

This registry procedure should be read in conjunction with Ontario Regulation 225/18: Tires, the document entitled Registry Procedure – Audit, and compliance bulletins for tires published by the Resource Productivity and Recovery Authority (RPRA). See Appendix I for links to these documents, which contain definitions and criteria that are essential to understand for the completion of audits.

Appropriate contractual relationships between producer responsibility organizations (PROs), collection sites, haulers, processors and retreaders must exist that allow for the auditor to obtain and review data and documentation to support the audit.

### **Purpose**

Under the Tires Regulation, tire producers are required to meet mandatory collection and management targets. Section 26 of the regulation requires that an audit of the performance of each producer's management system be completed by an independent auditor who is licensed or holds a certificate of authorization under the Public Accounting Act, 2004 and in accordance with the procedures set out in the Registry Procedure – Audit published by the Authority.

This registry procedure is intended to provide more detailed guidance on how to meet the audit requirements set out in the Tires Regulation and the Registry Procedure – Audit, ensure consistency of reporting by producers and PROs and provide sufficient guidance to allow auditors to be able to provide a consistent level of assurance in a consistent format.

### **Applicable Audit Standard**

All audit reports are expected to be prepared in accordance with the International Standard on Assurance Engagements 3000 Revised (ISAE 3000), Assurance Engagements Other than Audits or Reviews of Historical Financial Information published by the International Federation of Accountants. The assurance report must explicitly reference conformance with ISAE 3000.

A verification statement in line with this standard must include details of, or reference to:

- The auditor, the engagement company and intended users
- Planning for the verification
- Materiality and level of assurance
- The reporting obligation and subject matter being verified
- A description on the verification process(es)
- Information on the company's data flow and data quality assurance procedures
- Strategic analysis and risk assessments to establish sampling requirements consistent with the level of assurance and the risk to material misstatements identified when reviewing the data flow and control/assurance procedures
- A written assurance report in the form appropriate to an assurance engagement
- The auditor's accreditation

### **Tire Performance Reporting Criteria**

Section 26, paragraph 3 of the Tires Regulation states that:

(3) On or before October 31, 2020 and on or before October 31 in each subsequent year, the producer shall prepare and submit a copy of a report on the audit to the Authority through the

Registry that includes the following with respect to tires collected in the previous calendar year:

1. The number and calculated weight of tires, for each tire type, that were reused.
2. The number and calculated weight of tires, for each tire type, that were retreaded.
3. The weight of processed materials, by material type, that resulted from the processing of tires.
4. A list of types of products and packaging that were made with the processed materials referred to in paragraph 3, by material type.
5. The number and calculated weight of tires and the weight of processed materials, by material type, that were:
  - Land disposed;
  - Incinerated;
  - Used as a fuel or a fuel supplement; or
  - Stored, stockpiled or otherwise deposited on land.
6. A statement confirming whether the producer met their resource recovery standard of 85 per cent, as set out in section 11.

RPRAs Compliance Bulletin No. 7 – Annual Reporting Requirements recognizes that:

- a) The used tire industry does not generally segregate used tires into these four categories when handling used tires; and
- b) The only category that has specific collection requirements is the large tire category (greater than 700 kg).

For the purposes of annual reporting, only two categories will be required for reporting in the Registry:

- Tires greater than 700 kg (the large tire category)
- Tires less than or equal to 700 kg (everything other than large tires)

Additionally, references to “calculated weight of tires” in the regulation and this audit procedure can mean either the actual weight of tires or the corresponding weight of tires determined in accordance with the Registry Procedure Weight Conversion Factors (Tires).

## **Definitions**

The following is a list of words used in this document that have not been defined in the Tires Regulation or RPRAs compliance bulletins:

“Collection Year” means calendar year.

“End Market” means any company or individual where tires or material can be sent that would not require any additional processing to be used for its intended use.

“Non-processed percentage” means the percentage of tire material that flows through a processing facility that is not used to create a product or packaging allowable under the Tires Regulation.

“Non-retreaded Percentage” means the percentage of tire material that flows through a retreading facility that is not retreaded.

“Resource Recovery Performance Year” is April 1 to March 31.

“Processed percentage” means the percentage of tire material that flows through a processing facility that is used to create product or packaging allowable under the Tires Regulation.

“Retreaded percentage” means the percentage of tire material that flows through a retreading facility that is retreaded.

“Recycled Product Manufacturers (RPMs)” manufacture products and packaging from processed tire material.

“Resource Recovery” means reuse, retreading or processing of tires.

“Secondary Processor” means a processor who receives material from another processor before sending it to a third processor, end market or RPM.

“Semi-Processed Material” means material derived from a tire processed at one or more processing facilities but requires processing at secondary processor before sending it to a third processor, end market or RPM.

## **Audit Procedure**

The following procedure outlines the required validation of performance metrics defined in section 26(3) of the Tires Regulation.

Notes:

- The actual testing for performance metrics #3 and #5 can be completed simultaneously, as the processes are similar.
- In addition to testing a sample of transactions for each performance metric, auditors can test the procedures for auditing manual and automated controls to provide additional comfort that the reporting data will be accurate, valid and complete.
- Any reference to an activity being performed by a producer or a PRO includes activities being overseen, coordinated or contracted by the producer or PRO.

### **1. The number and calculated weight of tires, for each tire type, that were reused.**

- a) Obtain a listing of all transactions for the PRO, by collector, tire hauler, retreader and processor who reported the transaction, that make up the total number and calculated weight of tires that were reused.
- b) Recalculate total number and calculated weight of reused tires.
- c) Validate accuracy and consistency of the listing received with reported number and calculated weight of tires, for each tire type that were reused in the PRO’s annual report.
- d) Use analytical procedures to assess the reasonableness of transactions.
- e) Select a representative sample of inbound shipments. (Appendix A)
- f) For each sample, confirm the validity of the original tires. (Appendix B)
- g) For each sample, confirm the number or calculated weight of tires. (Appendix C)
- h) Select a representative sample of outbound shipments.
- i) Confirm the validity, accuracy and completeness of the recording of the sale/transfer/charge to the end market. (Appendix D and E)

- j) For each sample, confirm the validity of the end market, the reusing party, and that they are going to reuse the tire and how the tire will be reused either a) for intended use on a vehicle or b) for a different use without modification. (Appendix F)
- k) For each sample, confirm the number and calculated weight of tires.

**2. The number and calculated weight of tires, for each tire type, that were retreaded.**

- a) Obtain a listing of all transactions for the PRO that make up the total number and calculated weight of tires that were retreaded.
- b) Recalculate total number and calculated weight of retreaded tires.
- c) Validate consistency/accuracy of the listing received with reported number and calculated weight of tires, for each tire type that were retreaded in the PRO's annual report.

For each retreader:

- d) Use analytical procedures to assess the reasonableness of transactions.
- e) Select a representative sample of inbound shipments. (Appendix A)
- f) For each sample, confirm the validity of the original tires and the accuracy of the recording of the transaction. (Appendix B)
- g) For each sample, confirm the accuracy and reasonableness of the calculated weight of tires. (Appendix C)
- h) Select a representative sample of outbound shipments.
- i) For each sample, confirm the validity, accuracy and completeness of the sale/transfer/charge to the processor, end market or RPM. (Appendix D and E)
- j) For each sample, confirm the validity of the processor, end market or RPM, and that they are going to use the retreaded tires or material for its intended purpose. (Appendix F)
- k) For each sample, confirm the number, reasonableness and calculated weight of tires.

If all retreaded tires are not tracked individually:

- l) For each sample, obtain the retreading facility's mass balance(s) for the audit period. (Appendix G)
- m) For each retreading facility's mass balance, identify and recalculate the percentage of retreaded tires per kg inbound tires.
- n) Confirm that the total weight of retreaded material allocated to the PRO equals the total weight of collected tires allocated to the PRO multiplied by the retreader's retreaded percentage, as confirmed by the mass balance recalculation.
  - o If the retreader calculates the mass balance on a more frequent than annual basis (e.g. monthly) and uses new mass balances to identify the retreaded percentage on each occasion, repeat this procedure for each mass balance.

**3. The weight of processed materials, by material type, that resulted from the processing of tires and the weight of rims that the processor separated from tires received.**

Material Types:

- Crumb rubber
- Tire-derived mulch
- Tire-derived aggregate
- Tire derived rubber strips and chunks
- Tire derived metal (no rims)
- Fluff and fibre
- Other

- a) Obtain a listing of all transactions for the PRO that make up the total number and calculated weight of tires that were processed, by processor, for each material type

and weight of rims.

- b) Recalculate total weight of processed material.
- c) Validate consistency/accuracy of the listing received with the reported weight of processed materials in the PRO's annual report.

For each processor:

- d) Use analytical procedures to assess the reasonableness of transactions.
- e) Select a representative sample of inbound shipments. (Appendix A)
- f) For each sample, confirm the accuracy, completeness and validity of the original tires recorded. (Appendix B)
- g) For each sample, confirm the weight of the collected material. (Appendix C)
- h) Select a representative sample of outbound shipments from across the seven material types and rims.
- i) Confirm the validity of the sale/transfer/charge to the RPM, secondary processor or end market (Appendix D and E).
- j) For samples transferred to a secondary processor, repeat audit procedures 3b) to 3h).
- k) Confirm the validity of the RPM or end market, and that the material is going to be used in the manner intended. (Appendix F).
- l) Confirm the weight of the outbound processed material, e.g. weight scale ticket.
- m) For each sample, obtain the processing facility's mass balance(s) for the audit period. (Appendix G)
- n) For each processing facility's mass balance, identify and recalculate the percentage of processed material per kg inbound tires.
- o) Confirm that the total weight of processed material allocated to the PRO equals the total weight of collected tires allocated to the PRO multiplied by the processor's processed percentage, as confirmed by the mass balance recalculation.
  - If the processor calculates the mass balance on a more frequent than annual basis (e.g. monthly) and uses new mass balances to identify the processed percentage on each occasion, repeat this procedure for each mass balance.

#### **4. A list of types of products and packaging that were made with the processed materials, by material type.**

Product and Packaging Types:

- Mulch, all applications, including landfill drainage chips
- Landscaping products (not mulch), including tree rings and pavers
- Sporting and playground surfaces (not mulch)
- Sporting and playground equipment
- Flooring products, including agricultural applications
- Sound proofing products
- Roofing applications
- Blasting mats
- Ballistic products
- Bases, e.g., pylon and post bases
- Blocks, including wheel chocks
- Equipment feet, e.g., ladder and furniture feet
- Vehicle splash guards, mud flaps and floor mats
- Ramps
- Rubberized asphalt
- Speed bumps and parking curbs
- Cable guards
- Footwear
- Houseware products, including planters, coasters and furniture

- Other

Note: the Tires Regulation states in s. 11(5) Mulch and landscaping material and tire-derived aggregate used in roadbed construction or repair must not, separately or combined, account for more than 20 per cent of the 85 per cent minimum requirement referred to in clause (2) (b).

- Obtain a listing of all transactions for the PRO that make up the total number and calculated weight of tires that were processed, which includes the name of the RPMs or that it was sold directly to an end market.
- Filter the transaction list into a list of RPMs or, if the material was not sent to an RPM, the product that was sent to an end market.
- For each RPM, obtain the contractual documents relating to the delivery of processed materials to each RPM and a supporting document signed by the RPM that states the products and packaging types manufactured by the RPM from the processed material received from the processor.
- Confirm that the list of products and packaging across all RPMs and the products that were sent to end markets matches the products and packaging reported by the PRO.
- Confirm the validity of the products and packaging made by the RPM. (Appendix E and F)
- By dividing the total weight of reported mulch, landscaping material and tired derived aggregate used in roadbed construction or repair by the total weight of processed material, confirm that mulch, landscaping material and tire-derived aggregate used in roadbed construction or repair is not, separately or combined, more than 20% of the reported processed material.

**5. The number and calculated weight of tires and the weight of processed materials, by material type, that were land disposed, incinerated, used as a fuel or a fuel supplement, or stored, stockpiled or otherwise deposited on land.**

- Obtain a listing of all transactions for the PRO, which make up the total weight of processed materials, by material type, that were land disposed, incinerated, used as a fuel or a fuel supplement, or stored, stockpiled or otherwise deposited on land.
- Recalculate total weight of non-recycled material.
- Validate consistency/accuracy of the listing received with the reported number and calculated weight of tires and the weight of processed materials, by material type, that were land disposed, incinerated, used as a fuel or a fuel supplement, or stored, stockpiled or otherwise deposited on land in the PRO's annual report.

For each processor:

- Use analytical procedures to assess the reasonableness of transactions.
- Select a representative sample of inbound shipments. (Appendix A)
- For each sample, confirm the validity of the original tires. (Appendix B)
- For each sample, confirm the accuracy and completeness of the weight of the collected material. (Appendix C)
- Select a representative sample of outbound shipments from across the four non-recycling methods.
- Confirm the accuracy, completeness of the recording and the validity of the sale/transfer/charge to end market (Appendix D and E).
- Confirm the validity of the end market, and that the material is going to be used in the manner intended. (Appendix F).
- Confirm the weight of the outbound material, e.g. weight scale ticket.
- For each sample, obtain the processing facility's mass balance(s) for the audit period. (Appendix G)
- For each processing facility's mass balance, identify and recalculate the percentage

of non-recycled material per kg inbound tires.

- n) Confirm that the total weight of non-processed material allocated to the PRO equals the total weight of inbound tires/material allocated to the PRO multiplied by the processor's non-processed percentage as confirmed by the mass balance recalculation.
  - o If the processor calculates the mass balance on a more frequent than annual basis (e.g. monthly) and uses new mass balances to identify the non-processed percentage on each occasion, repeat this procedure for each mass balance.

**6. A statement confirming whether the producer met their resource recovery standard of 85%.**

- a) Obtain a listing of all tire collection transactions for the PRO which makes up the total weight of collected tires.
- b) Use analytical procedures to assess the completeness of the collected tires performance data.
- c) Using the recalculated weight of tires from performance metrics 1, 2 and 3 (if they are not the same as the reported figures), confirm that the total equals at least 85% of the PRO's actual weight of collected tire performance.

If the PRO has not achieved at least 85% of the PRO's actual weight of collected tire performance:

- d) Obtain the PRO's allocation methodology and allocated volumes for each producer they represent to determine how the weight of collected tires and the weight of reused tires, retreaded tires and processed materials have been allocated to the producer.
- e) Review the weight of collected tires and the weight of reused tires, retreaded tires and processed materials for each PRO broken down by producer to ensure that no collected tires, reused tires, retreaded tires or processed material was allocated to more than one producer.
- f) Confirm which producers, if any, met their resource recovery standard of 85% and which did not.

## Appendix A – Sampling Methodology

Attribute sampling is the most appropriate audit methodology to efficiently validate compliance. It tests a sample of a population to validate whether the attribute is consistent in a population, e.g. the reported volumes of reused tires are accurate, complete, and valid. Sample sizes obtained through this sampling methodology are based on four variables: population size, confidence level, expected deviation rate, and tolerable deviation rate. For the audit procedure the variables have been defined as the following:

Confidence Level = 95%  
Expected Deviation Rate = 0%  
Tolerable Deviation Rate = 5%

Based on the below populations, this leads to the stated sample sizes required:

Population	Sample size required	Deviations
500+	60	0
250	50	0
100	40	0
50	30	0
10	10	0

If any deviations are identified, then sampling is no longer an appropriate testing method and more detailed substantive procedures need to be applied to validate the control or data. Note that these sample sizes are relevant for each control or data set being tested to complete the ISAE 3000 report and satisfy the audit procedure.



## **Appendix B – Validating Tires**

There are three specific criteria that a tire must meet in order to be considered valid for collection performance reporting under the audit procedure:

- a) It meets the Tires Regulation definition of a tire.
- b) It was used in Ontario.
- c) It was collected in Ontario by a collector in compliance with the Tires Regulation, and transported to a registered processor or registered retreader by a registered tire hauler or transferred for reuse. A list of RPRA registered collectors, tire haulers, retreaders and processors can be obtained from RPRA and is available on their website.

## **Appendix C – Validating Calculated Weight of Tires**

Calculated weight of tires means either the actual weight of tires, or the weight of tires using conversion factors in accordance with the Registry Procedure Weight Conversion Factors (Tires).

### **Actual Weight**

Whenever actual weight is reported, the auditor must ensure the following:

- Ensure that scale tickets are automatically printed from the scale reading and that scale tickets include time, date, weight, are legible and not manually altered.
- Ensure that the processors have an annual scale calibration report provided by an independent, qualified inspector.

### **Weight Based on Conversion Factors**

Whenever weight calculated based on conversion factors is reported, the auditor must ensure the following:

- The conversion factors for used tires have been applied.
- The conversion factor calculation is accurate.

## Appendix D – Validating Transfers

The following is a list of transfers of tires or material that may occur during the process of collecting and processing tires. For each transfer, the listed information would be expected to be recorded as part of the supporting documentation for that transaction.

### Collection Facility to Hauler

- Electronic or hard copy record of transfer of material from collection facility to hauler, which includes at least:
  - Name and location of collection facility
  - Name of tire hauler
  - Unique document ID number
  - Signed by representatives of the collection facility and hauler
  - Estimated number of tires under 700 kg
  - Estimated number of tires over 700 kg

### Hauler to Processor

- Electronic or hard copy record of transfer of material from hauler to processor, which includes at least:
  - Name and location of processor
  - Name of tire hauler
  - Unique document ID number
  - Signed by representatives of hauler and processor
  - Estimated number of tires under 700 kg
  - Estimated number of tires over 700 kg
  - Actual weight of tires
  - Weigh scale ticket or photograph of weigh scale ticket, including unique ID number

### Processor to Secondary Processor

- Electronic or hard copy record of transfer of material from processor to hauler, which includes at least:
  - Name and location of processor
  - Name of hauler
  - Name and location of secondary processor
  - Unique document ID number
  - Signed by representatives of processor and hauler
  - Type of material
  - Actual weight of outbound material
  - Weigh scale ticket or photograph of weigh scale ticket, including unique ID number
- Electronic or hard copy record of transfer of material from hauler to secondary processor, which includes at least:
  - Name and location of processor
  - Name of hauler
  - Name and location of secondary processor
  - Unique document ID number
  - Signed by representatives of hauler and secondary processor
  - Type of material

- Actual weight of inbound material
- Weigh scale ticket or photograph of weigh scale ticket, including unique ID number

### **Processor to Recycled Product Manufacturer**

- Electronic or hard copy record of transfer of material from processor to hauler, which includes at least:
  - Name and location of processor
  - Name of hauler
  - Name and location of RPM
  - Unique document ID number
  - Signed by representatives of processor and hauler
  - Type of material
  - Actual weight of outbound material
  - Weigh scale ticket or photograph of weigh scale ticket, including unique ID number
  
- Electronic or hard copy record of transfer of material from hauler to RPM, which includes at least:
  - Name and location of processor
  - Name of hauler
  - Name and location of RPM
  - Unique document ID number
  - Signed by representatives of hauler and RPM
  - Type of material
  - Actual weight of inbound material (may not be available depending on RPM's facilities)
  - Weigh scale ticket or photograph of weigh scale ticket, including unique ID number (may not be available depending on RPM's facilities)

### **Processor to End Market**

- Electronic or hard copy record of transfer of material from processor to hauler, which includes at least:
  - Name and location of processor
  - Name of hauler
  - Name and location of end market
  - Unique document ID number
  - Signed by representatives of processor and hauler
  - Number of items
  - Type of product
  - Actual weight of outbound material
  - Weigh scale ticket or photograph of weigh scale ticket, including unique ID number
  
- Electronic or hard copy record of transfer of material from hauler to end market, which includes at least:
  - Name and location of processor
  - Name of hauler
  - Name and location of end market
  - Unique document ID number

- Signed by representatives of hauler and end market
- Type of material
- Actual weight of inbound material (may not be available depending on end market's facilities)
- Weigh scale ticket or photograph of weigh scale ticket, including unique ID number (may not be available depending on end market's facilities)

**Retreader to End Market**

- Electronic or hard copy record of transfer of material from retreader to hauler, which includes at least:
  - Name and location of retreader
  - Name of hauler
  - Name and location of end market
  - Unique document ID number
  - Signed by representatives of retreader and hauler
  - Number of retread tires (if greater than one)
  - Actual weight of outbound material
  - Weigh scale ticket or photograph of weigh scale ticket, including unique ID number
  
- Electronic or hard copy record of transfer of material from hauler to end market which includes, at least:
  - Name and location of retreader
  - Name of hauler
  - Name and location of end market
  - Unique document ID number
  - Signed by representatives of hauler and end market

## Appendix E – Validating Outbound Shipments

Material / Use	Examples of Suitable End Markets	Examples of Suitable Evidence
<b>Processed</b>		
Blasting Mats	Mining Companies	Sales Invoice Shipping Invoice / Bill of Lading Evidence of payment received in GL Evidence of payment received in bank (statement)
Paving Products	Construction Companies	
Rubber Products for Surfaces	Construction Companies Artificial Turf Manufacturers	
Rubber Products for Signage Bases	Construction Companies Highway Maintenance Municipalities	
Mulch and Landscaping	Landscaping Companies	
Aggregate for Road Construction	Construction Companies Highway Maintenance Municipalities	
<b>Retreaded</b>		
Retreaded Tire	Companies running heavy equipment; farms, mines, construction. Haulers	Sales Invoice for Retreading Services Shipping Invoice / Bill of Lading Evidence of payment received in GL Evidence of payment received in bank (statement)
<b>Non-processed</b>		
Land Disposed	Waste Disposal Companies	Tipping Fee Shipping Invoice / Bill of Lading Evidence of payment made in GL Evidence of payment received in bank (statement)
Incinerated	Waste Disposal Companies	Purchase Invoice Shipping Invoice / Bill of Lading Evidence of payment made in GL Evidence of payment received in bank (statement)
Used as Fuel	Alternative Fuel Companies	Receipt Shipping Invoice / Bill of Lading Evidence of payment received in bank (statement)
Stockpiled	Any remaining inventory after March 31 of the year following the audit period	Mass Balance Physical Observation
<b>Reused</b>		
Used Tire	Automotive Parts Automotive Mechanics Direct Customers	Sales Invoice Shipping Invoice / Bill of Lading Evidence of payment received in GL Evidence of payment received in bank (statement)

## Appendix F – Validating Actual Use of Material

Assessing the validity of RPMs and end markets is a critical component of the audit procedure. The procedure is designed to give reasonable assurance that sales of materials to RPMs and end markets are for uses appropriate under the Tires Regulation. The following are examples of the types of procedures that must be applied by auditors to gain assurance of valid RPM and end market sales.

- Does the RPM or end market exist and is it active?
  - What actions has the PRO or processor taken to verify? Can they be relied upon?
  - Contact the company.
  - Check company website.
  - Check company directories.
  
- Does the type of RPM or end market that received the processed material seem like the type of company that would use the material in the manner intended?
  - What actions has the PRO or Processor taken to verify? Can they be relied upon?
  - Contact the company.
  - Check company website.
  - Conduct a site visit
  - A signed attestation from the company's auditor that supports their stated use.
  - Evidence that can be obtained from other regulatory bodies.
  - Does the cost of the material to the RPM or end market logically suggest that it would be used for the manner intended?
  - Does the cost of transportation of the material, combined with the cost of material or separately, logically suggest that it would be used for the manner intended?

## Appendix G – Validating the Mass Balance Calculation

A mass balance calculation can be used by processors to calculate the average flow of material where it would be unviable to track specific units of input. For example, for crumb rubber processors it would be almost impossible to track an inbound shipment of tires and accurately state that 75% was processed into crumb rubber, 20% was processed into scrap steel and 5% was processed into fluff material because the inbound material would be mixed with many other inbound shipments.

The mass balance calculation uses the premise that a mass that enters the system must, by conservation of mass, either leave the system or accumulate within the system. In this scenario, this means for whatever volume of tires that is received by a processor, there would be evidence of it either leaving the processor or held as inventory at the processor.

The mass balance calculation:

$$\begin{array}{r} \text{Opening Tires} \\ \text{Inventory} \\ \text{Balance} \end{array} + \begin{array}{r} \text{Inbound} \\ \text{Tires} \end{array} = \begin{array}{r} \text{Outbound} \\ \text{Material} \\ \text{(Processed} \\ \text{and Non-} \\ \text{Processed)} \end{array} + \begin{array}{r} \text{Closing Material} \\ \text{Balance} \\ \text{(Processed and} \\ \text{Non-Processed)} \end{array}$$

For the purposes of the audit procedure, outbound material volume should be broken down into two categories:

1. Material sent to an end market to be used in the making of products and packing such as:
  - Retreaded tires
  - Crumb rubber
  - Tire-derived mulch
  - Tire-derived aggregate
  - Tire derived rubber strips and chunks
  - Tire derived metal (no rims)
  - Fluff and fibre
  - Other
  
2. Material sent to an end market to be disposed of or stored in a manner that is not considered recycling such as:
  - Land disposed
  - Incinerated
  - Used as a fuel or a fuel supplement
  - Stored, stockpiled or otherwise deposited on land

Each variable in the mass balance calculation must be verified during audit by testing an appropriate sample of inbound and outbound shipments, as detailed in this document.

Once the mass balance has been verified, proportions for outbound material can be reasonably applied to all inbound shipments. This means that, for every kg of material collected by one producer and processed at the specified processor, it would be possible to calculate the percentage of that material volume that was recycled and the percentage that was not.



**Example:**

Processor A receives inbound shipment ID no. 123XYZ of 10,000 kg. The PRO has allocated the volume to the producers it represents in the following way: Producer 1—5,000 kg, Producer 2 —2,000 kg, and Producer 3—3,000 kg.

Processor A completes a mass balance that shows that 90% of inbound material was sent to an end market to be used in the making of products and packing and 10% of inbound material was disposed of or stored.

Therefore, for shipment ID no.123XYZ, the following recycled material can be reported by the producers: Producer 1—4,500 kg, Producer 2—1,800 kg, and Producer 3—2,700 kg. The following non-recycled material can be reported by the producers: Producer 1—500 kg, Producer 2—200 kg, and Producer 3—300 kg.

If a producer is only reporting material processed at one processor, then the mass balance percentage calculation would be able to be applied to all collected material for that producer.

**Collection Year vs Resource Recovery Performance Year**

Tires collected in the collection year (January 1 to December 31) can be processed up until March 31 of the following year and count towards the producer's Resource Recovery target. Any tires collected in the Collection Year that have not been processed and / or ownership of processed material has not been transferred to an End Market or RPM by March 31 of the following year must be reported as "stockpiled" and cannot count towards the Resource Recovery target.

This may mean that at the beginning of an audit period a processor may physically have tire inventory that cannot be included in the following year's mass balance. The processor would have to determine the processed and non-processed percentage, apply that to the December 31 tire inventory balance and remove those amounts from the outbound weight of the mass balance.

The auditor would have to ensure that the processing facility had processed at least the same or greater volume of tires between January 1 and March 31 of the year following the audit period than the December 31 tire inventory balance.

**Rims**

Producers are obligated to collect tires regardless of whether they are attached to rims. Therefore, if a processor receives tires attached to rims the weight of the rims cannot count towards collection performance nor can the weight of the rims be counted towards resource recovery performance.

The weight of outbound scrap steel derived from rims must be removed from the inbound weight of inbound tires to ensure that the weight of rims is not included as collection performance. The weight of outbound scrap steel derived from rims must also be removed from the mass balance for the calculation to balance.

**Semi-processed Material Received by Secondary Processors**

Processed material can only count towards the producer's resource recovery performance target once. Therefore, if material is sent from one processor to a secondary processor, the

auditor must ensure that the processing performance is only counted once towards the producer's processing target.

As this relates to the mass balance, the weight of semi-processed material must be removed from the inbound weight of material. The processor would also have to determine the processed and non-processed percentage, apply that to the inbound semi-processed material and remove those amounts from the outbound weight of the mass balance.

As part of the audit process, the auditor should validate that the inbound tires were received from a collection facility and not another processor. If recorded correctly, a listing of all transactions by a producer, for the PRO, that make up the total weight of processed materials, would not include semi-processed material transactions.

## **Appendix H – Manual and Automated System Controls**

- Automated trigger alerts for submitted inbound and outbound shipment volumes outside of reasonable boundaries (e.g. greater than a standard semi-truck could reasonably carry).
- Automated trigger alerts for submitted inbound volumes where actual weight, based on scale ticket, is outside of reasonable variance boundaries when compared to estimated weight, based on number of tires multiplied by pre-defined weights.

## **Appendix I – References**

Tires Regulation (O. REG. 225/18): <https://www.ontario.ca/laws/regulation/r18225>

[Compliance Bulletin 1- Tire Collection Systems](#)

[Compliance Bulletin 2- What Tires Have to be Reported](#)

[Compliance Bulletin 7- Annual Reporting Requirements](#)

[Compliance Bulletin 9 - Retreading](#)

[Registry Procedure - Weight Conversion Factors \(Tires\)](#)

[Registry Procedure - Audit](#)

International Federation of Accountants - ISAE3000 Standard

<https://www.ifac.org/publications-resources/international-standard-assurance-engagements-isae-3000-revised-assurance-engagements>