

OVERHEAD SERVICES

SAFELY CONTROLLING WORK CRITICAL RISK CONTROL DOCUMENT



We are always licenced and competent when operating plant



We always isolate all energy sources before working on equipment and systems



We come to work free from impairment, alcohol and drugs



We ensure plant and equipment is safe to use



We always observe walkways, safe zones and exclusion zones



We always follow the Permit process when a Permit is required

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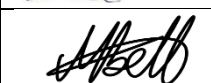
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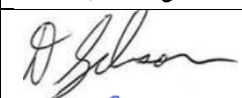
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DOCUMENT REVIEW			
Date	Revision	Description of Change	Author
1-Dec-2021	1	First document	AE, MJ, OG
1-Jun-2022	2	Previous version available on request.	AE, MJ, OG, AVR, JB
8-Jul-2024	3	<ul style="list-style-type: none"> Renamed Document “Overhead Services” as the underground services portion has been absorbed into Excavation document. Removed all references to Underground Services from document. Changed minimisation table to updated 1 pager version – same content. Changed highlighted sections to yellow to stand out. <p>*Document is a placeholder until it is absorbed into SCW - Mobile Plant, Information to be updated/ added to in new version. TBC *</p>	LT, NR, SC, GM, GC, HA
1-Apr-2025	4	<ul style="list-style-type: none"> Updated formatting and layout ahead of release and discussion at HSW Committee. Update intro with risk and Golden rules 	JA

Overhead Services

This SCW document covers one key risk area:

- I. Contact with overhead services.

These golden rules are also related to this SCW document:

- We are always licenced and competent when operating plant.
- We always isolate all energy sources before working on equipment and systems.
- We come to work free from impairment, alcohol and drugs.
- We ensure plant and equipment is safe to use.
- We always observe walkways, safe zones and exclusion zones.
- We always follow the permit process when a permit is required.

Overhead services are a common feed of supplying utilities to buildings. Feeds include power poles that string feeder wires from the utility company's pole to a particular location/ building.

Activities on our construction sites that involve overhead services include:

- Crane operations
- Any lifting operations
- Services placement and setup
- Operating mobile plant around services

Related safely controlling work documents can be found [here](#):

Risks - What could go wrong?

- Contact with overhead powerlines causing electrocution or electric shock causing death or serious injury such as burns, arrhythmia and/or loss of consciousness
- Arcing from close proximity with overhead powerlines causing electrocution or electric shock

Controls – How do I keep safe?

The identification of work where there is a risk of contact with underground and overhead services and appropriate control measures are to be fully detailed in a Safe Work Method Statement (SWMS) or similar risk-assessment document prior to commencing any work.

The SWMS must be reviewed by an appropriate Ryman representative prior to any work commencing and following any changes to the task or environment.

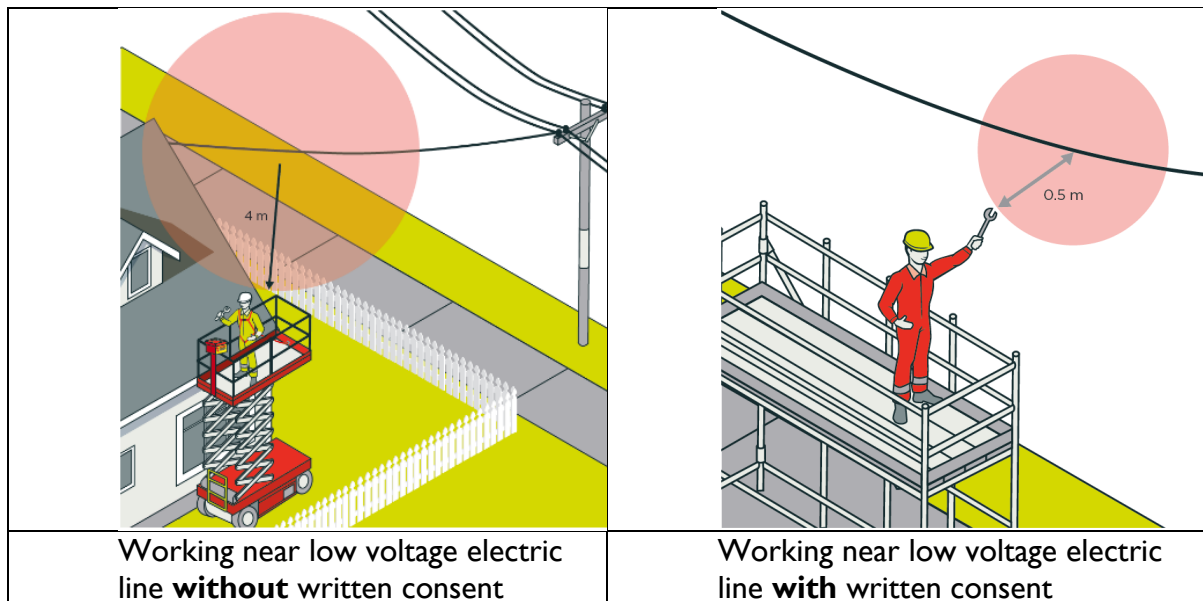
Note: Outside consultation may be required for government owned utilities, Vector/Electrix, dial before you dig, etc..

Overhead service controls include but are not limited to:

Control Type		Control Measure	Control Level
Minimisation	Elimination	<ul style="list-style-type: none">Remove risk by designing building clear of pre-existing overhead services.Remove the overhead services prior to construction (via enquiring with the line owner.)	<div>Most Effective</div> <div></div> <div>Least Effective</div>
	Substitution	<ul style="list-style-type: none">Select mobile plant or equipment that poses less risk when working near overhead services.	
	Isolation	<ul style="list-style-type: none">Maintain minimum approach distance (MAD) to overhead power and/ or transmission lines from all directions i.e., vertical, horizontal and diagonal.Isolate the working area to control unauthorised personnel or plant access and collision with other plant. Isolate with fencing where practicable or cones, barriers, tapes and bunting.Isolate the areas below the power lines where access is not required. Calculating the (MAD) and the size/ reach of any machinery or equipment to be used near the overhead line can isolate machinery from encroaching unnecessarily close to power lines.Isolate the power temporarily while work is being completed (via the line owner).	
	<div>WORK ABOVE THE LINE WHERE POSSIBLE TO CONTROL RISK</div>		
	Engineering	<ul style="list-style-type: none">Insulate plant and machinery attachments.Earthed plant and machinery.	
Minimisation	Administrative	<ul style="list-style-type: none">A trained and competent spotter in place to monito operators' distance to overhead services. If working within MAD of overhead power lines, close approach permit/ consent and line owner spotter is required.Demarcate service area – for example goal posts or bunting indicating the MAD near power lines.Emergency plan in place in case of contact with lines or arching.Signage warning of overhead power lines in proximity.	
	PPE	<ul style="list-style-type: none">This includes the use of mandatory PPE including hard hat (AS/NZS 1801:1997), High visibility vest (AS/NZS 4602.1) and Safety footwear (AS/NZS 2210.3:2002).	

Minimum Control Requirements for Overhead Services

- Maintain a minimum approach distance (MAD) from any powerlines and/or transmission lines.
 - If required to work within the MAD a close approach permit must be obtained from the electrical company, and approval to continue work obtained from the Project Manager. Minimum safe distances for working near overhead lines or power poles are set out in the [New Zealand Electrical Code of Practice for Electrical Safe Distances \(NZECP 34\)](#).



- Apply for a Close Consent Permit if you intend to
 - Work within 4m of overhead lines
 - Excavate within 5m of a power pole or within 12m of a tower or pylon
 - Excavate within 2m of strategic gas mains
- Inspect ground conditions are suitable prior to any work commencing using mobile plant near overhead services. Ground instability could result in an unplanned movement of the plant causing contact or arching from the overhead services.
- Isolate the working area to control unauthorized personnel or plant accessing the working area and collision with other plant. Isolate with fencing where practicable, or cones, barriers, tapes, bunting etc.
- Emergency plan in place in case of contact with lines or arching.

Training and Competency for Working around Overhead Services

When using mobile plant around overhead services, operators must be trained and competent.

Refer to the Mobile Plant document for information on training and competency for mobile plant.

When using a lifting appliance around overhead services, operators must be trained and competent. Refer to the Crane, Hoists and Other Lifting Activities document for information on training and competency for mobile plant.

All electrical work, live or dead, installation or decommissioning, must be carried out by a competent registered Electrician to ensure the work is completed safely.

References and Resources:

- [New Zealand Code of Practice for Electrical Safe Distances](#)
- [Vector Close approach consent](#)
- [Vector Guide to working safely around Vectors Electricity, gas and communications networks](#)
- [Vector - Building Near Overhead Lines](#)