



CIRCULAR PLASTICS ALLIANCE

AUDIT FRAMEWORK

RECYCLING AND CONVERSION DATA

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1. Introduction & Scope

This Audit framework has been constituted for the implementation of audits of Data Generators reporting on recycling and conversion activities within the Circular Plastics Alliance (CPA). This procedure has been produced to ensure that required data are audited following the same standardised procedure, to ensure harmonisation.

This document has been drafted in the light of international audit standards (ISO 19011:2018, ISO 9001:2000).

This document reflects both traceability levels 1 and 2. All requirements apply to both levels, additional requirements for level 1 traceability are marked.

2. Definitions

For the purposes of auditing, the terms mentioned below are to be understood as follows.

Auditor

Person qualified to conduct audit for the requirements lined out in the CPA protocol.

Converter

[ISO 472: 2.1685]

Specialized operator capable of shaping plastics raw material to make a usable semi-finished or finished product.

Converter's Input

The total weight of Recycled Plastic received / bought by a Converter in Europe, and imported /delivered to the Converter from outside Europe, during the previous calendar year.

Converter's Output

The total weight of recycled plastic included in products sold, during the previous calendar year.

Europe

For the purposes of this methodology Europe refers to the 27 EU Member-states plus the UK.

Post-Consumer

Descriptive term covering material, generated by the end users of products, that has fulfilled its intended purpose or can no longer be used (including material returned from within the distribution chain).

Pre-Consumer

Material diverted during a manufacturing process, excluding re-utilized material, such as rework, regrind or scrap that has been generated in a given process and is capable of being reclaimed within that same process.

CPA Note: For further clarification on the scope of pre-consumer material, please refer to the CPA waste guidance document

Recycler

Entity that processes the plastics waste materials to be used again for the original purpose or for other purposes, excluding energy recovery and fuel production.

Recycler's Total Input

The total weight of sorted waste received by Recyclers in Europe, during the previous calendar year.

Input to Recycling Operation

Plastic separated by polymers that does not undergo further processing before entering pelletisation, extrusion, or moulding operations. Or, plastic flakes, regrind, micronized powder that do not undergo further processing before their use in a final product.

CPA Note 1: This definition is fully set out for municipal waste in Commission Implementing Decision (EU) 2019/2004 and for packaging waste in Commission Implementing Decision (EU) 2019/665.

CPA Note 2: this definition does not currently cover all recycling technologies and will be updated

Recycler's Total Output

The total weight of Recycled Plastic as output from the recycling process, either sold or used within the same legal entity, during the previous calendar year.

CPA Note: some recycling processes may involve more than one actor.

Recycled Plastic

Plastic prepared by processing plastics waste for the original purpose or other purposes, but excluding energy recovery and fuel production.

CPA Note: Recycled plastics excludes new additives and fillers added before using the material in new products

Subcontracted Recycling

Sorted Waste delivered to the Recycler which is recycled by a third-party recycler.

Trader

Any undertaking that acts in the role of principal to purchase (or charge for the removal of / accept free of charge) and subsequently sell (or pay for the treatment or disposal of / dispose of free of charge) Sorted Waste, Output of Recycling Operation or Recycler's waste, including such dealers who do not take physical possession of the aforementioned material streams.

3. Procedure

3.1. Audit Planning

In accordance with the CPA monitoring system methodology, each Data Collector must conduct effective planning to ensure the data it will report is audited. The Data Collector can either process the registered audited tonnages or organise the auditing of the registered unaudited tonnages. To do this effective audit planning should be scheduled annually.

3.2. Conducting the audit

3.2.1. Audit Procedure

Figure 1 describes the steps for the implementation of an audit.

For this, the following three aspects must be assessed:

1. There is a good administrative system in relation to the Data Generator's claims:
The Data Generator's administrative system must be sufficiently proficient. There must be information available concerning both the incoming and outgoing material flows.
The ability to comply with this requirement should be checked by the Data Collector when the Data Generator agrees to report data to a Data Collector.
2. Data generators have sufficient knowledge of the data requirements:
The Data Generator must have a sufficient knowledge of data requirements of the CPA monitoring system. Each Data Generator should understand what is considered the appropriate selection within the IT system of the Data Collector to whom they have chosen to report data. The Data Generator must know which tonnages can be reported and which not.
3. The tonnages have been correctly aggregated:
The tonnages originating from individual transport/weighing must be correctly aggregated.

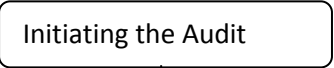
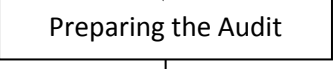
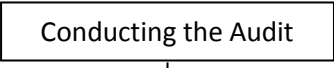

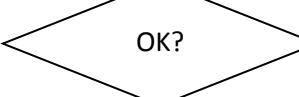
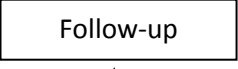
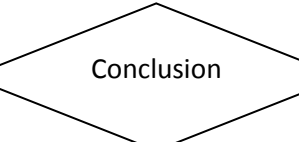
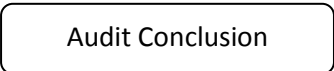
Action	Who	How
	Auditor	See 3.2.1
	Auditor / Data Generator	See 3.2.2
	Auditor	See 3.2.3
	Auditor	On the basis of the audit checklist, the audit report, and auditor notes
	Auditor	Data Generator's Approval
	Auditor	
	Auditor	
	Auditor	
	Auditor / Data Collector	

Figure 1 Audit Procedure Flowchart

3.3. Initiating the Audit

The auditor defines the audit objective, scope and criteria (e.g., controls the materials claim, contractor name, audit checklist) and records this on an audit report.

The auditor and the Data Generator agree on a date for the audit. The auditor informs the Data Generator concerning the preparation of all relevant documents prior to the audit and checks practical matters such as safety measures and ensures that dedicated personnel are available.

3.4. Preparing the Audit

If a previous audit has been conducted, the auditor examines the report of the previous audit.

For the audit to proceed smoothly and efficiently, the Data Generator must prepare a number of documents to hand or to be kept available as necessary during the audit, namely:

3.4.1. Sources of information for a Recycler:

The tonnages provided to the Data Collector for Recycler's Total Input:

- Information with regard to the origin of the material
- The transport document (loading list)
- The weighing slip for the post-consumer and pre-consumer material picked up for arrival at the Data Generators, with indication of the total tonnage
- The invoice relating to this delivery of post-consumer and pre-consumer
- Credit notes for refused material (if applicable)
- Weighbridge calibration certification/document
- Check of double counting if material received from another recycler

The tonnages provided to the Data Collector for Recycler's Output:

- The name and address of the material's destination
- The invoice relating to the supply
- Credit notes for refused material (if applicable)
- The transport document (loading slip)
- The weighing slip at departure and or the destination supply order/weighing slip form
- Check of double counting if material sent to **another** recycler

Reports of visits/audits which the Data Collector has received in the course of the last 2 years such as, previous audit reports

The recycler must indicate in detail how it has obtained the tonnage i.e., the recycler must be able to supply the consolidated figure broken down per the requirements of Annex Z1 or Z2.

The information required for the Audit must be immediately consultable on the site where the audit takes place, or the information must be able to be rapidly supplied (for example by email if a part of the information is located at another plant).

3.4.2. Sources of information for a Converter:

Related to the tonnage provided to the Data Collector for Converter's Input:

- Description of the recycled Input provided
- Purchasing documentation of recycled Input.
- Information with regard to the origin of the material
- The transport document (loading list)
- Credit notes for refused material (if applicable)
- Weighbridge calibration certification/document (if available)
- The weighing slip (if available) for the recycled plastic picked up for arrival at the Data Generators, with indication of the total tonnage
- Purchasing and the invoice relating to deliveries

Related to the tonnage provided to the Data Collector Converter's Output:

- Name and address of the customer
- Date when the invoice was issued
- Product code and description of the Output sold (Level 1 Traceability: type of product containing material pre-consumer and post-consumer, European and non-European waste)
- Quantity of Output
- Records of sales

Reports of visits/audits which the Data Collector has received in the course of the last 2 years such as, previous audit reports.

The information required for the Audit must be immediately consultable on the site where the audit takes place, or the information must be able to be rapidly be supplied (for example by email if a part of the information is located at another plant).

3.5. Audit progress

The audit is opened with a short explanation to the people present. The framework is outlined, and an overview is given of the course of the audit.

The audit itself takes place goes according to the steps described in Figure 2.

Action	Who	How	Record
<pre> graph TD A([Available Sources of Information]) --> B[Verification] B --> C[Evaluation Compared with Audit Criteria] C --> D{OK?} D -- Yes --> E[Audit Conclusions] D -- No --> F[Not conforming] F --> E E --> G([Meeting Closed]) </pre>	<p>Data Generator</p> <p>Auditor</p> <p>Auditor</p> <p>Auditor</p> <p>Auditor</p> <p>Auditor</p> <p>Auditor/ Contractor</p>	<p>Data supplied</p> <p>See further for specific questions such as guidelines</p> <p>Checklist</p> <p>Not conforming</p> <p>Review audit that has been carried out</p>	<p>Own notes</p> <p>Audit Checklist</p> <p>Audit Checklist Own notes</p> <p>Audit Report</p>

Figure 2 Audit Flowchart

3.6. Areas of the audit focus

The specific questions mentioned below serve as guidelines for conducting the audit:

3.6.1. Recycler

3.6.1.1. Questions on Administration

1. Is there a **waste permit or permit exemption** in place?

Note: Check if one of the following documents is in place:

- i. Waste permit;
- ii. Permit derogation (according to Article 20 of the Waste Framework Directive); or
- iii. Operating license or environmental license with specific provisions on treatment of waste

2. Is there a valid **calibration report**?

3.6.1.2. Questions on Recycler's Input

3. Can the reported volume be broken down into **individual incoming deliveries**?
4. Has the correct **polymer** been identified/declared?

Note: Go through the list of suppliers as well and check whether there are names of companies that possibly do produce/handle the specified waste.

5. Has the correct **application** been identified/declared?
6. Is the material that is declared effectively **post-consumer or pre-consumer**?

Note: Go through the list of suppliers as well and check whether there are names of companies that possibly do not produce/handle post-consumer or pre-consumer waste.

7. Is the **material country of origin** effectively declared?

Note: Check if the material is imported from outside Europe.

8. Can each delivery of input volume be **linked to a supplier**?
9. Are the **names of the suppliers** kept on file and can they be verified?
10. **Has freight which has been refused** and has not effectively been processed included in the tonnages?
11. Does the declared material contain any material that has been already declared by **another recycler**, i.e. are there suppliers which are also known to report to either the same Data Collector or another Data Collector within the CPA itself?

Note: If this is the case, there would be a danger of double-counting.

Note: The auditor should possess a list of Data Generators reporting to the same Data Collector.

12. Does the declared material contain any material that has been supplied by a **trader or a subcontracted recycler**?

Note: If the trader or subcontracted recycler has supplied waste, then the material can be included.

Note: If the trader or subcontracted recycler has supplied a product and no traceability can be demonstrated, then the material must be disregarded.

13. Has the **Recycler's Input** value been correctly introduced into the Data Collector's IT system?

Input into Recycling Operation

14. Does the recycler have a procedure in place to **determine the contamination** of the input tonnage?

Note: The contamination of the input material will allow the calculation of the input into Recycling Operation.

15. Has the **input into Recycling Operation** value been correctly introduced into the Data Collector's IT system?

3.6.1.3. Questions on Recycler's Output

16. Can the reported volume be broken down into **individual outgoing transport movements**?

17. Can all outgoing flows be **linked to a customer or a user**?

Note: Copies of the customers/invoices or internal documents should be taken as confidential information.

18. Is the **materials destination** effectively declared?

Note: Check if the material is exported outside Europe

19. Have **deliveries which have been returned** by the customer been included in the tonnages?

20. Can the input and output of the recycling operation be **linked back to a batch** (supplier or group of suppliers in case of traceability level 2)?

21. Do a **plausibility check** to verify that the recycled plastics present in the sales or use records match what has been produced in the production records.

22. If sales data is extrapolated from production records, please provide **evidence that extrapolation** is plausible.

Note: When Recycler's Output is calculated using production records, the data needs to be extrapolated to sales. This needs to be checked with sales records as plausible.

Note: If Recycler's Output is directly used (no sales records are available), check internal records.

23. Has the **Recycler's Output value** been correctly introduced into the Data Collector's IT system?

Note: *Level 1 Traceability - Calculation must include the split between pre-consumer and post-consumer of the Recycler's Output.*

Note: *Level 1 Traceability – Calculation must include the split between recycled plastics made from European waste and recycled plastics made from non-European waste of the Recycler's Output.*

3.6.1.4. Questions on Quantity reconciliation

24. Are inputs and outputs to the **recycling operation records** recorded?

Note: *Information available must include:*

- i. Production records (for bulk input material, stock changes can be used);*
- ii. Input and output flows from Recycling Operation;*
- iii. Report of additives, fillers, and/or virgin added to the Recycling Operation;*
- iv. By-products records;*
- v. Waste disposal records;*
- vi. Subcontracted recycling;*
- vii. Stock level*

25. Can a **quantity reconciliation** of the incoming and outgoing flows of the previous year be established?

Note: *Accounting of all material flows of a recycling process. This calculation should take into consideration amount of material withdrawn from storage and sent to the recycling process (based on documentation such as shift protocols), quantity of by-products, output and waste originated. For the calculation, production data should be used (stock changes should be avoided if possible). Information regarding the documentation and data checked and the period evaluated should be determined and communicated in the audit report. Once the calculation is finalised, it must be declared if the balance is plausible or not. Differences in input and output higher than 5% must be justified.*

Note: *This calculation only applies to mechanical recycling. For other recycling technologies, conditions will be specified later.*

26. Is the **stock level** at the beginning and the end of the evaluation period known?

Note: *Recycler must have a stock management system in place that allows the monitoring of the stock movements.*

27. Can the **Recycled Plastics present in the output** be established?

28. Is the calculation of the **Recycled Plastics present in the Output plausible**?

Note: *Incoming waste (t) + stock (t) must be higher than consumption figures in the Recycling Operation (t).*

3.6.2. Converter

3.6.2.1. Questions on Administration

1. Is there an **operating permit** in place?

Note: Check that an operating permit is in place.

2. If the material is weighted at the input, is there a valid **calibration report**?

3.6.2.2. Questions on Converter's Input

3. Can the reported volume be broken down into **individual incoming deliveries**?
4. Has the correct **polymer** been identified/declared?
5. Is the Converter's Input **country of origin** effectively declared?

Note: Country of origin refers to the country where the material was recycled.

6. Can each delivery of input volume be **linked to a supplier**?
7. Are the names of the **suppliers** kept on file and can they be verified?

Note: For information purposes, check if the suppliers been audited according to the CPA Protocol.

8. **Has freight which has been refused** and has not effectively been processed included in the tonnages?
9. Does the **declared input** contain any material that has been already declared by another converter?

Note: Ensure that suppliers aren't also converters who report to a CPA Data Collector to avoid double counting.

10. Does the **declared input** contain any material that has been supplied by a trader?

Note: Communication obligation – Traders and compounders are subject to the same information obligation as recyclers (according to either traceability level 1 or 2).

Note: If information requirements are not complied with, then the material must be disregarded.

11. Has the **Converter's Input** value been correctly introduced into the Data Collector's IT system?

***Note:** Level 1 Traceability – The **share of pre-consumer and post-consumer Recycled plastics** is also known for the input material at the converter.*

***Note:** Level 1 Traceability (mandatory)/Level 2 Traceability (optional): The **origin of the waste (European/non-European)** must also be known. Check if the material is imported from outside Europe. Evidence must be provided to prove the origin of European waste.*

3.6.2.3. *Questions on Converter's Output*

12. Can the mentioned figure be broken down into **individual outgoing transport movements**?

13. Can all outgoing flows be **linked to a customer**?

14. Is the **materials destination** effectively declared?

***Note:** Check if the material is exported outside Europe*

15. Have **deliveries which have been returned** by the customer been included in the tonnages?

16. Have **deliveries which have been returned** by the customer been included in the reported tonnages?

17. Can the input and output of the converting operation be **linked back to a batch** (supplier or group of suppliers in case of traceability level 2)?

18. Do a **plausibility check** to verify that the recycled plastics present in the sales records match what has been produced in the production records.

19. If sales data is extrapolated from production records, please provide **evidence that extrapolation is plausible.**

***Note:** When Converter's Output is calculated using production records, the data needs to be extrapolated to sales. This needs to be checked with sales records as plausible.*

20. Has the **Converter's Output value** been correctly introduced into the Data Collector's IT system?

***Note:** Level 1 Traceability – Calculation must include the split between pre-consumer and post-consumer of the Converter's Output.*

***Note:** Level 1 Traceability – Calculation must include the split between recycled plastics made from European waste and recycled plastics made from non-European waste of the Converter's Output.*

3.6.2.4. Questions on Quantity Reconciliation

21. Are inputs and outputs to the **recycling operation records** recorded?

Note: Information available must include:

- i. *Production records (for bulk input material, stock changes can be used);*
- ii. *Input and output flows from Operation;*
- iii. *Report of additives, fillers, and/or virgin added (if any);*
- iv. *By-products records;*
- v. *Waste records;*
- vi. *Stock level*

22. Can a **quantity reconciliation** of the incoming and outgoing flows of the previous year be established?

Note: Accounting of all material flows of a converting process. This calculation should take into consideration amount of material withdrawn from storage and sent to the process (based on documentation such as shift protocols), quantity of by-products, output and waste originated. For the calculation, production data should be used. Information regarding the documentation and data checked and the period evaluated should be determined and communicated in the audit report. Once the calculation is finalised, it must be declared if the balance is plausible or not. Differences in input and output higher than 5% must be justified.

23. Is the **stock level** at the beginning and the end of the evaluation period known?

Note: Converter must have a stock management system in place that allows the monitoring of the stock movements.

24. Can the **Recycled Plastics present in the output** be established?

25. Is the calculation of the **Recycled Plastics present in the Output plausible?**

Note: $Input(t) + stock(t)$ must be higher than consumption figures in the Converter's Operation (t).

ii. Auditor Competency and Appraisal

i. Competency

Credibility of the audit process is essential for a trusted result and depends on the auditor's competency and experience. Auditor should be qualified and certified under a recognised CPA audit scheme/process (list is made publicly available by the CPA). Or should undergo a dedicated auditor training by the Data Collector.

Parameter	Requirements
Knowledge	Audit principles, procedures and techniques
	General business processes and terminology used
	Local circumstances and requirements
Skills	Communicative
	Conflict handling
	Clarity of expression
	Organisational talent
	Accuracy
	Systematic working
Individuality	Honest
	Ethical
	Open
	Communicative
	Decisive

ii. Maintaining and improving competency

Ongoing professional development is important for maintaining and improving competency. This can be achieved by means of work experience, training, coaching, attending conferences and other relevant activities.

iii. Appraisal

Periodically, auditors must be appraised. This appraisal process must be recorded, and also further service and training requirements identified.

iii. Archiving Rules

Archiving by digital means is preferred.

Document	Responsible	Conservation Time
Audit Planning	Data Collector	3 Years

Audit Reports	Data Collector <i>OR</i> Auditor	3 Years
Audit Checklist	Data Collector <i>OR</i> Auditor	3 Years