Government of **Western Australia**
Department of **Water and Environmental Regulation**

Recovery amount protocol

Container deposit scheme

Department of Water and Environmental Regulation
September 2020

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September 2020

FIRST 115874

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Contents

1 About this document

This document is the recovery amount protocol (protocol) referred to in the Waste Avoidance and Resource Recovery (Container Deposit Scheme) Regulations 2019 (Regulations). It sets out the methodology to be applied in determining the amounts payable to material recovery facility (MRF) operators under the Western Australia container deposit scheme.

This protocol only applies to MRF operators that are processing material that has been collected through a local government kerbside recycling program.

This protocol should be read in conjunction with the material recovery agreement which describes contract terms and conditions between MRF operators and the scheme coordinator for recovery amount payments.

2 Definitions

Terms within this protocol have the same meaning as defined within the *Waste Avoidance and Resource Recovery Act 2007* (the Act) and the Regulations.

Abbreviations and definitions

Claimed scheme material	Means any containers in respect of which a refund amount or recovery amount has already been claimed
HDPE	High-density polyethylene
LPPB	Liquid polymer paperboard (this includes liquid paperboard and aseptic containers)
Mixed plastics	An output material type at an MRF that may include PET (1), HDPE (2) and other plastic types (3-7). An MRF operator may segregate PET and HDPE outputs from other plastic types or PET and HDPE may be combined with other plastic types.
PET	Polyethylene terephthalate
Plastic types	Plastic types as per the Society of the Plastic Industry (SPI) or resin identification code: 1 – Polyethylene terephthalate (PET) 2 – High-density polyethylene (HDPE) 3 – Polyvinyl chloride (PVC) 4 – Low-density polyethylene (LDPE) 5 – Polypropylene (PP) 6 – Polystyrene (PS) 7 – Miscellaneous plastics (such as polycarbonate, polylactide, acrylic, acrylonitrile, butadiene, styrene, fibreglass and nylon).
quarter	(a) Subject to paragraph (b) of this definition, the following periods in the year: (i) 1 July to 30 September; (ii) 1 October to 31 December; (iii) 1 January to 31 March

	(iv) 1 April to 30 June, inclusive of the start and end dates. (b) Where the appointed day for s.47E of the Act occurs: (i) within two calendar months of the beginning of the quarter immediately following the quarter in which the appointed day occurs, the first quarter is the period on and from the appointed day up to and including the last day of the immediately following quarter (ii) more than two calendar months before the beginning of the quarter immediately following the quarter in which the appointed day occurs, the first quarter is the period on and from the appointed day up to the end of the quarter in which the appointed day occurs.

3 Available methods for recovery amount claims

An MRF operator may make a claim for the payment of a recovery amount by lodging a claim with the scheme coordinator in the approved form and manner, in accordance with the material recovery agreement.

One of the following methods must be used for estimating the total number of eligible containers processed for reuse or recycling by the MRF operator during any given quarter:

1) weighing, or
2) exact count.

An MRF operator must nominate to the scheme coordinator whether they will use weighing or exact count methods for each output material type (see Section 3.3).

3.1 Weighing

Each MRF operator using the weighing method for one or more output material types must measure and record the quantity of each of these output material types, excluding any scheme material in respect of which a claim has already been made, that are delivered from the MRF for reuse or recycling.

The quantity of each relevant output material type delivered from the MRF must be determined by measuring the weight of each output material type using calibrated weighing equipment and in accordance with the following:

- the weight of each output material type must be measured in tonnes
- the weight must be measured using calibrated weighing equipment and recorded to the calibrated resolution for the equipment in use (e.g. for weighbridges +/- 20kg)
- the date of delivery and destination of each load delivered from the MRF must be recorded
- weighing equipment must be calibrated in accordance with all manufacturer requirements
- weighbridges, where used as weighing equipment for the purpose of this section, must be verified (within the meaning of the *National Measurement Act 1960*) at least once a year.

3.2 Exact count (manual or automated)

Each MRF operator using the exact count method for one or more output material types must count the number of individual eligible containers of each relevant output material type, excluding any scheme material for which a claim has already been made, delivered from the MRF for reuse or recycling.

Counting may be undertaken on a manual or automated basis. Using this method, manual recounts must be undertaken monthly of the proportion of containers determined in accordance with the sampling plan (sampling plan) prepared by the scheme coordinator and approved by the Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation to assess the accuracy of the counting procedures undertaken. Documentary evidence of all recounts must be maintained. Manual recounts can be undertaken concurrently where counting is undertaken on an automated basis.

3.3 Output material types

Under both weighing and exact count methods, output materials delivered from the MRF for the purpose of reuse or recycling must be separated into each of the following output material types:

1. aluminium
2. PET
3. HDPE
4. Mixed plastics (PET, HDPE and other plastics)
5. glass
6. steel
7. LPPB
8. any other eligible containers.

4 Calculation of recovery amount claims

The amount payable by the scheme coordinator to an MRF operator must be determined using the calculations detailed below.

4.1 Number of eligible containers by output material type

4.1.1 Weighing

Where an MRF operator makes a recovery amount claim using the weighing method for a particular output material, the scheme coordinator must determine the estimated number of eligible containers processed for reuse or recycling during the quarter using the following calculation:

$E_i = Q_i \times EF_i$

Where:

E_i is the estimated number of eligible containers processed for reuse or recycling during the quarter for output material type (i) for the quarter.

Q_i is the total weight of output material type (i) measured in tonnes delivered from the MRF for reuse or recycling during the quarter, excluding any claimed scheme material.

EF_i is the eligible container factor for output material (i).

The eligible container factor for each output material type will be calculated using:

- sampling data collected in accordance with the sampling plan
- claim information
- any other relevant information.

The scheme coordinator will publish the eligible container factor for each output material type each quarter.

4.1.2 Exact count

Where an MRF operator makes a recovery amount claim using exact count, for a particular output material, the scheme coordinator must determine the estimated number of eligible containers processed for reuse or recycling during the quarter using the following calculation:

$E_i = DC_i$

Where:

E_i is the estimated number of eligible containers processed for reuse or recycling during the quarter for output material type (i)

DC_i is the total exact count number of eligible containers for output material type (i) delivered from the MRF for reuse or recycling during the quarter, excluding any claimed scheme material.

4.2 Total recovery amount payable

The scheme coordinator must calculate the total recovery amount payable to an MRF for each quarter using the following calculation:

$P = \sum^{I} (E_i \times RA)$

Where:

P is the total recovery amount payable to the MRF operator for the quarter.

$\sum^{I}$ is the sum over each value of i (output material type) of (E_i x RA)

E_i is the estimated number of eligible containers processed and delivered for reuse or recycling during the quarter for output material type (i), excluding any claimed scheme material.

RA is the refund amount per eligible container, as set out in the Regulation.

4.3 Deduction of sampling costs

Where the weighing method is applied, the scheme coordinator may deduct from the total recovery amount payable for each MRF operator the monetary cost incurred to undertake the procedures set out in the sampling plan. This cost shall be recovered proportionally from each recovery amount claim as follows:

$PCSC_i = C_{i(Total)} / E_{i(Total)}$

$D_i = PCSC_i \times E_i$

Where:

$PCSC_i$ is the per container sampling cost for each output material type (i).

$E_{i(Total)}$ is the estimated number of eligible containers processed for reuse or recycling during the quarter for each output material type (i) for all MRF operators.

$C_{i(Total)}$ is the total monetary cost incurred by the scheme coordinator to undertake the sampling plan for the quarter for each output material type (i)

D_i is the sampling cost deduction incurred for each output material type (i)

E_i is the estimated number of eligible containers processed for reuse or recycling during the quarter for each output material type (i) for each MRF.