



IGO GROUP SAFETY STANDARD 7 – BARRICADES, BARRIERS & SAFETY SIGNAGE

INDEPENDENCE GROUP NL





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1 PURPOSE

The purpose of this Standard is to define IGO's requirements for Barricades, Barriers and Safety Signage.

2 APPLICATION

This Standard applies to all 'Operational Areas' and all persons working in Operational Areas (refer to **IGO Group Safety Standard 36 - Operational Areas of Management Responsibility**).

Barricades, Barriers and Safety Signage are to be used in IGO Operational areas for the purpose of physically preventing access to hazardous areas, or demarking areas containing hazards.

It is expected that all personnel working in Operational Areas are familiar with this standard.

3 DEFINITIONS

Barricade – a barricade is a physical device to prevent access to an area. Barricades include fences, railing, walls, and bunding.

Barrier – a barrier is a device to demark an area containing a hazard. Barriers include demarcation tape, chains, cones or bollards. Unlike barricades, barriers are intended to provide a warning and so prevent unintended or accidental access to an area.

Job Supervisor - means any person, irrespective of position title, who assumes or is assigned responsibility for the direct supervision of a work team.

Work Area Owner – is the manager or superintendent who is responsible for the normal day to day management of a physical area or part of a IGO site or project. The Work Area Owner must be familiar with the various activities occurring in their area.

4 LEGISLATIVE REQUIREMENTS

IGO must ensure that every dangerous part of fixed plant is, as far as practicable, securely fenced or guarded. The term 'as far as practicable' covers situations in which it would not be practicable to completely guard all dangerous parts. For further information on our statutory obligations refer to the WA Mines Safety and Inspection Regulations (regs 4.4(3) and 6.2). For information on other jurisdictions, please contact IGO corporate office.

5 SELECTING BARRICADES, BARRIERS AND SIGNAGE

Where a person could potentially be exposed to a hazard, IGO is obliged to consider both the specific statutory requirements for barricades, and those that might reasonably be identified through risk assessment.

The selection of barricades, barriers and or signage shall be determined following the completion of a risk assessment and the determination of Risk Category posed by the hazard (refer to the **IGO Common Management System Standard 3 – Risk Management**).

Assessed 'Risk Category'	Requirements
Catastrophic risk (20 to 25)	A Barricade is mandatory and must be fitted with permanent fixed signage.
Major risk (16 to 19)	A barricade is mandatory where a permanent solution is required. Permanent fixed signage is mandatory where the hazard is permanent. A barrier is acceptable (and is the mandatory minimum requirement) where a temporary solution is required.
Moderate risk	A barrier is the mandatory minimum requirement. Temporary signage is recommended.
Minor risk	No requirement
Very low risk	No requirement

Note: Guidance on identifying fixed plant hazards requiring guarding is provided in Code of practice safeguarding of machinery and plant, 2009, MIAC.

https://www.commerce.wa.gov.au/sites/default/files/atoms/files/safeguarding_of_machinery_and_plant.pdf

6 INSTALLATION AND REMOVAL

Where work is to be performed requiring the installation of barricading or barriers, that work shall not commence until the installation has been effected and approved by competent and authorised competent personnel.

Barricades and barriers (and associated signage) shall be removed only when an authorised competent person has assessed the completion of the works or assessed that an identified hazard no longer exists.

Barricades and barriers must always be installed in such a way as to minimise the possibility of accidental entry into the area containing the hazard.

7 IGO REQUIREMENTS FOR BARICADES

Barricades are installed to restrict or prevent access to an area containing a hazard. In general, barricades must be erected and maintained where there is risk of a person falling, being entangled, being struck by falling objects, or where there is risk of injury from equipment, processes or area hazards.

IGO requires that all barricades on plant conform to:

- AS 4024.1601—2006, Safety of machinery. Part 1601: Design of controls, interlocks and guarding—Guards— General requirements for the design and construction of fixed and movable guards, and
- the process specified in the 'Code of practice safeguarding of machinery and plant', 2009, MIAC.

Barricades to prevent access to areas other than plant may include but are not limited to the following:

- approved free standing structures (e.g. post and rail assemblies continuously surrounding an excavation, water filled barricade structures).
- steel/concrete bollards permanently set in the ground .
- barricade meshing retained through an approved free-standing or attached structure.
- earth constructions (e.g. windrows, stop logs) installed/constructed to physically prevent access of vehicles to a hazard area (e.g. open edge, tipping point). The construction shall be a minimum height equal to half the wheel height of the largest vehicle travelling adjacent to it.
- other physical and continuous “hard” protection methods assessed and approved by a competent and authorised person as being able to prevent persons from entering a hazardous or restricted area.

Barricades must:

- be of sufficient strength and integrity to prevent accidental access. Where access points are installed in the barricading, the access points shall provide the same protection/access restriction as the barricade.
- be positioned so as to be clearly visible and provide early warning prior to the hazard area.
- have affixed signage (see signage section), and as appropriate, display information on how to obtain authorisation to access the affected area (if permitted).

7.1 Safety Bunds on Haul Roads

Refer to *IGO Group Safety Standard 8 - Traffic Management Planning*.

8 IGO REQUIREMENTS FOR BARRIERS

In general, barriers are only to be used as a temporary solution where barricading is impractical. A barrier is installed to delineate the hazardous area, and does not physically restrict access. As such a barrier must be accompanied by adequate signage or other form of communication to manage access to the delineated area.

Barriers may include the following:

- a) demarcation tapes (e.g. ‘Danger’ and ‘Caution’ tapes)
- b) cones and bollards (colour coded to aid in hazard identification and access protocols)
- c) steel chains
- d) plastic fencing mesh and plastic chains

Barriers must always have a completed tag affixed to the barrier.

8.1 DEMARCATION TAPES

Installation Requirements

All demarcation tapes shall be installed such that they:

- a) Are securely fastened to prevent inadvertent dislodgement

- b) Are clearly visible and provide early warning prior to the hazard area
- c) Are installed at all access points to the hazard area approximately 1m above ground level
- d) Have an information tag (ie a caution or danger tag) attached to the tape providing information on the potential hazard and informing personnel of the exposure risk (see Section 9).

Demarcation tapes may be used in conjunction with other forms of barriers (e.g. strung between cones or bollards or festooned along barrier chains).

Approved Types Of Demarcation Tapes

Danger Tape (Red & White Tape)

Danger Tape (Red and White Tape or equivalent¹) is used to delineate the boundary of an area containing a hazard which has the potential to cause injury or fatality. Danger Tape shall only be installed as a first response control measure or when installing a barricade is impractical. Wherever possible a barricade should be used in preference to Danger Tape.

Danger Tape shall always be fitted with a completed Danger Tag and other signage as appropriate.

In circumstance where the hazard persists for more than seven days, then;

- a barricade must be installed, or
- the responsible area supervisor must assume responsibility for checking the ongoing integrity of the danger tape.

Note: Access past danger tape is never permitted by anyone or any reason.

Caution Tape (Black & Yellow Tape)

Caution Tape shall be installed to delineate boundaries containing a hazard where entry is permitted but caution must be maintained at all times.

Caution Tape shall always be fitted with a completed Caution Tag.

In circumstance where the hazard persists for more than seven days, then;

- the responsible area supervisor must assume responsibility for checking the ongoing integrity of the caution tape, or
- a barricade must be installed.

Access past caution tape shall not be permitted until the Caution Tag has been read, the hazard for which the tape was erected is understood, and only then if it assessed as safe to proceed with caution.

Note: In some instances the Caution Tag may specify that the person wishing to enter into a demarked area must first contact and seek consent from the responsible Work Area Owner.

Demarcation Tape - Housekeeping

All demarcation tape and tags must be disposed of correctly in the appropriate waste disposal bin when

¹ Refer to AS1318-1985 Use of Colour for the Marking of Physical Hazards and the Identification of Certain Equipment in Industry (SAA Industrial safety colour code)

finished with or stored so as to avoid confusion and minimize the risk of fire or creating another type of hazard such as a trip hazard or environmental hazard.

8.2 ALTERNATES TO DEMARCATION TAPES

Cones & Bollards

Uniquely coloured cones and bollards may be used to demark an area containing a hazard as a substitute for Caution Tape. Cones and bollards must always be accompanied by signage that includes the contact details of the person responsible for the area.

In circumstance where the hazard persists for more than seven days, then;

- the responsible area supervisor must assume responsibility for checking the ongoing integrity of the cone demarked area, or
- a barricade must be installed.

A safe work procedure must be developed and communicated for the use of cones and bollards.

Note: Cones and Bollards should never be used to delineate the boundary of an area containing a hazard with the potential to cause injury or fatality.

Chains

Galvenised steel chains may be used to demark an area containing a hazard as a substitute for Danger Tape or Caution Tape. All barrier chains must be accompanied by signage including the contact details of the person responsible for the area (see Section 10).

A safe work procedure must be developed and communicated for the use of barrier chains.

Note: In circumstances approved by site Management, barrier chains may be used as a permanent barrier.

Note: Where chains are used to delineate the boundary of an area containing a hazard with the potential to cause injury or fatality, the hazard must be clearly sign posted.

Plastic Fencing Mesh & Plastic Chains

Plastic Fencing Mesh and Plastic Chains may be used to demark an area containing a hazard as a substitute for Danger Tape or Caution Tape. All plastic mesh fences and chains must be accompanied by signage including the contact details of the person responsible for the area.

In circumstance where the hazard persists for more than 4 weeks, then;

- the responsible area supervisor must assume responsibility for checking the ongoing integrity of the plastic mesh fencing, or chain or
- a barricade must be installed.

A safe work procedure must be developed and communicated for the use of plastic mesh fences and plastic chains.

9 TAGS

At IGO, two types of tags are used to accompany barriers; Danger Tags and

Uncontrolled document when Printed



Caution Tags².

Danger 'Do Not Enter' Tag

All Danger 'Do Not Enter' Tags must contain the standard black, red and white danger logo.

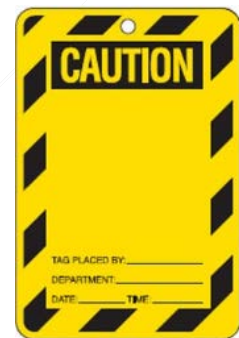
A properly completed tag must contain the name of the Work Area Owner and the contact telephone number or radio channel.

Caution Tag

All Caution Tags must be Yellow and Black.

A properly completed tag must contain:

- a description of the Hazard
- the name of the person placing the tag
- a note on any restrictions on entry, and the contact telephone number or radio channel of the Work Area Owner.



General

Tags must be attached in sufficient numbers to ensure their visibility.

Tags shall provide the area supervisors name and phone number.

Where appropriate, tags shall be accompanied with signage specifying the hazard e.g. 'Danger no access - persons working above'.

10 'No Unauthorised Entry' signage

Barricades and Galvenised steel chains must always be accompanied by permanent signage. In circumstances where access is permitted subject to authorisation, a 'No Unauthorised Entry' sign must be affixed to the barricade access or steel barrier chain.

The 'No Unauthorised Entry' sign must state who is responsible for authorising entry. In the underground environment, the default responsibility rests with the Shiftboss (Shift Supervisor).

11 'No Entry' signage

Barricades and Galvenised steel chains must always be accompanied by permanent signage. In circumstances where access is not authorized, a 'No Entry' sign must be affixed to the barricade access or steel barrier chain. Nobody is permitted to pass through a No Entry in any circumstance.

12 SIGNS & COLOUR SCHEMES

12.1 Sign Design and Placement

Where applicable safety signs shall be standardised in colour, shape, size, lettering, symbols and content

² The pictures of Danger and Caution tags presented above are illustrative of the general formats of tags to be used and do not constitute a design prescription.

in accordance with AS 1319 Safety Signs for the Occupational Environment.

Road signs and control devices shall at a minimum comply with AS1742.

Machinery signs and control devices shall at a minimum comply with AS4024.

Specific colours will be used for the marking of physical hazards and equipment used in connection with accident prevention, as per Plant Demarcation Colour Codes YHSS061b and Australian Standard AS 1318—1985 (SAA Industrial Safety Colour Code).

12.2 Maintenance

Arrangements shall be made for the periodic audit and review of signage so as to ensure that all operation areas have signage that:

- meets legal requirements and current standards
- is effective and suitable for the intended purpose
- is located in the best location and within an appropriate distance from hazards
- is visible, well lighted and away from clutter or obstructions
- is not excessively overused

Arrangements shall be made for:

- the removal of redundant or otherwise unnecessary signage
- cleaning and replacement of signage as required

13 TRAINING

All employees and persons working in IGO Operational Areas must complete a site induction that contains information on barricades, barriers, signs and work area demarcation.

14 RESPONSIBILITIES

Group	Responsibility
All employees working in IGO Operational Areas	Must understand what the presence of a barricade or barrier means. Must conform to the requirements of this standard and site specific rules.
Job Supervisor	Where a job poses a hazard associated with accidental or inadvertent access, it is the responsibility of the Job Supervisor to ensure that the area affected by the job is demarked (either by a barrier or barricade).
Persons installing and or removing barricades and barriers	In general, everyone is authorised to install danger and caution tape in accord with this guide, given the need to immediately demark a hazard. Barricades and other barriers shall only be installed and removed by

	an authorised competent person.
Work Area Owners	Must ensure the barricades and barriers are maintained in their work areas, and that they remain fit for purpose. This includes both tags and signage.
Site Management	Site management must ensure a safe place of work is provided. Without limiting the general application of this standard, the specific processes for authorisation, installation, recording, access and removal protocols for barricades and barriers (including signage) on all IGO site's shall remain the responsibility of site management.