

Barricading and Signage

Document Number – OHS-PROC-134

This document applies to the following sites:

All Sites	<input type="checkbox"/>				
Rockhampton Office	<input checked="" type="checkbox"/>	Brisbane Office	<input checked="" type="checkbox"/>	Tarong Site	<input checked="" type="checkbox"/>
Barron Gorge Hydro PS	<input checked="" type="checkbox"/>	Kareeya Hydro PS	<input checked="" type="checkbox"/>	Mica Creek PS	<input checked="" type="checkbox"/>
Koombooloomba Hydro PS	<input checked="" type="checkbox"/>	Swanbank PS	<input checked="" type="checkbox"/>	Mackay Gas Turbine	<input checked="" type="checkbox"/>
Wivenhoe Small Hydro PS	<input type="checkbox"/>	Stanwell PS	<input checked="" type="checkbox"/>	Meandu Mine	<input type="checkbox"/>

Table of Contents

1.0	Purpose.....	2
2.0	Scope	2
3.0	Actions	2
4.0	Barricading Requirements	2
4.1.1	Selection of Barricade.....	2
4.1.2	Erection and Use of Barricade.....	3
5.0	Safety Sign Requirements	4
6.0	References (Including Information Services).....	4
7.0	Definitions	5
8.0	Revision	5
9.0	Appendices	6
	Appendix A - Barricading and Signage Document Flowchart.....	6
	Appendix B - Barricading Selection Requirements.....	7
	Appendix C – Appropriate Signage for Barricading.....	9
	Appendix D –Types of Safety Signs Commonly Used on Site	10

1.0 Purpose

This Business Procedure describes Stanwell's minimum mandatory requirements for the selection and use of barricading and signage.

2.0 Scope

This Business Procedure applies throughout Stanwell, all its sites and all activities under Stanwell's control. It applies to all Stanwell employees and contractors, including visitors to Stanwell workplaces.

This Business Procedure does not apply to permanent edge protection installations, for example, handrails and guarding.

3.0 Actions

Barricading and signage shall only be used:

- when there are no other practical control measures available;
- as an interim measure until a more effective way of controlling the risk can be used or the hazard is no longer present; and
- to supplement higher level control measures or as a secondary control measure.

It shall be ensured that barricading and signage is visible and legible to all concerned. Illumination of barricades and signs should be considered where general lighting, either natural or artificial, does not provide suitable visibility.

It shall be ensured that:

- processes are in place to instruct workers not to enter barricaded areas unless authorized to do so;
- barricading and signage is reviewed periodically to make sure it remains effective in controlling the risk; and
- barricades and signage that are no longer required are removed as soon as practicable.

4.0 Barricading Requirements

Barricading controls shall be implemented and authorised as part of the safe work system to protect persons from hazards such as:

- being struck by falling objects;
- being struck by moving plant;
- fall from height, including falling into open excavations, penetrations, and falls from unprotected edges such as removed flooring, walkways, stairs and / or hand railings.
- exposure to hazardous chemicals;
- unauthorised entry into a confined space or work area; and
- any potentially hazardous work processes, for example, hot works, scaffolding, radiation work and work involving asbestos.

Barricading controls shall also be implemented and authorised as part of the incident management and emergency response procedures.

4.1 Selection of Barricade

When selecting the type of barricade (soft or hard), the following factors are to be considered as part of a risk assessment:

- risk associated with the hazard;
- visibility of the hazard;
- required strength of the barrier, for example, impact potential; and

- the amount of clearance provided from the hazard by the barricade.

In addition it shall be ensured that hard/solid barricading is used for:

- a fall from height risk greater than two metres; and
- excavations greater than 1.5 metres deep.

It shall be ensured that barricading is designed, installed and used in accordance with the relevant Australian Standards and *Appendix B- Barricading Selection Requirements*:

Note: Where a risk assessment determines that a safety barrier system capable of physical protection is required, the barricade system shall be designed in accordance with the relevant Standard for the application of the barrier system:

- AS/NZS 4994.1:2009 Temporary edge protection – General requirements.
- AS/NZS 4994.3:2010 Temporary edge protection Part 3: Installation and dismantling for edges other than roof edges.
- AS/NZS 3845:1999 Road safety barrier systems.

4.2 Erection and Use of Barricade

The barricade shall encompass the entire potentially affected area of the hazard and take into account factors such as:

- possible deflection of an object if it falls;
- slag or sparks created from hot work activities;
- distance from the hazard; and
- creating an additional hazard, for example, access and egress. Sites shall make sure that barricades are erected so that all sides of the hazard are protected from unauthorised access.

All barricades shall be accompanied by an appropriate sign, which is to be placed on all access points. Refer to *Appendix C – Appropriate Signage for Barricading*. Signage is linked to the Safe Work System used on site, therefore signage may differ across sites. Signage will be standardised across sites when the consolidated Safe Work System is implemented.

Signs or tags shall clearly display the following information:

- the name of the person in charge of the barricaded area;
- the hazards that are within the barricaded area;
- the date; and
- the contact details of the person in charge of the area.

It shall be ensured that where soft barricading is used to provide a means of restricted access around a penetration or an unprotected edge, it is to be located at least two (2) metres from the outside of the edge.

Where star pickets are used to support a barricade and are driven into the ground 150mm or more, sites shall implement *Business Procedure: Excavation and Penetration*.

Where barricading is erected around excavations, the requirements of *Business Procedure: Excavation and Penetration* shall be implemented.

Barricading for Electrical Work

Barricades and labels must be used for electrical maintenance to identify to the working party the safe access area for the task. In addition, where an energised switchboard is located in the same room or barricaded area it shall have its own barricading and label to identify the hazard.

When identified in a risk assessment, an electrical work barricade shall be erected to prevent access to electrical hazards.

- The barricade shall be erected using appropriate stands and tapes or expandable barricading systems, and where practical and appropriate, with an opening no greater than 2 metres. The

entry size can be varied by the Safe Work Coordinator to suit the work location provided it does not introduce a hazard and the work area is clearly delineated.

- Restricted access signs are to be placed at appropriate spacing along the barricade.
- Switchboards under isolation shall have details of the isolation recorded on the restricted access signs.

High Voltage Testing Barricades

- A high voltage testing barricade shall be erected around electrical equipment that is under test to provide a minimum safe approach distance for untrained persons. The distance is as listed under the Queensland Electrical Safety Regulation 2013 for testing voltage that is to be applied.
- Where testing is performed inside metal clad switchgear or similar enclosed spaces, barricading is not required provided the testing area is not left unattended and a red flashing light is used when test voltages are applied.
- Flashing red lights shall be installed and activated when test voltages are applied.

5.0 Safety Sign Requirements

It shall be ensured that safety signs are erected to warn workers of specific hazards and to communicate necessary precautionary measures and emergency actions.

As a minimum, it shall be ensured that safety signs are erected in accordance with *Queensland Work Health and Safety Regulation 2011*, including, but not limited to:

- confined spaces;
- specific personal protective equipment (PPE) requirements;
- hazardous chemicals;
- asbestos;
- lead;
- fire protection equipment;
- hazardous areas;
- emergency and first aid information;
- emergency eyewash and shower; and
- traffic management and pedestrian control.

Safety signs erected shall meet the requirements of the relevant legislative requirement and Australian Standards (refer References).

Refer to: Appendix D – Types of Safety Signs Commonly Used on Site.

6.0 References (Including Information Services)

Source	Reference
Legislation	<ul style="list-style-type: none"> • Queensland Work Health and Safety Regulation 2011, s68, s305A, s308, s353, s469 • Queensland Electrical Safety Regulation 2013
Australian Standard	<ul style="list-style-type: none"> • AS 1319:1994 Safety signs for the occupational environment. • AS 4687:2007 Temporary fencing and hoardings. • AS/NZS 4994.1:2009 Temporary edge protection – General requirements. • AS/NZS 4994.3:2010 Temporary edge protection Part 3: Installation and dismantling for edges other than roof edges.

Source	Reference
	<ul style="list-style-type: none"> AS 1742.1:2014 Manual of uniform traffic control devices. Part 1: General introduction and index of signs. AS 1742.3:2009 Manual of uniform traffic control devices. Part 3: Traffic control for works on roads. AS/NZS 3845:1999 Road safety barrier systems.
Business Procedures	<ul style="list-style-type: none"> Excavation and Penetration OHS-PROC-126
Stay Safe	<ul style="list-style-type: none"> Barricading and Signage OHS-PROC-134A
Tools	<ul style="list-style-type: none"> Nil

7.0 Definitions

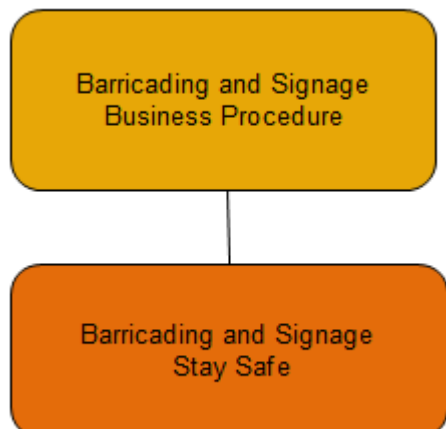
Term	Meaning
Barricade	<p>Means a physical barrier, usually temporary, erected or placed to restrict the entry of persons to an area and/or prevent personnel being exposed to a hazard.</p> <p>Barricades can be classed as either a soft barricade or a hard (solid) barricade.</p> <p>Soft barricades are those that use an approved tape to prevent or restrict access to an area. They are suitable in situations where physical protection by use of a safety barrier system is not warranted.</p> <p>A hard barricade is a self-supporting fence, or a self-supporting series of continuous plastic, concrete or other solid barriers, erected or placed to restrict the entry of persons to an area. Examples include scaffold tubes, concertina/expandable barriers, and water filled plastic or concrete modular devices (Jersey type barriers).</p> <p><i>Note: Hard barricades can provide a safety barrier system capable of physical protection of workers e.g. from the impact of an out-of-control vehicle / mobile plant, or preventing a person from falling off / into an unprotected edge / surface penetration. Where a risk assessment determines that physical protection from a hazard is required, the barricade system shall be designed in accordance with relevant Australian Standards.</i></p>
Safe Work Coordinator	<p>Coordinator of the work party/work activity associated with the safe work authorisation.</p> <p>Note: Until the consolidation of Safe Work Systems across sites is implemented this is equivalent to the Officer in Charge or Authority to Work Coordinator.</p>
Sign	<p>An inscribed board, plaque or other delineated space on which a combination of legend or symbolic shape is used to convey a message.</p>

8.0 Revision






Rev.No.	Rev.Date	Revision Description	Written by	Endorse/Check	Approved by
0	13.11.2015	Document created to consolidate existing documents for Barricades eg, OHS-PROC-113	J. Fullard	M.Joy/T.Hooper	Ian Gilbar



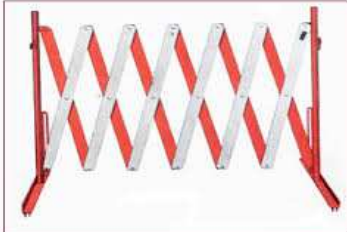

9.0 Appendices

Appendix A - Barricading and Signage Document Flowchart




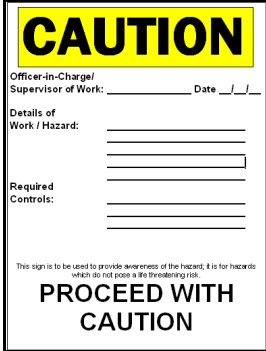






Appendix B - Barricading Selection Requirements

Type	Access Conditions & Application	Examples of types of barricades
Caution	<p>Access permitted, caution required.</p> <p>The caution tape is to be used to highlight hazards to other personnel that may need to access the area. Any person may access into a caution barricaded area, as long as they have familiarised themselves with the hazards detailed on the barricade signage and implemented any controls indicated on the signage. This tape is not appropriate for medium, high or extreme risk hazards e.g. unprotected edges, falling objects, electrical hazards.</p>	
Restricted Access / Danger	<p>Access permitted under instruction and authority given from the Safe Work Coordinator / Person Responsible detailed on the signage.</p> <p>The restricted access tape restricts access to the barricaded work area. Only personnel authorised by the Safe Work Coordinator are permitted to enter.</p> <p>This barricade is suitable to use to restrict access from hazards such as:</p> <ul style="list-style-type: none"> • hot work; • persons working above / falling objects; • spills / leaks; • unprotected edges creating a fall risk of less than 2m; and • over 2m may be used to delineate a hard barrier. 	
Restricted Access / Electrical Work	<p>Used to barricade off and restrict access to electrical hazards. This tape is commonly used for switchboard maintenance.</p> <p>Only the work party and personnel authorised by the Safe Work Coordinator in charge of the barricaded area (as indicated on the signage) are permitted to access through the barricade.</p> <p>Danger tape with appropriate signage can also be utilised.</p>	
Radiation	<p>Access permitted under instruction and authority given from Radiation Safety Officer / assistant / delegate.</p> <p>Radiation tape restricts access to the barricaded work area. Only personnel authorised by the Safe Work Coordinator / Radiation Safety Officer are permitted to enter.</p>	
First Response Team Incident Scene	<p>No access for unauthorised persons. Can be erected by site first response personnel and/or investigation team.</p> <p>This tape is erected to secure an incident scene.</p>	





<p>Barrier Mesh and Bunting Flags</p>	<p>Barrier mesh and bunting flags are high visibility soft barricading options where a solid barricade is not required. May be used in conjunction with appropriate barricading tape and signage to delineate work areas that require authorised access, or used to highlight the boundary of a work area.</p>	 <p>Bunting Flags Barrier Mesh</p>
<p>Solid / Hard Barriers e.g. Jersey, Barriers, Expandable Scaffolding equipment</p>	<p>Hard barrier control options include but are not limited to:</p> <p><u>Jersey type barriers</u> A modular device used to segregate areas where plant and equipment is being operated and as a traffic safety control.</p> <p>The barrier is established to maintain a safe distance that segregates pedestrians and workers from plant and equipment. Where a risk assessment determines that the barrier system is required to provide physical protection such as to deflect an out-of-control vehicle, the barrier shall meet the design criteria of relevant Australian Standards e.g. <i>AS/NZS 3845:1999 Road safety barrier systems</i>.</p> <p><u>Expandable/concertina barriers</u> Are a free standing, portable hard barrier option.</p> <p><u>Scaffolding equipment</u> Where the barrier is required to perform the same function as a permanent handrail/guardrail, the barrier shall meet the design criteria of relevant Australian Standards e.g. <i>AS/NZS 4994.1:2009 Temporary edge protection – General requirements</i>.</p>	 <p>Jersey type</p>  <p>Expandable/concertina</p>  <p>Solid barricading edge protection.</p>

Appendix C – Appropriate Signage for Barricading

All barricades shall be fitted with signage at appropriate spacing intervals along the barricade to ensure the signage is visible from all entry points. The following table indicates the type of signage that is appropriate for each type of barricade.

Type of Barricade	Examples of Signage Note signs may not be exactly the same as the sign shown.
<p>Caution Barricade Tape (soft barricade)</p> 	
<p>Danger Tape (soft barricade)</p> 	
<p>Restricted Access Electrical Work Barricade Tape (soft barricade)</p> 	
<p>Restricted Access (hard / solid barricade)</p> 	

Appendix D –Types of Safety Signs Commonly Used on Site

Type	Requirements	Example
Prohibition Sign	An action or activity is not permitted.	 NO SMOKING
Mandatory Sign	An instruction must be carried out.	 EYE PROTECTION MUST BE WORN IN THIS AREA
Limitation Sign	Defined limit on an activity.	
Danger Sign	Indicate imminent risk of injury to a particular hazard or hazardous situation that is likely to be life threatening if ignored.	
Warning / Caution Sign	Indicate potential risk of injury due to a particular hazard or hazardous situation that is not likely to be life-threatening.	