

This document should be read in conjunction with Ontario Regulation 449/21: Hazardous and Special Products (HSP) and compliance bulletins for HSP 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 performance of reasonable assurance engagements and agreed-upon procedures related to HSP.

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

Purpose

Under the HSP Regulation, HSP producers are required to meet mandatory management targets. Section 57 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 – Hazardous and Special Products Verification and Audit published by the Authority.

This document is intended to ensure consistency of reporting by producers and PROs and provide sufficient guidance to allow assurance practitioners to be able to provide a consistent level of assurance in a consistent format.

Producers and PROs are exempt from submitting performance audit reports for any periods which have previously been audited by RPRA.

Applicable Assurance Standard

All reports which include processing by an HSP processor must be reasonable assurance reports prepared in accordance with the Canadian Standard on Assurance Engagements 3000 (CSAE 3000), Attestation Engagements Other than Audits or Reviews of Historical Financial Information. As per CSAE 3000, "a reasonable assurance engagement may be referred to as an audit engagement" therefore the terms 'audit' and 'auditor' will be used throughout the rest of this document.

Producers and PROs are required to engage a public accountant to report under CSRS 4400, Agreed-upon Procedures, with respect to any processing by a downstream HSP processor.

In order to meet a producer's annual resource recovery obligations, producers or PROs may have transferred (bought or sold) resource recovery performance credits before the annual reporting deadline. Given that an auditor may not be able to verify the existence of the credits bought from or sold to another PRO, the CSAE 3000 report will only cover a PRO's own performance before the consideration of any credits bought or sold.

Producers and PROs are required to engage a public accountant to report under CSRS 4400, Agreed-upon Procedures, with respect to any credits transferred. The procedures to be performed are outlined later in this document.

To create a more efficient reporting process that helps minimize the burden on business, the Authority is allowing registrants to align the deadline and period of the CSRS 4400 report

with the CSAE 3000 report. Therefore, on or before July 31, 2023, and every third subsequent year, registrants can submit both reports at the same time.

HSP Performance Reporting Criteria

Section 57, paragraph 2 of the HSP Regulation states that:

(2) On or before July 31 in any year in which an audit is required under subsection (1), the producer shall prepare and submit a copy of a report on the audit to the Authority, through the Registry, that includes the following information, as applicable:

1. The weight of recovered resources from each type of HSP in Category A accounted for by the producer for the purposes of satisfying the management requirement in section 31.
2. The weight of recovered resources from each type of HSP in Category B or Category C.
3. With respect to a weight of recovered resources under paragraph 1 or 2,
 - i. the weight, if any, that was used or destined to be used by a person for the making of new products or packaging,
 - ii. the weight, if any, that was reused by a person, and
 - iii. in the case of paints and coatings, the weight, if any, that was used with respect to concrete or landscaping applications.
4. The weight of mercury recovered from each type of HSP in Category C.
5. A list of the types of resources recovered from each type of HSP in Category A, Category B or Category C.
6. The weight of materials processed from each type of HSP in Category A, Category B or Category C that was,
 - i. land disposed,
 - ii. incinerated,
 - iii. used as a fuel or a fuel supplement, or
 - iv. stored, stockpiled, used as daily landfill cover or otherwise deposited on land.
7. For producers of HSP in Category A, a statement confirming whether the producer satisfied their management requirement in section 31 for each type of HSP in that category.

Section 1 of the HSP Regulation states that:

“Category A” means any of the following types of materials:

1. Non-refillable pressurized containers; and
2. Oil filters.

“Category B” means any of the following types of materials:

1. Antifreeze;
2. Oil containers;
3. Paints and coatings;
4. Pesticides;
5. Refillable pressurized containers; and
6. Solvents.

“Category C” means any of the following types of materials:

1. Barometers;
2. Thermometers; and
3. Thermostats.

Section 29 HSP Regulation states that:

- (1) The rules set out under subsection (2) apply when determining what may be counted as part of the weight of recovered resources for the purposes of,
- a) the calculation of a recycling efficiency rate under subsection 30 (3), section 50 and paragraph 8 of subsection 51 (2); and
 - b) the determination of whether a management requirement has been satisfied under section 31.
- (2) The rules referred to in subsection (1) for what may be counted as part of the weight of recovered resources are the following:
1. The weight of recovered resources that may be counted with respect to a type of HSP must be from HSP of the same type.
 2. For the purposes of determining whether the management requirement has been satisfied under section 31, the weight of recovered resources that may be counted must be from HSP that was supplied to a consumer in Ontario.
 3. The weight of recovered resources that may be counted must be from recovered resources that are,
 - i. used or destined to be used by a person for the making of new products or packaging, or
 - ii. reused by a person.
 4. The weight of the recovered resources may only be counted one time by a producer and must not be counted by another producer.
 5. The following must not be counted as recovered resources:
 - i. The weight of materials that are land disposed.
 - ii. The weight of materials that are incinerated.
 - iii. The weight of materials that are used as a fuel or a fuel supplement.
 - iv. The weight of materials that are stored, stockpiled or used as daily landfill cover or otherwise deposited on land unless they are deposited on land in a manner set out in paragraph 6.
 6. With respect to the weight of recovered resources from paints and coatings, up to 15 per cent of the weight that may be counted as recovered resources for paints and coatings may be with respect to concrete and landscaping applications.
 7. With respect to the weight of recovered resources from oil filters, the following must not be counted:
 - i. Any oil residue contained in the used oil filter.
 - ii. Any oil which is captured, recaptured, extracted, collected or diverted during processing.

Additionally, references to “calculated weight of HSP” in the regulation and this audit procedure can mean either the actual weight of HSP or the corresponding weight of HSP determined in accordance with the Registry Procedure Verification and Audit (Table 1: HSP Weight Conversion Factors).

Definitions

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

“Collected” means when HSP has been delivered to a registered HSP hauler or processor.

“Collection Year” means calendar year.

“Downstream Processor” means a person that receives recoverable resources that were generated from HSP used and collected in Ontario from an HSP processor for the purpose

of further processing. All processing activities are considered in scope of this definition, until the resources can be considered a recovered resource.

“End Market” means any company or individual where HSP 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 HSP material that flows through a processing facility that is not used to create a product or packaging allowable under the HSP Regulation.

“Resource Recovery Performance Year” is January 1st of the reporting year to March 31st of the following year (e.g., January 1, 2023, to March 31, 2024).

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

“Recovered Resource” means a resource derived from HSP that that will not undergo further refining and is fully used to displace a virgin material in the manufacturing of a new product.

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

“Resource Recovery” means reuse or processing of HSP.

“Semi-Processed Material” means material derived from HSP processed at one or more processing facilities but requires processing at another processor before sending it to an end market or RPM.

Suggested Procedures for the CSAE 3000 Engagement

The following outlines suggested procedures for auditors in the performance of the CSAE 3000 engagement. Auditors may find that some or all of these procedures are not applicable to their particular client and this is not an exhaustive list of all possible audit procedures. the required validation of performance metrics defined in section 57(2) of the HSP Regulation.

Notes:

- Procedures only apply to HSP processors who process, for the purpose of resource recovery, HSP used by a consumer in Ontario. Agreed-upon Procedures that apply to downstream processors are included in the following section.
- Procedures #3, #4 and #6 below could be completed simultaneously, as the processes are similar.
- Any reference below 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 weight of recovered resources from each type of HSP in Category A accounted for by the producer for the purposes of satisfying the management requirement in section 31.

- a) Obtain a listing of all transactions for the PRO that make up the calculated weight of HSP in Category A that were collected and delivered to a processor.
- b) Obtain a listing of all transactions for the PRO that make up the calculated weight of recovered resources from each type of HSP in Category A.
- c) Recalculate the calculated weight of HSP in Category A that were collected and delivered to a processor.
- d) Recalculate total weight of recovered resources.

- e) Compare the recalculated weight based on the listing received to the reported weight of recovered resources in the PRO's annual report.

For each HSP processor of HSP in Category A:

- f) Use analytical procedures to assess the reasonableness of transactions.
- g) Select a sample of inbound shipments (see [Appendix A](#) for suggested sampling methodology).
- h) For each sample, check the accuracy, completeness and validity of the original HSP in Category A recorded (see [Appendix B](#) for a definition of validity summarized from the Regulation).
- i) For each sample, agree the calculated weight of HSP or semi-processed material in Category A (see [Appendix C](#) for guidance on the use of weight conversion factors).
- j) Select a sample of outbound shipments and transfers to subsequent processors from across the two HSP in Category A.
- k) Confirm the validity of the sale/transfer/charge to the RPM, end market, or subsequent processor (see [Appendix D](#) and [Appendix E](#) for guidance on assessing validity).
- l) Confirm the validity of the RPM, end market, or subsequent processor, and that the material is going to be used in the manner intended (see [Appendix F](#) for guidance on assessing validity).
- m) Agree the weight of the outbound recovered resources to support (e.g., weight scale ticket).
- n) Obtain the processing facility's mass balance(s) for the audit period (see [Appendix G](#) for guidance on assessing validity).
- o) For the processing facility's mass balance, identify and recalculate the percentage of processed material per kg inbound HSP in Category A.
- p) Confirm that the total weight of processed material allocated to the PRO equals the total weight of inbound HSP in Category A allocated to the PRO multiplied by the processor's processed percentage.

2. The weight of recovered resources from each type of HSP in Category B or Category C.

- a) Obtain a listing of all transactions for the PRO that make up the calculated weight of HSP in Category B or Category C that were collected and delivered to a processor.
- b) Obtain a listing of all transactions for the PRO that make up the calculated weight of recovered resources from each type of HSP in Category B or C.
- c) Recalculate the calculated weight of HSP in Category B or Category C that were collected and delivered to a processor.
- d) Recalculate total weight of recovered resources.
- e) Compare the recalculated weight based on the listing received to the reported weight of recovered resources in the PRO's annual report.

For each HSP processor of HSP in Category B or Category C:

- f) Use analytical procedures to assess the reasonableness of transactions.
- g) Select a sample of inbound shipments (see [Appendix A](#) for suggested sampling methodology).
- h) For each sample, check the accuracy, completeness and validity of the original HSP in Category B or C recorded (see [Appendix B](#) for definition of validity summarized from the Regulation).
- i) For each sample, agree the calculated weight of HSP in Category B or C (see [Appendix C](#) for guidance on the use of weight conversion factors).
- j) Select a sample of outbound shipments and transfers to subsequent processors from across the five HSP in Category B or C.

- k) Confirm the validity of the sale/transfer/charge to the RPM, end market, or subsequent processor (see Appendix [D](#) and [E](#) for guidance on assessing validity).
- l) Confirm the validity of the RPM, end market, subsequent processor, and that the material is going to be used in the manner intended (see [Appendix F](#) for guidance on assessing validity).
- m) Agree the weight of the outbound recovered resources to support (e.g., weight scale ticket).
- n) Obtain the processing facility's mass balance(s) for the audit period (see [Appendix G](#) for guidance on assessing validity).
- o) For the processing facility's RER, identify and recalculate the percentage of processed material per kg inbound HSP in Category B or Category C.
- p) Confirm that the total weight of processed material allocated to the PRO equals the total weight of inbound HSP in Category B or Category C allocated to the PRO multiplied by the processor's processed percentage.

3. With respect to the weight of recovered resources under paragraph 1 or 2,

- i. the weight, if any, that was used or destined to be used by a person for the making of new products or packaging,**
- ii. the weight, if any, that was reused by a person, and**
- iii. in the case of paints and coatings, the weight, if any, that was used with respect to concrete or landscaping applications.**

- a) Obtain a listing of all transactions for the PRO that make up the total weight of recovered resources that was used or destined to be used by a person for the making of new products or packaging from each type of HSP in Category A, B, and C.
- b) Recalculate the total weight of recovered resources that was used or destined to be used by a person for the making of new products or packaging from each type of HSP in Category A, B, and C.
- c) Obtain a listing of all transactions for the PRO that make up the total weight of recovered resources that was reused by a person from each type of HSP in Category A, B, and C.
- d) Recalculate the total weight of recovered resources that was reused by a person from each type of HSP in Category A, B, and C.
- e) Compare the total weight of recovered resources from Procedure 1 D and 2 D to the total weight of recovered resources from Procedure 3 B and 3 D, totals should be equal.
- f) Leverage testing completed in sections 1 J, K, L, M and sections 2 J, K, L, M.
- g) Obtain a listing of all transactions for the PRO that make up the total weight of recovered resources that was used with respect to concrete or landscaping applications and derived from paints and/or coatings.
- h) Recalculate the total weight of recovered resources that was used with respect to concrete or landscaping applications and derived from paints and/or coatings.
- i) Leverage testing related to recovered resources derived from paints and/or coatings completed in sections 2 J, K, L, M.

4. The weight of mercury recovered from each type of HSP in Category C.

- a) Obtain a listing of all transactions for the PRO that make up the weight of mercury removed from each type of HSP in Category C.
- b) Recalculate total weight of mercury removed from each type of HSP in Category C.
- c) Compare the recalculated weight based on the listing received to the reported weight of recovered resources in the PRO's annual report.

For each Primary processor of HSP in Category C:

- d) Use analytical procedures to assess the reasonableness of transactions.
- e) Leverage testing completed in sections 2 G, H, I.
- f) Select a representative sample of outbound shipments and transfers to subsequent processors (see [Appendix A](#) for suggested sampling methodology).
- g) Confirm the validity of the sale/transfer/charge to the RPM, end market, or subsequent processor (see [Appendix D](#) and [E](#) for guidance on assessing validity).
- h) Confirm the validity of the RPM, end market, or subsequent processor and that the material is going to be used in the manner intended (see [Appendix F](#) for guidance on assessing validity).
- i) Agree the weight of the outbound recovered mercury to support (e.g., weight scale ticket).

5. A list of the types of resources recovered from each type of HSP in Category A, Category B or Category C.

- a) Obtain a listing of all transactions for the PRO that make up the calculated weight of resources recovered from each type of HSP in Category A, Category B or Category C.
- b) Agree the listing received to the recovered resources identified in audit procedures 1 and 2.
- c) Agree the listing received to the reported weight of recovered resources in the PRO's annual report.

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6. The weight of materials processed from each type of HSP in Category A, Category B or Category C that was:

- i. land disposed,**
 - ii. incinerated,**
 - iii. used as a fuel or a fuel supplement,**
 - iv. stored, stockpiled, used as daily landfill cover or otherwise deposited on land, or**
- a) Obtain a listing of all transactions for the PRO, which make up the total weight of processed materials that were land disposed, incinerated, used as a fuel or a fuel supplement, stored, stockpiled, used as daily landfill cover or otherwise deposited on land.
 - b) Recalculate total weight of non-recycled material.
 - c) Compare the recalculated weight based on the listing received to the reported calculated weight of HSP and the weight of processed materials that were land disposed, incinerated, used as a fuel or a fuel supplement, stored, stockpiled, used as daily landfill cover or otherwise deposited on land.

For each HSP processor of HSP in Category A, Category B or Category C:

- d) Use analytical procedures to assess the reasonableness of transactions.
 - e) Leverage testing completed in sections 1 G, H, I and sections 2 G, H, I.
 - f) Select a sample of outbound shipments from across the four non-recycling methods.
 - g) Confirm the accuracy, completeness of the recording and the validity of the sale/transfer/charge to end market (see Appendix [D](#) and [E](#) for guidance on assessing validity).
 - h) Agree the weight of the outbound material to support (e.g., weight scale ticket).
 - i) Obtain the processing facility's mass balance(s) for the audit period (see [Appendix G](#) for guidance on assessing validity).
 - j) For the processing facility's mass balance, identify and recalculate the percentage of non-recycled material per kg inbound HSP in Category A, Category B or Category C, or semi-processed material.
 - k) Confirm that the total weight of non-processed material allocated to the PRO equals the total weight of inbound HSP in Category A, Category B or Category C/material allocated to the PRO multiplied by the processor's non-processed percentage.
 - l) By dividing the total weight of reported recovered resources from paints and coating used with respect to concrete and landscaping applications by the total weight of reported recovered resources from paints and coating, confirm that recovered resources from paints and coating used with respect to concrete and landscaping applications is not more than 15% of the reported processed material and any over 15% is reported as non-processed.
- 7. For producers of HSP in Category A, a statement confirming whether the producer satisfied their management requirement in section 31 for each type of HSP in that category.**
- a) Obtain a listing of all HSP in Category A collection transactions for the PRO which makes up the total weight of collected HSP in Category A.
 - b) Use analytical procedures to assess the completeness of the collected HSP in Category A performance data.
 - c) Using the recalculated weight of HSP in Category A from performance metrics 1 (if they are not the same as the reported figures), confirm that the total at least equals the PRO's total weight of management requirement by category.
- If the PRO has not satisfied their management requirement:

- d) Obtain the PRO's allocation methodology and allocated volumes for each producer they represent to determine how the weight of collected HSP in Category A and the weight of recovered resources have been allocated to the producer.
- e) Review the weight of collected HSP in Category A and the weight of recovered resources for each PRO broken down by producer to ensure that no collected HSP in Category A or recovered resources was allocated to more than one producer.
- f) Confirm which producers, if any, met their management requirement and which did not.

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Required Procedures for the Downstream Processor Performance Verification CSRS 4400 Engagement

Downstream processors receive semi-processed material from primary processors who received HSP but only partially processed it. It is suggested that either processors have contracts with their downstream processors or PROs have contracts with downstream processors in their system to ensure that sufficient evidence is available to support performance verification.

The following outlines procedures in accordance with the Canadian Standard on Related Services (CSRS) 4400, Agreed-Upon Procedures Engagements to be performed for downstream processors.

- 1) The following procedures relate to the weight of opening inventory product and material as at January 1, 20XX that resulted from the processing of HSP received in the prior collection period
 - a) Obtain a listing of opening HSP inventory as at January 1, 20XX and recalculate the total weight based on the individual weights listed.
 - b) Obtain a listing of opening processed materials inventory as at January 1, 20XX and recalculate the total weight based on the individual weights listed.
 - c) Obtain a listing of opening semi-processed materials inventory as at January 1, 20XX and recalculate the total weight based on the individual weights listed.
 - d) Obtain a listing of opening non-program materials inventory as at January 1, 20XX and recalculate the total weight based on the individual weights listed.
 - e) Calculate the total opening inventory by adding the totals of the listings obtained in (a), (b), (c), and (d) above.
- 2) The following procedures relate to the weight of inbound HSP and material received by a downstream processor from January 1, 20XX to December 31, 20XX:
 - a) Obtain a listing of inbound HSP received between January 1, 20XX and December 31, 20XX and recalculate the total weight based on the individual weights listed.
 - i) Select a sample of inbound shipments (see Appendix A of [TBD – final name of the RPR HSP Audit Procedure Document] for a definition of validity summarized from the Regulation] for sampling methodology).
 - (1) For each sample, confirm the validity of the original HSP recorded (see Appendix B of [TBD] for a definition of validity summarized from the Regulation]).
 - (2) For each sample, agree the calculated weight of HSP from the listing to the [insert name of supporting documentation] (see Appendix C of [TBD] for guidance on the use of weight conversion factors).
 - b) Obtain a listing of inbound semi-processed materials received between January 1, 20XX and December 31, 20XX and recalculate the total weight based on the individual weights listed.
 - i) Select a sample of inbound shipments and perform the following procedures (see Appendix A of [TBD] for sampling methodology):
 - (1) For each sample, confirm the validity of the original HSP recorded (see Appendix B of [TBD] for a definition of validity summarized from the Regulation).
 - (2) For each sample, agree the weight of semi-processed material from the listing to the [insert name of supporting documentation].
 - c) Calculate the weight of inbound HSP and material received by a downstream processor by adding the totals of the listings obtained in (a), and (b) above.

- 3) The following procedures relate to the weight of outbound HSP and materials that resulted from the processing of HSP received between January 1, 20XX and December 31, 20XX:
- a) Obtain a listing of HSP sent to end market for reuse between January 1, 20XX and December 31, 20XX and recalculate the total weight based on the individual weights listed.
 - i) Select a sample of outbound shipments and perform the following procedures (see Appendix A of [TBD] for sampling methodology):
 - (1) For each sample, confirm the validity of the recording of the sale/transfer/charge to the end market (see Appendix D and E of [TBD] for guidance on assessing validity).
 - (2) For each sample, confirm the validity of the end market, the reusing party, and that they are going to reuse the HSP.
 - (3) For each sample, agree the calculated weight of HSP from the listing to the [insert name of supporting documentation].
 - b) Obtain a listing of HSP sent to end market for refurbishment between January 1, 20XX and December 31, 20XX and recalculate the total weight based on the individual weights listed.
 - i) Select a sample of outbound shipments and perform the following procedures (see Appendix A of [TBD] for sampling methodology):
 - (1) For each sample, confirm the validity of the recording the sale/transfer/charge to the end market.
 - (2) For each sample, confirm the validity of the end market, the reusing party, and that they are going to reuse the refurbished HSP.
 - (3) For each sample, agree the calculated weight of HSP from the listing to the [insert name of supporting documentation].
 - c) Obtain a listing of recovered material sent to an end market to be used in the making of products and packaging between January 1, 20XX and December 31, 20XX and recalculate the total weight based on the individual weights listed.
 - i) Select a sample of outbound shipments and perform the following procedures (see Appendix A of [TBD] for sampling methodology):
 - (1) For each sample, confirm the validity of the sale/transfer/charge to the end market.
 - (2) For each sample, confirm the validity of the end market and that the material is going to be used in the manner intended.
 - (3) For each sample, agree the weight of the outbound processed material from the listing to the [insert name of supporting documentation].
 - d) Obtain a listing of program material or semi-processed material sent to an end market to be disposed of or stored in a manner that is not considered recycling between January 1, 20XX and December 31, 20XX and recalculate the total weight based on the individual weights listed.
 - e) Obtain a listing of non-program material sent to an end market between January 1, 20XX and December 31, 20XX and recalculate the total weight based on the individual weights listed.
 - i) Select a sample of outbound shipments and complete the following procedures (see Appendix A of [TBD] for sampling methodology):
 - (1) For each sample, confirm the validity of the sale/transfer/charge to end market.
 - (2) For each sample, agree the weight of the outbound material from the listing to the [insert name of supporting documentation].

- f) Obtain a listing of non-recovered product transferred to downstream processors between January 1, 20XX and December 31, 20XX and recalculate the total weight based on the individual weights listed.
 - i) Select a sample of outbound shipments and complete the following procedures (see Appendix A of [TBD] for sampling methodology):
 - (1) For each sample, confirm the validity of the sale/transfer/charge to the downstream processor.
 - (2) For each sample, agree the weight of the outbound material from the listing to the [insert name of supporting documentation].
 - g) Calculate the total weight of outbound HSP and materials that results from the processing of HSP by adding the totals of the listings obtained in (a), (b), (c), (d), (e) and (f) above.
- 4) The following procedures relate to the weight of closing inventory product and material as at December 31, 20XX that resulted from the processing of HSP received in the collection period:
 - a) Obtain a listing of closing HSP inventory as at December 31, 20XX and recalculate the total weight based on the individual weights listed.
 - b) Obtain a listing of closing processed materials inventory as at December 31, 20XX and recalculate the weight based on the individual weights listed.
 - c) Obtain a listing of closing semi-processed materials inventory as at December 31, 20XX and recalculate the weight based on the individual weights listed.
 - d) Obtain a listing of closing non-program materials inventory as at December 31, 20XX and recalculate the weight based on the individual weights listed.
 - e) Calculate the total weight of closing inventory product and material by adding the totals of the listings obtained in (a), (b), (c) and (d) above.
- 5) The following procedures relate to the mass balance for the period of January 1, 20XX to December 31, 20XX:
 - a) Calculate the total weight of opening inventory and inbound HSP and material by adding the totals of 1(e) and 2(c).
 - b) Calculate the total weight of gross processed and closing inventory by adding the totals of 3(g) and 4(e).
 - c) Calculate the total weight of shrinkage/wastage of material during the resource recovery performance period by subtracting the total of 5(b) from the total calculated in 5(a).
 - d) Calculate the total weight of outbound material, shrink/wastage, and closing inventory by adding the total weights calculated in 5(b) and 5(c).
 - e) Calculate the weight of total available material during the resource recovery performance period by subtracting the total weights calculated in 3(a), 3(b), 3(e), 3(f), 4(e) and 5(c) from 5(a).
 - f) Calculate the recycling rate by dividing the total recycled material calculated in 2(c) by the total available weight calculated in 5(e).
- 6) The following procedures relate to comparing the downstream processors recycling rate determined through the mass balance and calculation in 5(f) to the imputed recycling rate determined from the inbound semi-processed material and recovered resources reported by the downstream processor to the PRO.
 - a) Obtain a listing of inbound semi-processed materials received between January 1, 20XX and December 31, 20XX allocated to the PRO and recalculate the total weight based on the individual weights listed.
 - b) Obtain a listing of recovered material sent to an end market to be used in the making of products and packaging between January 1, 20XX and March 31, 20XX⁺¹ derived

- from semi-processed material from 6(a) and allocated to the PRO and recalculate the total weight based on the individual weights listed.
- c) Obtain a listing of program material or semi-processed material sent to an end market to be disposed of or stored in a manner that is not considered recycling between January 1, 20XX and March 31, 20XX⁺¹ derived from semi-processed material from 6(a) and allocated to the PRO and recalculate the total weight based on the individual weights listed.
 - d) Calculate the imputed recovery rate by dividing 6(b) by 6(a).
 - e) Calculate the difference between the imputed recovery rate calculated in 6(d) and the recycling rate determined through the mass balance calculated in 5(f)
- 7) The following procedures combine the performance of all downstream processors within a PRO's system:
- a) Calculate the total weight of recovered material by downstream processors in the PRO's system by adding 6(b) for each downstream processor.
 - b) Calculate the total weight of program material or semi-processed material sent to an end market to be disposed of or stored in a manner that is not considered recycling by downstream processors in the PRO's system by adding 6(c) for each downstream processor.
- 8) The following procedures combine the performance of all primary and downstream processors within a PRO's system:
- a) Identify the reported weight of reused HSP in the PRO's CSAE 3000 performance report.
 - b) Identify the reported weight of refurbished HSP in the PRO's CSAE 3000 performance report.
 - c) Calculate the total weight of recovered material by primary and downstream processors in the PRO's system by adding 7(a) and the reported weight of recovered material in the PRO's CSAE 3000 performance report.
 - d) Calculate the total weight of program material or semi-processed material sent to an end market to be disposed of or stored in a manner that is not considered recycling by primary and downstream processors in the PRO's system by adding 7(b) and the reported weight of program material sent to an end market to be disposed of or stored in a manner that is not considered recycling in the PRO's CSAE 3000 performance report.
 - e) Calculate the PRO's resource recovery rate by adding 8a), 8(b), and 8(c) and dividing by the reported weight of collected HSP in the PRO's CSAE 3000 performance report.

Required Procedures for the HSP Recovery Credits Transferred CSRS 4400 Engagement

In order to meet a producer's Category A HSP annual resource recovery obligations, producers or PROs may have bought or sold resource recovery performance credits before the annual reporting deadline. For compliance purposes, the following procedure outlines how to validate credits transferred (bought/sold) between PROs. Although audits are only required to be performed on a three year cycle in accordance with the Regulation, it is suggested that a PRO selling credits during the cycle might want to complete an audit on an annual basis to provide comfort to the purchasing PRO.

PROs who transferred any credits

It is recognized that an auditor may not be able to verify the existence of the credits bought from or sold to another PRO. As a result, the auditor should provide a CSAE 3000 report for a PRO's own performance and a separate report related to the credits transferred in accordance with CSRS 4400, Agreed-upon Procedures Engagements

To create a more efficient reporting process that helps minimize the burden on business, the Authority is allowing registrants to align the deadline and scope of the resource recovery transfer verification report with the HSP performance audit report. Therefore, on or before July 31, 2023, and every third subsequent year, registrants can submit both reports at the same time.

The following outlines procedures in accordance with the Canadian Standard on Related Services (CSRS) 4400, Agreed-Upon Procedures Engagements to be performed over resource recovery credits transferred by any PROs:

1. Obtain copies of all purchase and sales agreements (i.e., legal agreement/contract) related to HSP recovery credits transferred and ensure two signatures are present.
2. For each purchase and sale:
 - Obtain an email from the purchaser/seller confirming the total volume of credits bought/sold by the PRO. Agree the confirmed amounts with the volume of credits added to or removed from the PRO's performance and the purchase/sale documentation.
 - Obtain the invoice and agree the total monetary transaction amounts to the purchase/sale order (if applicable) the funds withdrawn from/deposited in the PRO's bank statement.
3. Agree the total amount of weight credits bought/sold by the PRO to the amount reported on the credit transfer documentation (i.e. Certificate of Transfer).
4. Calculate the resource recovery percentage for the PRO as follows:
 - Take the PRO's own performance before the consideration of any credits bought or sold.
 - Add/subtract credits bought from or sold to another PRO, and
 - Divide the volume of processed material by the volume of collected material.
5. Determine if the results of the calculation meet or exceed their management requirement as defined in Ontario Regulation 449/21: Hazardous and Special Products (HSP).

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 processed HSP are accurate, complete, and exist).

Sample sizes obtained through this sampling methodology are based on four variables: population size, confidence level, expected deviation rate, and tolerable deviation rate.

Suggested variables are defined below:

Confidence Level = 95%

Expected Deviation Rate = 0%

Tolerable Deviation Rate = 5%

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

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

Appendix B – Validating HSP

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

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

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Appendix C – Validating Calculated Weight of HSP

Additionally, references to “calculated weight of HSP” in the regulation and this audit procedure can mean either the actual weight of HSP or the corresponding weight of HSP determined in accordance with the Registry Procedure Verification and Audit (Table 1: HSP Weight Conversion Factors and Table 2: Factory fill antifreeze Weight Conversion Factors from Used Oil Management Association of Canada).

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 correct conversion factor for the types of used HSP have been applied.
- The conversion factor calculation is accurate.

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Appendix D – Validating Transfers

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

Collection Site to Hauler

- Electronic or hard copy record of transfer of material from collection site to hauler, which includes at least:
 - Name and location of collection site.
 - Name of HSP hauler.
 - Unique document ID number.
 - Signed by representatives of the collection site and hauler.
 - Estimated number of HSP or estimated weight of HSP.

Hauler to Processor

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

Processor to Downstream 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).

Appendix E – Validating Outbound Shipments

Material / Use	Examples of Suitable End Markets	Examples of Suitable Evidence
Processed		
Metals	Metal Manufacturers	Sales Invoice Shipping Invoice / Bill of Lading Evidence of payment received in GL Evidence of payment received in bank (statement)
Used oil	Fuel Manufacturer Lubricant Manufacturer	
Plastics	Plastic Manufacturer	
Antifreeze	Antifreeze Manufacturer	
Paint	Paint Manufacturers Concrete Manufacturer	
Non-processed		
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 st of the year following the audit period	Mass Balance Physical Observation

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 HSP 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 HSP processors it would be almost impossible to track an inbound shipment of HSP and accurately state that 70% was processed into one recovered resource, 20% was processed into a second recovered resource and 10% was processed into a waste product 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 HSP that is received by a processor, there would be evidence of it either leaving the processor or held as inventory at the processor.

The simplified mass balance calculation:

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

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:
 - Scrap metal
 - Plastic
 - Used oil
 - 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, or
 - Used as concrete and landscaping application, if the processed material is paints or coatings, with respect to any recovered resource that was used beyond the 15 per cent maximum, as permitted under subsection 29 (2).

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 used as fuel.

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

HSP 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 HSP 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 management requirement.

Semi-processed Material Received by Downstream Processors

Processed material can only count towards the producer's resource recovery performance target once. Therefore, if material is sent from an HSP processor to a downstream processor, the auditor must ensure that the processing performance is only counted once towards the producer's processing target.

As part of the audit process, the auditor should validate that the inbound HSP 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 pallet 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 HSP multiplied by pre-defined weights.

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Appendix I – References

Hazardous and Special Products Regulation (O. REG. 449/21):

<https://www.ontario.ca/laws/regulation/r21449>

Registry Procedure – Hazardous and Special Products Verification and Audit

https://rpra.ca/wp-content/uploads/Hazardous-and-Special-Products-Verification-and-Audit-Procedure_May-19-2021.pdf

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