

INTRODUCTION TO INDUSTRY RECYCLING MATERIALS SPECIFICATIONS MANUAL & RECYCLING GUIDES FOR MANUFACTURERS IN CONSUMER PACKAGING

1. Introduction

1. Objective

The objective of the Industry Recycling Materials Specifications Manual and Recycling Guides for Manufacturers in Consumer Packaging (also referred as the material specifications guidelines) is to:

- Improve materials recovery by developing clear and well understood specifications and guidelines to improve supply chain alignment between packaging manufacturers and recyclers;
- Improve the accountability, industry awareness and transparency of packaging recyclability to assist in determining the technical recyclability of packaging materials;
- Encourage market development (i.e. new business opportunities that add value to recovered used packaging materials).
- Assist brand owners and packaging manufacturers to secure and maintain their corporate social licence to operate

2. Rationale

ACOR believes that the increasing complexity of packaging and the lack of supply chain alignment between packaging designers, manufacturers and recyclers can result in large amounts of materials being lost to landfill.

The recovery and recycling of packaging is constrained by:

- The lack of standards which enable supply chain alignment between packaging designers, manufacturers and recyclers
- The lack of transparent and reliable information on the recyclability of packaging materials across Australia

These specifications and guidelines will help to improve the performance of current recycling systems by:

- Enhancing communication between packaging designers, manufacturers and recyclers
- Reducing and minimising contamination in the kerbside recycling stream
- Improving packaging design for recycling.

3. Definitions

Design for recycling	The packaging design characteristics that enable it to be recovered and recycled through available processes and programs.
Kerbside recycling stream	Post- consumer resources such as paperboards, plastic containers and aluminium cans which are collected from the kerbside, and then sorted in a

	Material Recovery Facility (MRF) prior to the recycling process.
Packaging materials	Materials that are used for packaging, such as glass, paper, steel and plastics.
Recyclable	Collected materials, including product packaging that are compatible with existing recycling facilities and systems.
Supply chain	The distribution and transaction process between packaging brand owners, designers, manufacturers and recyclers.

2. Packaging Recovery and Recycling

1. Packaging Recovery Process

Packaging waste is principally generated at the design phase through material selection with composites and fixtures potentially contaminating the resource stream and constraining company recycling targets.

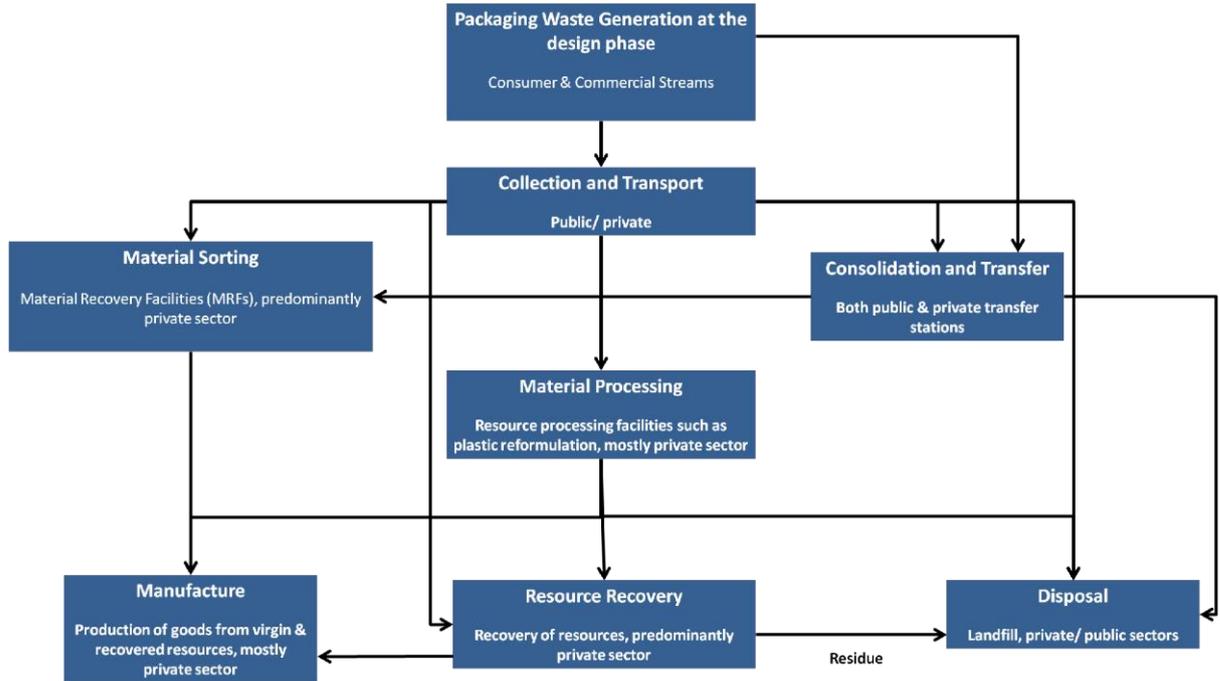


Figure 1: Packaging recovery value chain

The packaging recovery process encompasses four major stages: kerbside collection, waste separation in Material Recovery Facilities (MRFs), contaminant removal, recyclate separation and packaging recovery (Figure 2).

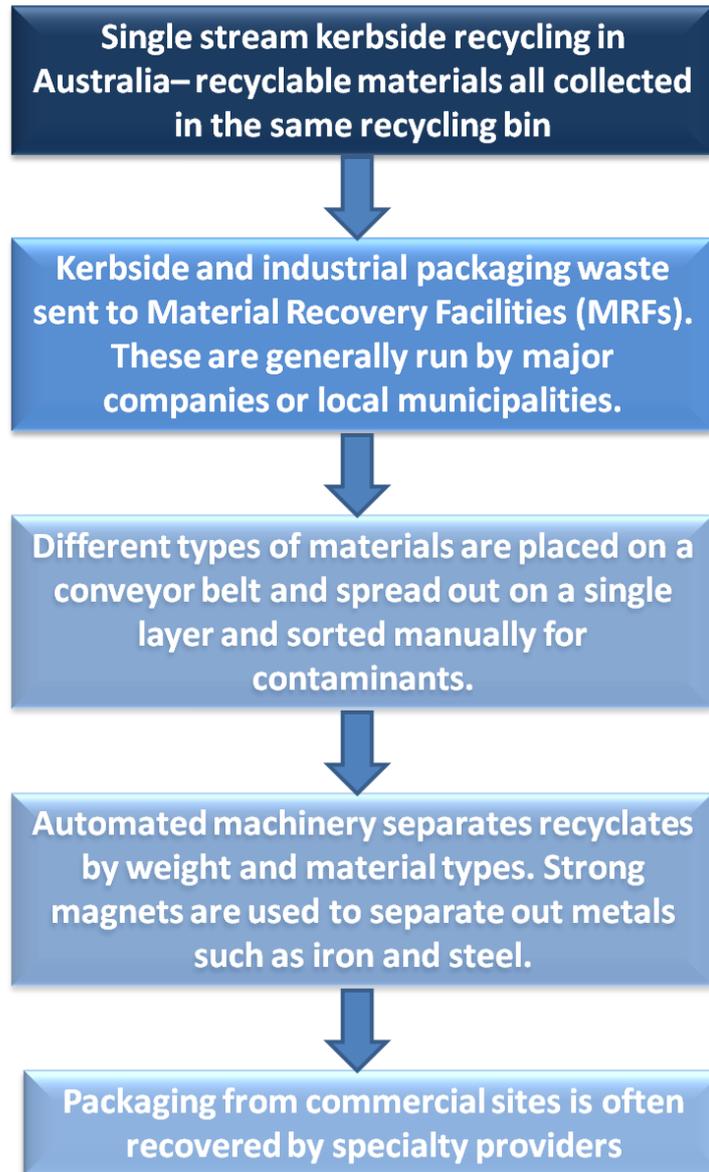


Figure 2 : Packaging Recovery Process

2.

3. **Barriers to Packaging Recovery and Recycling**

There are several barriers identified in packaging recovery and recycling processes, including:

- **Packaging design**—the use of new materials and packaging designs can increase the complexity of packaging which can undermine supply chain alignment and resource recovery.
- **Lack of manufacturer awareness**— some manufacturers are unaware of the significance of packaging material recyclability as they may not benefit economically from changing to a more recyclable design.
- **Contamination**— a number of materials used in packaging can cause significant

contamination in the recovery and recycling process.

3. **Material Specifications Guidelines**

1. **Overview**

The material specifications guidelines are a voluntary industry code of conduct for improving post- consumer packaging material recovery. This edition includes eleven Specifications for Kerbside Recycling for Post- consumer materials and four Recycling Guides for Manufacturers Marketing in Consumer Packaging, specifically:

1. Australian Recovered Paper Specifications (AuRPS)
2. Beneficiated Cullet Specifications (Glass)
3. LLDPE & LDPE Film Recyclate Feedstock Specifications
4. PET Container Specifications
5. Post- consumer PVC Bottles Bale Specifications for Recyclate Feedstock
6. Steel Can Specifications
7. Unbeneficiated Cullet Specifications (Glass)
8. Used Beverage Containers Specifications (Aluminium)
9. 2- wheeled Mobile Garbage Bins Specifications
10. 4- wheeled Mobile Garbage Bins Specifications
11. HDPE Bottle Recyclate Feedstock Specifications
12. Recycling Guide for Manufacturers Marketing in Aluminium Containers
13. Recycling Guide for Fillers in PET Containers
14. Recycling Guide for Fillers Marketing in HDPE
15. Recycling Guide for Filler Marketing in Steel Cans

The target audience is the entire packaging supply and value chain, including the manufacturers marketing in consumer packaging, Australian Packaging Covenant signatories, local governments and MRF operators.

The specifications and guidelines address the following:

- Detailed material packaging manufacturing and recycling processes
- The levels of contamination in different materials recycling processes
- Recycling material purchasing guidelines for purchasers and suppliers
- Suggested obligations for the trading parties
- Packaging material specifications and guides

2. **Continuous Updates for the Material Specifications Guidelines**

To ensure the material specifications guidelines are applied effectively in practice ACOR invites submissions at any time to ensure the specifications and guidelines reflect current industry practice. Submissions from the following organisations are particularly encouraged:

- APC Covenant signatories via the APC
- All ACOR members and other companies in the recycling and resource recovery industry
- Relevant Commonwealth and state agency representatives, key recyclers, industry associations, including (in alphabetical order):
 - Aerosol Association of Australia
 - Australian Industry Group
 - Expanded Polystyrene Australia
 - Local Government Associations
 - Packaging Council of Australia
 - Planet Ark Business Recycling
 - Plastics and Chemicals Industry Association
 - Product Stewardship Forum
 - Waste Contractors and Recyclers Association
 - Waste Management Association of Australia

1. **Design for Recycling**

As the recycling rate partly depends on packaging design, the guidelines aim to assist packaging manufacturers increase the recovery and recycling packaging materials and direct them to additional resources.

4. **Management and Governance**

1. **The Material Specifications Guidelines**

1. **Monitoring and Management**

The material specifications guidelines are managed by the Australian Council of Recycling (ACOR). This iteration of the specifications and guidelines was produced with funding support from the Australian Packaging Covenant (APC). Subject to available resources ACOR will review and update the specifications periodically.

2. **Licensing Agreement**

To ensure the appropriate use of the specifications and guidelines users are required

to accept the licensing agreement on the ACOR website.

3. **Reporting**

The material specifications and guidelines are available online on the ACOR website (<http://www.acor.org.au/>).

2. **Complaints Handling**

Any suggested improvements to the specifications and guidelines will be received by ACOR at any time.