 1,000 V.

***Before You Start - Be Safety Smart!***

### **FURTHER INFORMATION:**

SafeWork SA  
GPO Box 465, ADELAIDE SA 5001  
1300 365 255  
[www.safework.sa.gov.au](http://www.safework.sa.gov.au)

Government of SA  
Web: [sa.gov.au/energysafe](http://sa.gov.au/energysafe)  
Phone: 8226 5500  
Email: [dmitre.otr@sa.gov.au](mailto:dmitre.otr@sa.gov.au)