

40597 Classify, grade and value ferrous and non-ferrous metals for metal recycling

Kaupae Level	4
Whiwhinga Credit	15
Whāinga Purpose	<p>This skill standard is intended for people who are already working in a resource recovery environment which processes metals for recycling and/or re-use. People credited with this skill standard will be able to classify and grade ferrous and non-ferrous metals and calculate the value of ferrous and non-ferrous metals in a resource recovery environment.</p> <p>This skill standard aligns with the New Zealand Certificate in Resource Recovery (Level 4) with strands in Organic Materials Processing, Recovery and Recycling, and Metal Recycling [Ref: 2745].</p>
Whakaakoranga me mātua oti Pre-requisites	Learners/ākonga must demonstrate competence in workplace health and safety.

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

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Classify and grade ferrous and non-ferrous metals in a resource recovery environment.	a. Classify and grade ferrous metals in accordance with industry standards.
	b. Classify and grade non-ferrous metals and their alloys in accordance with industry standards.
	c. Record metal classifications and grades for purchasing purposes.
2. Value ferrous and non-ferrous metals in a resource recovery environment.	a. Calculate value of ferrous and non-ferrous metals based on established pricing criteria.
	b. Calculate value for any irregular metals not included in established pricing system.

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

Assessment specifications:

Evidence presented against learning outcome 1 must include a minimum of fifty different metal grades and include examples from the following metal groups: aluminium, red metals, stainless steel, lead, zinc, electronic scrap, mixed metal items, and mixed materials.

Where there are low volumes of specific metals received in the workplace, broader metal classifications may be used instead of the in-depth specifications used in the ReMA specifications guide.

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.

It is recommended people hold credits for skill standard 40593, *Process and grade metals in a resource recovery environment* before being assessed against this skill standard.

Definitions

Classify metals refer to the process of identifying and sorting metals into distinct categories according to their base metal type.

Grade metals refer to the evaluation of metal purity, contamination levels and adherence to industry standards to determine its value and appropriate recycling stream or end-use.

ReMA refers to the Recycled Materials Association. This was previously called the Institute of Scrap Recycling Industries (ISRI).

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

Metal classification and grading

- Composition of metals.
- Unique metal characteristics of stainless steel and specialised metals.
- ReMA/ISRI codes and interpretation of specifications.
- Visual and manual inspection of metals to ensure compliance with ReMA specifications.
- Safe metal handling procedures.
- Accurate documentation.

Valuation

- Market trends, pricing and demand.
- Evaluation of metal purity and grade.
- Consideration of processing costs when evaluating purchase price of metals.
- Decision making skills.
- Importing and exporting costs and requirements (if applicable to workplace).
- Use of purchasing software such as ScrapIT.

Rauemi | Resources

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

- Health and Safety at Work Act 2015.
- Secondhand Dealers and Pawnbrokers Act 2004.
- ReMA Specifications Guide. Available from: <https://www.isrispecs.org/>.
- New Zealand Association of Metal Recyclers. Metal grading guidelines. Available from: <https://nzamr.org.nz/>.

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	Service Sector > Resource Recovery > Scrap Metal Recycling
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0014

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 at qualifications@hangaarorau.nz to suggest changes to the content of this skill standard.