



Waste Acceptance Criteria Energy from Waste

Document Management

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This report is for the exclusive use of the resource consent application process to establish an Energy from Waste plant, called Project Kea. This report may not be relied upon by other parties without the written consent of REL.

Relationship to South Island Resource Recovery Limited (SIRRL) REL is a New Zealand registered company representing shareholders who are funding the development of Project Kea. REL has the responsibility to secure the Municipal Solid Waste needed to operate the plant and to work closely and transparently with the regulator to ensure only acceptable and special waste is received.

Abbreviations

Energy from Waste	EfW
Municipal Solid Waste	MSW
Waste Acceptance Criteria	WAC
Waste Supply Contract	WSC
Waimate District Council	WDC
Canterbury Regional Council	ECan
Best Operational Practice	BOP

1. Introduction

As a privately run Energy from Waste (EfW) plant, Project Kea will only accept Municipal Solid Waste (MSW) from entities that have signed and hold a valid Waste Supply Contract (WSC).

MSW is defined within the technical Guidelines for Disposal to Land, Waste Management Institute New Zealand, April 2016¹ report. MSW includes Commercial Waste, Construction and Demolition Waste, Household Waste, Incidental Waste, and Industrial Waste. Hazardous waste as defined by Resource Management (National Environmental Standards for Air Quality) Regulations 2004² will be prohibited.

This Waste Acceptance Criteria (WAC) report intends to guide WSC holders and outline how MSW will be managed on-site.

1.1 Purpose of Waste Acceptance Criteria

This WAC will form part of the resource consent applications to the Waimate District Council (WDC) and the Canterbury Regional Council (ECan). The WAC is also a living document reflecting best operational practice (BOP). As BOP evolves so will the WAC.

2. Waste Acceptance Criteria

2.1 Prohibited waste

The acceptance or incineration of hazardous waste, as defined by the Resource Management (National Environmental Standards for Air Quality) Regulations 2004², is prohibited.

hazardous waste means waste that—

(a) belongs to 1 or more of the categories in Annex I of the Basel Convention; and

(b) has 1 or more of the characteristics in Annex III of that Convention³

2.2 Acceptable waste

MSW accepted at Class 1 or 2 landfills will generally be accepted at the EfW plant. Acceptable MSW types include:

- Construction and demolition (C&D) waste;
- Household waste;
- Commercial waste;
- Industrial waste; or
- Treated hazardous waste (i.e., waste that has been treated so it is no longer hazardous).

Whilst technically acceptable, the following MSW will be discouraged due to its low calorific value:

- Clean fill material; and
- Managed fill material.

The following MSW will be prohibited:

- Contaminated soil; and
- Hazardous waste (refer to s2.1 above).

2.3 Special waste

Project Kea may accept special waste from a WSC holder where a waste manifest is received at least 5 days, and an acceptance certificate is issued at least 24 hours, in advance of consignment. The waste manifest must include for:

- Potentially hazardous waste, the results of any testing of the waste;
- Treated hazardous waste, suitable information to confirm that the waste is not prohibited;
- Potentially malodorous waste, suitable information to determine whether the waste is acceptable (i.e., odour potential, rate of delivery, the timing of delivery, any pre-treatment carried out on the waste); and
- Malodorous waste that requires pre-treatment, confirmation that pre-treatment has occurred.

3. Waste Management

The following waste control measures are based on actions and historical performance at municipal landfills in New Zealand and international EfW plants. The main elements are:

- Waste Supply Contracts;
- Random and pre-acceptance testing;
- Gatehouse controls;
- Community Complaints;
- Rejected Waste; and
- Notification of Regulatory Authorities.

3.1 Waste Supply Contracts

The MSW received by Project Kea will be provided by multiple suppliers. Each supplier must hold a signed and valid WSC that records:

- The waste supplier's contact information;
- A description of the waste to be supplied;
- Confirmation that recyclables will be minimised to the council standard that applies in the district generating the waste;
- Acceptance of random and pre-acceptance inspections;
- Agreement to the management of special waste; and
- The booking and management of waste delivery slots.

3.1.1 Recycling rewards system

A recycling reward system will be introduced by Project Kea to encourage suppliers to reduce non-renewable waste on an ongoing basis. That system will be a mix of:

- Positive social publicity/visibility;
- Co-branding of community initiatives;
- Preferential pricing and delivery slots;
- Annual rebates;
- Contract length and terms; and
- Other mutually beneficial opportunities.

To be eligible, the supplier must have a verified recycling and supply strategy that is independently audited and annually reported on. Where a recycling and supply strategy does not exist Project Kea may assist the supplier to develop one.

3.2 Random and pre-acceptance testing

Project Kea will implement random inspection of suppliers' MSW, at a frequency of around 1:50 loads.

Inspections will focus on acceptable MSW and recyclables. Corrective direction may be provided to ensure compliance. Where poor compliance exists then additional random inspections may be carried out. Where supplier performance is excellent the number of random inspections may decrease too.

The nature and scale of inspections and the corrective direction provided will reflect the issues or excellence noted.

3.3 Gatehouse Controls

All loads of waste must be covered or wrapped for transport to the EfW plant. The gatehouse will direct the transported waste to the appropriate facility.

3.4 Rejecting waste

The gatehouse may reject waste.

Any uncovered/uncontained waste received at the gatehouse should be rejected. The rejected load will remain the responsibility of the transporter/waste supplier at all times.

If a special waste acceptance certificate has not been issued 24 hours in advance of consignment, or the waste is rejected by the gatehouse before tipping or storage due to its odorous and/or hazardous content, or other reason, it will be directed to a suitable landfill at the waste supplier's cost. The rejected load will remain the responsibility of the transporter/waste supplier at all times.

If waste requires to be rejected after storage due to its odorous nature, then it shall be relocated to the bunker. If waste requires to be rejected after tipping due to its hazardous content, then the waste shall be separated and secured within the arrival hall for disposal.

The reason why the waste is rejected will be logged along with where the waste was redirected to.

Project Kea will take all practicable steps to identify the waste supplier. If the waste supplier is identified the rejection reasons will be communicated to the waste supplier and will impact random inspection numbers. If the waste supplier cannot be identified then Project Kea will take responsibility for the waste and its disposal forward.

3.5 Storage Facility

No wrapped, unwrapped or special waste will be stored outdoors on-site.

Wrapped waste may be stored within the storage facility.

The storage facilities floor will be constructed from impermeable material and contain a leachate collection and management system. No direct discharges to land or water will be permitted. An odour monitoring programme will be carried out to ensure that no offensive or objectionable odours beyond the boundary occur.

3.6 Arrival Hall and Bunker Facility

Wrapped, covered and special waste will be directed to the arrival hall and bunker.

The arrival hall and bunker will be kept at negative pressure at all times. An odour monitoring programme will be carried out to ensure that no offensive or objectionable odours beyond the boundary occur.

4. Compliance Activity

4.1 Community Complaints

At all times a complaints register will be held at Project Kea.

Where a complaint is received from a member of the community it will be logged, investigated as required, and where needed corrective action is undertaken. The complaints register will contain the complaint chain and will be accessible to the regulatory authority on request.

4.2 Notification of Regulatory Authorities

As appropriate, the regulatory authority will be notified should hazardous waste (refer to s2.1 above) be received.

4.3 Annual review of the Waste Acceptance Criteria

From plant commissioning, Project Kea will undertake an annual review of the WAC to update it in accordance with BOP.

5. Reference links

1. <https://www.wasteminz.org.nz/blogs/tag/nz-guidelines/>
2. <https://environment.govt.nz/acts-and-regulations/regulations/national-environmental-standards-for-air-quality/>
3. <http://www.basel.int>
4. <https://environment.govt.nz/assets/Publications/Files/waste-to-energy-guide-for-new-zealand.pdf>
5. <https://www.arnbv.nl/>
6. <https://www.popieul.be/documents/2020-popieul-acceptatiereglement.pdf>
7. <https://www.vanlaethemots.be/>