

Working in Hazardous Environments Procedure

WNH Q18 - Revision 3.0

Effective from October 2025



Revision History

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Contents

1.0	This Document	2
1.1	Purpose	2
1.2	Scope	2
2.0	Restricted Areas	3
2.1	Key Requirements	3
3.0	Work Area Delineation & Signage	4
3.1	Minimum Requirements	4
4.0	Concealed Services	5
4.1	Principles & Practice	5
5.0	Confined Space	6
5.1	Principles & Practice	6
6.0	Remote areas - Lone & Isolated Work	8
6.1	General	8
6.2	Remote Area Check In Guidelines	9
7.0	Definitions	10
8.0	Accountabilities	11
9.0	References	12

1.0 This Document

1.1 Purpose

The purpose of this procedure is to outline the expectations of Woolnorth Renewables (WNR) when accessing or working in hazardous environments, including those with concealed services, confined spaces, and in remote areas. The procedure is intended to improve personal safety when accessing or working in such environments.

1.2 Scope

This procedure applies on all WNR worksites. It shall be used for any work or access to known hazardous environments or work where a hazardous environment may be encountered or created during the course of access or work. The associated concealed services checklist (WNH Q18.1) must be completed to help identify hazards and, if appropriate, a concealed services permit (WNH Q18.2) issued to manage any potential concealed hazards that are identified. Similarly, a confined space entry permit (WNH Q18.3) shall be considered for work or access to environments where confined space conditions may be encountered or created during the course of the work (following Figure 1).

2.0 Restricted Areas

2.1 Key Requirements

A number of areas on each wind farm are defined as Restricted Areas. These areas require approval from the Site Supervisor to enter, and to work in these areas additional training is required (see WNH Q24 Inductions, Training & Competency Procedure). Restricted Areas on WNR wind farms are as follows,

- Wind turbine generators,
- High voltage switch yards,
- High voltage switch rooms,
- Transmission lines (if accessing or working within or have the potential to be within their Safe Approach Distances, see Table 1),
- Any other work site involving high voltage equipment e.g. working on an underground cable joint
- A restricted area may be created during the course of a task or job, and this may be designated as a Restricted Area by the site supervisor or project manager. In this case the restricted area would be demarcated.

Note: The requirements on the operation of High Voltage equipment are clearly defined in WNH Q61 High Voltage Isolation and Access Procedure.

Table 1. Safe Approach Distances for uninsulated conductors for (PTW – Permit To Work).

Safe approach distances to uninsulated conductors Working under PTW				
	Instructed person			Ordinary person
	Working	Mobile plant		Working
		(with safety observer)	(no safety observer)	
Up to 1000 V	500 mm	1000 mm	3000 mm	2000 mm
Above 1000 V up to and including 22 kV	700 mm	1200 mm	3000 mm	2000 mm
Above 22 kV up to and including 110 kV	1000 mm	1800 mm	3000 mm	3000 mm

3.0 Work Area Delineation & Signage

3.1 Minimum Requirements

Where a hazard is identified in the workplace (either existing or created during the course of a task/work), the worker or work group must assess the risk and identify appropriate controls to be put in place to reduce risks As Far As Reasonably Practicable.

If the hazard cannot be rectified or removed immediately, then a suitable control shall be established. Control priority should follow the hierarchy of controls such as

- establishing a barricade around the hazard to provide a physical separation,
- placing suitable tags or signage at the site of the hazard to provide warning,
- placing a worker at the site of the hazard to monitor and control access while the hazard is present,
- an administrative control such as memo or other communication to workers,
- a combination of the above.

Controls are to be selected according to the level of risk presented by the hazard and the need to restrict access. Workers or work teams who identify hazards associated with work operations shall ensure the determined control is established to safeguard other team members, uses of the site and general public. The worker or work group shall ensure the determined control is in place and monitored until the hazard has been rectified or removed or is no longer present.

Signage in the work environment must comply with (AS 1319). The colour of the signs indicates certain requirements as follows:



Blue – Regulatory mandatory



Black/Red – Hazard danger



Red – Regulatory prohibition



Green – Emergency information



Yellow – Hazard warning



Red – Fire sign



Red – Regulatory restriction

Signs should be located to ensure they are legible and clearly visible to all persons accessing the site of the hazard. All signs should be removed immediately when the information they contain is no longer relevant.

4.0 Concealed Services

4.1 Principles & Practice

Before breaking the surface of any material to perform an excavation or penetration the worker or work party shall consider the risks associated with contacting a concealed service by carrying out a risk assessment. The nature of the risk assessment should be in accordance with WNH Q14 Risk Management Procedure. Where there is a risk of contacting a concealed service the precise location of all concealed services such as buried pipe work, structures, foundations, electrical equipment, cabling or hazardous materials should be identified and clearly marked to prevent personal injury and damage during the work.

Where there is a risk of contacting a concealed service, before beginning work, the following must be completed:

- a) the concealed services checklist (WNH Q18.1) must be completed to help identify and control hazards and, if appropriate, a concealed services permit (WNH Q18.2) issued;
- b) the site must be inspected by a competent person checking for locations of possible concealed services. This person should use drawings where available and update the drawings where any differences are found; and
- c) 'dial before you dig' (www.dialbeforeyoudig.com.au or www.byda.com.au) should be considered for buried/underground assets not under the control of WNR, however assets under the control of WNR will be best understood by a competent person of WNR.

In addition to the above measures, a site survey should be conducted of the proposed excavation/penetration area using an electronic locating device. This shall be completed where there is uncertainty in the location of the service(s) or where the survey is deemed to be required to further reduce the original assessed risk to an acceptable level. If during the course of the work to access a concealed service, an anomaly, issue or new risk is identified, the worker or work party should consult with the asset owner and revise the risk assessment as required.

The Site Supervisor shall be immediately notified if a concealed service is damaged in any way or if it is dug up. The Site Supervisor shall be consulted to make the area safe for workers and other uses of the area including remedial and protection works.

5.0 Confined Space

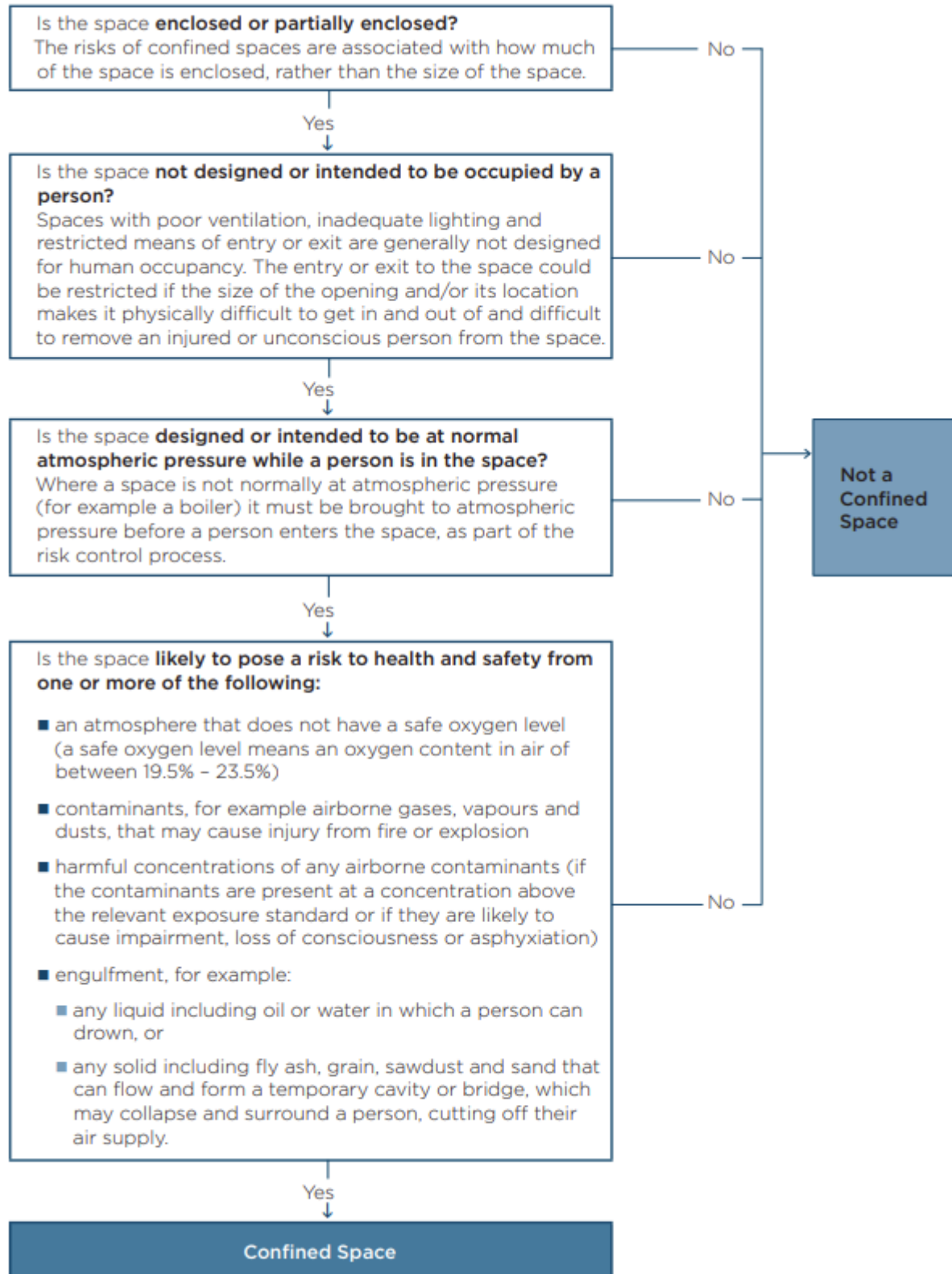
5.1 Principles & Practice

No infrastructure, structures, equipment, or areas at WNR wind farms, have been classified as Confined Spaces. This includes all work areas within the wind turbines, switchyards and control buildings.

Risks associated with entering an area that may have attributes of a confined space (such as being enclosed or partially enclosed, not designed or intended for occupancy, activity induced changes to the oxygen concentration (<19.5% - 23.5%>), see figure 1) should always be considered through the risk assessment processes (see WNH Q14 Risk Management Procedure). If under planned or changed conditions a confined space hazard is identified (see Figure 1) then no further work will be conducted without a Safe Work Method Statement and a Confined Space Entry Permit (WNH Q18.3) being produced for the task. No Person shall enter, supervise or act as a safety observer without holding nationally recognised Confined Space Entry training.

Whilst no work areas associated with WNR wind farms have been classified as Confined Spaces there is a very small risk of a brief (seconds) atmospheric abnormality when conducting work on the nitrogen system of the blade accumulators in the hub of the turbines. A precautionary requirement for work conducted on the nitrogen system of the blade accumulators is that it is conducted with the presence of an operating gas detector and that if the detector alarms the hub area will be evacuated immediately until proven safe. This step must be included in the written risk assessment for such activities. This topic is also covered in the WNH Q32 Accessing Wind Turbine Generators Procedure.

Figure 1. Confined Space identification chart.



6.0 Remote areas - Lone & Isolated Work

6.1 General

A remote/isolated area can be:

- on the wind farm property
- an access road to the property,
- another area accessed to perform a work related activity,
- an area under or adjacent to a WNR transmission line,
- an area/room within a wind farm facility

These areas, for example, may be considered remote from others or isolated from the assistance of others because of time, location, poor communication or nature of the work. As a guide, any situation with a first responder time greater than 30 minutes or that is out of visual or oral/aural communication range must be considered remote from others.

The concept of lone could be extended to a work party that is undertaking work in a remote/isolated setting. The concept is specifically relevant in circumstances where the whole work party could be impacted by the hazard (e.g. 2 workers inspecting infrastructure in an elevated work platform that becomes stricken) and where outside assistance is likely to be a significant period of time and there is no method of communication (visual/oral/aural)

The following shall be considered and implemented based on risk:

- a) lodge a field schedule with a designated contact as per section 6.2 of this procedure,
- b) carry a UHF radio or satellite phone or similar communication technology with you at all times or have a method for communication available on site,
- c) call the designated contact, following the check-in procedure in your hazard identification document, and
- d) carry or have available a first aid kit with essential items and medications for the work you will be undertaking and to treat any known allergies.

Note: Personal locating beacon (PLB) or a geographic positioning system communication device (e.g. Find Me Spot) must be considered for areas where conventional communication systems will not work.

Attendance registration system (ARS) – The ARS is an important site safety tool for knowing who is on site at any time. At the completion of each workday, it is also a valuable tool for establishing if a worker/s will become lone/alone. AFARP, if a worker or work party is leaving site, contact will be made with any work party or worker that will be left onsite alone or lone. The alone/lone worker or work party should then establish and implement a method of communication and accounting for their safety.

Out of Hours call out – From time-to-time access to WNR assets may be required 'out of hours'. Out of hours refers to attending a site for the purposes of breakdowns, trouble shooting or security associated problems at times when the site is not normally attended. In these circumstances, 2 people should attend and a check-in protocol established between the worker/work party and the designated Manager/Supervisor.

6.2 Remote Area Check in Guidelines

Recommended check-in requirements are:

- a) Single remote site – check in morning and on your return to a non-remote area.
- b) multiple remote sites – morning and midday and on your return to a non-remote area;
- c) Out of hours – confirmation of attending call out, confirmation on arrival, confirmation when leaving, and confirmation on safe return to designated accommodation (return to a non-remote area).

If you do not check in:

- a) your designated contact or line manager must attempt to contact you;
- b) if you cannot be contacted, your designated contact or line manager will attempt to contact any other person with information on your location (e.g. other work parties in the area, scheduled accommodation or family);
- c) if your location cannot be confirmed, the facts will be escalated and notified as an incident; and
- d) if contact has not been made by 9pm your line manager will:
 - I. notify your nominated next of kin that you are missing;
 - II. notify the police or appropriate authorities that you are missing.

7.0 Definitions

Confined Space	A confined space means an enclosed or partially enclosed space that: • is not designed or intended primarily to be occupied by a person; and • is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space; and • is or is likely to be a risk to health and safety from: ○ an atmosphere that does not have a safe oxygen level, or ○ contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or ○ harmful concentrations of any airborne contaminants, or ○ engulfment.
Remote	Work areas secluded from others or isolated from the assistance of others because of the time, location or nature of the work. A work area may be considered remote if assistance is not readily available to the Worker.
Lone (Alone)	Unaccompanied Worker or a Worker travelling on their own and without routine interaction with other Workers because of the time, location or nature of the work.
Concealed Service	Any asset or system that is hidden from view prior to accessing through disturbance, force or penetration.

8.0 Accountabilities

General

Officers of WNR shall ensure that, As Far As Reasonably Practicable (AFARP), hazards are identified and where they cannot be eliminated, will be controlled. This shall include documenting hazards, processes to identify hazards relevant to WNR business and tasks it undertakes and lastly communicating hazards to the workers of WNR.

All workers of WNR shall ensure AFARP that:

- they understand the requirements of this procedure
- ensure their activities are in compliance with this procedure
- can access this procedure
- support the implementation of this Procedure by providing feedback to peers and supervisors where improvements to task compliance or risk management can be made.

The HSE Manager for WNR is to ensure AFARP that this meets National and State legislative requirements and Standards and that this document is maintained as a part of the businesses HSE management system.

9.0 References

The following manuals and references are to be used for identifying the minimum standards for working in hazardous environments on WNR work sites.

- AS 1319-1994 Safety signs for the occupational environment
- AS 2865-2009 Confined spaces
- Safe Work Australia – Confined Spaces Code of Practice – October 2018
- Safe Work Australia – Construction Work Code of Practice – November 2024
- Safe Work Australia – Excavation Work Code of Practice – October 2018
- Before You Dig Australia (BYDA), call 1100 or www.byda.com.au
- WNH Q61 High Voltage Isolation and Access Procedure