

Purpose

The purpose of this document is to provide compliance guidance for audits of management systems conducted under section 67 of Ontario Regulation [391/21] (“Blue Box Regulation”) under the *Resource Recovery and Circular Economy Act, 2016* (the “RRCEA”).

This guideline is intended to communicate to producer responsibility organizations (PROs) and their auditors the methodologies RPRA will accept as valid for the purpose of calculating the weight of the materials as recovered resources in respect of the producer’s management requirement (i.e., at the calculation point).

This guideline should not be considered as legal advice. It does not have the force of law, nor is it binding on RPRA. In the case of a conflict or ambiguity between this guideline and the RRCEA and its regulations, the legislation prevails.

Acceptable Methodologies

When determining the total quantity of recovered materials for the calculation point, one of the following methodologies may be utilized:

1. Composition Bale Audits:

This methodology may be used where recovered resources are determined using representative composition audits in lieu of measuring actual recovered material in scenarios where the bale itself is moving to an end market. Composition audits shall be conducted on representative outbound bales or loads to determine the composition of the sampled material, including the proportion of eligible feedstock, outthrows and prohibited materials.

Application:

Determine the proportion of eligible feedstock, outthrows, and prohibitive materials identified through the composition audit. Apply the eligible feedstock percentage to the corresponding outbound weight to calculate the quantity of recovered material.

Formula:

$$\text{Total Material Recovered (kg)} = \text{Total Outbound Bale Weight} \times \text{Eligible Feedstock Percentage} \times (1 - \text{Moisture Percentage})$$

Where,

- Total material recovered (kg) is the amount of material eligible to be reported as a recovered resource.
- Outbound weight (kg) is the net weight of material leaving a facility, supported by a scale ticket or equivalent weight record.
- Eligible feedstock percentage (%) is the proportion of material that meets the applicable specification or audit standard and can be counted as recovered. This percentage excludes outthrows and prohibitive materials.
- Moisture percentage (%) is the average moisture percentage during bale audits.

Example: an outbound bale has a net weight of 20,000 kg. If a composition audit results in a bale containing 78% of eligible feedstock material, 10% outthrows, 5% prohibitive materials and 7% moisture, then:

$$\begin{aligned}\text{Total material recovered (kg)} &= 20,000 \text{ kg} \times 78\% \\ \text{Total material recovered (kg)} &= 15,600 \text{ kg}\end{aligned}$$

Composition Audit Requirements:

- Composition audits shall be conducted using a representative sampling approach reflecting normal operating conditions, and reconsider using a weighted average representative of the population
- The methodology used to select and sample outbound bales or loads shall be documented and consistently applied.
- The reported recovered quantity shall exclude any loads or portions of loads rejected by the receiving facility prior to recovery.
- The calculation shall be supported by documentation, including composition audit records, outbound weight records, calculation worksheets, and records of any load rejections, where applicable.

2. Minimum Contracted Specifications:

This methodology may be used to determine the quantity of recovered resources by applying the minimum acceptable limit in a contract for outthrows and prohibitive materials. The applicable contracted specification must correspond to the material grade being marketed.

Application:

Determine the baseline recovery percentage by subtracting the maximum allowable percentages of outthrows and prohibitive materials identified in the contract (with the contract acting as evidence to the auditor). Apply the resulting percentage, which represents the eligible feedstock, to the net outbound weight to calculate the quantity of recovered material.

Formula:

$$\text{Total Recovered Material (kg)} = \text{Outbound Weight (kg)} \times \text{Baseline Contract Recovery Percentage (\%)}$$

Where,

- Total recovered material (kg) is the amount of material eligible to be reported as a recovered resource.
- Outbound weight (kg) is the net outbound weight of material leaving a facility, supported by a scale ticket or an equivalent weight record.
- Baseline contract recovery percentage (%) is the percentage determined by subtracting the maximum allowable percentages of outthrows and prohibitive materials specified in the applicable contracted specification grade from 100%.

Example: An outbound bale of mixed paper has 3% of outthrows and 2% of prohibitive materials.

Baseline Recovery Percentage = $100\% - 3\% - 2\% = 95\%$

If the net outbound weight is 20,000 kg:

Recovered Material = $20,000 \text{ kg} \times 95\% = 19,000 \text{ kg}$

Minimum Contracted Specifications Audit Requirements:

- The reported recovered quantity shall exclude any loads or portions of loads rejected by the receiving facility prior to recovery.
- Documentation shall be maintained demonstrating that the outbound material meets the applicable contract specification.

3. End-Market Average Yield Rate

This methodology may be used to determine the quantity of recovered resources by applying an average recovery yield established from representative composition audits of inbound material received by a processor. The average recovery yield shall be specific to the processing facility and the material stream being reported.

Application:

Apply the average recovery yield for the applicable processing facility and material stream to the net outbound weight of material shipped to that facility to calculate the quantity of recovered material.

Formula:

Total Recovered Material (kg) = Outbound Bale Weight (kg) × Facility Average Yield Percentage (%)

Where,

- Total recovered material (kg) is the amount of material eligible to be reported as a recovered resource.
- Outbound weight (kg) is the net weight of the outbound shipment, supported by a scale ticket or equivalent weight record.
- Facility average yield percentage is the average percentage of eligible feedstock established from representative composition audits conducted by, or on behalf of, the receiving processing facility or end market.

Example: The recovered resource of a processor that has established an average recovery yield of 95% for mixed paper based on representative composition audits and the outbound shipment weighs 20,000 kg is:

Total Recovered Material = 20,000 kg × 95% = 19,000 kg