



Barricading, Guarding and Signage Procedure

Barricading, Guarding and Signage Procedure

DOCUMENT CONTROL

Revision Number	Description	Reviewed by	Approved by	Review Date	Issue Date
1	Initial release.	Safety and Security Manager	Safety and Security Manager		09/12/2020
2	Reviewed and updated for all Ports	Port Health Safety & Environment Teams Group HSE Manager	Interim Chief Operating Officer	23/06/2023	23/06/2023
3	Review and update.	Squad review	Interim Chief Operating Officer	15/08/2025	15/08/2025

AUDIT

This Procedure shall be reviewed or revised:

- where a Risk Assessment or Audit identifies a need to review
- when legislative changes impact this Procedure.
- following a significant incident involving this Procedure.
- at least every three years.

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Barricading, Guarding and Signage Procedure

1 INTRODUCTION

1.1 Purpose

This Barricading, Guarding and Signage Procedure describes minimum requirements for the installation and maintenance of temporary barricading, guarding and signage to control access to designated hazardous work areas at Southern Ports.

1.2 Scope

In Scope	Out of Scope
All activities relating to Barricading, Guarding and Signage under the control of Southern Ports inside the port land and marine boundaries for the Ports of Albany, Bunbury and Esperance.	Barricading, Guarding and Signage activities conducted by leaseholders that are under the full control of a lessee.

1.3 Roles and Responsibilities

Roles and responsibilities for this Procedure are shown in Table 1 below.

Table 1: Roles and responsibilities

Role	Responsibility
Regional Managers	<i>Regional Managers</i> at each port are responsible for: - Implementing the requirements of this Procedure. - Ensuring that a Risk Assessment process is undertaken. - Providing adequate planning, training, safe equipment, competent supervision, leadership and control for the activity.
Leaders	<i>Leaders (Managers, Superintendents and Supervisors)</i> are responsible for: - Facilitating and verifying that a documented Safe System of Work is established. - Ensuring that Permits and Authorities to Work have been issued where required. - Ensuring there is safe access and egress, authorised serviceable plant and equipment, and protection from hazardous substances. - Verifying that employees are competent to perform their duties by evidence of training and assessment. - Regularly monitors and assesses the workplace for compliance.
Workers	<i>Workers (Employees, Contractors and Consultants – but not Visitors)</i> are responsible for: - Engaging with the <i>Leaders</i> in the process of establishing a documented Safe System of Work. - Acting responsibly in performing their work in accordance with this Procedure and documented Safe Systems of Work. - Taking reasonable care to protect the health and safety of themselves and others, and to protect the environment. - Reporting all injuries, incidents and hazards to their Leader. - Only carries out tasks that they have been verified and authorised to do so through training and or assessment.
Health and Safety Representatives	<i>Health and Safety Representatives</i> are responsible for: - Attending Health and Safety Committee meetings. - Conducting workplace inspections. - Issuing Provisional Improvement Notices as required. - Directing workers to stop unsafe work.

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2 CRITICAL CONTROLS

Guarding shall be installed and maintained where the risk of harm exists through inadvertent exposure to moving parts or projectiles or where specified in relevant legislation.

Equipment shall be designed and installed so that monitoring and inspection requirements are able to be conducted outside the safeguards and barricades.

Plant, equipment and machinery shall be isolated if safeguards and interlocks are to be removed or deactivated. Where a safeguard is removed it shall be replaced.

Where safeguarding and interlock systems are insufficient to protect personnel, the site shall ensure access to plant and equipment is restricted, controlled, maintained and monitored.

Secondary retention devices shall be fitted to bolted on components / equipment parts and objects that have a risk of separation under pressure or dropping from height. A 'whip check' or hose restraint device shall be fitted to pressure hoses to prevent uncontrolled movement of the hose in the case of hose and/ or hose connection failures.

Plant or equipment maintenance and inspection programs shall include whip checks, alarms, emergency stops, pull wires, safeguards and interlocks. Maintenance and inspection programs will be appropriately prioritised and shall not exceed the manufacturer's instructions. The inspection shall also check that the whip check or hose restraint fitted is rated to withstand the maximum pressure of the hose or line.

A JHA or SWI shall be in place for the temporary removal of safeguards on operating plant and equipment (i.e. for the purposes of fault finding, testing and commissioning).

Workers are prohibited at all times from climbing over or under any type of barricading.

Barricading, guarding with appropriate signage shall be installed and maintained where there is potential for:

- Contact or entanglement with plant or equipment (mobile or fixed)
- Being trapped between a machine and any material or fixed structures.
- Contact or being struck by dropped objects such as but not limited to tools, equipment or product spillage.
- Release of potential energy such as but not limited to; snap back zone on tensioned mooring lines / conveyor belt replacements.
- Fall from height.
- Maintenance or construction processes, or
- Area hazards.

Barricades will be erected to separate the affected area either by integration with existing structures or stand-alone installation. Warning signage constructed of a material that is suitable to the environment shall be installed using suitable retainers in all areas where barricades are placed.

Drop Zone hard barricading shall be erected below all elevated areas where there is the potential for tools, materials or equipment to fall or be dropped from one level to another. This may include requirement to establish a drop zone within an exclusive control zone.

Barricaded work areas under exclusive control or commissioning may only be accessed by personnel authorised by the supervisor of that work area who is nominated on the information tag attached to the barricade.

Exclusive control / commissioning zones shall have 360 degree barricading with one or two dedicated access points to be used for entry, all task information for the work must be held at the entry point in a weather proof sleeve, all workers must review and sign on to

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the JHA / Permits before entering. Danger tape must not be used for areas that people are required to work in.

3 GENERAL INFORMATION

A hard barricade can consist of, or be constructed from scaffold tube, mesh barriers, water filled 'Jersey Barriers' or other solid materials that has minimum flex, cannot be walked through and is suited to the environment.

- Bunting, danger or caution tape or traffic cones are not classed as a hard barricading.
- Safe means of access must be considered when setting up hard barricading around exclusive control work areas, to ensure safe access to the work area, such as but not limited to a Shore Tension control box.

Barricading shall be maintained daily and removed immediately when the work is complete, or the hazard is effectively controlled.

Signage is to be suitable to the environment, legible, maintained at all times and where no longer applicable removed from the workplace.

Where practicable a barricade shall not be less than 1 metre from the hazard.

Hard and Soft Barricades shall be erected at a minimum height of 900 mm to 1200 mm and be adequately supported for the prevailing environmental conditions.

Barricades shall be well anchored with sufficient supports to prevent sagging and possible movement due to the prevailing weather conditions.

Barricaded areas must be suitably lit during hours of darkness. This may be by use of existing fixed lighting, portable lighting devices, or other means of illuminating the area.

Work areas protected by barricading shall be kept as small as is safely practicable.

The area beneath a mobile elevating work platform basket or man cage shall be barricaded to prevent unauthorised access to the potential Drop Zone.

Any part of a mobile elevating work platform that is not in the Drop Zone shall be demarcated with hard barricading and no person shall pass under the boom or through the working slew zone unless positive communication is established with mobile elevating work platform operator and the *Spotter*.

4 RISK ASSESSMENT

A risk assessment shall be used to:

- identify the location, type and level of barricade, guarding or exclusions required for tasks, plant and equipment.
- identify hazardous or restricted areas where access shall be controlled and managed.

The risk assessment and planning of the task shall identify the type of hazard or hazards present. The barricade or guarding selected needs to be able to prevent personnel from inadvertent contact or interaction with the hazard.

Selection shall consider barricade type, erection, duration and maintenance of the barricade to ensure the task proceeds safely.

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The below table 1 hazard levels is a guide when selecting barricading types

Table 2: Hazard Level Types for Barricading		
Type	Description	Use Example
Caution	Areas that contains hazard/risk that workers need to be made aware of, but are safe to work under controlled conditions, shall have 360 degree barricading with designated access points and information tag at the entry point.	Wet flooring, trip hazards, small excavation with cover. Pot holes, oil spill, machine breakdown.
Danger	Areas that contains a significant hazard/risk of an imminent harm to workers shall have 360 degree barricading with no access points. Danger represented by red and white striping, is primarily used to mark hazardous areas and restrict access to potentially dangerous zones, warning people of risks like life-threatening situations or serious injuries. Workers are prohibited from accessing areas delineated by danger barricaded zones. Only Authorised workers who are required to remediate hazard / cause of danger may remove the danger tape and enter the area following establishment of an exclusive control zone.	Drop zones Holes and openings Other hazards that require remediate to make an area safe to access.
Exclusive control	Exclusive control / commissioning zones shall have 360 degree barricading with one or two dedicated access points to be used for entry, all task information for the work must be held at the entry point in a weather proof sleeve, all workers must review and sign on to the JHA / Permits before entering. Danger tape must not be used for areas that people are required to work in.	Construction zone Commissioning activity

5 TYPES OF BARRICADES

5.1 Hard Barricades

Hard barricading is considered a solid barrier designed to exclude unauthorised access into a hazardous work area.

The footprint of hard barricading requires careful placement so that it does not create a traffic or pedestrian hazard.

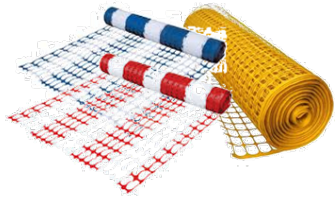
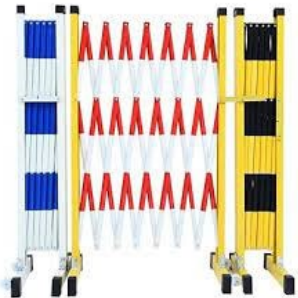
Where hard barricading is used that does not represent the relevant hazard level (Danger, Exclusive Control, Caution), the appropriate tape may be applied to the barricading.

Table 3: Hard Barricading Types

Type	Description	Example
Water filled barrier	Water filled barriers are only capable of dissipating low to moderate impact forces, most manufacturers will identify if they are MASH TL1 / TL2 compliant = certified to handle impacts of 50km and 70km respectively. Even in vehicle barrier use which they are designed for, they are not recommended for high-speed traffic areas (anything over 70kmph), therefore appropriate speed limitations shall be in place when in use as a vehicle barrier.	

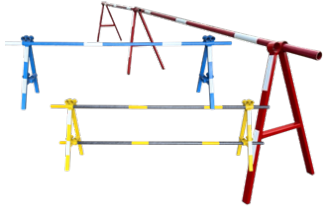
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Table 3: Hard Barricading Types

Type	Description	Example
	IBC containers are not to be used as a barrier under any circumstance.	
mesh barrier panels	Mesh barrier panels for barricading are lightweight, durable, and highly visible barriers used to create temporary boundaries for safety and crowd control. These panels, often made of plastic or metal mesh, are designed for easy installation and reconfiguration, making them ideal for construction sites, events, and other areas requiring temporary demarcation.	
Earth windrow	Earth windrows are constructed with soil materials and where used should be a minimum of half the height of the largest vehicle on site.	
Temporary Fencing	Temporary fencing is typically composed of interconnected panels, supported by feet, and designed for easy setup and takedown.	
Concertina barricade	A concertina barricade, also known as an expandable barricade, is a portable barrier that can be quickly extended and retracted to control pedestrian or vehicle traffic, create temporary boundaries, or restrict access to hazardous areas. These barricades are designed for ease of use, with features like hook and loop connections for linking multiple units, locking mechanisms, of lightweight, durable, construction.	
Scaffolding	Scaffolding barricading refers to the use of scaffolding components to create physical barriers, often to restrict access to or from a work area, particularly during construction or maintenance activities. These barricades can range from simple perimeter fencing using scaffold tubes to more elaborate structures incorporating multiple levels of guardrails and toe boards. The primary purpose is to prevent falls, control access, and protect workers and the public from hazards associated with the work being performed.	

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Table 3: Hard Barricading Types

Type	Description	Example
'A' frame type standards with solid ledgers	A-Frame type barricades have either a fixed dual or a 4 way swivel top attachment that rotates 360° degrees, to used to join a tubular bar between a shaped leg supports.	

5.2 Soft Barricades

Soft barricading includes but is not limited to **Caution** or **Danger tape** or bunting, flags, or road traffic cones. Soft barricading is used to temporarily delineate hazard areas.

Soft barricading is not an acceptable substitute for hard barricading to delineate an unguarded edge which represent a potential fall from, or through, one level to another. Tape should be applied to hard barricading that does not have a hazard level colour to visual delineate the level / type of hazard.

Soft barricading such as caution and danger tape shall be attached to a number of stable stanchions or braces so that it is effective for the prevailing weather conditions.

The workplace *Supervisor* is responsible for ensuring that soft barricading is removed and appropriately disposed of on completion of the work or when the hazard has been controlled.

Table 4: Soft Barricading Types

Type	Description	Example
Caution Tape	Yellow and black tape or bunting delineates a Caution Area which contains a hazard that may result in an injury or harm such as but not limited to a wet or uneven surface, or an operating portable generator. Access into a Caution delineated area is permitted after the employee have read and understood the information regarding the hazard detailed on the information tag or on the Job Hazard Analysis for the task being undertaken in that area.	
Danger Tape	Red and white tape or bunting delineates a Danger Area such as but not limited to an excavation, Drop Zone, chemical spill, unguarded edge or active mobile equipment operating area. Access to Danger delineated areas is prohibited at all times	
Exclusive Control, Commissioning Tape or Bunting	Blue and white tape or bunting delineates an area which contains an increased risk to people not directly involved in the task being performed, where a specified work group require	

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Table 4: Soft Barricading Types

Type	Description	Example
	complete control over access to the area. Access into an exclusive control delineated area is only permitted on the authorisation of the work group supervisor identified on the information tag attached to the barricade, after all task JHAs and Permits have been reviewed and signed by all workers entering the area.	
Traffic cones and bollards	Traffic cones when used without cross bracing should only be used to delineate caution for a small area (example pot hole on side of road). They are available in varying colours and come with cross bracing which may be used for larger areas	
Flag type Bunting	May be used in a similar manner to tape, secured to sufficient number of points to be stable at a minimum height of 1m above ground in the wind.	

6 USE OF BARRICADING

6.1 Work Planning

Complete a risk assessment (Stop and Think & JHA) to determine the hazards associated with the task.

Where a hazard has been identified during an inspection and not during work planning a risk assessment is required to determine the risks associated with the hazard.

Where the hazard poses an imminent risk; stop work, remove or control the hazard immediately, and then conduct a risk assessment (JHA, or as required a Team Risk Assessment / Critical Risk Assessment) to determine if the level of control is appropriate.

When planning the job steps for the task the following shall occur: Identify the need for barriers, barricades, barricade tapes, and or warning signs, for but not limited to the following hazards:

- Working at Heights
- Potential dropped objects
- Rotating Equipment
- Mobile Equipment (e.g. bobcats, forklifts, cranes)

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- Missing or removed walkways
- Restricting access
- Floor, Roof and Wall openings
- Excavations
- Working above or below normal traffic areas (personnel, vehicles)

Where hard barricading and signage cannot be erected due to the environmental conditions or physical restrictions of the location for example but not limited to Drop Zones for work over or adjacent to water, then a *Risk Assessment* is to be undertaken. The *Risk Assessment* shall identify hazards and required alternative controls that are to be implemented following the hierarchy of control for risk mitigation.

Prior to the task commencing, the *Risk Assessment* shall be approved by the *Superintendent* or *Manager* responsible for the scope of works being conducted.

6.2 Barricading by situation and type examples

Table 5: Barricading by situation and type, examples;

Activity	Situation	Barricade Type	Classification Type
Pick and Carry Cranes	Around the boom extension and travel area while it is operating	Soft barricading – Cones or bunting	Caution
Crane on outriggers, Mobile Elevating Work Platform and Man Cage operation	Under load, basket or cage at active work area, around the area of the working path of slew including shadow of load.	Hard barricading monitored by a Spotter *	Danger
Drop Zones	All areas and for all work in elevated areas	Hard barricading and signage	Danger
Excavations and Trenches	Around all excavations where an effective windrow of all sides is not in place	Hard barricading and signage	Danger
Loading and unloading areas	Around the truck, loading equipment and pick up and drop off area outside of a designated loading zone.	Soft barricading – Cones or bunting	Exclusive control
Mooring lines, bollards and Shore Tension	Live mooring lines, bollards, Shore Tension snap back zones	Hard barricading and signage	Danger
Radiation, pneumatic and hydrostatic testing, spray painting and abrasive blasting	Around storage areas and areas of use	Soft barricading - High visibility bunting, cones and signage	Exclusive control
Scaffold erection, modification and dismantling	All areas	Hard barricading and signage	Exclusive control
Work areas located within or adjacent to operating fixed plant, equipment or live rail, or construction / demolition areas and other areas of work under exclusive control not already specified in this document.	In or around operational fixed plant, equipment or live rail	Hard barricading / Fencing suitable for the type of activity and signage (clearance checks shall be undertaken prior to installation)	Exclusive control

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Table 5: Barricading by situation and type, examples;

Activity	Situation	Barricade Type	Classification Type
* Drop Zones shall be clearly delineated using Danger tape and hard barricading, where hard barricading is identified as not being practical. Bunting may be used post signed authorisation of the <i>Risk Assessment</i> by the Superintendent or Manager in control of the workplace.			

6.3 Snap Back Zones of Mooring Lines and Shore Tension Units

Hard barricading and signage shall be erected to restrict persons, vehicles or mobile plant from unauthorised entry into a snap back zone (potential line of fire) created by mooring lines and Shore Tension Units that are under tension.

Safe means of access must be considered when setting up the snap back zone barricading to ensure that mooring personnel can safely approach the Shore Tension Unit control box.

Access into snap back zones are prohibited unless for the purpose of undertaking mooring operations. Workers shall evacuate the snap back zone immediately after completing the mooring.

6.4 Holes and Openings

Excavations in areas frequented by vehicle or pedestrian traffic shall be hard barricaded and made highly visible by the addition of danger delineation tape and signage. In addition, excavations in vehicle or pedestrian trafficable areas shall be delineated with amber flashing lights during hours of darkness or low visibility.

Holes and openings pose serious fall hazards to personnel especially when they are located at height on structures. All holes and openings in structures over 200 mm x 200 mm or with a diameter greater than 200 mm will be covered with a secured material that is:

- Strong enough to prevent persons or objects entering or falling into the hole or opening
- Securely fixed to the floor with suitable restraints, note plastic cable ties are not suitable
- Clearly marked with signage stating “**Danger – Hole Beneath**”

A hole or opening with a “**Danger – Hole Beneath**” sign affixed may require a working at height permit to be issued for the cover to be removed this will be dependent on the size of the opening.

6.4.1 Temporary Edge Protection

Where ever there is a risk of personnel being within two metres of an unprotected edge from which there is a potential to fall from, or through, one level to another, then hard barricading edge protection shall be installed comprising of:

- A top rail between 900 mm and 1100 mm high incorporating a mid-rail and kick board.
- Withstand a live loading force of 550 N (approximately 55 kg) acting outwards or downwards at any point on the top rail, edge or post.
- Appropriate signage indicating the hazard, such as “**Danger – Handrail Removed**”.

Refer to the Work at Height Procedure for additional guidance.

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6.5 Drop Zone

Dropped objects are categorised as gravitational hazards, referring to any object that can fall from a height to an area below. This is referred to as a “Drop Zone”. A Job Hazard Analysis is the minimum workplace risk assessment tool that shall be conducted for all task conducted above another level including work at height.

The risk assessment shall consider the potential for objects to be dropped from height and to implement effective control measures to mitigate the potential of falling objects resulting in injury or damage. The controls may include:

- Where practicable undertake assembly task at ground level.
- Materials and equipment properly secured especially during dismantling, lifting or moving.
- Gaps in handrails and floors hard barricaded.
- Scaffolding erected to correct standards, for example but not limited to the installation of kick boards, mid and top rails, and scaffold planks secured with fire resistant wire ties.
- Using suitable receptacles for the storage of off-cuts, welding rods stubs, nuts and bolts.
- When cutting objects or materials, ensure they are tied off and secured with appropriate lashing for the object or material that it is intended to be cut. Do not attempt to hold the item as it may become too heavy or too hot to grip.
- Routinely inspect all work areas and remove items that have the potential to be knocked or fall from height.
- Using lanyards or wrist straps on hand tools, and chin straps on safety hats.
- Provide grid mesh containment matting.
- Providing catch scaffold or safety net under the job.
- Temporary mesh or infill is required to be fitted on handrails where materials are stacked.
- Mesh to be fitted to all mobile elevating work platforms and scissor lifts to mid-rail height.
- Providing barricades and warning systems to prevent unauthorised access to a potential Drop Zone.
- Provide a *Spotter* to monitor and maintain the Drop Zone.
- Objects shall not be thrown or dropped from one level to another.

Drop Zone shall be clearly delineated using Danger tape or bunting. Where practicable hard barricading shall be erected to control access to a Drop Zone below all elevated areas where there is the potential for tools, materials or equipment to fall or be dropped.

The hard barricading shall be used in combination with danger delineation tape barricading.

The barricading shall be identified by signage stating Danger “Drop Zone” which shall be placed on all sides of the Drop Zone barricaded area.

As a guide, when the working height is less than 20 m the Drop Zone radius, or horizontal clearance at ground level, should be approximately one third (33%) of the working height. However, as a rule, a minimum Drop Zone radius of 4 m should be established.

For a working height of 20 m or more the Drop Zone radius, or horizontal clearance at ground level, should be approximately one quarter (25%) of the working height where practicable. Where it is not feasible due to the proximity of surrounding structures, berth edge or work areas, the Drop Zone shall be as large as possible to protect personnel below the work area.

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Where a neighbouring workplace falls within the area that would normally be a Drop Zone, the workplace supervisor shall liaise with the adjacent work group when developing the Job Hazard Analysis prior to commencing the task. This may require one of the tasks to cease until the area can be maintained safely.

The following Table provides guidance on the minimum Drop Zone radius that may be applied:

Table 6: Minimum Drop Zone radius

Working height	Drop zone radius	Working height	Drop zone radius
Less than 12 m	4 m	25 m	6.5 m
14 m	5 m	30 m	7.5 m
16 m	5.5 m	40 m	10 m
18 m	6 m	50 m	12.5 m
20 m	5 m	75 m	19 m

Access to Drop Zones prohibited. Where possible, all tools, toolboxes and workbenches shall be removed from the Drop Zone, so personnel have no need to enter the Drop Zone.

On completion of the elevated work the workplace supervisor is responsible for ensuring the immediate removal of all barricade and signage relating to the task.

6.6 Scaffolding

Hard barricading shall be erected in conjunction with danger delineation and information tag around the Drop Zone below all areas where scaffolding is being erected, modified or dismantled.

Signs shall be placed on all sides of the barricaded area to indicate that scaffolding is in progress and there are potentially personnel working above.

Where practicable, a single-entry point will be designated, and a gate installed.

An exclusive control zone shall be established around the area where scaffolding is being erected. Access to the exclusive control area is by authorisation from the scaffold supervisor identified on the exclusive control information tag and establish verbal and visual contact with the scaffold crew prior to entering the work zone.

Barricades shall be removed as soon as the scaffold build or dismantle work is completed.

In addition, the following controls should be considered when scaffolding is suitable for its designed purpose:

- Falling object risk control measures include fall arrest platforms, overhead protective structures, perimeter containment screens and exclusion zones to eliminate or minimise the risk of falling material including but not limited high pressure abrasive blasting or spray-painting residue.
- Perimeter containment screens can be made of mesh, high quality shade cloth, timber, plywood, metal sheeting or other suitable material.
- Before using perimeter containment screening, consider other risks like conductivity of electricity and additional dead and live loads. For example but not limited to the extra wind loading on the scaffold should be considered when selecting a screening material and the framework supporting a screen must be able to support loads resulting from the screen.
- Perimeter containment screens should be located inside the standards on working platforms or in accordance with the manufacturer's specifications.
- Where used, the lining should be attached to the inside of the mesh.
- The scaffold design and its ties fitted with containment sheeting should be approved and inspected by a competent person.

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7 GUARDING

7.1 Equipment Guarding

Equipment shall be designed to eliminate the need for guarding where practicable. Safeguarding should be selected where other potential mitigation measures do not adequately protect personnel as identified in the Risk Assessment process.

These requirements may consist of:

- The integrity of plant and equipment safeguarding measures shall be continually maintained and monitored.
- The Risk Assessment should be undertaken to identify any safeguarded hazards that require interlock systems as an additional control.
- Access to equipment shall be controlled and monitored where safeguarding and interlock systems are insufficient to protect persons from moving plant and equipment.
- Failsafe (Deadman) switches are to be installed on selected workshop rotating fixed plant and hand tools such as but not limited to grinders, saws and drill presses.
- Guards shall only be removed for maintenance and repair by a competent person, and only once equipment is isolated and locked out. Guards shall be replaced prior to equipment being put back into service.
- All guarding is to be secured in such a way that a tool is required for its removal.

7.2 Temporary Commissioning Guarding

Temporary hard barricading and signage may be used to manage the risk associated with all fixed or mobile equipment that cannot be fully isolated to achieve a zero energy state during either a testing, fault finding, calibrating or commissioning works where there is a need to control access to authorised persons only due to the potential for uncontrolled energy release. Refer to the Southern Ports Isolation and Tagging Procedure.

The establishment of temporary hard barricading and signage shall only be undertaken after a Risk Assessment is conducted on the proposed works and it is demonstrated that the use of temporary barricading and signage is a safe and effective control measure.

Prior to the work being undertaken, the Risk Assessment and associated Permits shall be authorised by the *relevant Manager or Supervisor* or their delegate.

Temporary hard barricading and signage shall be installed and removed when the equipment has been correctly isolated in accordance with the Southern Ports Isolation and Tagging Procedure.

8 INSPECTION OF BARRICADES AND GUARDING

Barricades and guarding should be checked and inspected by the supervisors of the work activity before work commences, during the work activity, at the end of the shift and at the completion of the work activity.

Responsibility for Establishing and Maintaining Barricades

A person who creates or is about to create a hazard shall barricade the area. A person who mistakenly removes a barricade that is currently in use shall re-establish it immediately and notify their Supervisor.

Work groups shall maintain barricades continuously until the hazard has been eliminated.

Additional warning signs complying with Section 3.10.1 shall be displayed to indicate specific work activities e.g. Hot Work, Confined Space, Excavation.

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Signage is to be suitable to the environment, legible, maintained at all times, and where no longer applicable removed from the workplace.

The supervisor is responsible for the maintenance and removal of redundant barricading.

9 SIGNS AND INFORMATION TAGS

Safety signs shall be used to regulate and assist safety related behaviour, to warn of hazards and to provide emergency information. Signs will be specific and identify the hazard. The symbolic shape and colour coding for each of the sign functions listed below are shown in Table 7.

Signs shall be in place at locations identified by Risk Assessment including but not limited to temporary barricading and handrails. Predominately they shall be placed at access and egress points and at locations where the signs can be clearly seen and maintained by personnel.

Signs are to be clearly displayed so that they assist communication and that they meet the relevant legislative requirements such as the Australian Standards or a Code of Practice.

9.1 Information tags

Information tags shall be prominently attached in sufficient numbers along barricading and at all access points.

The information tag shall clearly state:

- The hazard around which the barricading is erected.
- The date the barricading was erected.
- The *Supervisor's* contact name and phone number.
- Company name.
- Additional information specific to safe entry into the work area for example but not limited to personal protective equipment requirements.
- If an information tag can't be attached but more information is needed to be communicated erect a sign
- Information tags shall provide the contact person or responsible supervisors name and phone number, details of the hazard and the expected duration of the barricade.
- Where there are no designated access points, information tags shall be tied to the barrier at regular intervals to clearly identify the reason why the barrier was erected. Information tags are to be supplemented by use of warning/advisory hazard signs where applicable i.e. -Danger no access-persons working above, PPE requirements, floor opening etc



Figure 1: Information Tag

Barricading, Guarding and Signage Procedure

9.2 Sign Classification and Use

Safety signs are classified and are to be used as required and according to their function as follows:

Regulatory signs

Signs containing instructions with which failure to comply constitutes either an offence at law, or a breach of a standing rule or safety procedures depending on which type of control has been imposed. They are subdivided as follows:

- **Prohibition signs:** Signs that indicate that an action or activity is not permitted.
- **Mandatory signs:** Signs that indicate that an instruction shall be carried out.
- **Limitation or Restriction signs:** Signs that place a numerical or other defined limit on an activity or use of a facility.

Hazard signs

Signs advising of hazards are subdivided as follows:

- **Danger signs:** signs denote a specific hazard or hazardous condition that is likely to be life threatening.
- **Warning signs:** signs warning of a hazard or hazardous condition that may result in harm.

Emergency Information signs

- Signs indicating the location of, or directions to, emergency related facilities such as muster points, exits, safety equipment or first aid facilities.

Fire signs

Signs advising the location of fire alarms and firefighting equipment.

Temporary Signs

Temporary signs may be utilised, such as laminated A3 signs which are to be secured and relevant to the environment they will be used in, they shall include the:

- Date installed
- Be replaced immediately if weather worn, torn or illegible
- Used only for a set timeframe before a permanent sign can be erected.

Design and Layout of Signs The sign and legend size, symbolic shapes, layout and colour coding for all safety signs is to be in accordance with AS 1319:1994 Safety Signs for the Occupational Environment.

Where no symbol is available for a required purpose, a worded-message sign, in accordance with AS 1319:1994 Safety Signs for the Occupational Environment, is to be used.

Construction, Installation and Removal of Signs

This procedure is applicable where safety signs are:

- A legislative requirement
- Identified as a control in a Job Hazard Analysis, Safe Work Method Statement, Risk Assessment, specific work procedure or similar.

Barricading, Guarding and Signage Procedure

Safety signs are an administrative control and:

- Should not be chosen as the primary control unless a detailed review (where practicable) of other control options has been undertaken and found to be ineffective or not possible.
- May be suitable as part of a combination of control options.
- May be suitable for a range of short-term controls.

Signs other than those painted directly on existing surfaces are to be constructed and erected so that they do not create a hazard e.g. signs are not to project into passageways at such heights that people, vehicles or mobile plant may strike them.

Signs are to be located where messages are legible, and so that they attract the attention of, and are clearly visible to all workers, for example at eye height or at an entry point.

Sign mounting locations are to limit or prevent the possibility of signs becoming obscured by stacked materials or other visual obstructions.

Regulatory and hazard signs are to be positioned in relation to a particular hazard to allow a person ample time after first viewing the sign to heed the warning.

Signs are not to be placed on moveable objects such as doors, windows or racks where a change in position would void the purpose of the sign or cause it to be out of sight.

External or internal illumination of signs is to be considered where the general lighting, either natural or artificial, does not provide for adequate visibility.

Note When placing several signs close together, avoid a situation where too much information is located in one place, which can result in individual messages being difficult to distinguish.

All signs are to be kept clean, maintained in good condition, and well illuminated.

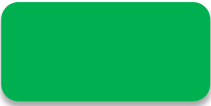
All signs containing information no longer relevant are to be removed immediately, particularly those signs erected to warn of temporary hazards.

Table 7: Signs

Sign Function	Symbolic Shape	Legend Colour	Background Colour
Regulatory Prohibition		Black	White
Regulatory Mandatory		White	White
Regulatory Restriction		Black	White
Hazard Warning		Black	Yellow

Barricading, Guarding and Signage Procedure

Table 7: Signs

Sign Function	Symbolic Shape	Legend Colour	Background Colour
Hazard Danger		Black	White
Emergency Information		White	Green
Fire Sign		White	Red

10 REFERENCES

10.1 Legislation, Standards and Codes of Practice

Legislation, Standards and Codes of Practice referenced by this Procedure are shown in Table 2 below.

Table 8: Legislation, Standards and Codes of Practice

Reference	Title
AS1319:1994	Safety signs for the occupational environment
SL 2022/31	Work Health and Safety (General) Regulations 2022
Act No: 036 of 2020	Work Health and Safety Act 2020

10.2 Southern Ports Documents

Southern Ports documents referenced in this Procedure are shown in Table 3 below.

Table 9: Southern Ports Documents

Reference	Title
D23/2427	Authority to Work
D23/6142	Authority to Work and Permits Procedure
D16/695	Isolation and Tagging Procedure - Esperance
D16/1002	Personal Protective Equipment Procedure
D16/1038	Removal and Reinstatement of Walkway Flooring and Hand Railing Permit
D19/12256	Risk Assessment Procedure
D18/11692	Risk Management Framework
D19/6768	Scaffolding Permit
D17/3943	Scaffolding Procedure
D16/900	Work at Height Permit
D20/7758	Work at Height Procedure
D18/24902	Work Health and Safety Management Plan
D16/26	Work On, Over or Near Water Procedure
D16/1023	Workbox Permit
D16/26	Work On, Over or Near Water Procedure
D18/23795	Working On or Over Rail Procedure

Barricading, Guarding and Signage Procedure

11 TERMS AND DEFINITIONS

Terms used in this Procedure are defined in Table 4 below.

Table 10: Terms and Definitions

Term	Definition
Barricade / Barrier	A temporary material, device or systems consisting of either hard or soft materials designed to restrict or control access to a work area where there is a hazard that has the potential to result in injury to personnel or damage to plant.
Caution	Areas that contains hazard/risk that workers need to be made aware of, but are safe to work under controlled conditions.
Danger	Areas that contains a significant hazard/risk of an imminent harm to workers
Drop Zone	An area where there is the potential for tools, materials or equipment to fall or be dropped from one level to another. Where cranes (including earthmoving equipment used as cranes) are in use, the drop zone shall include the working slew working area/zone of the equipment plus the shadow of the load. When determining the size of a drop zone area consideration should be taken into the height of the task, size of the tools and equipment and potential for objects to bounce
Exclusive Control / Commissioning zones	Exclusive control / commissioning zones delineate an area which contains an increased risk to people who are not directly involved in the task being performed, and where the specified work group require complete control over access to the area.
Guard	A physical barrier including cage, guarding or screen that prevents or reduces possible access to a hazardous points or areas associated with plant or equipment.
Hard Barricade	A physical barrier constructed from scaffold tube, water filled barrier, mesh fence or other solid materials which excludes access to a hazardous area.
Risk Assessment	A Risk Assessment is made to identify hazards and controls to minimise risk to safety, health, environment and community. It may be made as part of an Operational Risk Assessment, Safe Work Instruction, Job Hazard Analysis, Stop and Think, or a combination of the above.
Safe System of Work	A Safe System of Work comprises four elements: Planning, Equipment, Change and People. The four elements are interrelated or integrated and dependent upon each other to ensure that a safe system is maintained at the workplace.
Shadow of load	The area within which an object dropped from height may land, this is calculated by determining the weight, dimension, wind factor and air resistance to determine a deflection from centre of the load.
Shall and Should	In this document, the word "shall" is to be understood as mandatory and the word "should" as recommended but non-mandatory.
Sign	An inscribed board, plaque or other delineated space on which a combination of legible writing and symbols is used to convey a message.
Slew Zone	The area that a boom of a crane will travel to move the load it is carrying.
Snap Back Zones	Snap-back is defined as the sudden release of static energy stored in the taught line when it breaks. This release of the kinetic energy causes the mooring line to "snap back" and travel in a path from the point of failure to the point of restraint.
Soft Barricades	Temporary delineation tape, bunting, traffic cones or bollards used to warn of a hazard in a work area.

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Table 10: Terms and Definitions

Term	Definition
Spotter	A competent person assigned to observe and warn machine operators and other personnel about potential hazards, particularly when there are blind spots or areas where visibility is limited.
Worker	All personnel working at Southern Ports including employees, contractors, sub-contractors, clients, port users and visitors.
Workplace	An area, such as a ship, vehicle, building or other structure, that workers are likely to work in or occupy.