

<b>Title</b>	<b>Analyse an industry process for the implementation of zero waste principles</b>		
<b>Level</b>	<b>5</b>	<b>Credits</b>	<b>35</b>

<b>Purpose</b>	People credited with this unit standard are able to: prepare for a zero waste process analysis; analyse data for opportunities to apply zero waste principles; and report on a zero waste process analysis.
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<b>Classification</b>	Zero Waste > Zero Waste Theory and Practice
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<b>Available grade</b>	Achieved
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## Guidance Information

- References relevant to this unit standard include but are not limited to:  
*The New Zealand Waste Strategy: Reducing Harm, Improving Efficiency* 2010  
Ministry for the Environment, available at <http://www.mfe.govt.nz>; updated information on energy saving for industrial processes on the Energy the energy usage calculator available on the New Zealand Business Council for Sustainable Development website at <http://nzbcscd.org.nz> on the energy efficiency page.
- Definition  
*Company procedures* refer to documented policies, procedures, and methods for the candidate's workplace including but not limited to those relating to health, safety, environment, quality and operations.

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## Outcomes and performance criteria

### Outcome 1

Prepare for a zero waste process analysis.

### Performance criteria

- 1.1 Type of analysis is confirmed with management in accordance with company procedures.  
  

Range	one of – waste minimization analysis, environmental review and audit, life cycle assessment and product improvement analysis, risk reduction analysis, total cost analysis.
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- 1.2 Involvement of personnel is confirmed with management in accordance with company procedures.

- 1.3 Goals for each stage are determined using statistical data in accordance with company environmental policies.

Range design, supply, input materials, process, packaging, transport, cost, health and safety, energy use.

## Outcome 2

Analyse production and process data for opportunities to apply zero waste principles.

### Performance criteria

- 2.1 Analysis of process design data identifies opportunities to implement zero waste principles.

Range three opportunities from – material handling, production scheduling, procedural measures, management, optimization, by-product separation, material substitution, product specification.

- 2.2 Analysis of input data identifies opportunities to use environmentally friendly products.

Range products may be – sustainably harvested, renewable, less toxic, local.

- 2.3 Analysis of process and packaging data determine opportunities for waste minimisation.

- 2.4 Analysis of energy use identifies savings over a specified time.

Range may include but is not limited to two of – transport, heating, lighting, water use.

- 2.5 Analysis of suppliers and contractors identifies opportunities to improve supply and service performance.

Range may include but is not limited to – certification.

- 2.6 Analysis determines potential effects on the business of applying zero waste principles.

Range effects on five of – policies, organisation, management system, suppliers, marketing, customers, community, staff performance, shareholders, health and safety.

## Outcome 3

Report on a zero waste process analysis.

**Performance criteria**

- 3.1 The report explains the analysis in terms of process and assumptions.
- 3.2 The report includes verifications from key personnel in terms of supporting the analysis.
- Range personnel may include but are not limited to three of – chairman, managing director, chief executive officer, branch manager, key team members.
- 3.3 The report supports opportunities to apply zero waste principles with evidence from process analyses.
- Range three of – design, inputs, process, energy use, packaging, transport, suppliers, contractors.
- 3.4 Identification and assessment of risks related to changes proposed in analysis is consistent with organisation's profile and stated future direction.
- 3.5 The report links zero waste to other business objectives in accordance with company vision statement.
- Range includes but is not limited to – economic performance, environmental performance, social performance.

<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>.

**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.