

<b>Title</b>	<b>Control a fragmentiser for scrap metal recycling</b>		
<b>Level</b>	<b>5</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	<p>This unit standard is for people working in the scrap metal recycling industry.</p> <p>People credited with this unit standard are able to: prepare a fragmentiser for operation; control and monitor health and safety hazards and adverse effects on the environment associated with operating a fragmentiser; and control the operation of a fragmentiser.</p>
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<b>Classification</b>	Resource Recovery > Scrap Metal Recycling
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 All work practices must comply with:  
Hazardous Substances and New Organisms Act 1996;  
Health and Safety at Work Act 2015;  
Resource Management Act 1991;  
*The New Zealand Waste Strategy: Reducing Harm, Improving Efficiency* 2010  
Ministry for the Environment, available at <http://www.mfe.govt.nz>.
- 2 Hazard controls, safety procedures, and personal protective equipment must be used throughout operations in accordance with company procedures.
- 3 Definitions  
*Company procedures* mean the documented methods for performing work activities and include health and safety, environmental, and quality management requirements. They may refer to manuals, codes of practice, or policy statements.  
*Operating manuals* refer to the plant operating manual and manuals written for specific components or items of plant and equipment that may be published by the manufacturer or the company.

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### Outcomes and performance criteria

#### Outcome 1

Prepare a fragmentiser for operation.

**Performance criteria**

- 1.1 Fragmentiser is inspected for maintenance requirements, and minor adjustments are made in accordance with operating manuals.
- Range safety and first aid equipment, feed conveyor, shredder drum or hammer mill, shredder mill dust extraction and/or water injection system, exhaust stack, electrical instrumentation, hydraulic instrumentation, metering equipment, pneumatic separator, vibrating conveyor, magnetic separator, nonferrous metal separator, sorting controls.
- 1.2 Specialist maintenance requirements are reported in accordance with company procedures.
- 1.3 Control systems are set in accordance with feedstock type, specification requirements, operating manuals, and company procedures.
- 1.4 Prestart procedures are carried out in accordance with operating manuals and company procedures.

**Outcome 2**

Control and monitor health and safety hazards and adverse effects on the environment associated with operating a fragmentiser.

**Performance criteria**

- 2.1 Health and safety hazards are identified, assessed, controlled, and monitored in accordance with company procedures and legislation.
- Range includes but is not limited to – noise, vibration.
- 2.2 Atmospheric emission control systems are operated and monitored in accordance with company procedures, and controlled and documented in accordance with resource consent requirements.
- Range emissions include – wind-blown dust, exhaust dust, exhaust gases, odour, noise; may include – wet scrubber discharge water.
- 2.3 Spillage containment and treatment systems are operated in accordance with company procedures, and are controlled and recorded in accordance with resource consent requirements.
- Range includes but is not limited to – settling ponds, sumps, separators, drainage system, containment system.
- 2.4 Waste products are controlled, disposed of, monitored, and documented in accordance with company procedures and resource consent requirements.

**Outcome 3**

Control the operation of a fragmentiser.

**Performance criteria**

- 3.1 Control ensures that scrap metal is received on feed conveyor in accordance with operating manuals and company procedures.
- Range scrap metal includes but is not limited to – car bodies, mixed scrap, scrap bales; evidence is required of communications with the operator of equipment for feeding conveyor.
- 3.2 Fragmentiser is started up, operated, and shutdown in accordance with operating manuals, company procedures, resource consents, and legislation.
- 3.3 Shredding process and outputs are monitored and adjustments are made in accordance with plant operating manual and company procedures.
- 3.4 Separating, sorting, and storage of shredded products is controlled in accordance with company procedures.
- Range products include but are not limited to – iron, copper, rubber, one selected nonferrous metal, inert materials, mixed nonferrous metals, mixed non-metals.
- 3.5 Control ensures plant maintenance is undertaken in accordance with operating manuals, and company procedures.
- 3.6 Plant inspections, maintenance, and production are documented in accordance with company procedures.
- 3.7 Sampling and testing are completed and recorded in accordance with company procedures and resource consent requirements.

<b>Planned review date</b>	31 December 2023
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	26 January 2007	N/A
Rollover and Revision	2	28 March 2019	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0014
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

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**Comments on this unit standard**

Please contact MITO New Zealand Incorporated [info@mito.org.nz](mailto:info@mito.org.nz) if you wish to suggest changes to the content of this unit standard.