Title	Explain pre design issues and discuss the design of a resource recovery facility and its components		
Level	5	Credits	15

Purpose	People credited with this unit standard are able to: explain pre design issues for a resource recovery facility; and discuss the design of a resource recovery facility and its components.

Classification	Resource Recovery > Resource Recovery Operations

Available grade	Achieved

Guidance Information

1 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.

2 The unit standard will be assessed on evidence that demonstrates understanding of the issues involved whether gained from practical experience or by theoretical knowledge of a selected resource recovery facility.

Outcomes and performance criteria

Outcome 1

Explain pre design issues for a resource recovery facility.

Performance criteria

1.1 The explanation identifies issues arising at facility proposal, design, management, operation, maintenance, and growth stages.

1.2 The explanation identifies environmental issues and describes their implications for the facility.

    Range   implications include but are not limited to – compliance with legislation, emergency response plan, community impact.

1.3 The explanation identifies and describes economic issues for viability of the facility and clarifies key issues relating to the supply of recovered resources.

    Range   viability – short term, long term; supply – consistency, volume, future development.

1.4   The explanation identifies and describes design issues and provides solutions that maximise sustainability, efficiency, economy, and health and safety.

1.5   The explanation identifies and describes operational issues and provides solutions that follow the principle of zero waste.

Range   operational issues include but are not limited to – resource collection, sorting, storage, processing, staff training, educating the users.

Outcome 2

Discuss the design of a resource recovery facility and its components.

Performance criteria

2.1   The discussion assesses the design of the facility in relation to the principle of closing the loop.

2.2   The discussion of access and egress clarifies design requirements and determines solutions that meet the current and future needs of the operator and the users of the facility.

Range   requirements include but are not limited to – opening times, traffic flow, delivery space, delivery time, restrictions, security; security may include but is not limited to – weighbridge, gate station, designated areas.

2.3   The discussion of process and equipment selection assesses the design for current efficiency, and long term sustainability.

Range   process – collection, delivery, sorting, storage, treatment, disposal.

2.4   The discussion of storage design selects types appropriate for the resources to be received and/or recovered.

Range   resources include but are not limited to three of – hazardous, liquid, solid, bulky, fragile, organic.

2.5   The content of signage is discussed in terms of advising and educating the public or clients to meet facility acceptance requirements.

2.6   Design of signage and labels is discussed in accordance with legislation and in relation to clarity, consistency, and colour.

2.7   The discussion assesses the design for coverage of factors essential to the development and operation of the facility.

Range   includes – objectives, resources that are available to meet objectives, time frame, responsibilities and training of people who will be involved in the facility, contingencies, methods for evaluating the achievement of the objectives.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 January 2007	31 December 2025
Rollover and Revision	2	28 March 2019	31 December 2025
Review	3	24 April 2025	31 December 2025

Consent and Moderation Requirements (CMR) reference	0014

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.