40532 Reduce types of waste within workplace processes or practices

Kaupae | Level	3
Whiwhinga | Credit	5
Whāinga | Purpose	This skill standard is for people who want to learn how to reduce types of waste within workplace processes or practices. This skill standard may be used in programmes leading to qualifications and micro-credentials at Level 3 and above, including the New Zealand Certificate in Operational Excellence (Competitive Systems and Practices) Level 3 [Ref: 5250] and Level 4 [Ref: 5251].

Hua o te ako me Paearu aromatawai \| Learning outcomes and assessment criteria

Hua o te ako | Learning outcomes ***You will be able to:***	**Paearu aromatawai** | Assessment criteria ***Measure:***
1. Reduce types of waste within workplace processes or practices.	a. List and define types of waste
	b. Identify value and non-value-added activities within a process or practice.
	c. Explain the negative impact of the identified waste on the process or practice.
	d. Reduce or eliminate the identified waste within process or practice in the workplace.
	e. Assess the impact of reducing or eliminating the waste from the process or practice.

Pārongo aromatawai me te taumata paearu \| Assessment information and grade criteria

Assessment specifications:

Assessment evidence can be from a work-based or classroom simulated environment.

Evidence must be provided of:

- Seven different types of waste listed and defined.
- Three wastes that have been reduced or eliminated.

Assessment methods may include:

- Collection of evidence of theoretical knowledge and understanding. Examples include written assessments, workbooks or oral questions.
- Collection of evidence of practical skills. Examples include observation, video, work samples and other evidence such as photographs, recordings and attestations.

Definitions:

Practice refers to the habits, routines, and standard operating procedures (SOPs) that personnel follow consistently to maintain quality and compliance processes. These practices ensure that the work environment meets industry good practice guidelines.

Process refers to specific procedures to be followed made up of a series of structured actions or steps taken to transform raw materials into a finished product or deliver a service. This includes specific procedures, equipment, information, communications and operations designed to ensure consistency and quality.

Non-value added refers to activities and processes or actions that take time, resources, or space but do not enhance the product or service from the customer's standpoint. Often referred to as "waste," these activities should be reduced or eliminated to streamline operations and reduce costs. Can include compliance activities that need to be performed but don't add value e.g. government or market requirements.

Types of waste refers to waste concepts and methodologies – also known as lean manufacturing. These are processes and practices in the workplace that improve productivity.

Value-added refers to any action, process or step that increases the value of the product or service in the eyes of the customer. These are activities that customers are willing to pay for as they directly contribute to the final product or service meeting or exceeding customer expectations.

Workplace refers to any place where individuals carry out work, including unpaid roles within non-profit organisations and community groups.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

Waste concepts and methodologies such as:

- Lean manufacturing, agile operations, preventative and predictive maintenance approaches.
- Monitoring and data gathering systems, such as Systems Control And Data Acquisition (SCADA) software, Enterprise Resource Planning (ERP) systems, Materials Resource Planning (MRP) and proprietary systems.
- Statistical process control systems, including six sigma and three sigma, Just in Time (JIT), kanban and other pull-related operations control systems.
- Supply, value, and demand chain monitoring and analysis, 5S, continuous improvement (kaizen), breakthrough improvement (kaizen blitz), cause/effect diagrams, overall equipment effectiveness (OEE), process mapping, problem-solving, run charts, standard procedures, current reality tree.
- DOWNTIME: Defects, Overproduction, Waiting, Non-Utilized Resources, Transportation, Inventory, Motion, and Excessive Processing.
- TIMWOODS: Transport, Inventory, Motion, Waiting, Over-processing, Over-production, Defects, and Skills.

- 5S: Sort, Set in Order, Shine, Standardise, and Sustain.
- WORMPIIT: W - Waiting: Delays in the production or service process. O - Overproduction: Producing items earlier or more than demand. R - Rework/Defects: Work that needs to be corrected or redone. M - Motion: Movements that do not add value. P - Processing (Overprocessing): Excessive processing steps. I - Inventory: Excess inventory that ties up resources. I - Intellect: Not using or wasting the skills and capabilities of employees. T - Transportation: Unnecessary movement of products or materials.
- MUDA (unnecessary actions/7 wastes Toyota Production System), MURA (variability/inconsistency), MURI (excessiveness/overburden).

Rauemi | Resources

Legislation, regulations and/or industry standards relevant to this skill standard include but are not limited to:

Health and Safety at Work Act 2015.

Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this skill standard will take precedence for assessment purposes, pending review of this skill standard.

Legislation can be accessed at: https://www.legislation.govt.nz.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa | Standard Setting Body	Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai | DASS classification	Manufacturing > Manufacturing Skills > Competitive Systems and Practices
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga | CMR	0013

Hātepe | Process	**Putanga** | Version	**Rā whakaputa** | Review Date	**Rā whakamutunga mō te aromatawai** | Last date for assessment
Rēhitatanga | Registration	1	27 March 2025	N/A
Kōrero whakakapinga | Replacement information	N/A		
Rā arotake | Planned review date	31 December 2029		

Please contact Hanga-Aro-Rau Manufacturing, Engineering, and Logistics Workforce Development Council qualifications@hangaarorau.nz to suggest changes to the content of this skill standard.