'System volume flow record audit guidelines'

for auditing compliance of systems with record-keeping obligations within the scope of volume flow records pursuant to section 17 (2) VerpackG (Packaging Act)

(in agreement with the German Federal Cartel Office pursuant to section 26 (1) no. 28 VerpackG)

Last updated: 6 February 2025

Validity: Starting with the 2025 reference year

VERSION HISTORY

Version	Date	Key changes	Entry into force	Validity
V1.0	1 January 2019	----	At publication	2018 reference year
V1.1	21 January 2020	----	At publication	2019 reference year
V1.2	15 December 2020	----	At publication	2020 reference year
V1.3	6 February 2025	- Clarification of and additions to the audit assignment (A.4) - Review of the system participation volumes by the auditor of the volume flow record (B.7) - Clarification that only one valid facility certificate is permitted (B.10.10) - Provisions on the qualifying or declining a confirmation pursuant to section 17 (2) (C.16.4) - Appointment of an additional auditor if there are indications of incorrectness/incompleteness (C.18.7) - Definition of 'reasonable assurance' (Appendix 1, glossary)	At publication, 11 February 2025	Starting with the 2025 reference year

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1 Introduction

1.1 The Stiftung Zentrale Verpackungsregister (Central Agency Packaging Register Foundation – '**ZSVR**')[1] is authorised under section 26 (1) no. 28 of the 'Gesetz über das Inverkehrbringen, die Rücknahme und die hochwertige Verwertung von Verpackungen' (Act Governing the Placing on the Market, Collection and High-Quality Recovery of Packaging, known in German as the 'Verpackungsgesetz' or 'VerpackG')[2] to develop – in coordination and agreement with the German Federal Cartel Office – audit guidelines that '**registered experts**[3]' and auditors, tax advisers, and sworn accountants as well as '**system auditors**' have to comply with when auditing compliance with record-keeping obligations under the VerpackG.

1.2 Record-keeping obligations include the submission of volume flow records within the meaning of section 17. The '**systems**' have an obligation to submit volume flow records under section 17.

1.3 A '**volume flow record**' is a verifiable record of compliance with the collection and recovery requirements under sections 14 (1) and 16 that is certified as set out in section 17 (2) by a registered expert pursuant to sections 3 (15), 27 (1). The volume flow record contains documentation of the recovery of the emptied packaging covered by nationwide collection under section 14 (1), in the form of aggregate data on the volumes participating in the system and the volumes collected and prepared for re-use or the respective recovery method. The volume flow record also includes calculation of the '**recovery rate**'. The '**reference year**' for the volume flow record is the preceding calendar year in each case.

1.4 The documentation duty / obligation to generate the volume flow record falls to the system. The registered expert's task is to carry out the audit activities, not to generate and/or to add to the subject of the audit (the volume flow record).

1.5 The volume flow record's aggregate data and the scope of the audit pursuant to section 17 are based on '**proof**'and other documents relating to the nationwide collection, sorting and recovery of packaging, differentiated by material type and other requirements under section 16.

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1 Highlighted terms are each explained in **appendix 1** (glossary).

2 Unless indicated otherwise, section references to an act are to the VerpackG.

3 The masculine form of professional and job titles is used for better readability. The personal or job descriptions apply equally to all genders (m/f/nb).

1.6 These audit guidelines are to be followed when auditing compliance with record-keeping obligations within the scope of volume flow records pursuant to section 17. The ZSVR itself takes the rules of the audit guidelines into account when auditing volume flow records under section 26 (1) no. 7; the ZSVR informs the respective German state authorities of the audit results.

A General part

2 Role of a registered expert

2.1 Systems have to use registered experts pursuant to sections 3 (15), 27 (1) ('**auditors**') when auditing and confirming volume flow records pursuant to section 17 (2) including auditing of final recipient facilities. The system chooses the registered expert as the auditor from the ZSVR's register of auditors (division 1: registered experts) and commissions them.

2.2 General rules regarding the professional and personal suitability of the auditor can be found in the relevant professional regulations.

2.3 Given the important role of the registered expert, performance of audit activities by third parties / subcontractors is not permitted. Registered experts are permitted to collaborate if this has been provided for in the audit assignment. In the event of registered experts collaborating as part of the audit assignment, the audit report and the audit records must document who carried out the respective expert activities. As an exception, collaboration with a registered expert should not be documented in the audit assignment and the audit protocols if individual audit results form part of the volume flow record but do not relate exclusively to the specific volume flow record to be audited (e.g. '**facility certificates**', expert opinions within the meaning of this section 2 and other determinations documented in writing). In this instance, the following applies:

2.3.1 A registered expert whose facility audit and facility certificate should be referable for the volume flow record must comply with 3, C9 and BC10 of these audit guidelines. The provisions of A.5 regarding the content of the audit assignment apply to any such registered expert in relation to the facility operator.

2.3.2 The registration of the relevant expert whose audit results are being referenced in the register of auditors (division 1: registered experts) must be available at the time the documentation is generated. The auditor must check this. Expert opinions and findings documented in writing from any such registered expert may only be used if the auditor has been provided with a written confirmation by the author pertaining to the respective document stating that they followed these audit guidelines in their audit.

2.3.3 As the registered expert, the auditor must assume responsibility for expert opinions and other findings documented in writing by non-registered experts that the auditor may use.

2.3.4 The study conducted by VAW Aluminium AG on 'Ecological efficiency of the recycling of the DSD aluminium packaging group through pyrolysis: 2000' constitutes an exception to 2.3.2 and 2.3.3.

3 Legal basis of the audit

3.1 The audit is based on the VerpackG and other applicable legal provisions such as the '**MessEG**' and the '**MessEV**', as well as any other norm-interpreting administrative regulations for the relevant reference year. The relevant applicable legal provisions and audit guidelines must be complied with. For registered experts who audit facilities exclusively, refer to A2.3.1 of these audit guidelines.

3.2 The objective of the audit is to ascertain implementation of the rules of the VerpackG in collection, sorting and recovery (section 17 (1), (2) in conjunction with section 16) as well as to confirm the volume flow record (in accordance with section 17 (2)) with '**reasonable assurance**'. Reasonable assurance is the auditor's standard. To obtain reasonable assurance, the auditor must design the audit so that inaccuracies and violations of the Verpackungsgesetz can be identified when determining the packaging volumes that are indicated in the system reports by mass and material type. This serves the purpose of making it possible to ensure that the auditor had sufficient appropriate audit evidence to reduce the audit risk to a reasonable, very low level. Audit risk means the risk of the auditor forming an inappropriate audit opinion because packaging mass and material type entries and subsequent findings in the audit report are materially incorrect. In practice, this means that the auditor assesses the inherent risk and the control risk and correctly measures their own detection risk. If there is an audit risk, the auditor is required to minimise this risk by expanding and intensifying their audit activities until they can arrive at an audit result with reasonable assurance.

3.3 Section 26 (1) no. 27 in conjunction with section 27 (4) VerpackG allows the ZSVR to remove a registered expert (auditor, facilities auditor) from the register for a period of up to three years if the auditor has violated the audit guidelines repeatedly and in gross breach of duty. A repeated and gross breach means that an auditor has violated the provisions set forth in the audit guidelines significantly at least twice. The violations can relate to various provisions of the audit guidelines.

4 Subject of the audit

The audit covers the volume flow record of a system pursuant to section 17 (1). The starting point of the volume flow, which is to be documented in the volume flow record, is the collection of material that leads – via sorting and processing steps – right through to the '**final recipient**'. The volume flow record is based on 'proof' that documents the journey that the materials take from collection, via all sorting and processing steps (including handling and storage), through to entry in the final recipient facility (for information on auditing proof, cf. B8) – in full, and in such a way that it can be followed and understood. If the packaging of those under obligation is listed separately (with no mixing) through to the final recipient, all inbound and outbound weighing notes and/or other documents of recipients who have treated or stored the material in the recovery chain until it became a product serve as basis for the evidentiary documentation. The names and addresses of all parties involved (waste management companies, '**recovery facilities**') are to be provided in the volume flow record. The rules apply to the entire recovery

chain within Germany and/or abroad. The volumes participated with a system during the reference year equal the volumes reported to the ZSVR by the system pursuant to section 20 (1) no. 2. The system provides evidence of volumes to the volume flow record auditor through a confirmation issued by the system auditor pursuant to section 20 (2) as well as through the following documents as applicable:

a) Market share calculation concept (in agreement with the German Federal Cartel Office pursuant to section 26 (1) nos. 12 and 13 VerpackG)
b) System auditor audit guidelines for reporting and confirming packaging subject to system participation pursuant to section 20 (in agreement with the agreement of the German Federal Cartel Office pursuant to section 26 (1) no. 28)

4.1 The total collection volumes (glass, lightweight packaging, PPC) are to be broken down in the volume flow record by area. If '**mixing**' has occurred, the system has to differentiate the respective shares (e.g. share of the '**public waste management authorities**' / systems share) and describe the calculation method used to determine the respective shares.

4.2 For all facilities supplied, with the exception of the final recipient, facility accounts (based on the groups delivered and, if applicable, proportionately based on the respective system) are to be presented (based on the proof saved in the IT system); in the final recipient's case, disclosure of the input in the volume flow record suffices. If facility accounts are not based on proof saved in the IT system, the registered expert must document the basis underlying the facility accounts. The facility accounts document input, output and year-beginning and year-end levels.

4.3 Additional documents that are required to document recovery success in accordance with the VerpackG and these audit guidelines are also to be presented.

4.4 The audit requires an assessment to be made of whether the system has provided proper documentation. The following in particular are to be checked and to be confirmed:

4.4.1 Conformity of the system participation volumes with the volumes confirmed by the system auditor pursuant to section 20 (2) per material type as well as conformity of this confirmation with the provisions of these audit guidelines;

4.4.2 Technical accuracy of the proof presented by the system for due recording (for information on auditing proof, cf. B8);

4.4.3 Due recording (booking: weighing note number, weights, senders, recipients, etc.) of the proof (weighing notes and if applicable replacement proof) in databases earmarked for records as well as correct allocation to the respective contract areas and system operators;

4.4.4 Technical accuracy of the recovery documentation presented by the system;

4.4.5 Correct processing of data by the system for aggregation (facility accounts and German federal state overviews);

4.4.6 Correct processing of data to calculate the recovery rates;

4.4.7 Correct volume allocation to the respective recovery method ('**mechanical recovery**' / '**material recovery**' except mechanical (both: '**recycling**') and '**energy recovery**');

4.4.8 Correct use of additional records, particularly facility certificates and underlying expert opinions (e.g. system auditor confirmation of the system participation volumes, '**network analysis**', split of joint recycling collection);

4.4.9 Nationwide coverage within the meaning of sections 17 (1), 14 (1) (see the documents under B11.2);

4.4.10 System description of the contract areas;

4.4.11 Sorting facility suitability of all sorting facilities, including auditing other documents under B8.5 and on-site audits using the sampling approach under B9;

4.4.12 Recovery facility suitability, including documentation of on-site audits and other documents (choice using the minimum requirements for the sampling approach under B9.1.1);

4.4.13 Where the auditor has not personally certified facilities that require suitability for recovery to be established separately (cf. B10.6), a plausibility check of the facility certificates and the underlying audit report as well as the facility accounts (with the exception of the final recipient as appropriate) of the relevant registered expert who issued the facility certificate;

4.4.14 Completion of documentation in the form of the volume flow record.

4.5 The system must generate the documentation for the volume flow record (cf. 1.4) and it must include at least the following:

4.5.1 Documentation that sets out the collection methodology, the relevant delineation vis-à-vis non-system shares, the assessment of final recipients and any special issues in the volume flow year;

4.5.2 Contract area-specific presentation of collection volumes for PPC, glass and lightweight packaging citing the 100% collection volume and the share accounted for by the system;

4.5.3 Contract area-specific presentation of collection volumes of the special collection systems, citing the 100% collection volume, the share accounted for by the system and the delineation of the different materials;

4.5.4 Contract area-specific presentation of collection volumes in contract areas with a common recyclables collection scheme, citing the delineation methodology for the public waste management share, the 100% collection volume, the share accounted for by public waste management and by the system;

4.5.5 Separate presentation of PPC volumes from commercial collection from private final consumers per source of waste generation, citing the company name and address of the waste generation source, type of waste generation source, 100% collection volume and the retail packaging share taken into account, as well as the share accounted for by the system;

4.5.6 Separate presentation of PPC volumes from commercial collection amongst private final consumers within the meaning of section 3 (11) per source of waste generation, citing the company name and address of the waste generation source, type of waste generation source, 100% collection volume and the retail packaging share taken into account, as well as the share accounted for by the system;

4.5.7 Breakdown of collection agreements not entered into citing the reasons the contract was not concluded, including the registered expert's assessment of the significance of the contract lacunae for nationwide coverage;

4.5.8 Recoverer-specific breakdown of the volumes transferred for recovery citing the type of recovery as well as the volumes transferred and those taken into account in the recovery rate;

4.5.9 Facility accounts for lightweight packaging;

4.5.10 Facility certificate including related audit reports for processing and recovery facilities for plastics, liquid packaging board, other PPC composites and aluminium composites.

4.5.11 Product specifications for all lightweight packaging output group numbers used in the volume flow record citing the group description, information about purity and the maximum allowable share of contaminants.

4.5.12 Confirmation issued by the system auditor pursuant to section 20 (2) for the volumes participated with the system.

4.5.13 Summary setting out the volumes used in calculating the rate (detailed rate record).

5 Audit assignment

5.1 The auditor may only accept a system's audit assignment if the auditor has the technical competence and complies with the following provisions intended to ensure the completeness, accuracy, verifiability and comparability of the audit results:

5.1.1 **Basis of the audit:** Audits must be based exclusively on the Verpackungsgesetz and these 'system volume flow record' audit guidelines ('**audit guidelines**'). The audit assignment must expressly stipulate that the basis of the audit as set out in A3.1 must be observed and that any departure from the basis of the audit is prohibited.

5.1.2 **Allocation of responsibility:** The audit assignment must expressly specify the allocation of responsibility between the system and the auditor as follows:

- The system issuing the assignment is responsible for the lawful determination and complete documentation of the volumes participating in the system, of details of the volumes collected and prepared for re-use or transferred for recovery using the respective method (mechanical recovery / material

recovery except mechanical (both: recycling) or energy recovery), and ultimately achievement of nationwide coverage in line with section 17 (1) in conjunction with section 14 (1). This responsibility also includes the regularity of the IT systems used within the system and of the setup and maintenance of a volume-related internal control system.

- ♦ However, the audit covers the lawful documentation, allocation to the material groups under section 16 (2) to (4), the regularity of the calculation of the recovery rates, the regularity of the IT systems used for allocation and calculation, and the regularity of the internal control system.

5.1.3 **Information access:** The auditor must be expressly authorised within the scope of the audit assignment to request from the system to be audited all explanations, information and records, as well as access to the IT systems and facilities supplied and facility audit reports that are required to duly perform the audit (B6.7), by way of application mutatis mutandis of the principles developed under section 320 (2) **HGB**. In relation to the facility audit, the authorisation also extends to the system's contractual obligation to ensure that the facility auditor will present the auditor on request with the facility audit reports for the facility certificates that serve as evidence of facility suitability and recovery volumes under 9 and 10. The facility operator or auditor may redact any operational or trade secrets prior to transmission, but only in the facility reports' process description.

5.1.4 **Specific training:** In the audit assignment, the auditor must be required to be informed of the latest changes in legislation, court rulings and the latest information from the ZSVR on volume flow records and the implementation of the audit guidelines before the audit begins as well as before it is completed.

5.1.5 **Confidentiality:** The rules regarding non-disclosure under C20 must be expressly agreed. Nevertheless, the audit assignment must specifically allow the professional exchanges under C19 in view of maintaining the professional suitability of the respective auditor, with the audit assignment stating that a professional exchange with another registered auditor is permissible where the ZSVR makes an audit assignment under C 18.7.

5.1.6 **Independence:** The auditor must be financially and professionally independent. This must be expressly provided for in the audit assignment and in the certification (cf. **appendix 2**).

5.1.7 **Dismissal of the auditor:** the audit assignment must explicitly specify that the auditor may only be dismissed for good cause. Differences of opinion with the auditor, regardless of whether they stem from professional or personal reasons, cannot constitute good cause.

5.1.8 **Regarding facility certificates:** Once these audit guidelines have entered into force, it must be expressly stipulated in the audit assignment that a plausibility check of the facility certificate must be carried out, including the underlying facility audit reports as well as the facility accounts (with the exception of the final recipient where appropriate) if the facility certificate was prepared by a different registered expert and is to be incorporated into the volume flow record.

5.1.9 **Documentation:** The audit assignment must contain the documentary requirements set out in these audit guidelines, it must be specified in the audit assignment that

- the auditor, in their working papers, has to comprehensively document the audit activities carried out and the evidence obtained to support the result. The documentation must be presented in such a way that it can be followed and understood as well as reviewed by a professional third party and by the ZSVR. The working papers must also show that the audit was performed taking the basis of the audit under A3.1 into account, including these audit guidelines.
- Furthermore, the audit assignment must also expressly stipulate that the auditor must issue a written certification stating the audit result in accordance with the provisions of these audit guidelines.
- The audit guidelines' rules on the content, reporting format and transmission of the confirmation and documentation must be complied with. Sample certificates can be found in appendix 2 and the sample facility certificate can be found in appendix 3.

5.1.10 Report addressees: The audit assignment must expressly include the following arrangement regarding the report addressees:

- The audit result and the audit documentation are addressed directly to the system issuing the assignment and also to the ZSVR.
- third parties only derive claims from the audit assignment if this is explicitly agreed or if this is the case owing to statutory legal provisions. Where any such rights arise, the provisions of the audit assignment also apply to these third parties;
- Meanwhile, the ZSVR is authorised in line with its legal obligation under section 26 (1) nos. 7 and 21 to inform the respective state authorities of the audit result and to transmit the audit report as documentary proof to the respective state authorities.

B Special section: Audit activities

6 Performing audits – general rules

6.1 The audit is a combination of record and plausibility checks. The record and plausibility checks relate firstly to the data, proof and facility certificates underlying the volume flow record and secondly to facilities and material flows that are audited specifically per facility in on-site audits by the volume flow record auditor themselves.

6.2 If the sample audit range is specified in the following, this applies as the minimum level. If the sample audit range detects any anomalies with regard to the audit result, the number of samples is to be increased if the auditor considers this to be necessary to obtain reasonable assurance.

6.3 The auditor must ask to see the following documents in particular and audit them, or, in the case of a facilities certificate, check them for plausibility:

6.3.1 Confirmation from the system auditor regarding '**packaging subject to system participation'** (cf. B7);

6.3.2 Weighing notes (in exceptional cases replacement proof) and recovery records;

6.3.3 Facility certificates if recovery by type or scope needs to be established separately, and if the auditor does not perform their own audit of the facility to draw up a facility certificate;

6.3.4 Facility accounts of all facilities supplied, for final recipient facilities, presentation of the input suffices;

6.3.5 Documents for nationwide coverage (cf. B11); and

6.3.6 Other expert opinions used by the system and findings documented in writing.

6.4 The auditor may use expert opinions and audit reports as part of the facility audit or the findings of other registered experts as part of the audit of the volume flow record. For clarification: the rules under A2.3 apply.

6.5 For recovery volumes that need to be established separately according to type and scope (cf. B10.6), facility suitability must be established first so that the recovery volumes can be recognised as part of the volume flow record. The facility certificates are therefore inextricably linked to the volume flow record. As such, facility certificates may only be recognised if they appropriately represent the facility classification (e.g. as a final recipient facility), the input capacity (total and per individual group), output capacity and recovery capacity of a supplied facility. The following rules apply to the recognition of facility certificates and use of the resulting findings for the auditor's own audit in this context:

6.5.1 Issuance by a registered expert. Facility suitability certificates for a certified facility must be issued by a registered expert (pursuant to A2.1) in compliance with the provisions of these audit guidelines if the volume flow record incorporates them.

6.5.2 The auditor may only recognise facility certificates for the volume flow record if the certificate timeframe (duration) is within the reference year.

6.5.3 The auditor must recognise facility certificates if the form and content requirements for issuing the certificate under these audit guidelines are met and a plausibility check of the facility certificate, including the audit report and (where applicable with the exception of final recipient facilities) the facility accounts does not yield any anomalies or implausible findings. The audit includes in particular the clear allocation of supply volumes to the various recovery methods (cf. A4.4.7). If the auditor makes a different assessment, this is to be documented and explained in the audit report, even if the facility certificate is not incorporated into the volume flow record as a result of the defects.

6.5.4 The auditor must (cf. A5.1.3) request the facility certificate issued with the facility audit report from the facility auditor and check the plausibility of the information documented. If the audit report is not provided, the auditor must note this in the audit report.

6.5.5 If the auditor believes that the facility audit report is required to assess facility suitability and/or to clarify matters but it is not provided to him within a reasonable period after being requested, or if the redactions in the facility certificate exceed what is permitted in A5.1.3, the auditor must disregard the facility certificate in connection with the volume flow record.

6.5.6 If suitability or classification of the recovery or type of recovery is factually incorrect in the facility certificate, the auditor may classify the supply volumes differently when calculating rates (cf. B15.1.1).

6.5.7 If the plausibility check under B6.5.3 of the facility certificate reveals anomalies or implausible findings, the auditor must disregard the facility certificate and the related delivery volumes as evidence in connection with the volume flow record if the defects are not cured with a classification under B6.5.6. While auditing anomalies or implausible findings, new facts that differ from the findings in the audit certificate must be taken into consideration where the auditor had – or should have had – positive knowledge of those facts if they contradict the findings in the facility certificate, facility audit report and facility accounts (with the exception of final recipient facilities) and evidence a lack of facility suitability. The standard of knowledge required of the auditor is the objective identifiability of the new facts taking into consideration an objective standard of care in the relevant circle of people and having regard to professional discourse under C19 and relevant trade publications.

6.5.8 Dealer certificates or line certificates (facility certificates with anonymised final recipients with no name and address specified in the certificate) may not be recognised as evidence in relation to the volume flow record.

6.5.9 If facilities with a certification obligation are supplied with material groups for which they are not certified, the volumes may only be recognised if suitability for recovery is given based on the existing facility certificate (accompanied by the audit report). The article level must be taken into account in such cases, e.g. 310-1 and not 310.

6.6 As part of their audit, the auditor must verify the suitability and the effectiveness of the IT system used by the system for documentation/booking (structural and functional audit). If the auditor has performed this complete audit once, they can restrict themselves to sample functional audits for further audits if there have been no changes to the structure of the IT system or there have been only insignificant changes compared with the fully audited IT system (the system must confirm the absence of significant changes to the auditor in writing). As part of the audit, the auditor must also decide whether the internal control system applied by the system (including the IT system used) can be clearly understood and whether the internal controls are also actually implemented.

6.7 In addition to the documents and information presented within the scope of specific audit activities under B7 to B14, the auditor may request and/or inspect all other documents and data that they consider necessary as a result of or in connection with their audit.

7 Specific audit activities: Packaging subject to system participation

7.1 For the audit of the volumes subject to system participation, the auditor must request confirmations of the interim reports transmitted by the respective '**system auditor**' to the ZSVR in accordance with section 20 (1) no. 1 as well as confirmations for the annual volumes of the year to be audited. The system auditor's confirmations are to be included in the volume flow record.

7.2 The auditor checks the conformity of the volumes the system indicated as having been participated against the volumes confirmed by the system auditor pursuant to section 20 (2) in conjunction with section 20 (1) no. 2.

7.3 The auditor checks if the system auditor's confirmation for the report pursuant to section 20 (1) no. 2 was qualified or even denied.

8 Specific audit activities: Auditing proof

8.1 The proof underlying the volume flow record constitutes documents that are the basis of reporting to the system. These are primarily weighing notes and accompanying documents such as transport papers, delivery notes and/or export documents. As a rule, proof is to be provided of the input and output of a facility using weighing notes. If, in individual cases, there is only one weighing note for transport, concrete transport between the facilities has to be evidenced by means of other convincing proof (e.g. receipted transport papers / delivery notes). Weighing notes are to be issued on calibrated truck scales.

8.2 In the event of export of materials, the documents set forth in Article 4 of Regulation (EC) No. 1013/2006 of the European Parliament and of the Council of 14 June 2006, as amended, on shipments of waste are to be provided upon request. In the case of ship transport, other documents might include the bill of lading (section 515 HGB).

8.3 The proof is to be checked for legal conformity, in particular with the MessEG and the MessEV, completeness within the meaning of B8.4, compulsory disclosures and correct transfer in data reporting. This mainly includes checking against the volumes / data sets posted in the system. If there are any differences, these must be noted and the facility must be included in the on-site audit at the auditor's discretion in order to clarify any anomalies. Anomalies and the reasons for waiving an on-site audit must be noted in the audit report.

8.4 All recovery documentation must contain the following information at the very least:

8.4.1 The ordering party's name (in the case of collection volumes where all systems are ordering parties, citing 'systems' or 'dual systems' is enough);

8.4.2 The company name and address of the waste management company commissioned;

8.4.3 Details of the waste mass, specifying the waste code in line with the AVV (List of Wastes Ordinance) and the waste designation (the waste designation is the clear group designation used by the system, including the article number);

8.4.4 Clear allocation to system volumes with the exception of PPC proof (in particular where related to recovery weighing notes or where it serves as evidence for commercial collection volumes (cf. B12.4));

8.4.5 For inbound documentation, details of the origin/supplier (company name, address), and for outbound weighing notes, the recipient/consumer (company, address);

8.4.6 A clearly identifiable author (either through a printed, conclusive code or a signature); The recovery documentation also needs to be receipted by the driver (if it was not the driver who drew up the recovery record);

8.4.7 A clear number on the proof (weighing note number);

8.4.8 The date and the time of the weighing;

8.4.9 The gross, tare and net weight;

8.4.10 The clear code in each case for manual input / saved weights.

8.5 All proof is to be made available by the system or kept in IT systems that allow for audit compliance. For the auditor's sample check or plausibility checks, proof is to be presented in its original form upon request. The audits presented in the following are to be considered minimum audits with regard to auditing proof. The aim is to obtain reasonable assurance regarding the audit result. The calculation basis for the choice of samples is the '**market share sample range**'.

8.5.1 **Auditing collection volumes**: The collection volumes for PPC, glass and '**lightweight packaging**' as well as mono groups are to be audited – in the form of samples – on the basis of the input weighing certificates for the facility in which weighing occurs for the first time.

- When auditing the volume flow records of systems that have a market share sample range of at least ten percent (10%), based in each case on the material groups glass, PPC and lightweight packaging, sample audits are to be carried out for at least five percent (5%) of the collection areas in each case;
- When auditing the volume flow records of systems with a market share sample range of less than ten percent (10%), the number of areas to be audited reduces to ten (10) per material group;
- For systems with a market share sample range of less than one percent (1%), five (5) areas per material group are to be audited;
- The sample covers at least one month's volume in each case;
- If collection volumes are also audited on site, they may be offset against the number of areas to be audited;
- The choice of samples is to be documented in the audit report in each case.

8.5.2 Auditing the facility input:

- In the case of handling facilities, sorting facilities and storage, the input audit scope must cover at least one (1) monthly volume. The audit scope can be reduced in individual cases if documentation is issued and data is posted by being taken over automatically; this is to be documented in the audit report;
- In the case of final recipients with input corresponding to the '**target interface**' and to '**pre-treatment plant**', the sample range per article is at least three (3) monthly volumes. If the sample range per article overall is less than a conventional vehicle load, the total input has to be audited.
- In the case of plastic recipients solely processing volumes for energy recovery, the sample range can be reduced to one (1) month; this is to be documented in the audit report;
- If the audit detects any anomalies that lead to volume deductions, the audit scope is to be expanded at the auditor's discretion with the aim of obtaining reasonable assurance in relation to the audit result; this is to be documented in the audit report.

8.5.3 Auditing the facility output: In the case of sorting facilities, pre-treatment plants and storage, the output audit scope for mechanical/material/feedstock recovery ('**feedstock recovery**') must cover at least three (3) monthly volumes per group. In the case of output groups for energy recovery and for groups that are irrelevant for rate determination, at least one (1) monthly volume is audited.

8.6 The facilities visited/audited as well as the respective scope of the audit and the key audit findings are to be documented in the audit report.

9 Specific audit activities: Facility audits

9.1 A facility audit comprises selecting facilities (number/method) and performing on-site audits of the facilities. The number of facilities to be audited is determined by choosing samples in line with the rules here under B9.

9.1.1 Selecting the facilities ('**samples**'): The number of facilities to be audited as a minimum is geared towards the average market share, the sample range of the reference year of the material group concerned (lightweight packaging, glass, PPC) and the relevance for rate determination. The rules for selecting samples are outlined in the following table; the sample selection is to be documented in the audit report. The following table assumes that the facilities supplied are generally certified facilities (if there is a certification obligation). If the audits detect anomalies, or other audit findings lead to reasonable assurance not being obtainable, the sample range is to be increased at the auditor's discretion. If a facility was already on-site audited in the previous reference year, it must only be included in the sample again if the previous audit detected anomalies that justify another audit (cf. B6.2). If this is the case, the number of facilities to be audited on site accordingly increases in line with the number of flagged facilities, which must therefore be included again in the on-site audit.

Minimum number of facility audits on site	Market share < 1%	Market share >= 1% and < 10%	Market share>= 10%
Number of to-be-audited sorting facilities with the largest lightweight packaging supply volumes (including SCSs[4]):	2	5	5
Of the additional supplied lightweight packaging sorting facilities (including SCSs):	1	30%	50%
Final recipient of plastic, mechanical/feedstock:			
◆ Mechanical/feedstock recycling of mixed plastics or PET:	All facilities with > 100 t supply volume	All facilities with > 250 t supply volume At least 10 % of all other facilities	All facilities with > 1,000 t supply volume At least 10 % of all other facilities
◆ Mechanical/feedstock recycling of film, PP, PE, PS:	All facilities with > 250 t supply volume	All facilities with > 2,500 t supply volume At least 10 % of all other facilities	All facilities with > 2,500 t supply volume At least 10 % of all other facilities
◆ Energy recovery of plastic:	None	1	2
Final recipient LPB:	None	None	1
Final recipient of other compounds / PPC from lightweight packaging:	None	1	1
Mechanical '**processors**' for aluminium:	None	1	1
Aluminium final recipients:	None	1	1
Tin processors:	None	1	2
Glass processors:	None	3	5
PPC recipients:	None	As required	As required
Regardless of the material group Pre-treatment plants unless otherwise listed in this table	All	All	All
Lightweight packaging and glass handling facilities:	2	4	6

9.2 For on-site audits:

9.2.1 General rules for on-site audits: In order to verify the technical accuracy and completeness of the proof underlying the volume flow record, facilities are to be audited on site using the sample range under B9.1.1. The on-site audit must focus in particular on areas in which the recovery qualities are defined and on the cutoff point in line with the information outlined below. The findings from on-site audits – including the basis from which they are derived – are to be documented in the audit report on the facility audit, if the auditor cannot refer to the audit report of a separate facility auditor (registered expert, cf. A2.3, B6.5). If, during the audit of sorting groups or in the inbound and outbound stores of the facility involved, increased shares of contaminants or '**non-system shares**' are

[4] Special collection systems

detected, this is to be documented. The measures introduced as a result to ensure correct posting and, if applicable, correction of the rate volumes, must also be documented.

9.2.2 Preparation of on-site audits: On-site audits should take place after a reasonable notification period (maximum of two (2) weeks) and citing the cases/documents to be audited and other circumstances to ensure that the audit can be performed. If any audit results beforehand indicate 'danger in delay', i.e. that a short-term audit result is only possible at a facility without announcing it in advance (e.g. because analyses indicate mixing of foreign material), the notice period can be shortened in exceptional cases or notice can be dispensed with. To prepare, the reported weighing note lists are extracted from the IT system used (at least for the months to be audited) and the existing data is used to draw up facility accounts for the system, which then constitute the basis for the audit. If anomalies have already been detected in preparation for the facility audit, they are to be clarified as part of the audit and/or the audit scope is to be extended.

9.2.3 On-site audits of lightweight packaging sorting facilities must cover the following, at the very least:

- Cross-checking proof (weighing notes) against the system's records;
- Verifying the plausibility of the system's volume accounts;
- Comparing the sorting technology in terms of the output quantities and qualities presented;
- Determining the delivered quantities (in particular delineating them from '**non-system shares**' and taking the quantity of non-system shares into account when calculating the recovery rates, cf. B12.5);
- In the case of self-marketing: auditing additional evidence through to the final recipient;
- Determining the qualities created (in particular delineating them from non-system shares, share of contaminants based on the downstream recovery method and, if applicable, specifications and taking the quantity of non-system shares into account when calculating the rates);
- Examination of the weighing mechanism with regard to calibration and lawful creation of the weighing notes.

9.2.4 On-site audits at the final recipient must cover the following, at the very least:

- Cross-checking proof (weighing notes etc.) against the system's records (entry into the facility);
- Verifying plausibility of the volume accounts (exception: steel/cement works and paper factories);
- Determining the delivered quantities (cf. B10.7.6);
- Verifying the suitability of the facility if relevant under B10.5;
- Classifying the facility according to the volumes allocated to the respective rate; a marketing audit must be performed in this context (cf. 10.4.3 for documentation);

- Checking conformity with the facility suitability certificate (e.g. in the case of conditions, processing non-certified qualities);
- The relevant processing documentation;

  An example of the circumstances to be documented in the facility audit report as part of this audit can be found in the sample audit report on the facility certificate in **appendix 1**.

9.2.5 On-site audits at the subsequent recipient (who is not a final recipient) must cover the following, at the very least:

- Cross-checking proof against the system's records (entry into the facility);
- Cross-checking proof against the output quantities posted and further evidence;
- Verifying plausibility of the volume accounts;
- Findings about the delivered quantities (cf. B10.7.3);
- Verifying the suitability of the facility if relevant under B10.5;
- Classifying the facility according to the volumes allocated to the respective rate (marketing audit);
- Checking conformity with the facility suitability certificate (e.g. in the case of conditions, processing non-certified qualities);
- The processing documentation.

9.3 Documentation of the facility audit: The facilities visited and audited are to be documented in each case in the audit report, with details of the selection, the respective audit scope and the key audit findings at the very least for the above-mentioned points. If there are additional audits and/or conditions because of inconsistencies, the corresponding reviews and changes are also to be documented.

10 Specific audit activities: Recovery

10.1 Part of the audit of the volume flow record is an audit to determine to which extent the system has allocated packaging subject to system participation to which recovery (section 17 (1)). The rules regarding recovery are governed by the VerpackG in conjunction with the **KrWG** and the **EfbV** depending on the type of recovery.

10.2 Packaging that reaches a final recipient, and where evidence can be presented that it has been processed in a '**recovery method**', is considered to have been transferred for recovery if the requirements for input material (input material corresponds to the suitability of the facility, cf. B10.7.6) and other additional specifications in these audit guidelines are fulfilled. The specific retention and use of packaging materials through to the final product is to be audited, as this forms the basis of the decision regarding recognition of recovery. The documentation also includes volumes above the quota that are recorded and recycled; the record-keeping obligation is not restricted to quota volumes.

10.3 To recognise the recovery, the volumes transferred for the reference year must be classified. This delineation can be ensured in the annual report via inventories and by using separate contract numbers or cost centres in the records so that material that is recovered the following year can be allocated towards the recovery rates in the reference year under section 16 (2) and (4). The allocation to the reference year must proceed according to the following conditions: the volumes are recorded as closing inventory in the reference year, the delineation can be clearly understood in the records and the volumes are transferred for recovery within the first two months of the following year. This applies to the glass and lightweight packaging collection volumes in handling facilities, unsorted lightweight packaging volumes in the incoming store of lightweight packaging sorting facilities and sorted and/or separately collected material groups in the outgoing store of lightweight packaging sorting facilities and civic amenity sites. However, closing inventory from the preceding year that was not processed and transferred for recovery within the first two months can only be accounted for in the volume flow record for the following year and not in the reference year once they have been allocated for recovery.

10.4 Recovery documentation must be kept as follows:

10.4.1 Firstly, receipt by a final recipient is to be recorded in inbound documentation (e.g. weighing note). Sorting or storage does not fulfil the 'transferred for recovery' criterion. For this reason, inbound weighing notes alone are not enough.

10.4.2 If a company has both pre-treatment plant and recovery facility characteristics, only the volume that reaches the recovery level is considered recorded.

10.4.3 For groups for which the final recipient in the supply period has already been paid by the supplier, it must be ensured that the final recipient has processed the material or will do so soon. In these cases, a marketing audit that documents the typical use for the material must be conducted. For this purpose, the expert can refer to operating logs, shift logs, usage documentation, processing and marketing evidence, delivery notes, contractual agreements, etc.

10.5 The suitability of the recovery facility / final recipient facility is to be determined per facility. Certification of the suitability of the recovery facility should mean that the number and need for individual audits is limited. Establishing the volumes transferred for recovery is based on facility certificates. This also applies to the certification of pre-treatment plants.

10.6 As a result, facility certificates are always required if recovery suitability by type and scope needs to be established separately. This is always the case for the following recipients of packaging waste:

10.6.1 Facilities for the processing (including recovery) of plastic packaging waste stemming from lightweight packaging collection and sorting;

10.6.2 Facilities for the processing (including recovery) of liquid packaging board and other fibre-based packaging stemming from lightweight packaging collection and sorting; and

10.6.3 Facilities for the mechanical processing of the aluminium group stemming from lightweight packaging collection and sorting.

10.7 A facility certificate from a registered expert (cf. A2.3, B6.5) that covers the listed specifications and findings/classifications/confirmations at the very least (see also the sample certificate in **appendix 3**) is considered evidence of recovery suitability:

10.7.1 Details of the entity being audited (company name, site, facility, contact person);

10.7.2 Classification of the facility as a pre-treatment plant or as a final recipient; in each case specifically for the individual input qualities. As a rule, they are to be specified at the level of the article numbers; classification as a pre-treatment plant or final recipient is also to be disclosed proportionately in relation to the input qualities;

10.7.3 Specification of the pre-treatment plant and/or recovery for the respective input quality;

10.7.4 Specification of the method type:

- For plastics: mechanical/feedstock/energy
- For aluminium and composites: material

10.7.5 The method type is to be reported proportionately in terms of input qualities. For facilities where specification-compliant input material is allocated to different types of recovery (mechanical / material except mechanical (both: recycling) and energy recovery), the respective share is to be specified. For findings about recovery type and (final recipient) status, by-products of the process that require further waste-specific treatment for recovery may be incorporated ('extended workbench') where the final recovery of the by-product is evidenced to the standard set out in 10.7 and it is ensured through appropriate conditions in the certificate and declared accordingly. However, this applies only where the recovery type for the primary product and by-product is identical. If the specification allows for an atypical contaminant share (which can be assumed in any case if it is above ten percent (10%), or twenty percent (20%) for group 412), this is to be taken into account when disclosing the transferred-for-recovery shares.

10.7.6 Details of the input material (origin / manufactured materials, input quality required, system specification at article level); if not allocated to the recovery type (mechanical / material except mechanical (both: recycling) and energy recovery) until after the end of the calendar year, a note to this effect is to be included in the certificate. The supporting documents are to be presented to the auditor after the calendar year has ended, and are to be used to calculate the recovery rates;

10.7.7 Details of the annual processing capacity overall and specifically for individual input qualities (e.g. taking sales opportunities of specific final products into account);

10.7.8 Details of the final products of the processes;

10.7.9 For main and ancillary material components, details of the respective method type specifying retention and recovery characteristics, if the main and ancillary

material components in the input are included in line with the composite specification (cf. section 3 (5) on composites);

10.7.10 In the case of final recipients of fibre-based composites, a statement in the certificate that the main material components are almost fully recycled in compliance with recognised rules of technology;

10.7.11 In the case of mechanical processing plants for the aluminium group from lightweight packaging sorting, details of whether composites with aluminium ancillary components are recovered using a material recovery method (if not, this is to be taken into account in the rate calculation, cf. 14). The audit result is to be cited in the certificate as a finding;

10.7.12 A simplified process description;

10.7.13 Confirmation of proper recovery of residual waste in line with legal requirements;

10.7.14 Details of the timeframe of the facility audit;

10.7.15 Details of the date and deadline of the on-site facility audit;

10.7.16 Details of the certificate validity with a maximum of two (2) years from the first of the month that follows the audit deadline; in the case of first-time assessment of mechanical/material recovery, it can be valid for no more than one year. For final recipient facilities being certified for the first time where no marketing audit of the facility's output material with robust results can be conducted, final recipient status can only be established temporarily, i.e. for a six-month period, in the initial assessment if the facility is to be recognised as a final recipient facility in the volume flow record. For final recipient facilities that are re-certified after significant technical or process-related changes that influence operations and processes but for which no marketing audit of the facility's output material with robust results can be conducted, the validity of the certification must be limited to six months. Before the end of the six-month term, an appropriate marketing audit must be conducted. After a successful audit, the certificate can be extended in line with the usual requirements by no more than 18 months.

10.7.17 Details of the first, follow-up and periodic audits;

10.7.18 Details of the approvals, expert/audit opinions and other findings documented in writing taken into account by the auditor, in addition to their issuers;

10.7.19 Details of the facility auditor;

10.7.20 Details of the basis on which the finding and/or measurement of the recovery suitability, recovery capacity and the classification regarding the method or recovery type was carried out. In general, a finding is required stating whether the method or recovery type is unrestricted or restricted. The extent to which specification-compliant shares of individual input qualities are to be classified differently in terms of method/recovery type, because they are systematically sorted out before or within the process as a result of the method (e.g. via the heavy fraction in energy recovery, or via separation of blisters of mixed PET for energy recovery). The auditability of the volume documentation and processing evidence is to be confirmed in the facility certificate;

10.7.21 A model weighing note for the scales in the facility or used by the facility; the weighing notes are to be checked for compliance with these audit guidelines (cf. B8). If it is not available in German or English, a translation of this sample weighing note is to be provided if required in the facility certification. If no scales are available, this is to be specified in the facility certificate.

10.8 The facility certificate must always be accompanied by an audit report drawn up by the facility auditor, and it must be referenced in the facility certificate accordingly. The audit report must include the basis and plausible derivations for the information and findings in the audit certificate under B9.2.4, B9.2.5 and B10.7. In particular, the facility must present the facility accounts and production logs (including evidence of the materials actually processed in the facility in question) as well as product yields. Here the most recent data under the standard set out in B6.5.7 must be taken into account. The facility auditor has to depict the data in the audit report and to check it for plausibility as part of the facility audit. The auditor is authorised in each case to request the audit report drawn up with the certificate from the facility auditor (cf. B6.5.4).

10.9 After passing the first and/or subsequent audit, a certificate is issued that is valid for no more than 24 months following the date of issuance (maximum certificate term). Re-certification must be completed within the maximum certificate term. Where there are material technical changes that influence operating practices and methods, an additional audit is necessary.

10.10 There may be **only one valid** stamped/signed original of the facility certificate and audit report; additional copies may be included. Drafts/amended versions of a certificate / audit report for the same certificate term may not be circulated with stamps/signatures. Where new facts arise that lead to significant changes to audit findings, the registered expert must instead investigate revoking the certificate and possibly re-issuing it with a new date. The audit report with the new date must be supplemented with a special document with a detailed explanation of the revised findings.

10.11 If supplied with trial volumes (two to a maximum of ten (10) loads), the facilities do not have a certification obligation. The registered expert must classify the facility by recovery type and status, based on either the documentation produced or an on-site audit, if the auditor deems one necessary in order to obtain reasonable assurance. Trial deliveries are first-time deliveries to a facility not yet certified for the corresponding material, with the aim of reviewing whether it qualifies as a final recipient.

10.11.1 When performing an audit of volume flow records, suitable samples and a plausibility check (A4.4.13) must be used to assess whether the facility classification is correct. The following is a non-exhaustive list of examples for classifications and specific characteristics for the respective audit of compliance with the recovery requirements:

10.11.2 Requirements for plastic recovery facilities:

- Upstream pre-treatment/processing (e.g. separating PET trays from mixed PET, or separating PP at the film recoverers with no mechanical recovery of the sorted-out groups) requires taking into consideration that the de facto

cutoff point in these cases is located within the facility, or, if sorted out, is in the input of a subsequent recipient. This must be borne in mind when calculating the recycling rate by allocation to the applicable recovery path.

- If comparatively low yields are established, the auditor must look into them on a case-by-case basis, check the plausibility and make a note of the case in their audit report. If the volume transferred for recovery is to be corrected, this must also be noted in the audit report. The reasons for the corrected level must be provided.
- Product specifications with a high permissible share of contaminants (e.g. 351-3, 351-4) are to be acknowledged in the individual cases, as well as noted and explained in the auditor's audit report. If applicable, the recovered volume is to be corrected in each case; this must also be noted in the audit report.[5]

10.11.3 Requirements for aluminium recovery facilities:

- A pyrolysis plant must be classified as a final recipient for aluminium / aluminium composites or aluminium-containing composites. This relates to both the delivery volumes of the 420 group from lightweight packaging sorting and products from mechanical processing;
- Input of the aluminium group (including aluminium composites and aluminium-containing composites) into the pyrolysis plant can be used one hundred percent (100%) for recovery rate calculation if no systematic ejection of specification-compliant components (e.g. via pre-sorting) can be identified in the process.
- For the products of mechanical processing that can be used with no additional waste-specific treatment steps in a production process (e.g. melting), the facility is to be classified (for this partial flow) as a final recipient.
- Classification for calculation of recovery rates can also be found in the certificate and must be documented in the audit report.

10.11.4 Requirements for final recipients with regard to tinplate:

- Mechanical processing plants for tinplate and tinplate composites can be classified as final recipients if the facility is suitable for processing specific material and the created product can be used with no other waste-specific treatment steps (e.g. shredding machines, cross-flow shredders or packaging) in a production process (e.g. steelworks or foundry). This is to be documented in the audit report.

10.11.5 Requirements for PPC recovery facilities:

- In general, paper factories are to be classified as final recipients.
- If other methods to process/recover fibres are supplied, the method classification is to be verified by the auditor, and the outcome is to be documented in the audit report.

10.11.6 Requirements for glass processing plants:

[5] The ZSVR reserves the right to lay down guidelines if different auditors classify the same type of material groups differently.

- Facilities to process raw glass (container glass) that create glass fragments for direct use in glass melting can be classified as final recipients. Entry in glass processing corresponds to the cutoff point.
- If packaging material (lids and closures), or packaging of other material is separated in glass processing and taken into account in calculating the material-specific recovery rate, these volumes are to be deducted from the glass rate volume and this is to be documented in the audit report.
- The non-glass volumes (e.g. aluminium or tinplate composites) can then be included in the corresponding material rate if evidence of the recovery through to entry at the final recipient has been provided, and if the volume split and volume allocation for the system is verifiable. Verifiability is to be documented in the audit report.

10.11.7 Requirements for composite recovery facilities:

- The use of a recent and representative composite analysis for determining shares of composite material that have been transferred for recovery with the main components is obligatory; [6]
- For a facility to be recognised and certified as one suitable for the recovery of plastic packaging, plastic composites, liquid packaging board, aluminium composites and paper composites, an on-site document and facility audit is required;
- In certifying processing plants and final recipient facilities for fibre-based composite packaging (liquid packaging board and other PPC composites), the treatment of residual moisture becomes particularly important; any water shares after processing must be documented in the report's accounts in a way that can be clearly understood. Successfully removing the fibre portion of the packaging is essential to recycling fibre-based composite packaging. As such, a specific plausibility check of this process step is required when determining the final recipient facility suitability within the meaning of 10.5 and 10.6. In determining facility suitability, the auditor must therefore conduct visual sampling of the rejects to obtain reasonable assurance that the fibre portion has been removed and any presence of fibres has been eliminated to the greatest extent possible. To arrive at the audit result, plausibility checks of the recovery figures are required. These plausibility checks have to be based on operational parameters (e.g. throughputs and pulp times) and documented in the audit report. In addition, photo documentation of any rejects must be taken and included in the report. This rule does not apply to certificates that were issued before this version of the audit guidelines entered into force in 2023.
- The liquid packaging board group is to be split into '**beverage carton packaging**' and other composite packaging. The calculation of the share of other composite packaging may be no more than 10.0% for the 2021 reference year and any deviations below this figure must be plausibly evidenced (e.g. as part of a representative analysis).

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[6] If the composite analyses presented are not representative/up-to-date, the ZSVR reserves the right to lay down further-reaching guidelines.

10.11.8 Requirements for individual groups: The auditor is required to check the recovery paths not mentioned under B10.11.2 to B10.11.7 on a case-by-case basis. Audit and result are to be documented in the audit report.

11 Specific audit activities: Nationwide coverage

11.1 Section 14 (1) requires a nationwide collection structure that is sufficient to capture all packaging waste accumulating with final consumers in the catchment area of the participating producers ('**producers**'), regularly and free of charge for the final consumer. In each case, the producer's catchment area is the entire area of a country in which the producer's packaging subject to system participation is placed on the market (section 3 (16)).

11.2 The audit for nationwide coverage of collection is based on an analysis to be presented by the system and to be documented in the audit report. At the very least, this includes

11.2.1 presentation of the collection volumes for each federal state for the glass, PPC and lightweight packaging groups (section 17 (1)) and for each contract area, specifying the respective contractual counterparty;

11.2.2 a list of areas per collection group for which there is no contract for the reference year, including a short explanatory statement;

11.2.3 a list of all contract areas per collection group specifying whether the agreements concerned have been fully concluded.

11.3 The auditor must inspect collection agreements on a sample basis. The sample size used to obtain reasonable assurance with regard to the audit result is at the auditor's discretion and is to be documented in the audit report.

12 Specific audit activities: Calculating collection volumes

12.1 Where packaging and non-packaging are collected together, e.g. in recycling bins or PPC collection, the eligible collection volume and therefore the recovery volume is limited to the share of retail packaging. This limitation must be complied with per contract area. Atypically high and therefore implausible retail packaging shares must be evidenced and documented by the system through appropriate investigations.

12.2 The co-use – or in the case of tendering by the systems, the joint use – of the collection structure for private households agreed with the public waste management authorities is a prerequisite for evidencing nationwide coverage. Additional or parallel collections by commercial waste management companies are not taken into account to obtain nationwide coverage. Inclusion of retail and grouped packaging waste collected from comparable sources of waste generation under section 3 (11) is only permitted in the volume flow record for the lightweight packaging, glass and PPC groups if coverage is nationwide and free of charge for sources of waste generation that are integrated into the collection structure of the dual systems pursuant to section 14 (1) and section 23 (1). This applies except for

the following paragraph for the PPC group. If comparable sources of waste generation dispose of their waste upon request at different intervals, or in containers that differ from the standard system, or in a collection structure that differs from the usual one in the area in a pickup system and not in a returns system, free-of-charge pickup (cf. section 14 (1)) cannot be presumed.

12.3 If the public waste management authorities do not enforce their optional joint use claim in line with section 22 (4), the systems conclude contracts with the operational waste management companies commissioned by the public waste management authorities to collect PPC from private households. PPC material at comparable sources of waste generation may also be collected and included in the volume flow record in line with the requirements depicted here, even if it is not included in the collection structure of the dual systems. Incorporating volumes from additional or parallel collection by commercial waste management companies in generally permitted. This exception is limited to PPC. Other materials from sources of waste generation that are not linked to the system's shared collection structure are prohibited from inclusion in the volume flow records because sections 22 (4) and 23 (3) VerpackG provide for the co-use of the public collection structure for PPC packaging exclusively.

12.4 As part of the audit of the rate calculation in accordance with section 16, the auditor has to check the requirements to include PPC from comparable sources of waste generation and/or from commercial collection using an appropriate sample. This does not affect the provisions under section 17 and section 18 KrWG. The following rule relates to the total volume determined from comparable sources of waste generation per contract area for which the requirements are met in line with B12.4 here. The systems determine – from the following information – the actual share of packaging eligible for inclusion first in the volume flow record and then in the calculation of the recovery rates. The following points have to be checked by the auditor:

12.4.1 The existence of a contractual agreement between the system and the waste management companies;

12.4.2 The existence of weighing note-accurate records of the collection volumes (packaging and non-packaging);

12.4.3 Clear allocation of the volumes to a contract area, and the clear reference of the collection volumes solely to comparable sources of waste generation (particularly with no commercial or industrial sources of waste generation);

12.4.4 For total collection volumes from comparable sources of waste generation for PPC, the following must also be documented:

- Details of the sources of waste generation on the route, together with their address and type of source;
- Details of the volume put out and collected on the route (container type and number);
- Details of the paper group recovered (European Waste Code as per the Ordinance Implementing the European Waste List) and designation by paper grade;

12.4.5 Of the total collection volumes that correspond to the above-mentioned requirements, a record of the eligible packaging share is to be provided (proof of packaging share required; separate assessment of the various sources of waste generation). A record of the packaging share eligible for inclusion has to be provided through suitable test sorting.

12.4.6 If volumes from comparable sources of waste generation and commercial collection are evidenced by a registered expert's certificate, this certificate must set out the total volumes collected, the share of PPC retail packaging and the share accounted for by the system. In addition, it must be assured for comparable sources of waste generation that the address details of the sources of waste generation covered by the certificate, their source of waste generation category, the volumes collected from the individual sources of waste generation and the relevant shares of PPC retail packaging are disclosed to the ZSVR.

12.4.7 The eligibility for inclusion of PPC from comparable sources of waste generation and commercial collection is limited to the share corresponding to the relevant system's 'market share sample range'. A given system's share is calculated by multiplying the total packaging share under B12.3.5 with the relevant system's 'market share sample range' for PPC. For the share calculated in this way, proof through to retention in a recovery facility is to be documented and verified (citing the paper grade and/or proof requirements in line with these audit guidelines).

12.4.8 If PPC from comparable sources of waste generation is automatically collected together with PPC composites, the share of composites in the collection and recovery volumes is not eligible for inclusion due to inadequate recovery paths.

12.4.9 Only recovered packaging may be included in recovery volumes. That is why weighing notes relating exclusively to printed products (after deinking) cannot be used as evidence of recovery.

12.5 If the requirements for PPC listed under B12.4 are not met, the corresponding amounts for the volume flow record are not to be recognised and deducted. For other material groups, non-system shares must always be deducted. Every time that mixing occurs, the volume flow record must depict the point at which this happened, and the methodology applied to determine the retail and grouped packaging ('**grouped packaging**') eligible for inclusion (key).

13 Specific audit activities: Additional audits and preparation for rate calculation

In addition to the above-mentioned audit activities and for preparation of the audit of the recovery rate calculation, the following specific audit activities are to be performed:

13.1 The volume flow record is to be audited with a view to verifying whether all the documents required as per these audit guidelines are available and whether they fully evidence the volume flow record, to the standard of the checks set out in these audit guidelines – from collection of the materials in the contract area up to entry in the recovery facilities for all facilities used.

13.2 It must be checked for all the listed recovery facilities whether the documentation evidences recovery, including correct recovery method classification, according to the standards of the checks set out in these audit guidelines and with reasonable assurance.

13.3 Throughout the year, and at the end of the year, postings in the IT systems used are to be analysed. The analyses are to be checked to verify whether they are plausible in respect of the facilities used and the packaging consumption (e.g. looking at the load curves of the sorting facilities, inner distribution of the groups). If there are any anomalies during the year, the audit scope is to be widened and the anomalies are to be checked in an on-site audit.

13.4 For all facilities used/supplied (with the exception of final recipient facilities), the facility accounts must then be checked. They must plausibly show the proven inputs and outputs. They must be plausible within themselves and overall.

13.5 All inconsistencies in transport (exit facility – entry subsequent recipient) and facility accounts are to be reviewed where they show a difference of more than 10 percent (10%) (within themselves and in comparison to input versus output). Verifiable and understandable reasons for the differences must be cited. If audit activities under section B14 lead to collection and rate volumes that can no longer be certified with reasonable assurance, they must be deducted. The case and calculation of the specific deduction volume is to be presented in the audit report.

14 Specific audit activities: Volume transfers between systems

14.1 A volume transfer means that a volume transferred for recovery by a system is not included in calculating the recovery rate for that system but is provided to a different system for that purpose ('**volume transfer**').

14.2 Volume transfers between systems are permitted under the following conditions:

14.2.1 The volume is from recovered retail packaging collected nationwide by the transferring system in the reference year ('**retail packaging**').

14.2.2 The volume was transferred for due and proper recovery pursuant to sections 14 (2) and 16 (1), (2), (4) by the transferring system in the reference year.

14.2.3 The transferring system operator has fully documented the volumes in accordance with these audit guidelines, from collection through to the final recipient.

14.2.4 The transferring system has documented the evidence of the volumes in the volume flow record for the reference year.

14.2.5 The volume did not feed into the transferring system's rate calculation at any time.

14.2.6 According to the state of affairs at the time of audit and the information provided on the participated volumes (cf. B7), the transferring system operator did not undercut the recovery rate pursuant to section 16 (2) and (4) VerpackG for the relevant material type by removing the volumes from the transferring system's rate calculation.

14.2.7 A certificate from the registered expert who audited the transferring system's volume flow record covering the material type, volume and relevant recovery method must be included in the volume flow record of the transferring and the receiving system.

14.2.8 If other volume deductions/transfers from the transferring system operator's volume flow record for the same reference year are necessary, these volumes deductions can only be made from the transferring system operator's remaining volumes.

14.3 As soon as volumes are transferred from the transferring system operator to the receiving system operator using a certificate (cf. B14.2.7), it is not possible to feed these volumes back into the transferring system operator's rate calculation.

15 Specific audit activities: Rate calculation

15.1 Principles of calculation of the recovery rates under section 16 (2): The system-participating volumes confirmed by the system auditor (cf. B7) form the basis of the recovery rate. The auditor checks the correct use of the mass listed and the consistency of the material types. Determination of the recovery rate denominator is based on the volumes that entered the system under section 7 (1). Determination of the numerator is based on the volumes transferred for preparation for reuse or recycling (depending on the specification) (section 16 (2)).

15.1.1 When calculating the mechanical recovery rate, it is the auditor's direct responsibility to assess the recovery method on the basis of the facility certificates, and to decide on the level of the mechanical recovery rate bearing in mind the specific recovery method. In the event of different interpretation options, the auditor must present their decision in the audit report.

15.1.2 The volume of plastics and plastic composites from feedstock recovery is to be disclosed separately.

15.1.3 The use of waste as a fuel substitute (refuse-derived fuel) does not constitute recycling pursuant to section 3 (25) KrWG. For this reason, inclusion of energy recovery groups in the material recovery rate ('**material recovery**') is not

permissible. The production of refuse-derived fuels therefore cannot be classified as recycling either.

15.1.4 Retail and grouped packaging collected together with mixed municipal waste and transferred for thermal treatment, as well as PPC materials that are collected via the organic waste bins, may not be included when determining the numerator for calculation of the recovery rates.

15.1.5 Determination of the recovery rate for the recycling of composites that are collected and transferred for recovery, together with one of the main materials mentioned in section 16 (2), is to be depicted in the volume flow record in such a way that it can be followed and understood.

15.1.6 The recovery rate for composite packaging (excluding beverage carton packaging) is to be depicted as the sum of the following material groups:

- Other PPC composites
- Share of non-beverage carton packaging in liquid composites
- Plastic composites
- Aluminium composites
- Tinplate composites

15.1.7 Principles of rate calculation under section 16 (4): On average throughout the year, at least 50 percent (50%) of the waste collected overall as part of the collection of emptied plastic, metal and composite packaging in accordance with section 14 (1) must be recycled in the aforementioned sense.

15.1.8 In the case of a common recyclables collection in the sense of section 22 (5), the recycling rate relates to the share of the collected mix that can be allocated to the system for recovery in line with the ratio of plastic, metal and composite packaging to non-packaging from the same material ('**non-packaging from the same material**') in the common recyclables collection scheme.

15.1.9 In the case of separate collection systems that differ from traditional separated collection of the lightweight packaging waste group, the collection volume (and thus the reference volume) is limited to the lightweight packaging share of the mixed collection. Derivation of this share is to be presented and explained in the volume flow record.

15.1.10 Lids and closures from glass processing are not to be taken into account at any point in the rate calculation in accordance with section 16 (4).

15.1.11 Where not only energy is generated from packaging waste, but also ashes that are then used in cement clinker manufacturing, this can only be applied toward the recycling rates under section 16 (4) VerpackG under certain circumstances. Only where the mineral components from refuse-derived fuels are used as actual substitutions for primary input materials in cement clinker manufacturing does this count as recycling.

15.1.12 The following minimum requirements apply when accounting for the use of combustion residues as part of the recycling rate pursuant to section 16 (4) VerpackG:

- The definition of 'recycling' pursuant section 3 (25) KrWG is met.
- Only the amount of the actual recycled share may be applied in the calculation (i.e. the ashes that go into the cement clinker but not the amount of energy recovered). For proof, investigations relating to the particular composition of the refuse-derived fuels are necessary.
- Inclusion in the calculation is only feasible where there is co-processing, i.e. where there are simultaneous and not cascading processes.

This does not apply in relation to the material-specific recycling rates under section 16 (2) VerpackG. The retention of mineral materials in clinker manufacturing is generally not eligible for inclusion in recycling rates under section 16 (2) VerpackG.

15.1.13 Recovery volumes from collection in a common recyclables collection scheme: In the case of a common recyclables collection scheme within the meaning of section 22 (5), the shares that can be allocated to the public waste management authorities are not to be included in rate calculation in accordance with section 16 (2), (4). For this reason, a correction has to be made if applicable. This is at the level of the contract area concerned, since the individually selected model option is relevant. The basis for calculating the shares is to be presented to the auditor for the respective area. The auditor has to check the verifiability, and the correct use as part of the volume flow record, and document this in the audit report.

15.1.14 Calculation of the recovery rates under section 16 (2). Correction of rate calculation volumes as may be required within the meaning of section 16 (2) depends on the selected model, and is to be performed as follows:

- Of the collection volumes, an agreed share is allocated and posted as the public waste management authorities' volume. The remaining volume is allocated to the systems and divided by market share. The public waste management authorities receive a corresponding share from the mixed collection directly after collection, and assume it under a separate sorting agreement. Correcting the volumes that have already been allocated is not necessary. It is permissible to allocate liquid composites that have been sorted out from the public waste management authorities' share to the systems, in line with the lightweight packaging market share.
- Area division: Collection in the contract area is for the share of the public waste management authorities as commissioned by them, and for the share of the systems as commissioned by them. The volumes are already allocated spatially and at the level of the collection agreement. Correcting the volumes that have already been allocated is not necessary. It is permissible to allocate liquid composites that have been sorted out from the public waste management authorities' share to the systems, in line with the lightweight packaging market share.
- Joint collection, sorting and recovery of packaging and non-packaging: there is no volume allocation to the public waste management authorities. The volumes are consistently treated as system volumes in the record documentation and in booking entries. For correct determination of the system volumes and calculation of the rates in line with section 16 (2), it is required to deduct the public waste management authorities' share at the collection

volume and recovery allocation cutoff points (excluding liquid packaging board);

- Pre-sorting of the collected mix by the public waste management authorities: the public waste management authorities take the groups defined (including the remainder) from the collected mix, and transfer the remaining volumes to the systems. To calculate the rates pursuant to section 16 (2), the shares attributable to the systems are to be taken into account.

15.1.15 Rate calculation under section 16 (4). For the 'joint collection, sorting and recovery of packaging and non-packaging' and 'pre-sorting of the collected mix by the public waste management authorities' models, the procedure is as described in the preceding section. Furthermore, determination of the calculation volume must take into account the share of the collected mix that can be allocated to the systems for recovery, in line with the ratio of plastic, metal and composite packaging to non-packaging from the same material in the common collection of recyclables. The share (remainder) that does not correspond to either the plastics, metal and composite packaging (lightweight packaging) or the non-packaging from the same material is allocated in line with the above-mentioned ratio. This results in the following calculation for the systems' collection volume share:

- share of lightweight packaging + (share of lightweight packaging x share of remainder)/(share of lightweight packaging + share of non-packaging from the same material).

C Audit documentation, filing, concluding provisions

16 Audit result

16.1 The auditor must issue a certificate (confirmation within the meaning of section 17 (2)) stating the result of their audit activities.

16.2 The certificate must include the following details at the very least:

16.2.1 Name and address of the auditor(s) and the respective auditor ID(s) in LUCID;

16.2.2 The system, specifying the person responsible there for drawing up the volume flow record, including their business address;

16.2.3 The reference year, the timeframes for performance of the audit in the reference year and thereafter;

16.2.4 Description of the subject of the audit (including date of documentation and designations of the documents presented for the volume flow record);

16.2.5 An overview of all collection agreements as well as agreements with sorting and recovery companies;

16.2.6 Description of nationwide coverage as part of kerbside collection and comparable sources of waste generation within the meaning of section 3 (11) and in this

respect of the collection structure, specifying special forms (e.g. pickup/returns system, flat, round) as applicable;

16.2.7 The finding that the provisions of the VerpackG and these audit guidelines were complied with during the audit (cf. basis of the audit, A3.1);

16.2.8 The system participation volumes by material group, including a confirmation issued by the system auditor indicating whether or not the confirmation was qualified or declined;

16.2.9 The packaging transferred for recovery in line with VerpackG provisions, in tonnes and by material group, and the resulting rates in accordance with section 16 (2), (4);

16.2.10 The audit result stating whether the individual quotas have been 'fulfilled' or 'not fulfilled' (in the case of nonconformity/non-fulfilment with comments);

16.2.11 Stamp, city, date and signature of the auditor; also a qualified electronic signature where filed pursuant to section 17 (3).

16.3 The certificate must be accompanied by the following documents:

16.3.1 The confirmations from the system auditors regarding volumes under section 20 (1) nos. 1 and 2.

16.3.2 All facility certificates, in addition to the corresponding audit report; with the exception of English-language documents, all foreign-language documents are to be accompanied by certified translations executed by a translator registered in Germany.

16.4 Qualifying or declining a confirmation pursuant to section 17 (2):

16.4.1 On grounds relating to the volumes participated with a system

If the confirmation issued by the system auditor pursuant to section 20 (2) in conjunction with section 20 (1) no. 2 is qualified, the calculation of rates will also be qualified because the underlying reference volume was not fully confirmed by the system auditor in line with the respective provisions. Consequently, the system volume flow record auditor also has to issue a qualified certificate (see sample certificate option A).

If the confirmation issued by the system auditor pursuant to section 20 (2) in conjunction with section 20 (1) no. 2 is rejected, the rates cannot be calculated reliably because the underlying reference volume was not evidenced in line with the respective provisions. Consequently, the system volume flow record auditor also has to deny a certificate (see sample certificate, most likely option B).

16.4.2 On grounds relating to the collection and recovery volumes

If the auditor cannot obtain reasonable assurance or evidence as per these audit guidelines regarding the collection and recovery volumes during their audit and these volumes cannot be delineated, these volumes must be deducted. If the

system still meets its quotas even after factoring in deductions, the confirmation for the reduced rate volumes can be issued without qualifications.

The certificate must not be issued if the system fails to meet the quota for one or more material types after deducting volumes for which insufficient evidence has been provided.

The certificate pursuant to section 17 (2) must not be issued if the auditor was unable to obtain reasonable assurance for their audit opinion regarding the collected and recovered volumes (e.g. due to a lack of evidence) and the volumes cannot be delineated quantitatively.

16.5 All auditors must use the models listed in **appendix 2** to ensure that all auditors use the same wording for the same cases.

17 Audit report

17.1 The auditor must issue a detailed audit report on the result of their audit activities, in line with the usual occupational standards. The audit procedures performed, and the results, are to be documented in the audit report in such a way that it can be followed and understood.

17.2 The audit report must include the following points in particular:

17.2.1 Audit assignment;

17.2.2 Subject, type and scope of the audit;

17.2.3 Findings regarding the documentation system used by the system;

17.2.4 Findings regarding all audited cases, as well as the cases explicitly referred to as subject to documentation in these audit guidelines, and descriptions of any nonconformities;

17.2.5 Confirmation (in line with **appendix 2**).

17.3 The report forms part of the confirmation and so must be filed electronically, together with the confirmation and the volume flow record, with the ZSVR in the LUCID Packaging Register by no later than 1 June of the year following the reference year under section 17 (3).

17.4 For clarification: The audit report is not an audit report as defined under section 321 HGB, and the provisions of section 321 HGB do not apply – not even accordingly – to the audit report.

18 Transmission of volume flow records

18.1 The systems must file the volume flow records electronically with the ZSVR in the LUCID Packaging Register by no later than 1 June of the calendar year following

the reporting period (section 17 (3)). The deadline is defined by law. Extensions are not possible.

18.2 To transmit the volume flow record, the ZSVR provides an interface description.

18.3 The documentation to be transmitted by no later than 1 June must include at least the following:

18.3.1 The volume flow record documentation (cf. A4.6 and A1.4);

18.3.2 The expert's certificate (cf. B15);

18.3.3 The expert's audit report for the certificate (cf. C16.3);

18.4 All documents must be filed uniformly by 1 June every year.

18.5 All of the documents filed with the ZSVR must be machine readable using computer software. A document can most easily be read using computer software if the visible text in a document (in PDF format) can be marked and copied. That is the case when the document has been generated directly by a word-processing programme. Whenever possible, this type is to be preferred over files 'not directly generated by a word-processing programme' (see below). Files 'not directly generated by a word-processing programme' are those created by copying/printing and then re-scanning. These files must be converted into documents that computer software can read using optical character recognition (OCR). If the source documents (i.e. the copies/scans) are not of sufficient quality, even OCR software will not make it possible for computer software to read them. To ensure machine readability, documents must meet the following requirements:

18.5.1 A 'standard' font type known in common Windows/Mac/Linux operating systems, such as Arial, Calibri, Times New Roman, Helvetica (list is not exhaustive) must be used.

18.5.2 'Typewriter' font types, i.e. font types that look like earlier typewriters, such as Courier, must not be used.

18.5.3 The writing must be dark (preferably black) on a light background (preferably white).

18.5.4 There must be no colourful or grayscale backgrounds or graphic backgrounds; if watermarks are used, the text should be clearly distinguishable (cf. C18.4.2 and C18.4.3) and they should not compromise readability.

18.5.5 The font size to be used may be no smaller than 8 pt. in any part of the document (including footnotes).

18.5.6 Documents may not be handwritten.

18.5.7 Documents may not have handwritten mark-ups.

18.5.8 Scans must have a minimum resolution of 300 dpi or higher.

18.5.9 Documents must be scanned or filed without creases, folds and/or seams; if there are any creases, folds and seams, the document should be flattened before scanning.

18.6 In accordance with section 17 (3), the ZSVR is authorised to request original copies from the system of the documents underlying the audit, even if they have not been specifically mentioned in the audit report (e.g. weighing notes, invoices, delivery notes, certificates, certifications, expert opinions, operational logs, agreements with waste disposal companies for evidence of nationwide coverage, documentation of the proof in the IT system).

18.7 Where specific cause exists to believe that the volume flow record is incorrect or incomplete (e.g. because the auditor issued a qualified certificate or no certificate at all), the ZSVR has the discretion to ask the system for an opinion from another registered expert with a specific audit assignment to clarify the matter. The system is required to facilitate the exchange between the registered expert and the auditor and to instruct the auditor accordingly.

18.8 If the certificate is qualified or declined, there is an administrative offence pursuant to section 36 (1) no. 7, second alternative.

19 Dealing with legal questions / exchange of technical information

19.1 Legal questions in connection with the interpretation and implementation of these audit guidelines are to be presented to the ZSVR (section 26 (1)) no. 30 in conjunction with no. 28). The ZSVR will comment on the wording wherever possible and, where necessary, amend the audit guidelines in agreement with the German Federal Cartel Office.

19.2 The ZSVR reserves the right to publish notes about the wording of the audit guidelines on an anonymised basis, where doing so relates to legal questions connected with conducting audits in specific circumstances.

19.3 The ZSVR offers a training course at least once a year which also covers use of the audit guidelines. Registered experts are required to complete one of these training courses within one year of admission into the register of auditors, and once every five years thereafter (section 27 (3)). The annual training courses are also used to share experiences with the audit guidelines without prejudice to confidentiality, as set out in C20. Auditors' comments can lead to the audit guidelines being amended as set out in C21.

20 Confidentiality

The auditor has a duty to keep confidential the information shared with them by a given system and any knowledge obtained in the course of the audit, in particular commercially sensitive data (clients, prices, tonnages, etc.) and only to disclose this information to third parties where required to do so by law or where necessary for the purposes of clarifying a legal question by the ZSVR (which, in turn, is bound to confidentiality). Anyone assisting them must also be subject to this duty of confidentiality. This is without prejudice to professional privilege.

21 Amendments / entry into force

The audit guidelines are evaluated by the ZSVR on a continuous basis. Any necessary amendments are made with the agreement of the German Federal Cartel Office. Amendments will be signposted with transitional provisions where required by legitimate expectations. Amendments, where necessary, are made with appropriate transitional periods and with prospective effect. These audit guidelines apply to the 2022 reference year onwards.

Appendix 1: Glossary
Appendix 2: Sample certificates
Appendix 3: Sample facility certificate
Appendix 4: Sample audit report for the facility certificate

Appendix 1: Glossary

This glossary contains terms that are used in both these audit guidelines and others. The explanations of the terms are binding within the scope of these audit guidelines.

Term	Explanation
Facility certificate	A '**facility certificate**' states the findings of a '**registered expert**' concerning the functional and capacitive suitability of a facility that is subject to a certification obligation as part of these audit guidelines.
Processor	Within the context of a volume flow record, a treatment/processing plant or a '**processor**' can be either a final recipient (also referred to as comparable final recipient) or a pre-treatment plant, depending on the method and the product created. Pre-treatment plants are only considered processors if there is more than one sorting.
BGBl.	'**BGBl**' is the abbreviation for the Bundesgesetzblatt, the Federal Law Gazette.
Proof	'**Proof**' in the sense of these audit guidelines is primary evidentiary documentation concerning the collection, sorting and recovery of packaging. This includes weighing notes, delivery notes, transport papers and/or export documents for a specific delivery that were created during transportation by the parties involved.
Reference year	The '**reference year**' for the volume flow record is the preceding calendar year in each case.
EfbV	'**EfbV**' is the abbreviation for the 'Verordnung über Entsorgungsfachbetriebe, technische Überwachungsorganisationen und Entsorgergemeinschaften' or Ordinance on Specialised Waste Management Companies, Monitoring Organisations and Waste Disposal Associations dated 2 December 2016 (BGBl. I page 2770), last amended by article 2 of the Act dated 08 December 2022 (BGBl. I page 2240) in the version currently in force.
Beverage carton packaging	'**Beverage carton packaging**' within the meaning of section 16 (2) is beverage packaging within the meaning of section 3 (2) in the form of composite packaging within the meaning of section 3 (5), with cardboard as its base material.
Producer	'**Producer**' is a distributor within the meaning of section 3 (14) in conjunction with (9).
HGB	'**HGB**' is the abbreviation for the 'Handelsgesetzbuch' or German Commercial Code in the revised version of 10/05/1897 published in the German Federal Gazette Part III. No. 4100-1, last amended by article 13 (4) of the Act of 10/03/2023 (BGBl. I no. 64), in the version currently in force.
Reasonable assurance	'**Reasonable assurance**' is the auditor's standard for the audits (VFR, facility certificates). To obtain reasonable assurance, the

	auditor must design the audit so that inaccuracies and violations of the Verpackungsgesetz that have a substantial impact on the statement of rates and recovery can be identified. This serves the purpose of the auditor having sufficient appropriate audit evidence to reduce the audit risk to a reasonable, very low level. Audit risk means the risk of the auditor forming an inappropriate audit opinion because the audit report concludes incorrect details and subsequent findings. In practice, this means that the auditor assesses the inherent risk and the control risk and correctly measures their own detection risk. If there is an audit risk, the auditor is required to minimise this risk by expanding and intensifying their audit activities. If the auditor ascertains, for example, that requirements are not sufficiently controlled, the auditor will audit these more thoroughly than other components of the volume flow record.
System participation requirement catalogue	The '**system participation requirement catalogue**' comprises norm-interpreting, non-exhaustive administrative regulations published by the ZSVR together with the corresponding guideline. The catalogue contains indications of how the ZSVR would likely decide an application concerning the classification of a type of packaging as being subject to system participation or not (section 26 (2) no. 23). The catalogue and guideline can be accessed in the version currently in force on the ZSVR's website at https://www.verpackungsregister.org/.
KrWG	'**KrWG**' is the abbreviation for the 'Gesetz zur Förderung der Kreislaufwirtschaft und Sicherung der umweltverträglichen Bewirtschaftung von Abfällen' or Act to Promote Circular Economy and Safeguard the Environmentally Compatible Management of Waste dated 24 February 2012 (BGBl. I, page 212), most recently amended by article 5 of the Act dated 02 March 2023 (BGBl. I no. 56), in the version currently in force.
Guideline for using the system participation requirement catalogue	The '**guideline for using the system participation requirement catalogue**' contains administrative regulations from the ZSVR, complemented by the '**system participation requirement catalogue**'. The guideline for using the system participation requirement catalogue is available on the ZSVR's website at https://www.verpackungsregister.org/.
Final recipient	The '**final recipient**' is a facility in which a product with defined, reproducible product characteristics is created (e.g. in accordance with DIN ISO 1042, parts 1 to 4); the product must be suitable for use, and in fact be used, in a production process without any waste-specific treatment steps. As such, classification as a final recipient depends on the material in line with these audit guidelines.
LWP	'**LWP**' is the abbreviation for lightweight packaging that is subject to separate kerbside collection and processing from mixed municipal waste under sections 14 (1) and 16 VerpackG.
Market share sample range	The '**market share sample range**' is the mean value of the market shares published for the respective reference year pursuant to

	section 26 (1) no. 14 at the time of the audit procedure, related in each case to the glass, PPC and lightweight packaging collection group.
Volume flow record	A '**volume flow record**' with regard to section 17 is a verifiable record of compliance with the collection and recovery requirements under sections 14, 16, which is certified pursuant to section 17 (2) by a registered expert pursuant to sections 3 (15), 27 (1) and corresponds to the audit guidelines. The starting point for the volume flow record is the place of packaging collection. The end point for the volume flow record is the '**final recipient**'.
MessEG	'**MessEG**' is an abbreviation for the 'Gesetz über das Inverkehrbringen und die Bereitstellung von Messgeräten auf dem Markt, ihre Verwendung und Eichung sowie über Fertigpackungen' or Act Governing the Placing on the Market and Provision of Measuring Devices, their Use and Calibration, and Governing Prepackaging in its version promulgated on 25 July 2013 (BGBl. I page 2722), last amended by article 1 of the Act dated 9 June 2021 (BGBl. I page 1663), in the version currently in force.
MessEV	'**MessEV**' is an abbreviation for the 'Verpackungsgesetz über das Inverkehrbringen und die Bereitstellung von Messgeräten auf dem Markt sowie über ihre Verwendung und Eichung' or the Ordinance Governing the Placing on the Market and Provision of Measuring Devices, their Use and Calibration of 11 December 2014 (BGBl. I page 2010), last amended by Article 1 of the Act dated 09 June 2021 (BGBl. I page 1663), in the version currently in force.
örE	'**örE**' is an abbreviation for a public waste management authority**.**
Auditor	**'Auditor'** for the purposes of these audit guidelines refers to a 'registered expert' or auditor or tax advisor or sworn accountant so long as each is admitted to the ZSVR's publicly accessible auditor register under www.verpackungsregister.org (division 1: registered experts, division 2: DoC auditors).
Cutoff point	The rate is measured at entry at the **final recipient**. This is the '**cutoff point**'.
Recycling	'**Recycling**' is every recovery method that enables waste to be processed into products, materials or substances either for their original purpose or for other purposes; it includes processing of organic materials but not energy recovery or the processing into materials to be used as fuel or for filling (section 3 (25) KrWG). The term '**recycling**' includes '**material recovery**' including '**feedstock recovery**' and '**mechanical recovery**'.
Registered experts	'**Registered experts**' refers to experts as set out in sections 3 (15), 27 (1). Following interpretation by the ZSVR, registered experts also fall under the registration obligation under section 27 (1) if they audit facilities (subactivities within the meaning of these audit guidelines)

	since pursuant to section 17 (2), auditing the '**volume flow record**' also includes auditing facilities; this also applies to facilities abroad.
Feedstock recovery	'**Feedstock recovery**' is material recovery through which plastic waste is not directly used as material but instead is broken down again chemically, with energy input, turning it back into a raw material. Unlike energy recovery, feedstock recovery falls under the term '**recycling**' within the meaning of the KrWG, but is to be delineated from '**mechanical recovery**' in the sense of the VerpackG.
Sampling	'**Sampling**' is the facility selection made for the facility audit.
Non-packaging made from the same material	'**Non-packaging made from the same material**', in contrast to packaging, are products made from the same material.
Material recovery	'**Material recovery**' is any recovery method with the exception of energy recovery and the processing into materials that are intended to be used as fuel or another means of energy production. Material recovery includes in particular treatment for reuse, recycling and refilling (cf. section 3 (23a) KrWG).
Systems	'**Systems**' are legal persons or partnerships organised under civil law that meet the requirements set out in section 3 (16) and in particular have system approval pursuant to section 18.
Packaging subject to system participation	'**Packaging subject to system participation**' is retail or grouped packaging within the meaning of section 3 (8). To interpret the question of what retail or grouped packaging is subject to system participation, the ZSVR developed administrative regulations in the form of the '**system participation requirement catalogue**'.
Non-system shares	'**Non-system shares**' are volumes that do not originate from system collection (in particular from commercial collection, non-packaging from the same material, production waste). Within the meaning of these audit guidelines, this also includes the shares that do not correspond to the input description of the facility suitability as established.
System auditor	A '**system auditor**' is an auditor / auditing firm pursuant to section 3 (17).
Declaration of completeness technical standards	The '**declaration of completeness technical standards**' is guidance on the ZSVR's electronic filing procedure pursuant to section 11 (3), which can be accessed at **https://www.verpackungsregister.org/**.
Grouped packaging	'**Grouped packaging**' is packaging within the meaning of section 3 (1) no. 2. To interpret the question of what retail or grouped packaging is subject to system participation, refer to the '**system participation requirement catalogue**'.

Retail packaging	'**Retail packaging**' is packaging within the meaning of section 3 (1) no. 1. This includes '**service packaging**' and '**shipment packaging**'. If retail packaging typically accumulates as waste with a final consumer after use, then it is subject to system participation pursuant to section 3 (8). To interpret the question of what retail or grouped packaging is subject to system participation, refer to the '**system participation requirement catalogue**'.
Mixing	'**Mixing**' occurs where retail and grouped packaging is collected together with other types of packaging (e.g. transport packaging) or non-packaging from the same material, or if retail and grouped packaging of various parties under obligation are intentionally (deliberately) collected in a collection container. This is the case, for example if: - retail and grouped packaging of various '**sector-specific solutions**' are intentionally (deliberately) collected jointly; - retail and grouped packaging is intentionally collected jointly that accumulates with private final consumers and comparable sources of waste generation pursuant to section 3 (11) in conjunction with section 7, and with the non-private final consumers.
VerpackG	The '**VerpackG**' or '**Verpackungsgesetz**' is the Act on the Placing on the Market, Return and High-quality Recovery of Packaging (Verpackungsgesetz – Packaging Act), last amended by article 2 of the Act of 22 September 2021 (BGBl I 139, page 4363), in the version currently in force.
VerpackV	The '**VerpackV**' or '**Verpackungsverordnung**' is the Ordinance on the Prevention and Recovery of Packaging Waste of 21 August 1998 (BGBl. I page 2379), last amended by article 11 (10) of the Act of 18 July 2017 (BGBl. I page 2745), repealed as of 1 January 2019.
Recovery facility	A '**recovery facility**' is a facility in which the '**recovery method**' is conducted in relation to '**packaging subject to system participation**'.
Recovery rate	The '**recovery rate**' describes the volumes of '**packaging subject to system participation**' that participate in a 'system' and have been transferred for preparation for reuse or transferred for recovery (mechanical / material except mechanical (both: recycling) and energy recovery); it is given as the annual mean as a percentage.
Recovery method	A '**recovery method**' is the process set up for the principal result that waste will be serving a useful purpose in the facility or in the wider economy by replacing other materials which would otherwise have been used to fulfil a particular function or waste being prepared to fulfil that function (section 3 (23) KrWG) – without any systematic or atypical ejection of specification-compliant materials.

	Annex 2 to the KrWG contains a non-exhaustive list of recovery methods.
Pre-treatment plant	A '**pre-treatment plant**' is a facility in which treatment steps are performed before the recovery method is deployed.
Mechanical recovery	'**Mechanical recovery**' is recovery using a method in which the same type of new material is replaced or the material remains available for further material use (section 3 (19)). In practice, this means mechanical processing of plastic waste at material level instead of chemical breakdown; the material remains, it is simply remelted into a new product, if necessary by adding additives.
ZSVR	The '**ZSVR**' is the Stiftung Zentrale Stelle Verpackungsregister (Foundation Central Agency Packaging Register) within the meaning of the VerpackG (cf. section 24 (1)).

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Appendix 2: Sample volume flow record certificate

Certificate

I/we (*name, address, audit ID in LUCID)*, have audited the volume flow record of the system … for (*year*).

I/we hereby confirm that I am/we are free from financial and professional conflicts of interest.

(*Name and business address)* is responsible for drawing up the volume flow record of the system ….

I/we have conducted our audit pursuant to section 17 (2) VerpackG for the reference year in compliance with the current version of the '**system volume flow record audit guidelines**' dated **[year/month/day]**. The audit began on [year/month/day] and ended on [year/month/day]. (Or: I/we have conducted our audit pursuant to section 17 (2) VerpackG for the reference year in compliance with the current version of the '**system volume flow record audit guidelines**' dated **[year/month/day]**. The audit was based on the assignment dated **[year/month/day]** and began **[year/month/day]**). An audit assignment according to the requirements of the aforementioned 'system volume flow record audit guidelines' formed the basis of my/our audit.

My/our task is to audit the system's volume flow record pursuant to section 17 (1) VerpackG starting with the volume flow documented in the volume flow record by collecting and inspecting the material that covers the flow from the sorting and preparation steps to the 'final recipient'. My/our task is to conduct the audit according to the standard of reasonable assurance as regards the completeness and accuracy of the proof provided to me/us by the system and the facility certificates presented by the facility operators in addition to audit reports.

The proof is verified to ensure that it documents the journey of the materials, from collection through all sorting and preparation steps (including handling and storage) to entry in the recovery facility, in such a way that it can be followed and understood. The proof mentioned in the audit report was presented to me/us.

The agreements mentioned in the audit report regarding the collection of material were also presented to me/us.

The system is under obligation in accordance with section 14 (1) VerpackG to ensure nationwide collection of all emptied packaging, in a sufficient manner and free of charge for final consumers in the catchment area of the participating producers; this collection must be separate from municipal waste collection. I/we have audited the nationwide collection structure on the basis of the analysis presented by the system in accordance with 11.2 of the audit guidelines. Furthermore, we have inspected collection agreements on a sample basis. In total, there were no agreements for ... areas (lightweight packaging), ... areas (PPC), ... areas (glass).

The system participation volumes by material group that the system auditor confirmed on … are as follows:

- …
- …,
- and ….

The packaging transferred for recovery in line with the provisions of the VerpackG in tonnes and per material group are as follows:

	Recovered	Total	Rate	Quota pursuant to
	t	t	%	Section 16 (2) VerpackG
Material group …	…	…	…	…
Material group …	…	…	…	…
Material group …	…	…	…	…

... t of the plastics material group were recovered mechanically. This corresponds to a rate of … %.

As such the individual quotas are fulfilled / not fulfilled. (*Comment required where quotas not met*)

	Recovered	Total	Rate	Quota pursuant to
	t	t	%	Section 16 (4) VerpackG
Lightweight packaging	…	…	…	…

As such the overall quota is fulfilled / not fulfilled. (*Comment required where quotas not met*)

My/our audit of the volume flow record has led to no material objections.

Option A:

My/our audit has yielded no material objections with the exception of the following qualification(s):

(detail qualification)

Option B:

A certificate pursuant to section 17 (2) is denied. My/our audit has yielded the following objection(s):

(detail reason for denial)

Stamp, city/town, date and signature

Attachments

1) Confirmations from the system auditors regarding volumes under section 20 (1) nos. 1 and 2 VerpackG.

2) All facility certificates, in addition to the corresponding audit report; all foreign-language documents (with the exception of English-language documents) are to be accompanied by certified translations executed by a translator registered in Germany.

(Alternatively: attachments appended to the audit report)

Appendix 3: Sample facility certificate

Facility certificate

Company name of the facility operator

Location of the facility: street

country, postcode, town

The above-mentioned facility was audited on **day/month/year** in line with the ZSVR's 'system volume flow record audit guidelines' dated (insert date of the current version applied by the auditor) (hereinafter: 'system volume flow record audit guidelines'). The facility audit was based on an audit assignment pursuant to the requirements of the aforementioned 'system volume flow record audit guidelines'. Evidence that the facility fulfils the requirements of the Verpackungsgesetz (Packaging Act) and other waste legislation in line with the 'system volume flow record audit guidelines' was provided.

This is a

☐ First audit

☐ Follow-up audit

☐ Periodic audit

This certificate is valid up to and including: **day/month/year**

Audit period: from **day/month/year** to **day/month/year**

On-site audit on: day**/month/year**

Date of the accompanying audit report according to the facility: day**/month/year**

For the input material and the delivery form listed below, the audited facility reports the following capacity in tonnes (t) per year and sufficient qualitative performance in each of the recovery methods. It is to be classified either as a pre-treatment or a final recipient facility depending on the input quality:

Input material (system specification at article level) / classification of the facility[7]	Delivery form	Capacity (Input) t/a (Where there are multiple input materials, the relevant capacities must be entered for each material position)	Final product of the treatment process / by-product	Transferred for recovery (in % based of the input material)	Atypical contaminant fraction (in % of the input material)	Systematically ejected in the course of pre-treatment (in % of the input material)	Recommended recognition Recovery type and / transfer rate [%][8]
Total							

Allocation to a recovery type is not until the calendar year has ended: Yes ☐ No ☐

[7] FR: Final recipient
PR: Processor

[8] E: energy
M: mechanical
F: feedstock

The certificate comprises two pages with appendix 1: Sample weighing note.

The certificate does not replace the volume flow record through to the final recipient.

Please refer to the individual findings in **appendix 1**.

A simplified process description of the facility processes is included in **appendix 2**.

Audit report **audit report number** dated **day/month/year** is included in **appendix 3**.

A sample weighing note for the scale used in the facility is included in **appendix 4**.

Conditions:

City/town, **day/month/year**

Auditor name

Auditor ID

LOGO auditing body

Auditor contact details
Name/address

Appendix 1 to certificate no. XXX: Individual findings

Contact person: Mr/Ms XXX (company name/function)

Phone: E-mail:

Auditors involved: Mr/Ms XXX (company name/function)

The audit result is based on the following individual findings:

1. The facility has all necessary approvals.

2. The technical equipment, procedures, and modes of operation of the facility are suitable from a qualitative and quantitative standpoint to process the input materials stated in the facility certificate into the above-mentioned refined products according to the additional information stipulated in the facility certificate.

   (a) The following basic operations in particular were taken into account for the assessment of suitability:

3. Systematic ejection of specification-compliant parts in a residual waste flow are not to be recorded.

   Yes ☐ No ☐

   Production-related ejection is described separately below:

4. The business keeps production logs in which the processing of the input material subject to the scope of the Verpackungsgesetz and the qualitative, quantitative and technical performance features are depicted in a way that can be understood and verified (if this is not the case, the certificate can either be declined, or conditions must be imposed in the case of existing auditability).

   Yes ☐

5. The facility is classified as a final recipient facility due to the product characteristics and the marketing audit performed. Yes ☐

6. The reported capacity corresponds to that of the approved/recorded throughput / throughput established in terms of sales, where applicable. The relevant basis for determining capacity is detailed in the audit report.

   Yes ☐

7. Only for final recipients of fibre-based composites: The main material components are almost fully recycled in line with the latest technology (entering 'Yes' is a prerequisite for certification); water shares after processing must be documented in the audit report's accounts:

   Yes ☐

8. Only for mechanical processing plants for the aluminium group from lightweight packaging sorting: composites are transferred for material recovery together with by-product aluminium (a prerequisite for certification as a final recipient facility of such material): Yes ☐

9. The process surrounding proof and data preparation meet the requirements of the 'system volume flow record audit guidelines' and principles of proper accounting. In-house processing was evidenced.

   Yes ☐

10. The proper recovery of residual waste in line with legal requirements was evidenced. The audit report contains quantitative information, Yes ☐

11. The following expert/audit opinions were consulted for certification:
    - Certificate in accordance with DIN EN ISO 9001, issued on day/month/year

12. The certificate is issued without conditions. Yes ☐ No ☐

Conditions:

Date of the additional audit to check compliance with the conditions:

Appendix 2 to certificate no. XXX: Process description

Appendix 3 to certificate no. XXX: Audit report
Appendix 4 to certificate no. XXX: Sample weighing note

General

Activities:	Processing / Recovery / Mechanical / Other recovery (Please cross out any description that does not apply to the facility)
Business name:	
Street, postcode, city:	
State:	
Contact person:	**Function:**
Telephone:	
Fax:	
E-mail:	

Expert:	
Telephone:	
Fax:	
Audit purpose:	☐ First assessment (____.____.____) ☐ Certification audit (____.____.____) ☐ ___. Surveillance audit (annual surveillance) (____.____.____) ☐ Additional audit / special audit (____.____.____)
Audit result:	☐ The facility meets the requirements of the system volume flow record audit guidelines, version dated _____. ☐ The business does not meet the requirements of the system volume flow record audit guidelines, version dated _____.
Next audit:	

Expert organisation:

_____
(city, date)

(Name of registered expert
or the expert's
organisation)

_____
(registered expert's signature)

1. Evaluation and overall result

Summary of the audit result on supply

The facility is suitable for processing the following input materials within the given capacity:

Input material	Delivery form	(Sub-) Capacity	Processing into	Type of processing and classification
TOTAL:				

Explanation:

(1)

I. Summary of audit result		Evaluation
re: IV.1	The facility has all necessary approvals.	
re: IV.2	The technical equipment, procedures, and modes of operation of the facility are suitable from a qualitative and quantitative standpoint to process the above-mentioned input materials into the refined products / secondary resources stated in the facility certificate.	
re: IV.3	No systematic ejection of specification-compliant parts in a residual waste stream was recorded.	
re: IV.4	The business keeps production logs in which the processing of the input material within the scope of the Verpackungsgesetz and the qualitative, quantitative and technical performance features are depicted in a way that is fully verifiable and plausible?	
re: IV.5	The facility is classified as following due to the product attributes / market audit performed (mandatory for final recipient facilities): (Please strike as appropriate)	☐ Processing ☐ Recovery ☐ Mechanical ☐ Other recovery (For mixtures, enter the share in 5 of the audit report)
re: IV.5	The material balance is not conclusive/plausible. The product yield(s) is (are): (Please strike as appropriate)	%
re: IV.6	The reported capacity/capacities correspond(s) to the recorded throughput / were evaluated taking the dimensioning of the core processes into consideration. In measuring the capacity, limitations resulting from production parameters in terms of sales were taken into account. (Please strike as appropriate) The relevant basis for calculating capacity is explained as follows:	

re: IV.7	Only for final recipients of fibre-based composites: The main material components are almost fully recycled in line with the latest technology (this information is a prerequisite for certification); water shares after processing must be documented in the audit report's accounting.	
re: IV.8	Only for mechanical processing plants for the aluminium group from lightweight packaging sorting: composites are transferred for material recovery together with by-product aluminium (a prerequisite for certification as a final recipient facility of such material):	
re: IV.9	The process surrounding proof and data preparation meets the requirements of the 'system volume flow record audit guidelines' and principles of proper accounting. Proof provided of in-house processing of the supplied material.	
re: IV.10	Proof provided of proper processing of production waste.	
re: IV.11	The following expert/audit opinions were consulted for certification: ◆ Certificate in accordance with DIN EN ISO 9001 valid until ____.____.____ ◆ Certificate in accordance with DIN EN ISO 14001 valid until____.____.____ ◆ Certificate in accordance with valid until ____.____.____ ◆ Study conducted by VAW Aluminium AG on 'Ecological efficiency of the recycling of the DSD aluminium packaging group through pyrolysis: 2000' (Please strike as appropriate)	

(2)

Evaluation model:

Yes: The requirements have been met; no objections

No: The requirements have not been adequately met; an audit nonconformity report is being prepared. Nonconformities require the subsequent submission of documents or an additional audit. The improvement period to meet conditions is no more than two months.

NA: Not applicable

II. Nonconformity with the requirements of the volume flow record audit guidelines		
1. Nonconformity		
No.	Question	

III. Notes		
No.	Question	

(Please only raise issues that should be remedied by the company before the next re-audit)

IV. Audit result		1. Approval situation		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
1.	Does the facility have all necessary approvals?	☐ Yes ☐ No		
1.1	Is the facility operated on the basis of a/an ◆ environmental law ◆ pollution control law ◆ …… approval?	☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No	Issued by _____ In a letter dated ____. ____. ____	
1.2	What waste codes apply to storage and processing?	…… …… …… ……	Correspondence with the input materials to be certified.	

1.3	Do the given approval documents contain capacity limitations? If yes, to what volume does the approval limit the facility capacity?	☐ Yes ☐ No …… t/a …… t/d	Consideration under capacity measurement, cf. no. 2.6.	
1.4	What are the approved operating times?			
1.5	Do they work in shifts? Shift 1: Shift 2: Shift 3: Shift 4:	☐ Yes ☐ No from…… to: …… from…… to: …… from…… to: …… from…… to: ……		
1.6	Was proof of legal form provided?	☐ Yes ☐ No	E.g. commercial register extract provided.	
Comments/assessment of expert on questions 1 to 1.6				

IV. Audit result		2. Facility technology			
No.	**Questions**	**Results / comments / additions**		**Notes for the expert / proof**	**Evaluation**
2.	The technical equipment, procedures, and modes of operation of the facility are suitable from a qualitative and quantitative standpoint to process the above-mentioned input materials into the above-mentioned refined products / secondary resources.	☐ Yes ☐ No			
2.1	**Brief facility and operations description:** (The simplified process flow chart(s) attached as V. show the working state of the process technology as found at the time of the audit. Optional processes are shown with a dotted line.)				
2.2	The following process steps were used to verify suitability for processing the input materials …… as essential assessment criteria:	Serial number	Process tech. Basic operation	carried out as	Function
		1			
		2			
		3			
		4			
		5			

IV. Audit result		2. Facility technology				
No.	**Questions**	**Results / comments / additions**		**Notes for the expert / proof**		**Evaluation**
		6				
		7				
		8				
		9				
2.3	Correspondence with installed technical equipment	☐ Yes ☐ No		Plant inspection with reconciliation		
2.4	What is the throughput this facility is set up for according to the operator?	…….. t/h input …….. t/h finished product				
2.5	Are there any special issues to be noted about operations in processing the above-mentioned materials? If yes, what?	☐ Yes ☐ No ……		e.g. batch processing, 'mixtures upon demand'		

IV. Audit result		2. Facility technology		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
2.6	What are the output streams? (Please provide product descriptions) Main product(s): By-product(s): Waste/rejects:	.... (see flow chart)		
2.7	Are secondary materials recovered from plastics composites?	☐ Yes ☐ No ☐ Remains in the product ☐ Mechanical via third party ☐ Other recovery	For groups that also contain plastics composites (e.g. mixed plastics, cups/PS) per the specification, it must be checked whether the secondary materials are transferred for recovery.	
Comments/assessment of expert on questions 2 to 2.7				

IV. Audit result		3 Systematic ejection		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
3	Is there any systematic ejection of specification-compliant shares? If yes, for what components of what group?	☐ Yes ☐ No Group? …… …… Components? ……	If regular input components are systematically transferred into processing residues to a notable extent, or if a systematic transfer of notable extent can be expected for individual input materials (> 5% of the input), no suitability finding may be made for the affected input materials. If there are disproportionate diffuse losses, the causes must be listed and measures must be agreed with the business that will be included in the certificate as conditions.	

IV. Audit result		4 Production logs		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
4.	Does the business keep production logs in which the processing of the input material within the scope of the Verpackungsgesetz and the qualitative, quantitative and technical performance features are depicted in a way that is fully verifiable and plausible?	☐ Fully verifiable ☐ Plausible	Availability of production statistics. Verifying the plausibility of the production statistics themselves and using the technical performance features of the (sub)facility. What the business documents must be set out below by default.	

IV. Audit result		4 Production logs		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
4.1	Incoming consignments are added to the inventory based on what weight?	☐ Input weight ☐ Sender weight	Audit of the production statistics by reconciling against primary proof, at least input and products for a time period of generally one month (exceptions of nonconformities to be explained individually).	
4.2	Documentation of the processing inventory is carried out:	Description:	This applies to all production intakes (materials outside the Verpackungsgesetz if they exceed a threshold by 3%)	
4.3	Is processing verifiably documented by primary proof?	☐ Yes ☐ No		
4.4	Generated products are documented as follows: (Entry for all main products)	Product: Documentation:	See comment on 4.1	
4.5	Sales are evidenced and documented as follows:	Product: Documentation: Evidence:		

IV. Audit result		4 Production logs		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
4.6	By-products are documented as follows: (Entry for all by-products)	By-product: Documentation:		
4.7	By-products are documented as follows: (Entry for all waste streams or summary)	Waste stream: Documentation:		
4.8	How are the data added to the production statistics?	☐ Quickly ☐ Automatically		
4.9	How are the data aggregated?	☐ As daily statistics ☐ As monthly statistics ☐ As annual statistics	Data must be aggregated as monthly statistics at minimum.	
4.10	Is an inventory reconciliation conducted for input and product stocks?	☐ Monthly ☐ Annually	An inventory reconciliation must be conducted with production statistics at least once a year.	
4.11	The production statistics can be traced back to primary proof (original documents or copies and original operating logs).	☐ Yes ☐ No	See comment on 4.1	

IV. Audit result		4 Production logs		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
4.12	Are the following recorded in the shift logs? ◆ Aggregates ◆ Operating resource consumption ◆ Operating times ◆ Downtimes ◆ …… ◆ ……	☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No		
Comments/assessment of expert on questions 4 to 4.12				

IV. Audit result		5 Status		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
5.	Is the facility classified (a) because of product attributes (b) because of a marketing audit (required for final recipient facilities) as a (c) refining facility (d) final recipient facility as (e) mechanical (f) other recovery (g) mixture ?	 ☐ ☐ ☐ ☐ ☐ ☐ ☐ Mechanical share: ……	Re (a): Classification as a final recipient because of product attributes only occurs in cases 5.1 (a) to (c). Re (b): For cases 5.1 (d) to (i), the marketing audit is decisive. Re (c) and (d): If a facility is both a final recipient and a refining facility, the posting key / posting process must be provided. If the recipient is a refining facility and/or produces both mechanical and other products, the relevant rate must either be specified using the input materials or the actual usage.	

IV. Audit result		5 Status		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
5.1	There are the following processing products: (a) Regranulates (b) Finished goods (c) Products with GRS certification mark (d) PET flakes (e) Ground particles (f) PO agglomerates (g) Mixed plastics agglomerates (h) Refuse-derived fuels (i) Other	☐ Yes ☐ No ☐ Yes ☐ No Which? ……..…… ☐ Yes ☐ No Which? …… ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No Which? ……..……		
5.2	The product qualities are defined in product specifications that the marketing is also based on.	☐ Yes ☐ No	If the business has a quality management system that is already certified, the audit sampling may be reduced as the auditor sees fit.	

IV. Audit result		5 Status		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
5.3	In key parameters, compliance with specifications / recipient quality requirements is subject to:	☐ Compliance regime ☐ Quality assurance regime	Using a sampling approach, the auditor inspects analysis results that document that product specifications adequately describe the produced qualities. Analysis results from ……/……..	
5.4	Full list of all recipients (> 50 t) for the audit period with the supplied volume	☐ Yes ☐ No		
5.4a	Has a ◆ marketing audit ☐ ◆ audit of product-outflows ☐ been carried out?	☐ Yes ☐ No	Marketing audit, based on sampling (generally one month) by reconciling primary proof. See also 9.8 Audit period: _____._____._____	
5.4b	How are the deliveries evidenced?	☐ Outbound weighing notes ☐ Delivery notes ☐ Freight lists ☐ CMR freight forms ☐ Invoices ☐ Recipient inbound weighing notes ☐ Agreements with recipients (sampling)	Delivery notes must bear the exact and complete company name and address of the designated recipient and delivery date (no time frames)	

IV. Audit result		5 Status		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
5.4c	Did the audit of probative documents about the product use at the supplied facilities show that no further waste management treatment steps take place there?	☐ Yes ☐ No		
5.4d	Audit result: From a technical perspective, the immediate use of the products without further waste management treatment steps is	☐ plausible. ☐ not plausible.		
5.4e	Result of the marketing audit: During the audit period, the products were marketed exclusively to production facilities.	☐ Yes ☐ No		
Comments/assessment of expert on questions 5 to 5.4				

IV. Audit result		5 Accounts and refinement / recovery rate		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
5.5.	The product yield(s) is (are) The material balance is • conclusive. • plausible.	……..%. ☐ Yes ☐ No ☐ Yes ☐ No	Deviation with regard to dry mass < 5% (cf 5.7). Designation of a (secured) yield as quotient from product volume to the input volume. For initial evaluation, assessment based on auditor's experience.	
5.6	What production statistics were used during the audit time period from ____.____.____ to ____.____.____ ?			
5.6a	For the ____.____.____ period, correspondence with primary documentation was checked.	☐ Yes ☐ No	Audit result (cf. 2.3)	
5.6b	Accounts: **Input streams** …… Total: …… (100%)		**Per the review period.** Comment about the result:	

IV. Audit result		5 Accounts and refinement / recovery rate		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
5.6c	Accounts: **Output streams** 1. Product …… 2. By-products …… …… 3. Production waste …… …… ∆ Input-Output ……%		**Per the review period.** Comment about the result:	

IV. Audit result		5 Accounts and refinement / recovery rate		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
5.7	For the ____.____.____ period, the original proof about production intake for deliveries for a period of time specified by the auditor was reviewed. In-house processing or retention could be comprehensibly documented with primary proof (shift logs, routing slips, etc.).	☐ Yes ☐ No Proof: …… Qualifications: ……	Review only for final recipients without conclusive/verifiable mass balance.	
Comments/assessment of expert on questions 5.5 to 5.7				

IV. Audit result		6 Capacity		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
6.	Do/does the reported capacity/capacities correspond to the recorded throughput for the audit period or were they evaluated taking the dimensioning of the core processes into consideration? In measuring the capacity, limitations resulting from production parameters in terms of sales are taken into account.	☐ Yes ☐ No ☐ Yes ☐ No	Presentation of shift logs and operating time records. Quantification of planned time for repair/maintenance/servicing, annual closures, annual audits. Calculating the mass throughput over a closed period of generally three months. Upscaling to annual capacity based on actual operating times. The recorded throughput corresponds to the capacity to be determined if it does not exceed the approved capacity and 6.3 does not need to be considered.	
6.1	Capacity was measured based on the verified production logs for the following period of time: For the following period of time, the production logs were checked for correspondence with the original proof:	…… ……		
6.2	What throughput was achieved in the period under review?	……		
6.3	What is the assumed annual capacity? (Basis: approved operating times and ……..…… ……..……)	…… … Calculation:	Provide calculation.	

IV. Audit result		6 Capacity		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
6.3a	Capacity cannot be determined by upscaling past performance data. How was the assessment made (6.3b to 6.3d)?	Explanation and assessment:	Alternatively to 6.3, only fill in if applicable	
6.3b	As the technical capacity is larger than the approved throughput, the approved annual capacity is identified.	Approved capacity: ……	Alternatively to 6.3, only fill in if applicable	
6.3c	The technical capacity is not decisive for the input material …… because the intake allotment is limited.	Reduced capacity as identified: ……	Alternatively to 6.3, only fill in if applicable Presentation and plausibility check of the letter of the intent of the potential recipient with statement of volume. To be considered along with product yields.	
6.3d	The technical capacity for the input material …… is not decisive because the required product qualities mean a mixture with high-quality ☐ resources ☐ waste is necessary.	Mixture ratio of packaging/other: …… Reduced capacity identified: ……	Alternatively to 6.3, only fill in if applicable Quantification of the specific usage rate for the 'mixtures upon demand' mode of operations, where stock is drawn and mixed as required, based on appropriate primary evidence (production planning, shift logs). Check and verify the usage rate (for first evaluations, assume a chlorine content of 2% as input for the processing of mixed plastics to produce refuse-derived fuels). Multiply capacity under 6.3 with recorded (assessed for first evaluations) usage rate.	

IV. Audit result		6 Capacity		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
Comments/assessment of expert on questions 6 to 6.3d				

IV. Audit result		7 Fibre-based composites		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
7	Are the main material components recycled? Main material components: Water share after process completion:	☐ Yes ☐ No …… ……%	Only fill in for final recipient facilities of fibre-based composites. Entering 'Yes' here is a prerequisite for certification.	

IV. Audit result		8 Aluminium processing		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
8	Are composites with aluminium as an ancillary component transferred for mechanical recovery?	☐ Yes ☐ No	Only for mechanical processing plants for the aluminium group from lightweight packaging sorting: For the definition of composite, refer to the glossary, appendix 1, volume flow record audit guidelines. Entering 'Yes' to this point is a prerequisite for certification.	

IV. Audit result		9 Proof/data preparation		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
9.	The process surrounding proof and data preparation meets the requirements of the volume flow record and the principles of proper accounting. In-house processing was evidenced.	☐ Yes ☐ No		
9.1	Does the location have its own calibrated scale? If not, where is weighing carried out?	☐ Yes ☐ No ……		
9.2	Could goods intake be documented with the following primary proof? ◆ Outbound weighing notes ◆ Inbound weighing notes with all mandatory information ◆ Freight forms ◆ Delivery notes ◆ Invoices ◆ Purchase agreements	 ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No	Presentation of all proof of volume movements for a period of time specified by the auditor (generally one month). Create a list of all individual dispositions for this period. Total reconciliation with supplier/ production statistics Checking proof for: Sender-recipient relationship documented on the weighing note Completeness of the evidence Mapping proof with parties under obligation Delivery notes must state a specific delivery time.	
9.3	Was intake for the audit period checked using sampling?	☐ Yes ☐ No	Sampling volume: ……	

IV. Audit result		9 Proof/data preparation		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
9.4	Does the presented documentation fully evidence the sender-recipient relationship and the overall posted volumes?	☐ Yes ☐ No ☐ Yes ☐ No		
9.5	The mapping of individual parties under obligation is made:		State mapping options.	
9.6	What documentation evidences intake into production?		Sampling: ……	
9.7	Who is responsible for volume flow record matters?			
9.8	The outflows of the generated semi-finished products were documented with the following primary proof: ◆ Outbound weighing notes with all mandatory information ◆ Recipient's inbound weighing notes ◆ 'As under 7.2'	☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No	Only for refineries. Sampling: ……	
9.9	Does the presented documentation fully evidence the volume and the sender-recipient relationship?	☐ Yes ☐ No ☐ Yes ☐ No	Only for refining facilities.	
9.10	The mapping of individual parties under obligation is made:		Only for refining facilities. State mapping options.	

IV. Audit result		9 Proof/data preparation		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
Comments/assessment of expert on questions 9 to 9.10				

IV. Audit result		10 Waste management		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
10.	Was proof provided of proper recovery of production waste?	☐ Yes ☐ No		
10.1	What production waste was generated and how was it recovered? (Documentation of all production waste citing the source of waste generation in the process, the retention (in general terms, e.g. landfill, energy recover, WTP, etc.) and the type of evidence).			

Type of production waste	In-house source of waste generation	Recovery/ disposal method	Documentation/proof
e.g. chads	e.g. press in hall 1	e.g. Müller KG (standard waste disposal operator)	Delivery note 4711 Inbound weighing note VW 4712

Comments/assessment of expert on questions 10 to 10.1

IV. Audit result		11 Expert/audit opinions		
No.	**Questions**	**Results / comments / additions**	**Notes for the expert / proof**	**Evaluation**
11.	The following expert/audit opinions were consulted for certification: ◆ Certificate in accordance with DIN EN ISO 9001 valid until ____.____.____ ◆ Certificate in accordance with DIN EN ISO 14001 valid until ____.____.____ ◆ Certificate in accordance with EfbV valid until ____.____.____ ◆ GRS certification mark valid until ____.____.____ ◆ Study conducted by VAW Aluminium AG on 'Ecological efficiency of the recycling of the DSD aluminium packaging group through pyrolysis: 2000'	☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No	For the following products: ……	
Comments/assessment of expert on question 11				

3. Comments

The company instructing this certification is _____

This report is only valid for audited operating facilities

at the following locations:

_____

_____

_____

_____

The basis for this certification is the **requirements of the Verpackungsgesetz** and the system volume flow record audit guidelines of the Stiftung Zentrale Stelle Verpackungsregister ('ZSVR').

The audit report is only valid with the surveillance certificate and must be used with it. Sharing extracts of or copying this audit report is prohibited.

All of the data collected and the findings made in the course of this review are strictly confidential. Disclosure to the volume flow record auditor and the ZSVR is expressly permitted. The ZSVR does not intend to disclose this audit report to any third parties. Should any such disclosure be required, written approval will first be obtained from the ordering party. This is without prejudice to any duty to disclose the information to authorities under public law.

As of the issuance of the facility certificate, this is the only original facility certificate and audit report known to me.
The previous certificate for _____ (exact designation: first certification, re-certification, special additional audit) number _____ (insert number) dated (insert date) was revoked on _____ (insert date) by _____ (insert name of facility auditor) effective _____ (insert date).

(Strike as necessary)

For the content:

_____, dated _____ _____ stamp:

(Registered expert)

_____

(Name in block letters)

Accompanying documents to this report:

Anonymised audit report (audit report N)
Operating documents as described under 2, provided as copies

V. Simplified process flow chart

Minimum content:

a) *All process steps referred to as essential assessment criteria to determine the suitability of the facility for processing the certified input materials (cf. 2.1)*

b) *All identified output streams, including by-product and waste streams with source of accumulation*