

Container Deposit Scheme

Material Recovery Facility Processing Refund
Protocol

Consultation Draft
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2 ABOUT THIS DOCUMENT

This document is the “Processing Refund Protocol” referred to in the *Waste Avoidance and Resource Recovery Amendment (Container Deposit Scheme) Act 2016* and the *Waste Avoidance and Resource Recovery (Container Deposit Scheme) Regulation 2017*. It sets out the methodology to be applied in determining the amounts payable to material recovery facility operators as processing refunds under the Container Deposit Scheme.

In the case of any inconsistency between the Processing Refund Protocol and the Regulation, the latter prevails to the extent of the inconsistency.

3 REVIEW OF PROTOCOL

The Processing Refund Protocol will be reviewed in line with the review of the *Waste Avoidance and Resource Recovery Amendment (Container Deposit Scheme) Act 2016* within 5 years of its publication.

4 DEFINITIONS

Terms within this Processing Refund Protocol have the same meaning as defined within the *Waste Avoidance and Resource Recovery Amendment (Container Deposit Scheme) Act 2016* (the “Act”) and the *Waste Avoidance and Resource Recovery (Container Deposit Scheme) Regulation 2017* (the “Regulation”).

Note: Under the Regulation, each of the following is prescribed as a class of material recovery facility operators:

- (a) alternative waste treatment plant operators,
- (b) bottle crushing service operators.

Abbreviations

EPA	NSW Environment Protection Authority
CDS	Container Deposit Scheme
Protocol	Material Recovery Facility Processing Refund Protocol
MRF	Material Recovery Facility
AWT	Alternative Waste Treatment Facility
LPB	Liquid paperboard
HDPE	High-density polyethylene
PET	Polyethylene terephthalate
NSW	New South Wales
Recyclable Materials	Any or all of aluminium, PET, HDPE, Mixed plastics (PET, HDPE and other plastics), Glass, Steel and/or LPB

5 BACKGROUND

The NSW Government is committed to reducing litter in NSW. Currently, drink containers make up the largest proportion of litter volume in NSW, with an estimated 160 million drink containers littered every year.

The *Waste Avoidance and Resource Recovery Amendment (Container Deposit Scheme) Act 2016*, which sets up the CDS, was passed by the NSW Parliament on 19 October 2016. The *Waste Avoidance and Resource Recovery (Container Deposit Scheme) Regulation 2017*, which prescribes some of the operational details for the day-to-day running of the CDS, was published on 10 March 2017.

Under the Scheme, people will be able to return most empty beverage containers supplied in NSW to collection points for a 10-cent refund, giving the community a financial incentive to do the right thing and recycle.

The Act also allows for the refund for eligible beverage containers collected in Material Recycling Facilities (MRFs) to be claimed directly by the MRF operator from the Scheme Coordinator if the MRF follows the methodology outlined in this document and meets all other relevant regulatory requirements in the *Waste Avoidance and Resource Recovery (Container Deposit Scheme) Regulation 2017*.

6 AIM OF THE PROTOCOL

The aim of the Protocol is to allow MRF operators to claim the refund on eligible containers directly from the Scheme Coordinator by using an accurate and statistically valid estimate of the number of

eligible containers collected in the MRF and sent for recycling, without having to separately count each individual container.

Key challenges for the Protocol are recognising and addressing the existing variation in feedstock entering MRFs and the uncertainty that will result from the introduction of the Scheme.

Issues/uncertainties

- Existing variation in the composition of recyclable materials entering MRFs from kerbside collections and commercial sources as a result of temporal, seasonal, demographic, locational differences.
- Diversion of eligible containers from MRFs to CDS collection points once the Scheme commences.

Risks

- Overestimating the number of eligible containers collected and recycled (quantity and source) by a MRF – means that suppliers and consumers are overcharged for container refunds and puts the integrity of the Scheme at risk.
- Underestimating the number of eligible containers collected and recycled by a MRF – means that the MRF and, in turn, local councils and the community do not receive full refunds for eligible containers.

The Protocol contains a sampling methodology that can be used to accurately estimate the number of eligible containers reused or recycled by MRF operators. The sampling methodology is designed to be sufficiently robust and adaptive to account for the uncertainties listed above, particularly in the early stages of the Scheme after commencement when eligible containers are likely to be diverted to collection points.

7 PROCESSING REFUND PROTOCOL CLAIM PROCESS

A MRF operator may make a claim for the payment of a processing refund by lodging with the Scheme Coordinator a claim in the form approved by the EPA. Further requirements about MRF operator entitlement to processing refunds are included in the Regulation.

7.1 MAKING A PROCESSING REFUND CLAIM

A MRF may make a processing refund claim under the NSW CDS to the Scheme Coordinator for the 3 month periods ended 31 March, 30 June, 30 September and 31 December each year (together, the “claim periods”). The claim must:

- (a) be in a form approved by EPA NSW; and
- (b) include any information prescribed by the *Waste Avoidance and Resource Recovery Amendment (Container Deposit Scheme) Act 2016*, the *Waste Avoidance and Resource Recovery (Container Deposit Scheme) Regulation 2017* or this Protocol (together, the “processing refund requirements”); and
- (c) be accompanied by any documents or reports required by the processing refund requirements; and

- (d) be lodged with the Scheme Coordinator within 28 days of the end of the claim period in the manner prescribed by the processing refund requirements; and
- (e) be signed by or on behalf of the MRF; and
- (f) must be verified by statutory declaration.

7.2 INFORMATION TO BE INCLUDED WITH ALL PROCESSING REFUND CLAIMS

The following information is prescribed in relation to all claims under section 7.1 of this Protocol:

- (a) the MRF's name, address and contact details;
- (b) the MRF's ABN and ACN;
- (c) the name and work contact details of a contact person for the claim;
- (d) the basis upon which the eligible containers collected and recycled by the MRF have been calculated (in accordance with Section 8 of this Protocol);
- (e) the total number of eligible containers estimated to have been recycled during the period by the MRF by material type;
- (f) a description of the method used to estimate or count the number of eligible containers recycled during the period, including the frequency of the measurements;
- (g) a description of how any other requirements relating to those estimated numbers have been met;
- (h) bank account details, including BSB and account number, for payment of processing refunds.

7.3 INFORMATION TO BE VERIFIED

Information that is required to be included in an application must be verified by a statutory declaration:

- (a) that is verified for the applicant by one of the following:
 - i. a director of the MRF;
 - ii. the MRF's chief executive officer;
 - iii. the MRF's chief financial officer; or
 - iv. the MRF's company secretary; and
- (b) states that, based on all reasonable steps having been taken to verify the information in the application, the application is accurate and complete as far as the person verifying knows.

7.4 MANNER OF LODGING

A claim under section 7.1 of this Protocol must be submitted to the Scheme Coordinator in the approved manner.

7.5 ASSESSMENT AND APPROVAL OF PROCESSING REFUND CLAIMS

If a processing refund claim is made under section 7.1 in respect of a claim period, the Scheme Coordinator must issue the MRF with claim assessment for that claim period within 45 days of its lodgement. The claim assessment must:

- (a) in accordance with the processing refund requirements, specify or describe the number of approved eligible containers collected and recycled by the MRF for the claim period; and
- (b) set out any other information prescribed by the processing refund requirements.

Processing refunds in relation to the approved number of eligible containers collected and recycled by the MRF for the claim period, at a rate of 0.10 Australian dollars per eligible container, minus agreed sampling costs, will be deposited into the nominated bank account of the MRF, as notified within the claim made under Section 7.2, within 10 business days of the issuance of the claim assessment by the Scheme Coordinator.

The Scheme Coordinator may refuse a claim where it determines that a claim has not been made in accordance with the Processing Refund Protocol requirements.

7.6 AMENDING PROCESSING REFUND CLAIMS

The Scheme Coordinator may amend a processing refund claim if the MRF to whom the claim assessment is issued requests, in writing, an amendment. A request for an amendment must be made within two years from the date of the original claim. In deciding whether to amend a processing refund claim, the Scheme Coordinator:

- (a) must have regard to the matters prescribed by the processing refund requirements; and
- (b) may have regard to any other matter that it considers relevant.

If the Scheme Coordinator refuses to amend a claim assessment upon a request by a MRF, the Scheme Coordinator must notify the MRF accordingly and provide clear and justifiable reasons for refusing.

7.7 REVIEW OF CLAIM ASSESSMENTS

A MRF may request the Scheme Coordinator to reconsider an assessment made under Sections 7.5 or 7.6. The request must be:

- (a) in writing; and
- (b) given to the Scheme Coordinator not later than 60 days after the assessment is made.

The Scheme Coordinator must reconsider the assessment and confirm, vary or set aside the assessment.

If the Scheme Coordinator does not give written notice of its decision regarding the reconsideration to the MRF within 60 days after the MRF gives the request to the Scheme Coordinator:

- i. the Scheme Coordinator is taken to have made a decision confirming the original assessment; and
- ii. the Scheme Coordinator's assessment is taken to have been made immediately after the end of the 60 days.

7.8 DISPUTE RESOLUTION

Where there is a dispute, the MRF operator or the Scheme Coordinator may seek a third-party independent review.

Note: Further guidance will be provided once the Scheme Coordinator has been determined.
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8 METHOD OF CLAIM CALCULATION

8.1 AVAILABLE METHODS

One of the following methods must be used for estimating the total number of eligible containers recycled by a MRF during any given claim period:

- (a) Method 1 under Section 8.2;
- (b) Method 2 under Section 8.3.

Additional method applying a default factor per tonne of output materials recycled also to be considered.

8.2 METHOD 1 – ESTIMATING ELIGIBLE CONTAINERS USING SAMPLING AND ANALYSIS

For Section 8.1, Method 1 is:

$$EC_i = Q_i \times EF_i$$

Where:

EC_i is the total estimated number of eligible containers recycled by a MRF during any given claim period per output material (i);

Q_i is the total quantity of output material (i) measured in tonnes in accordance with Section 10;

EF_i is the eligible container factor of the output material (i) estimated in accordance with Section 9.

8.3 METHOD 2 - DIRECT COUNT METHOD (MANUAL OR AUTOMATED)

For Section 8.1, Method 2 is:

$$EC_j = \underline{QE}_j$$

Where:

EC_j is the total estimated number of eligible containers recycled by a MRF during any given claim period per output material (i);

\underline{QE}_j is the total counted number of eligible containers recycled by a MRF during any given claim per output material (j) in accordance with Section 10.

Proposed method for determining total quantity of material output

- Total mass is the verified mass of material processed and weighed in the reporting period
- Each bale must be weighed separately to an accuracy of 0.10kg
- Weighing and recording process must be in accordance with the assurance requirements of Section 10 of this Protocol

9 ELIGIBLE CONTAINER SAMPLING AND CALCULATION

Key points for consideration and discussion on Sampling

In order to maximise legitimate returns to MRFs and their associated communities, as well as assure the viability and integrity of the broader CDS, it is desirable to develop estimates for MRF container throughputs that reflect actual throughputs as closely as possible.

However, this desire for a very high level certainty needs to be balanced with consideration of costs to the scheme and or MRF operators for the necessary sampling to develop the estimates. Additionally, MRFs in NSW range over several orders of magnitude of material throughput, from very small to very large. It is important to achieve an outcome that is fair and equitable across this range.

The EPA is of the firm view that the sampling strategy and associated estimates of eligible container throughputs need to be based on a robust and defensible statistical approach. In this regard there is a vast wealth of theory and practice that we can draw on in the area of statistical inference; ie deducing the properties of a larger population (in this case the number of eligible containers processed by a MRF in a claim period) from a sample of that population.

The underlying mathematical fundamentals of statistical inference mean that we can consider and compare the sampling requirements and therefore cost implications for achieving different confidence levels* and confidence intervals* in the results.

Notably, one of the underlying fundamentals of statistical inference is that the number of representative samples required to develop equivalent confidence estimates for a small MRF is not very different to a very large MRF. However, the financial capacity of different sized MRFs to fund a high number of samples may be very different. Reducing the number of samples required can be accommodated, if an increased confidence interval (ie lower level of confidence) is accepted. This can be done and still maintain the integrity of the Scheme by setting the accepted number of containers at the lower end of the confidence interval. In other words, MRFs could choose to undertake less sampling and a reduced level of accuracy in their estimated containers, if they are willing to accept a proportional reduction in the amount of containers that can be claimed. The draft Protocol recommends this approach, particularly for smaller MRFs.

The Sampling requirement is also designed to be adaptive. That is, as data is collected over time, and assuming certain data stability requirements are met, historical data can be used to increase the power of the statistical estimates and so reduce the sampling requirements.

The EPA is seeking your views on the proposed sampling requirements, including any suggestions or comments on potential alternative approaches.

**Confidence interval*

The confidence interval is an estimate of the reliability of a statistic derived from a sample. For example, the plus-or-minus figure usually reported in opinion poll results. It is an estimate of the range in which we expect to contain the true population parameter given a stated margin of error.

**Confidence level*

The confidence level tells you how sure you can be about the sampling procedure generating a reliable confidence interval. It is expressed as the percentage that would produce an equivalent confidence interval containing the true population parameter.

9.1 MATERIAL TYPE

MRF outputs must be separated into one or more of the following output material types for the purpose of sample sorting, counting and weighing:

1. Aluminium
2. PET
3. HDPE
4. Mixed plastics (PET, HDPE and other plastics)
5. Glass
6. Steel
7. LPB

9.2 SAMPLING REQUIREMENT

Each MRF applying Method 1 in accordance with Section 8.2 is required to be sampled in accordance with this Section. Sampling must be:

- a) Carried out by an independently appointed and appropriately qualified and experienced quantity auditor; and
- b) Undertaken in a manner to acquire samples that are random and representative

Each MRF is required to be sampled for each material type for which a processing refund claim is to be submitted.

Sampling must be undertaken in accordance with the following sampling requirements:

Material	Sampling requirements
Aluminium Steel PET / HDPE / Mixed plastics LPB	<ol style="list-style-type: none">1. 50kgs sub-samples for each material type2. Samples must be collected after processing, from a location along the processing line. For example<ul style="list-style-type: none">• as close as possible to the baling equipment; or• from the baler chamber
Glass	<ol style="list-style-type: none">1. 1m³ sub-samples2. Sampling must be collected prior to processing, from different collection vehicles

Within each claim period, each MRF must be sampled at a level that achieves the minimum confidence requirements specified in the following table:

Facility Size (input)*	Minimum Confidence Requirements	
	Confidence level	Confidence Interval (Margin of Error)
Large facilities >50,000 t pa	95%	5%

Medium facilities 15,000 – 50,000 t pa	95%	10%
Small facilities <15,000 t pa	95%	15%

* Note: the size classification for AWT facilities is based on the total recyclable materials recovered excluding garden organics, food and any other targeted non-packaging materials.

9.3 SORTING, COUNTING AND WEIGHING REQUIREMENT

9.3.1 Sample sorting

For each material type listed in Section 9.1, samples must be sorted into the following categories:

1. Eligible containers
2. Non-eligible material

Note: Whole bottles or bottle necks must be used to determine the eligibility of glass containers. Glass that is unidentifiable cannot be categorised as eligible.

9.3.2 Sample counting and weighing

Once samples are sorted in accordance with Section 9.3.1:

1. The material in each category must be weighed and recorded; and
2. The total number of eligible containers must be counted.

9.4 CALCULATING ELIGIBLE CONTAINER FACTOR

To calculate the eligible container factor (EF_i) as referred to in Section 8 for each material type (excluding glass):

$$EF_i = (AEC_i/T_i) \times CW_i$$

Where:

EF_i is the eligible container factor of the output material (i);

AEC_i is the actual number of eligible containers for the output material (i);

T_i is the total tonnes sampled for the output material (i);

CW_i is the confidence weighting (eg for a medium MRF this is 1 minus ½ the margin of error, or 0.95)

Note: Glass will be calculated on total input material.

10 MEASUREMENT REQUIREMENTS

10.1 WEIGHING

Each MRF applying Method 1 in accordance with Section 8.2 is required to measure, on an ongoing basis, the quantity, in tonnes, of all materials:

- (a) received into the MRF, by source; and
- (b) delivered from the MRF for recycling, by output material.

The tonnage of materials received into and delivered from the MRF, waste disposed of in a landfill, during the reporting period is to be estimated using one of the following criteria:

- (a) the amount of materials received at/delivered from the MRF as evidenced by invoices; or
- (b) the direct measurement of quantities of material received at/delivered from the MRF using measuring equipment calibrated to a measurement requirement.

Calibration of measurement equipment must be performed in accordance with the procedures specified, and at the frequencies recommended, by the manufacturer of the equipment, or at least annually. The accuracy in weighing requirements outlined in the *NSW EPA Waste Levy Guidelines (2015)* must be adhered to for all measurements under this Protocol.

10.2 DIRECT COUNTING (MANUAL OR AUTOMATED)

Each MRF applying Method 2 in accordance with Section 8.2 3 is required to count the number of individual eligible containers:

- (a) received into the MRF, by source; and
- (b) delivered from the MRF for recycling, by output material.

This section of the Protocol will be developed further to ensure that the system of counting is auditable and verifiable. The EPA is interested in seeking feedback from industry on possible approaches.

10.3 RECEIVING CONTAINERS FROM STATES OTHER THAN NSW

MRFs receiving input material from states other than NSW, for example those near state borders, will claim based on weighbridge data on receiving loads and in proportion of total material received from NSW.

11 REPORTING AND RECORD KEEPING REQUIREMENTS

11.1 ANNUAL RECYCLING STATEMENT

Each MRF is required to prepare and submit to the Scheme Coordinator within 60 days of the end of each year ended 30 June (the 'reporting period') an Annual Recycling Statement. The Annual Recycling Statement must be prepared in accordance with the template provided by the EPA and available on its website (<http://www.epa.nsw.gov.au>) at the start of the reporting period and contain the following:

- (a) MRF throughput reconciliation, prepared in accordance with Section 11.2
- (b) Where Method 1 has been applied in accordance with Section 8.2:
 - the total number of eligible beverage containers claimed for each output material; and
 - the eligible container factor determined using sampling undertaken in accordance with Section 9
- (c) Where Method 2 has been applied in accordance with Section 8.3:

- the total number of eligible containers counted by the MRF during the reporting period.
- (d) Calculated total number of eligible containers per output material in accordance with Section 9.

11.2 MRF THROUGHPUT RECONCILIATION

The MRF is required to prepare and submit a quarterly throughput reconciliation of all input materials received and all output materials; including

- Total quantity (tonnes) of material received into the MRF via kerbside and commercial collections
- Total quantity (tonnes) of material received into the MRF from outside NSW
- Total quantity (tonnes and number) of eligible containers received from network operators (and network operator collection points)
- Total quantity (tonnes) recycled per output material
- Total opening and closing stock of each output material

The quarterly reconciliations must be submitted to the Scheme Coordinator with each quarterly claim and must be included in the MRF's Annual Recycling Statement.

The MRF throughput reconciliation must be prepared in accordance with the template provided by the EPA and available on its website (<http://www.epa.nsw.gov.au>) at the start of the reporting period.

11.3 RECORD KEEPING

All records of evidence and documents supporting each claim must be kept in a form that is easily and quickly accessible for inspection of an audit. This may be an electronic or hard copy format.

MRFs must keep records of the activities that:

- allow it to report accurately under the Protocol; and
- enable the Scheme Coordinator to ascertain whether the MRF has complied with its obligations under this Protocol

The MRF must retain the records for 5 years from the end of the reporting period to which the records relate.

12 ASSURANCE REQUIREMENTS

12.1 ANNUAL RECYCLING STATEMENT FOR EACH MRF

Each Annual Recycling Statement must be accompanied by an independent assurance report which complies with this section. The matters to be assured and covered by the assurance report are whether, in all material respects:

Reasonable assurance matters

- (a) the MRF meets the definition of a MRF in accordance with the Act and Regulations;

- (b) the Annual Recycling Statement of the MRF has been prepared in accordance with section 11 of the Protocol;
- (c) the quantities of each output material from the MRF during the reporting period measured in accordance with Section 10 of the Protocol;
- (d) where Method 1 has been applied the MRF complies with the requirements of Section 9 of this Protocol in undertaking sampling for the purposes of determining the eligible container factor for each output material;
- (e) the quantities (number) of eligible containers recycled by the MRF during the reporting period, calculated in accordance with Section 9 of this Protocol; and
- (f) the MRF throughput reconciliation for the MRF the reporting period, calculated in accordance with Section 11 of this Protocol.

Limited assurance matters

- (a) the output materials from the MRF included within the Annual Recycling Statement will be recycled within 12 months from the date of processing refund claim.

It is the responsibility of the MRF to engage an independent assurance practitioner for each Annual Recycling Statement.

12.2 SCHEME COORDINATOR INITIATED ASSURANCE

The scheme coordinator may appoint an appropriately qualified assurance practitioner as an assurance team leader to carry out assurance of a MRFs compliance with one or more aspects of the Protocol.

The scheme coordinator must give written notice to the MRF of a decision to appoint an assurance team leader. The notice must:

- (a) specify the assurance team leader; and
- (b) specify the period within which the assurance is to be undertaken; and
- (c) specify the type of assurance to be carried out; and
- (d) specify the matters to be covered by the assurance; and
- (e) be given to the MRF at a reasonable time before the assurance is to be undertaken.

The MRF must provide the assurance team leader and any assurance team members with all reasonable facilities and assistance necessary for the effective exercise of the assurance team leader's duties under this Protocol.

If a MRF is given a notice under subsection 12.2, the MRF must arrange for the assurance team leader to carry out the assurance.

For such assurance engagements, the fees will be covered by the scheme coordinator.

12.3 ASSURANCE TEAM LEADER DUTIES

Assurance reports issued under Section 12 of this Protocol must include one of the following conclusions for the matters in Sections 12.1 or 12.2 (d):

- (a) a reasonable assurance conclusion;
- (b) a qualified reasonable assurance conclusion;
- (c) an adverse conclusion;

- (d) a conclusion that the assurance provider is unable to form an opinion about the matter being assured.

An assurance report under this section must be the result of an assurance engagement which:

- (a) was conducted in accordance with the relevant requirements for limited assurance engagements and reasonable assurance engagements under the Australian Standard on Assurance Engagements ASAE 3000 *Assurance Engagements other than Audits or Reviews of Historical Financial Information* and Australian Standard on Assurance Engagements ASAE 3100 *Compliance Engagements*; ASAE 3450 *Assurance Engagements involving Corporate Fundraisings and/or Prospective Financial Information*; and
- (b) had an assurance team leader who is:
 - a. registered as a Registered Company Auditor under the Corporations Act 2001; or
 - b. registered as a Category 2 auditor under subregulation 6.25(3) of the *National Greenhouse and Energy Reporting Processing refund requirements 2008*; or
 - c. Other registered auditors deemed appropriate by the EPA.