

Title	Manage hazard identification and control on plant and machinery		
Level	4	Credits	4

Purpose	People credited with this unit standard are able to describe hazards associated with plant and machinery in the workplace; legislative requirements for machinery and plant hazard control; methods of controlling machine hazards with specific reference to types of machine guards and their application; and to identify hazards on a selected item of site plant or machinery; and to develop plant or machinery hazard management plans.
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Classification	Occupational Health and Safety > Occupational Health and Safety Practice
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Available grade	Achieved
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Guidance Information

- 1 Recommended entry unit: 30265, *Apply health and safety risk assessment to a job role*.
- 2 Definitions
Industry practice refers to accepted procedures, whether documented or not, used by an industry or industry sector in relation to the evidence requirements specified in this unit standard.
Organisational requirements refer to instructions to staff on policy and procedures which are documented in memo or manual format and are available in the workplace. These requirements may include but are not limited to – site specific requirements, company quality management requirements, approved codes of practice and guidelines, and legislative requirements.
Manage refers to leading, coordinating, facilitating, and supporting the safety management processes in a specific workplace. This may involve working as part of a larger team and as a subordinate to other staff in an organisation that may have established safety policies in place.
- 3 Legislative requirements include but are not limited to –
 Health and Safety at Work Act 2015 (HSWA);
Guidelines for Guarding Principles and General Safety for Machinery, Wellington: Occupational Safety and Health Service of the Department of Labour (now WorkSafe New Zealand), 1996, available at <https://worksafe.govt.nz>;
The Ergonomics of Machine Guarding, Wellington: Ministry of Business, Innovation and Employment, 2013, available at <https://worksafe.govt.nz>;
 AS/NZS 4024.1:2014, *Safety of machinery series*, available from <https://www.standards.govt.nz/>;
 and any subsequent amendments and replacements.

Outcomes and performance criteria

Outcome 1

Describe hazards associated with plant and machinery in the workplace.

Range hazards include potential harm to – people, the environment, product quality, property.

Performance criteria

1.1 Potential sources of harm to people are described with reference to identified plant and machinery hazards.

Range effects include but are not limited to – injury, health effects, quality of life;
causes include but are not limited to – trapping points, entanglement, friction and cutting hazards.

1.2 Machinery and plant hazards are identified and described according to organisational requirements.

Range transmission machinery, plant.

Outcome 2

Describe legislative requirements for machinery and plant hazard control.

Performance criteria

2.1 The hierarchy of hazard control is described in terms of the HSWA.

Range eliminate, isolate, minimise.

2.2 Duties in relation to managing particular hazards are described.

Range duties include but are not limited to – those described in the HSWA Regulations and their subsequent amendments, and occupational safety and health publications.

Outcome 3

Describe methods of controlling machine hazards with specific reference to types of machine guards and their application.

Performance criteria

- 3.1 Describe different types of machine guards and situations in which they may be utilised.
- Range may include but is not limited to – fixed guards, interlocked guards, safe by position, trip guards, photoelectric safety devices, automatic push away guards, two handed control, pressure sensitive mats.
- 3.2 Explain ergonomic reach data in relation to providing distance guards for preventing access to dangerous areas of plant or machinery in accordance with *The Ergonomics of Machine Guarding*, and AS/NZS 4024.1:2014.
- Range reach data includes but is not limited to – reaching up, down and over, in and through.

Outcome 4

Identify hazards on a selected item of site plant or machinery.

Range industry practice, organisational requirements.

Performance criteria

- 4.1 Machinery or plant hazards are identified and described according to organisational requirements.
- Range hazards include but are not limited to – mechanical, electrical, environmental and health; methods include but are not limited to – identification by area, task or process analysis, accident/incident investigation, hazard notification procedures, Material Safety Data Sheets (MSDS).
- 4.2 Machinery or plant hazards are assessed for significance in accordance with organisational requirements.

Outcome 5

Develop plant or machinery hazard management plans.

Performance criteria

- 5.1 Means to manage hazards identified on an item of site plant or machinery are documented according to organisational requirements.
- Range engineering intervention, process changes, training, personal protective equipment.

5.2 Hazard management options are evaluated.

Range may include but is not limited to – organisational requirements, ergonomic principles, cost/benefit, ease and likelihood of achieving the desired outcome.

5.3 People who can carry out the determined hazard management action are identified.

Range may include but is not limited to – maintenance staff (fitters/electricians), manager, systems programmers.

5.4 The effectiveness of hazard management plans is monitored and changes to organisation documents are made where required.

Range may include but is not limited to – Standard Operating Procedures, Hazard Register, training records, organisational requirements.

Planned review date	31 December 2022
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	31 July 2001	N/A
Revision	2	28 August 2001	N/A
Revision	3	16 May 2005	N/A
Review	4	25 May 2007	N/A
Rollover and Revision	5	22 May 2014	N/A
Rollover and Revision	6	22 August 2019	N/A
Rollover and Revision	7	25 March 2021	N/A

Consent and Moderation Requirements (CMR) reference	0121
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact The Skills Organisation reviewcomments@skills.org.nz if you wish to suggest changes to the content of this unit standard.