

DEMARCATIION AND BARRICADING PROCEDURE

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1. OBJECTIVE

The objective of this procedure is to protect personnel by defining the minimum requirements and control levels when demarcating and barricading hazards.

2. SCOPE

All personnel accessing PPA controlled areas and/or undertaking works for PPA are required to comply with this procedure, including employees, contractors and visitors. Licensees, and lessees of lease sites where a PPA employee is the Registered Manager, are required to have systems in place that define the requirements for demarcating and barricading hazards.

3. DEFINITION

TERM	DEFINITION
Barricade	A continuous physical barrier that blocks a person from entering an area. A barricade includes items such as a fence, concrete blocks, trestles, water or sand filled blocks, and scaffold tubing. demarcation tape and signs are not considered to be a barricade.
Demarcation	The boundary or limits of an area that has been marked out. demarcation can include the use of a barricade, signage, and demarcation tape.
Demarcation tape	A disposable tape, or a reusable retractable tape, used to indicate conditions of entry to an area at a point in time. There are four types of demarcation tape approved for use at PPA, which are: <ul style="list-style-type: none"> • Caution; • Restricted Access; • Danger; and • High Voltage Access.
PPA Controlled Area	Any area of land that is under the control and direction of PPA.
Prescribed Service	Any of the services that are listed in the Port Authorities Regulations 2001 (WA) as requiring a Service Provider's Licence, and for PPA include bunkering services, stevedoring services, towage services, line boat services, and mooring inspection services.
Visitor	A person who is signed in as a visitor at a PPA site and typically has not completed the PPA induction program and who is not engaged to participate in any work activities. They are escorted at all times by inducted personnel.

4. RESPONSIBILITIES

ROLE	RESPONSIBILITIES
Managers, Superintendents and Supervisors	Personnel under their control are aware of, understand and comply with the requirements of this procedure.
Employees and contractors	Comply with the requirements of this procedure.
Licensees	Managers and those in supervisory positions must understand and comply with the requirements of this procedure and seek

ROLE	RESPONSIBILITIES
	advice from PPA's Health and Safety Department should they not understand any of the requirements. They also must ensure their personnel comply with the requirements of this procedure.
Visitors	Comply with all reasonable instructions given by your escort.

5. RISK ASSESSMENT

Prior to the execution of any work a risk assessment must be carried out in accordance with the Hazard Management Procedure to identify demarcation and barricading requirements. When demarcating or barricading an area, it is important to make the size of the area appropriate for the task or hazard. PPA equipment may have multiple access points, sometimes above and below, such as on a shiploader, that must be considered during the risk assessment process.

5.1 Known risks for management

Management of well known hazards of significant risk are written into relevant PPA procedures, for example: Cranes and Hoist Procedure; Excavation Procedure; Hazard Management Procedure. Refer to section 9: References.

Additionally:

- Separate entries and exits for mobile equipment, for example forklifts or trucks and pedestrians, should be provided to minimise the risk of persons being hit by moving vehicles.
- If people and vehicles have to share a traffic route, use kerbs, barriers or clear markings to designate a safe walkway. Doors and gates should be fitted with safety devices if necessary, such as a traffic sensor system in a warehouse environment. Doors on main traffic routes should have a transparent viewing panel, unless they are fire-rated doors.
- Power-operated doors and gates should have safety features to prevent people being struck or trapped. Upward-opening doors or gates should be fitted with an effective device, such as counterbalance springs or ratchet devices, to prevent them falling back.
- The location of exits should be clearly marked and signs should be posted to show the direction to exit doors to aid emergency evacuation.
- The means of entry and exit to and from the workplace must be safe. Where it is necessary to clearly define entry and exit routes, the boundaries of the route should be marked by a permanent line of white, yellow or other contrasting colour at least 50 mm wide or by glowing markers

6. DEMARCATIION REQUIREMENTS

Wherever practicable, demarcation tape or barricading must be used to separate a temporary hazard or hazardous situation from other activities. If the use of demarcation tape or barricading is not practicable, signage and warnings must be used to warn all

personnel who might enter the area. Demarcation tape may be wrapped around a barricade to identify the level of control.

Where demarcation is used to prevent a personnel falling from one level to another, hard barricading such as scaffold tube, concrete blocks, or temporary fencing must be used. The exception to this is that trestles may be used for excavations where a risk assessment deems the level of risk as acceptable, which will typically be for shallow excavations.

Demarcation tape and barricading must be maintained for the duration it is in place by either the work crew accountable for the work area, or the worker accountable to resolve a reported hazard.

When demarcation tape and barricading is no longer required, all traces of demarcation tape, barricading and information tags must be removed from the area. Retractable demarcation tape housings may be left in situ when not in use, provided the tape is fully retracted.

Demarcation tape and barricading must not replace the requirement for more permanent fixtures to separate personnel from hazards, for example, guards on moving equipment, guard railing and permanent fences.

6.1 Information Tags

An information tag (**tag**) (see Figure 1) is used to communicate information regarding the status of plant or equipment or the details relating to conditions of entry to an area that has been demarcated or barricaded. For information on the use of tags regarding the status of plant or equipment, refer to the Isolation and Tagging Procedure.

When demarcation tape is erected, a tag must be placed at each potential entry and focal point to communicate a message about the conditions of entry, and any other relevant information. In the event a tag has been placed, personnel must read and comply the information on the tag.

Note: Where "CAUTION" retractable demarcation tapes are installed to control stockyard access, a tag is not required.

6.1.1 Attaching Information Tags

The worker attaching a tag must complete all sections of the tag and include:

- item or work area;
- date tag was placed;
- name of worker to contact;
- contact number; and

- relevant information for the demarcated area, which may include the department the person works for, details relating to the conditions of entry to an area, and the status of equipment or plant.

Note: If demarcation tape is going to be left up for multiple shifts, the day and night contact person's details must be listed where possible. This is to stop day shift crews calling the night shift contact and vice versa.

Figure 1: A Blank Information Tag



The figure displays two versions of an information tag. The left tag is a template with the following content:

- Pilbara Ports Authority logo and name.
- An orange box with the word "INFORMATION" in white.
- Text: "THIS TAG MUST NOT BE USED FOR ANY OTHER PURPOSE THAN SUPPLYING INFORMATION CONCERNING THE ATTACHED".
- Labels for "ITEM", "DATE", "NAME", "CONTACT NUMBER", and "INFORMATION", each followed by a horizontal line.
- Text at the bottom: "PLEASE SEE REVERSE FOR FURTHER INFORMATION".

The right tag is a blank version of the same form, with horizontal lines provided for writing in the areas where the labels and information would be entered. It also features the Pilbara Ports Authority logo and a pink circular hole punch at the top. At the bottom of the right tag, there is an orange oval containing the text: "PLEASE CONSULT WITH ORIGINAL AUTHOR BEFORE REMOVAL OF TAG".

6.1.2 Removing Information Tags




Removal of tags must only occur once the information is no longer relevant and must only be removed with the approval of the tag contact or their supervisor.






6.2 Signage and Traffic Cones


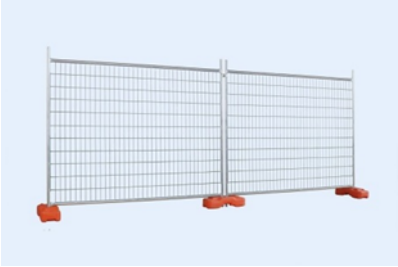
Where deemed appropriate by risk assessment, signage or traffic cones may be placed to warn personnel of a hazard or task being done. Examples of signs include 'Hot Works in Progress' and 'Gardening in Progress'.

7. BARRICADES, BARRIERS, AND TEMPORARY SIGNS

The table below identifies barricades, barriers and temporary signs that may be used on site, along with details of use. Barricade, barriers and temporary signs not listed below may be used where deemed appropriate by risk assessment.

BARRICADES	DETAILS / REQUIREMENTS / USES
<p style="text-align: center;">Star Pickets</p> 	<ul style="list-style-type: none"> • Must have protective capping. • Secured firmly in the ground (if penetrating more than 150mm an Excavation Permit is required as per the requirements of the Excavation Procedure). • Must be used in conjunction with demarcation tape and information tags if demarcating an area.
<p style="text-align: center;">Mesh Barriers</p> 	<ul style="list-style-type: none"> • Mesh barriers can be erected between existing structures or framework. • Can be used with star pickets and/or barricade stands. • Mesh must be installed with the top edge at a height between 900mm - 1200mm. • Information tag must be attached to provide information of why the mesh barricading is in place. • All entry points must have demarcation tape and information tags attached to provide information of entry requirements.
<p style="text-align: center;">Safety Cone and Double Sided Floor Stand</p> 	<ul style="list-style-type: none"> • Plastic double-sided stands or safety cones are used to identify ground related hazards where caution is required, for example, where spills have occurred, or cleaning is in progress. • Cones and stands must be placed in a prominent position.




BARRICADES	DETAILS / REQUIREMENTS / USES
<p data-bbox="562 341 725 363">Traffic Cones</p> 	<ul data-bbox="1104 341 1966 555" style="list-style-type: none"> • Used to demarcate areas where work is taking place on roads and ground, for example, cleaning up spills, survey marking, and around mobile plant. Persons requiring access must familiarise themselves with the hazards, risk assess the situation, and only proceed into the area if it is safe to do so. • No maximum distance between cones but they must be setup so personnel can identify the demarcated area.
<p data-bbox="562 585 725 608">Scaffold Tube</p> 	<ul data-bbox="1104 585 1966 767" style="list-style-type: none"> • Scaffold tubing can be used to demarcate around an open sump, pit or fall zone. • Scaffold must be erected by a licenced scaffolder as per the requirements of the Cranes and Hoist Procedure. • All entry points must have demarcation tape and information tags attached to provide information of entry requirements (if permitted).
<p data-bbox="602 798 687 820">Trestle</p> 	<ul data-bbox="1104 798 1966 948" style="list-style-type: none"> • Trestles can be used to demarcate live areas within a stockyard in conjunction with signage. • Trestles can be used as a form of protection for excavations where a risk assessment deems the level of risk as acceptable (typically shallow excavations).
<p data-bbox="555 1010 739 1032">Concrete Block</p>  <p data-bbox="495 1166 797 1189">Water / Sand Filled Block</p> 	<ul data-bbox="1104 1010 1966 1351" style="list-style-type: none"> • These styles of hard barricading are designed to prevent access and protect personnel from hazardous processes, equipment and traffic areas. • Chains (plastic and metal) can be used to connect hard barricades together to make a longer barricade. • Water/sand filled blocks can be connected to demarcate long term work areas. • Concrete blocks must have an approved lifting point or slots to fit forklift tynes. • Used primarily to demarcate long term work areas, for example a laydown yard.



BARRICADES	DETAILS / REQUIREMENTS / USES
<p style="text-align: center;">Barricade Stand / Temporary Bollard</p> 	<ul style="list-style-type: none"> • Barricade stands and temporary bollards are used to demarcate areas where there is no structure to fix demarcation tape or chains. • Can be used where the barricade needs to be moved to allow mobile plant and equipment into the demarcated area. • Must be used in conjunction with demarcation tape and information tag if demarcating an area.
<p style="text-align: center;">Temporary Fence</p> 	<ul style="list-style-type: none"> • Temporary fencing is used to demarcate areas where there is no structure to fix demarcation tape or chains. • All entry points must have demarcation tape and information tags attached to provide information of entry requirements.

8. APPROVED DEMARCATION TAPES

The table below outlines approved demarcation tapes, along with their purpose, the associated conditions of entry and other requirements, and some examples of when the demarcation tape may be used.

TAPE	PURPOSE	CONDITION OF ENTRY AND OTHER REQUIREMENTS	EXAMPLES
Caution Tape	Caution tape must be used to demarcate areas that require personnel to be warned of identified hazards prior to entry.	Personnel requiring access must make sure they familiarise themselves with the hazards, risk assess the situation and providing it	Liquid spills, work areas, temporary lay down area.

TAPE	PURPOSE	CONDITION OF ENTRY AND OTHER REQUIREMENTS	EXAMPLES
	<p>Disposable caution tape must be identified with yellow and black colours. They may be marked with "CAUTION".</p>	<p>safe to do so may proceed into the area. Where "CAUTION" retractable demarcation tapes are installed to control stockyard access, an information tag is not required.</p>	
<p>Restricted Access Tape</p> 	<p>Restricted Access tape must be used to demarcate areas where access is restricted to persons directly involved in the work area or those personnel who have been directly authorised by the person in charge of the work area as detailed on the information tag. Restricted access tape must be identified with blue and white colours and be marked with "RESTRICTED ACCESS".</p>	<p>Only authorised personnel may access an area or equipment that has been demarcated with Restricted Access tape. To enter a restricted access area all personnel must sign onto the risk assessment. Barriers and signage must be arranged so that the work area is clearly defined and made inaccessible to unauthorised personnel.</p>	<p>Live works or commissioning, belt-change out areas.</p>
<p>Danger Tape</p> 	<p>Danger tape must be used to demarcate areas and/or equipment where there is an immediate threat to people, equipment and/or the environment. Demarcation tape must be identified with red and white colours and may be marked with</p>	<p>Personnel must not enter or work within an area that is demarcated with Danger Tape.</p>	<p>Unsupervised unprotected edges, drop zones, contaminated sites.</p>

TAPE	PURPOSE	CONDITION OF ENTRY AND OTHER REQUIREMENTS	EXAMPLES
	<p>“DANGER” or “DANGER NO ENTRY”.</p>		
<p>High Voltage Access Tape</p> 	<p>High Voltage Access Tape must be used by electrical workers to demarcate a work area where a High Voltage Access Permit is in place. High voltage access tape must be coloured white and must be marked with “HIGH VOLTAGE ACCESS PERMIT IN PLACE”.</p>	<p>Only authorised personnel may access an area or equipment that has been demarcated with High Voltage Access tape. Demarcation and signage must be arranged so that the work area associated with a High Voltage Access Permit is clearly defined and made inaccessible to unauthorised personnel. There must be only one entry point to the work area. The High Voltage Access Permit must be displayed with High Voltage Lockout Station at the entry point. Demarcation must consist of a combination of the following:</p> <ul style="list-style-type: none"> • Permanent structures such as walls, fences and gates • High voltage access tape where a permanent structure does not exist, is impractical to use or not suitable as a barrier • Signage indicating that the work area is subject to a High Voltage Access Permit 	<p>Inspection of high voltage enclosures or slip rings.</p>

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TAPE	PURPOSE	CONDITION OF ENTRY AND OTHER REQUIREMENTS	EXAMPLES
		Erection and removal of the demarcation must be controlled via the HV Switching Schedule and/or risk assessment. For further information refer to the Safe Work with High Voltage Procedure.	

9. REFERENCES

Approved Code of Practice -Managing the work environment and facilities. WorkSafe 2022.

Approved Code of Practice -Managing risks of plant in the workplace. WorkSafe 2022.

Abrasive Blasting Procedure

Asbestos Management Procedure

Confined Spaces Procedure

Construction Work Procedure

Cranes and Hoist Procedure

Demolition Work Procedure

Excavation Procedure

Fall Prevention Procedure

Heat Management Procedure

Hazardous Chemicals Management Procedure

Hazard Management Procedure

Isolation and Tagging Procedure

Noise Management Procedure

Safe Work with High Voltage Procedure

Spray Painting and Powder Coating Procedure

Traffic Management Procedure

Welding Procedure

Working On, Over, In or Near Water Procedure

10. DOCUMENT OWNER

The Health and Safety Manager is responsible for this procedure.