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1. OBJECTIVE

To provide details on RMIT's duties when guarding is used to control the risks associated with plant.

2. BACKGROUND

General requirements when using guarding as a risk control for risks associated with plant is prescribed in the *Occupational Health and Safety Regulations 2017 (VIC)*, (the *Regulations*).

3. SCOPE

This guideline applies to RMIT globally.

NOTE – for the purposes of this document, the term **plant** applies to both plant and equipment.

NOTE – Referenced legislation applies to Australian jurisdictions only. RMIT campuses in other jurisdiction must refer to local applicable legislation, where available.

4. WHAT MUST GO RIGHT?

The 'What must go right?' principles applicable to this guideline are:

- Those who have control over plant understand the duties that they must comply with when using guarding as a form of risk control associated with that plant
- The hierarchy of guarding is considered when using guarding as a form of controlling the risks associated with plant
- Safe systems of work and learning are developed, documented and implemented to ensure that guarding is effective, and its effectiveness is maintained
- Induction, instruction, training and supervision is provided to those who use plant and the guarding utilised to control associated risks

5. PROCEDURE / IMPLEMENTATION

5.1. Guarding as a Plant Risk Control

When guarding is used as a form of controlling the risks associated with plant, there are further specific duties that RMIT must comply with.

Operational Leaders must ensure that the guarding designed for that purpose will prevent access to the danger area of the plant (so far as reasonably practicable).

Guarding is a physical or other barrier that can perform several functions including:

- preventing contact with moving parts or controlling access to dangerous areas of plant
- screening harmful emissions such as radiation
- reducing noise through the application of sound-absorbing materials
- preventing ejected parts or off-cuts from striking people.

Guarding used as a risk control must be difficult to bypass or disable, whether deliberately or by accident, and does not create a risk in itself.

If guarding is used as a risk control in relation to plant that contains moving parts that may break or cause work pieces to be ejected from the plant, the guarding must control the risks in relation to those broken and ejected parts or workpieces (so far as reasonably practicable).

Any guarding used as a risk control associated with plant may be of a type that is able to be removed to allow convenient repair, servicing, maintenance and cleaning of the plant when it is not in normal operation.

It is expected that all purchased plant is fitted with appropriate guarding and interlocking; however sometimes additional guarding and interlocking is required as a result of a risk assessment. For newly procured plant, the manufacturer should be requested to make any required modifications. The integrity and effectiveness of machine guards and interlocks must be maintained by setting up and implementing inspection, testing and maintenance schedules. This includes pre-start inspections and periodic inspections, testing and maintenance as required.

These requirements apply also to plant designed and made by RMIT staff, students or researchers.

5.1.1. [Guarding Hierarchy](#)

There are numerous types of guarding systems available to guard dangerous parts of plant to prevent access by any person or body part. Operational Leaders must consider these types of guarding in a priority order, or guarding 'hierarchy of control'

Where guarding is used RMIT must ensure that:

- if access to the area of the plant requiring guarding is not necessary during operation, maintenance or cleaning of the plant, the guarding is a **permanently fixed physical barrier**.
- if access to the area of the plant requiring guarding is necessary during operation, maintenance or cleaning of the plant, the guarding is an **interlocked physical barrier** that allows access to the area being guarded at times when that area does not present a risk and prevents access to that area at any other time.
- if it is not reasonably practicable to use guarding referred to above, the guarding used is a **physical barrier that can only be altered or removed by the use of tools**.
- if it is not reasonably practicable to use guarding referred to above, a **presence sensing safeguarding system** is used that eliminates any risk arising from the area of the plant requiring guarding while a person or any part of a person is in the area being guarded.

As Operational Leaders and stakeholders assess the practicability of guarding and the hierarchy of control, they also need to consider what other risk controls may be needed in conjunction with the guarding to prevent access to the danger points or areas of the plant (e.g. systems of work/learning, training, supervision).

5.1.2. [Environmental Factors](#)

When using a guard, stakeholders need to consider the environment in which it will be used. Some examples of poor guarding selection include:

- guards on high frequency welders that become electrically charged
- heating of guards in hot processes
- wire mesh guards on machines emitting splashes

If a guard is likely to be exposed to corrosion, Operational Leaders and stakeholders need to consider corrosion-resistant materials or surface coatings.

5.1.3. [Colour Coding](#)

Employers should consider the safety benefits of a colour coding system. For example:

- use high visibility yellow, provided it is different to the plant's colour, so that it can be clearly seen when a guard has been removed or when it is not in its proper place

- paint the surfaces behind the guard a contrasting or bright colour so that when the guard is removed, the exposed colour is clearly visible and it is easy to identify that the guard has been removed, alerting people to possible danger

5.1.4. Removal of Guarding

If any type of guarding is removed for the purpose of maintenance or cleaning, it must be replaced before the plant is put back into normal operation. The plant must not be able to restart unless the guarding is in place. When removing guarding, eliminate the energy source by disconnecting the power supply, locking off power/energy sources and de-energising the plant.

Further details on guarding requirements under the **Regulations** is available in the WorkSafe Vic **Compliance Code "Plant"** publication.

6. Responsibilities

6.1. Senior Leaders

- Ensure there are resources available to implement this process in their area of control
- Ensure mechanisms are in place for effective and meaningful consultation regarding matters relating to this process.
- Ensure staff, students, researchers and third parties are provided with necessary information, instruction, supervision and training relating to this process.
- Review applicable performance indicators to this process on a regular basis

6.2. Operational Leaders

- Ensure resourcing is available within their area of responsibility to implement this process and associated adequate safe systems of work and learning.
- Ensure and participate in effective and meaningful consultation and communication regarding matters relating to this process.
- Maintain records related to plant hazard identification, risk assessment and risk control at relevant points in the plant lifecycle and when training has been conducted
- Ensure requirements for guarding of plant are communicated to all staff, students, researchers and third parties
- Monitor and review implemented guarding used as a risk control for plant
- Monitor compliance with this process and report on outcome

6.3. HSW Team

- Regularly review this process in consultation with relevant stakeholders and operational leaders.
- Develop and report on KPIs relevant to this process
- Monitor compliance with this process and report on outcomes

6.4. Staff, Students, Researchers and Third Parties

- Take reasonable care when using plant to ensure their own health and safety, and that of others, is not adversely affected.
- Ensure plant is used only when required guarding is in place and effective as designed.
- Must never disable, tamper with, by-pass or remove guarding during normal operation of plant
- Undertake relevant plant instruction, induction and/or training
- Report any plant with missing, malfunctioning or non-operating guarding

- Follow this process and all reasonable instructions relating to plant and associated guarding
- Comply with measures implemented to control risk associated with plant, including use of guarding.

6.5. Visitors

- Comply with the requirements of induction
- Take reasonable care for their own health and safety
- Comply with all safety rules and instruction

7. Definitions

Defines any key terms and acronyms relating to the process where they apply

Term / acronym	Definition
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8. Supporting Documents

Lists the supporting and related Processes and Guidance Material, Legislative references, Australian and International Standards etc. that may be useful references for process users

- HR - HSW-PR04 – HSW Records Management
- HR - HSW-PR07 - Consultation and Communication
- HR - HSW-PR06 - Training, Competency and Awareness
- HR - HSW-PR09 - HSW Risk Management
- HR - HSW-PR09-TM03 - Safe Work Instruction Template
- HR - HSW-PR11 - Management of HSW Change
- HR - HSW-PR14 - Safety in Design
- HR - HSW-PR36 - High Risk Work
- HR – HSW-PR37 – Plant and Equipment Safety
- HR – HSW-PR37-WI01 – Plant Inspection, Maintenance & Records
- HR - HSW-PR37-TM01 - Plant and Equipment Register Template
- HR - HSW-PR37-TM02 – HSW Plant & Equipment Risk Assessment Template
- HR – HSW-PR46 – Laser Safety Guidelines
- HR - HSW-PR52 - Lock Out & Tag Out
- Occupational Health and Safety Act 2004 (VIC)
- Occupational Health and Safety Regulations 2017 (VIC)
- Compliance code – Plant – Edition 2, December 2019 (VIC)