

## 40615 Identify and sort materials for recycling or re-use

<b>Kaupae   Level</b>	2
<b>Whiwhinga   Credit</b>	10
<b>Whāinga   Purpose</b>	<p>This skill standard is intended for people who are new to the resource recovery industry or people who are already working in a resource recovery environment including resource recovery facilities, construction, demolition or manufacturing worksites. People credited with this skill standard will be able to identify and sort materials for recycling or re-use and meet quality and safety requirements.</p> <p>This skill standard aligns with the New Zealand Certificate in Resource Recovery (Level 2) [Ref: 2743] and may be used in programmes leading to qualifications and micro-credentials at Level 2 and above in other disciplines.</p>
<b>Whakaakoranga me mātua oti   Pre-requisites</b>	Learners/ākonga must have completed a workplace health and safety induction or demonstrate equivalent knowledge and skills.

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

<b>Hua o te ako   Learning outcomes</b>	<b>Paearu aromatawai   Assessment criteria</b>
1. Identify different waste streams and materials in a resource recovery environment.	a. Identify different waste streams in a resource recovery environment.
	b. Identify different types of materials suitable for recycling or re-use.
	c. Identify organisations and locations which receive materials for recycling or re-use.
2. Identify the properties of materials and their potential for recycling or re-use.	a. Identify the relevant properties of materials in recycling or re-use streams in the workplace.
	b. Identify the uses for different materials.
	c. Identify recycling applications for different materials.

Hua o te ako   Learning outcomes	Paearu aromatawai   Assessment criteria
3. Identify hazards and risks, and apply risk controls to eliminate or minimise risks in a resource recovery environment.	a. Identify and describe the risk control hierarchy.
	b. Identify the hazards and risks of equipment for sorting in the workplace.
	c. Apply risk control measures to eliminate or minimise risks in own role.
4. Identify, sort and store non-hazardous materials safely for recycling or re-use.	a. Identify and sort materials for recycling or re-use to meet quality requirements.
	b. Remove contamination from recycling or re-use streams.
	c. Store sorted materials to meet safety and quality requirements.
	d. Document the receipt, condition and storage of materials as required by workplace procedures.
5. Identify and safely isolate hazardous materials in a resource recovery environment.	a. Identify hazardous materials in a resource recovery environment.
	b. Isolate and temporarily store hazardous materials safely, including the separation of classes of hazardous substances.
	c. Document the receipt, condition and storage of hazardous materials as required by workplace procedures.

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

#### Assessment specifications:

- In workplaces where learners/ākonga sort a single material stream, different types of materials can refer to the different types within that material stream, such as glass, fibre, plastic or metal.
- Evidence presented for assessment against this skill standard may include oral, visual, video, written and/or practical activities demonstrated in the workplace.
- Evidence presented for assessment against this skill standard must be consistent with safe working practices and be in accordance with applicable service information, workplace procedures and legislative requirements.

#### Definitions

*Hazardous substances* refer to materials that pose a risk to health, safety, or the environment due to their chemical, physical, or biological properties. These include gas cylinders, oil, paint, glue, thinners, acids, batteries, flammable substances.

*Materials* refer to glass, fibre (paper, cardboard), plastic, metal, rubber tyres, textiles (carpet, wool, clothing), organic materials (food waste, green waste, biosolids, industrial organic waste), e-waste and mixed construction materials (timber, plasterboard, plastic strapping & ties, polystyrene, concrete).

*Recycling* refers to any process by which waste and recyclable materials are transformed or collected for the purpose of being transferred into new products (BRANZ glossary). Recycling is the third step in the waste hierarchy.

*Re-use* refers to repeated use of a product in its original form but not necessarily for the same purpose (BRANZ glossary). Re-use is the second step in the waste hierarchy.

*Relevant properties of materials* refer to the characteristics that determine a material's suitability for recycling or re-use. These properties influence how a material can be processed, its compatibility with existing recovery systems, and its potential for remanufacturing into new products.

*Risk control hierarchy* refers to a system for classifying safety measures. It includes five levels of control measures listed in order of effectiveness.

*Workplace procedures* refer to organisation policies and procedures that are documented in memo, electronic, or manual format and available in the workplace. They may include but are not limited to – standard operating procedures, site specific procedures, site safety procedures, equipment operating procedures, quality assurance procedures, product quality specifications, manufacturer's requirements, references, approved codes of practice, housekeeping standards, environmental considerations, on-site briefings, supervisor's instructions, and procedures to comply with legislative and local body requirements relevant to the resource recovery industry.

## **Ngā momo whiwhinga | Grades available**

Achieved.

## **Ihirangi waitohu | Indicative content**

This section covers topics for multiple waste streams because this skill standard can be applied in a wide range of different resource recovery environments. Where learners work with a single waste stream (such as organic materials), only one topic will apply.

### **Glass**

- Requirements for safe re-use.
- Systems for glass recovery and re-use.
- Glass composition.
- Sorting requirements specific to glass.

### **Plastic**

- Recycling symbols and plastic identification code.
- Types of contamination and methods for removal.
- Sorting requirements specific to plastic.

### **Construction and demolition materials**

- Resource efficiency.
- Safe disposal of residual materials.

- Material specifications and contamination limits.
- Permitted weights of containers and transport requirements for filled containers.
- Sorting requirements specific to construction and demolition materials.

### **Fibre**

- Fibre product classification.
- Fibre sources and collection methods.
- Sorting requirements specific to fibre.

### **Organic materials**

- Feedstocks – bioenergy, composting, vermicomposting, wet and dry anaerobic digestion.
- Sources and collection methods.
- Sorting requirements specific to organic materials.
- Identification of contaminants.

### **Metal**

- Recycling and re-use options for product parts.
- Grading metals.
- Sorting requirements specific to metal.

### **Battery handling**

- Identification of battery types – lead acid, lithium-ion, lithium-metal, nickel-cadmium, nickel-metal hydride, alkaline.
- Segregation and isolation of batteries.
- Risks awareness of battery handling and temporary storage.

### **Rauemi | Resources**

Legislation and guidelines relevant to this skill standard include but are not limited to:

- Hazardous Substances and New Organisms Act 1996.
- Health and Safety at Work Act 2015.
- Resource Management Act 1991.
- Ministry for the Environment. (2023). Te rautaki para | Waste Strategy. Available from: <http://www.mfe.govt.nz>.
- New Zealand Standards. NZS 4454:2005 Composts, soil conditioners and mulches. Available from: <https://www.standards.govt.nz/>.
- Standards Australia. AS 4454:2012 Composts, soil conditioners and mulches (refer appendix P, page 60). Available from: <https://store.standards.org.au/>.
- BRANZ. REBRI reducing building material waste toolbox. Available from: <https://www.branz.co.nz>.

- New Zealand Water and Wastes Association. (2003). Guidelines for the safe application of biosolids to land. Available from: <https://www.waternz.org.nz/>.
- Worksafe New Zealand. (current edition). Safety data sheets in the workplace, quick guide. Available from: <https://www.worksafe.govt.nz/>.
- Worksafe New Zealand. (current edition). Working safely with hazardous substances, practical guide. Available from: <https://www.hazardoussubstances.govt.nz/guide>.

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 Kouna | Quality assurance information

<b>Ngā rōpū whakatau-paerewa  </b> Standard Setting Body	Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council
<b>Whakaritenga Rārangi Paetae Aromatawai  </b> DASS classification	Service Sector> Resource Recovery > Recycling and Recovery
<b>Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga  </b> CMR	0014

<b>Hātepe  </b> Process	<b>Putanga  </b> Version	<b>Rā whakaputa  </b> Review Date	<b>Rā whakamutunga mō te aromatawai  </b> Last date for assessment
<b>Rēhitatanga  </b> Registration	1	24 April 2025	N/A
<b>Kōrero whakakapinga  </b> Replacement information	N/A		
<b>Rā arotake  </b> Planned review date	31 December 2029		

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council at [qualifications@hangaarorau.nz](mailto:qualifications@hangaarorau.nz) if you wish to suggest changes to the content of this skill standard.