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CLIMA.B.2 – ETS (II): Implementation, Policy Support & ETS Registry

## Guidance Document

### The Accreditation and Verification Regulation - Process Analysis

#### **AVR Key guidance note No. II.3, Version of 20 December 2022**

This document is part of a series of documents and templates provided by the Commission services for supporting the implementation of Commission Implementing Regulation (EU) No. 2018/2067 of 19 December 2018 on the verification of data and on the accreditation of verifiers pursuant to Directive 2003/87/EC of the European Parliament and of the Council.

The guidance represents the views of the Commission services at the time of publication. It is not legally binding.

This guidance document takes into account the discussions within meetings of the informal Technical Working Group MRVA (Monitoring, Reporting, Verification and Accreditation) under the WGIII of the Climate Change Committee (CCC), as well as written comments received from stakeholders and experts from Member States.

*This guidance document was unanimously endorsed by the representatives of the Member States of the Climate Change Committee on 20 December 2022.*

All guidance documents and templates can be downloaded from the documentation section of the Commission's [website](#).

## Version History

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20 December 2022	Update	<ul style="list-style-type: none"><li>• Updates in line with the new Accreditation and Verification Regulation 2018/2067 that was amended by Commission Regulation 2020/2084. This includes revisions for the fourth trading period</li><li>• Updates in line with the new Monitoring and Reporting Regulation 2018/2066 that was amended by Commission Regulation 2020/2085 for the fourth trading period</li><li>• Updates in line with the recast Renewable Energy Directive 2018/2001 ("RED II")</li></ul>

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## Background

This key guidance note is part of a suite of guidance documents developed by the Commission to explain the requirements of the EU ETS Regulation on Accreditation and Verification (AVR).<sup>1</sup> The suite of guidance documents consists of:

- an explanatory guidance on the articles of the AVR (EGD I), including a user manual providing an overview of the guidance documents and their interrelation with the relevant legislation;
- key guidance notes (KGN II) on specific verification and accreditation issues;
- a specific guidance (GD III) on the verification of aircraft operator's reports;
- templates for the verification report and information exchange requirements;
- exemplars consisting of filled-in templates, checklists or specific examples in the explanatory guidance or key guidance notes;
- frequently asked questions.

This key guidance note (KGN II.3) explains the required activities a verifier must undertake during the process analysis stage of verification. Guidance Document 4 (GD4) on FAR verification of baseline data reports, annual activity level reports and validation of MMPs<sup>2</sup> outlines the activities that the verifier must carry out in the process analysis for the verification of allocation data.

This note represents the views of the Commission services at the time of publication. It is not legally binding.

### 1. Process analysis

During the process analysis, the verifier carries out several checks and tests to gather sufficient evidence to be able to come to an appropriate verification opinion statement. First of all, the verifier checks whether the monitoring plan (MP) approved by the Competent Authority (CA) has been implemented and whether it is up to date.<sup>3</sup> This involves, for example, an assessment of the design and existence of the data flow, checking the installation's boundaries, checking the existence of the procedures listed in the MP, checking on site whether changes to the MP have occurred, checking whether and what documented information exists, checking the effectiveness of the control activities etc.). In addition, the verifier carries out detailed data testing consisting of analytical procedures, data verification and assessing the application of the monitoring methodology.

The checking of the implementation of the MP and the substantive (detailed) data testing are interconnected and should not be seen as separate activities. For example, the AVR requires the verifier to check the completeness of the source streams and emission sources of the installation: this is a key element in the data testing and part of checking the implementation of the MP (e.g. checking the correct delineation of installation boundaries).

During these investigations, the verifier will assess whether the assumptions made and the

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<sup>1</sup> Commission Implementing [Regulation \(EU\) 2018/2067 of 19 December 2018](#) on the verification of data and on the accreditation of verifiers pursuant to Directive 2003/87/EC of the European Parliament and of the Council (Consolidated text).

<sup>2</sup> [https://ec.europa.eu/clima/system/files/2021-02/p4\\_gd4\\_verification\\_far\\_baseline\\_en.pdf](https://ec.europa.eu/clima/system/files/2021-02/p4_gd4_verification_far_baseline_en.pdf)

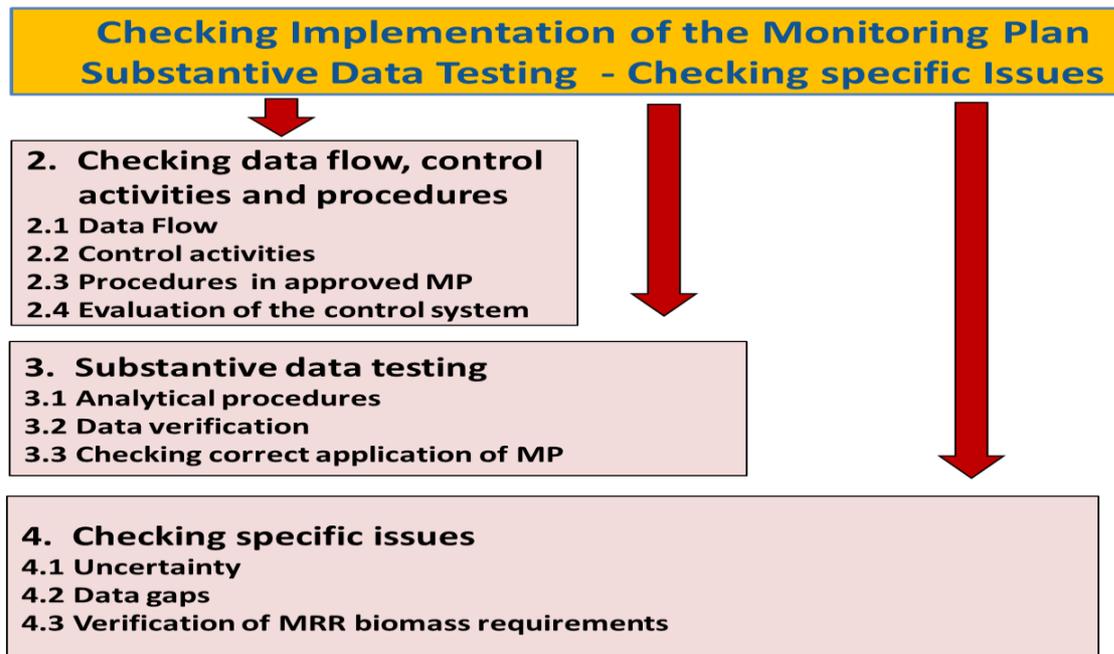
<sup>3</sup> This could involve checking the implementation of multiple versions of the MP if the MP was updated several times during the reporting period. The verifier must check whether the monitoring plan is up to date and whether it has changed in the reporting period.

assessments it has done during the strategic analysis and the risk analysis can be confirmed, or whether the verification plan needs adaptation. If decisions or assumptions in the strategic analysis and the risk analysis cannot be confirmed or if misstatements and non-conformities are identified, the risk analysis and the verification plan must be reassessed and adapted, and this will impact the depth and detail of further verification activities.

If a large amount of data or control activities are involved, the verifier can, based on its risk analysis, decide to use sampling (please see the key guidance note on sampling (KGN II.4)).

<p>Although the concepts explained in this note equally apply to aircraft operators, examples presented herein apply specifically to stationary installations. For aviation-specific guidance and examples, please see the separate EU ETS aviation verification guidance document (<a href="#">GD III</a>), in particular section 3.2.6 and chapter 4.</p>	
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**This KGN II.3 is built up as follows:**



**2. Checking data flow, control activities and procedures**

A key element in the process analysis is checking the data flow, the control activities and the procedures listed in the approved MP.

**2.1 Data flow**

An operator has to establish, implement, maintain and document written procedures for the data flow activities. Data flow activities are all operational activities necessary to produce an operator’s report from the primary data. Examples of data flow activities are measuring, analysing data, recording the information, sending samples to the laboratory for analysis, calculating parameters, automatically generating data from operator’s systems and aggregating data for the emission report. In short, it concerns all steps that are needed to generate or compile an operator’s report. Primary source data can come from many different sources and can arise at different points of time involving different departments in the

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MRR

operator's organisation and management structure. Data can be created centrally within the installation (e.g. measuring activity data with the operator's own measurement instruments) or in a decentralised way (e.g. data from fuel suppliers, analyses done by an external accredited lab). Primary source data are, for example, fuel data, data readings from measurement instruments, or data concerning source streams.

### ***A verifier's check of the data flow***

The verifier has to assess whether the data flow as described in the approved MP meets the actual practice by testing the data flow activities, checking the data trail and following the sequence and interaction of the data flow activities. The verifier traces the data back to the primary sources, checks the existence, consistency and validity of these primary source data and follows each processing step in the data flow. Tracing the data flow back to the primary sources should be done in every verification regardless of the monitoring methodology or control activities applied. It is an essential part of the checking of data flow (section 2.1) and substantive data testing (section 3).

**Art. 14(a)  
AVR**

In addition, the verifier will check which persons are responsible for specific data flow activities. An important aspect that the verifier shall take into account when assessing the inherent risks related to data flow activities, is whether these persons are accustomed and competent to deal with these specific data flow activities.

The general data flow is often dependent on existing IT and/or data management systems. The verifier cannot rely solely on existing IT and/or data management systems or procedures without testing the EU ETS specific data flow and EU ETS specific alterations to the existing systems. To assess the data flow, the verifier must understand which data from the data flows actually end up in the final emissions data calculations, how the aggregation is being carried out and what the specific primary data sources are. For more guidance on how to understand the data flow, please see section 5.5 of the MRR guidance document No. 1 (GD1) and the MRR guidance document No. 6 on Data flow activities and control system (GD6).

## **2.2 Control activities**

An operator must avoid misstatements in the reported data and mitigate the risks related to the data flow activities. To ensure that the operator's report resulting from the data flow activities does not contain misstatements and is in line with the approved MP and the MRR, the operator must establish, implement, maintain and document a sufficiently robust and accurate control system. Such a system consists of two components: the operator's risk assessment and the operator's control activities.

**Art. 59  
MRR**

An operator's risk assessment is an assessment of its inherent risks<sup>4</sup> and control risks<sup>5</sup>. The outcome of this assessment determines which and how the necessary control activities need

**Art. 59(2)  
MRR**

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<sup>4</sup> Inherent risks means the susceptibility of a parameter in the operator's or aircraft operator's report to misstatements that could be material, individually or when aggregated with other misstatements, before taking into consideration the effect of any related control activities (Art. 3(16) AVR). These are risks related to the data flow activities without taking into account the effect of control activities.

<sup>5</sup> Control risks means the susceptibility of a parameter in the operator's or aircraft operator's report to misstatements that could be material, individually or when aggregated with other misstatements, and that will not be prevented or detected and corrected on a timely basis by the control system (Art. 3(17) AVR). These are risks that the control system is not functioning properly.

to be set up to mitigate the inherent risks related to the data flow activities. These control activities include at least the following activities:

- the quality assurance of the measurement equipment;
- the quality assurance of the IT system used for data flow activities<sup>6</sup>;
- the internal reviews and validation of reported data;
- the control of outsourced processes;
- the corrections and corrective actions;
- the records and documentation (as well as document retention);
- the segregation of duties.

### **A verifier's check of the control system**

The verifier must evaluate the operator's risk assessment and inform the operator if it has failed to identify any relevant inherent risks and control risks properly. Please see the key guidance note on the verifier's risk analysis (KGN II.2) and 2017 and 2020 training handbooks<sup>7</sup>. The verifier must also carry out an own risk analysis and test the control activities, based on the verifier's analysis of the inherent and control risks involved. Assessing the control activities concerns not only assessing the establishment of the operator's control activities, e.g. persons assigned to be responsible for data flow activities and carrying out systematic cross-checks (vertical and horizontal checks, access controls, release checks etc.). It also involves an assessment of the operator's documentation, implementation and maintenance of these control activities including appropriate succession or planning of replacement to accommodate situations when personnel change jobs or take leave. The key question is to what extent the control activities are sufficient to mitigate the risk of misstatements and non-conformities. Relevant questions for the verifier are, for example:

- Are the control activities set up such that they can function properly and effectively?
- What is the frequency of the control activities?
- Are the control activities carried out manually or electronically?
- Are the control activities implemented correctly so that they can function in practice?
- Is there a 4-eye principle applied (double check by another person)?
- Who is responsible for a specific control activity and does this person have sufficient knowledge and experience to carry out that control activity properly?

There are different types of controls testing that could be carried out during the verification. These include the following:

- Inquiry of relevant information, e.g. through interviews. Note that inquiry alone will not provide sufficient evidence to support a conclusion about the effectiveness of a control. Accordingly, while inquiry can be useful, it is best used in combination with other control testing techniques;
- Observation, which consists of looking at a process or procedure being performed by the operator: for example, the verifier's observation of monitoring devices being calibrated by the operator's personnel, or of the performance of control activities. Observation provides evidence about the performance of a process or procedure, but is limited to the point in time at which the observation takes place and also by the fact that the act of being observed may affect how the process or procedure is performed;

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<sup>6</sup> IT systems also include DCS, plant information systems, laboratory information systems and meter flow computers etc.

<sup>7</sup> The AV training handbook from 2017 and 2020 can be found on the Commission's [website](#).

- Inspection to determine whether, when and how manual controls are being performed. This involves:
  - Examining records or documents, whether internal or external, in paper form, electronic form, or other media, for example, calibration records of a monitoring device. Inspection of records and documents provides evidence of varying degrees of reliability, depending on their nature and source and, in the case of internal records and documents, on the effectiveness of the controls over their production. Examples are written explanations, laboratories' analysis results, manuals detailing information on collection procedures and internal control activities, reports prepared by management, indications of follow-up documentation; or
  - Physical examination of, for example, a calibrating device, measurement equipment.
- Re-performance testing, which is generally used when a combination of inquiry, observation and inspection of evidence does not provide sufficient or appropriate evidence that a control is operating effectively. In the case of re-performance, the verifier carries out the control activity itself to assess its effectiveness (e.g. cross-checking the data itself).

Some existing control activities may have already been tested or verified by others, e.g. billing systems subject to internal audits and subsequently used to retrieve or cross-check EU ETS data. This does not relieve the verifier from testing the control activities and especially any adaptation to meet EU ETS requirements. It is especially relevant for the verifier to assess what the scope and subject matter of the test performed by others was, e.g. what parts were checked and what were not, what alterations were made for EU ETS, who conducted the audits, if relevant documentation is available, what audit procedures were carried out by that third party, if recommendations made in the audit are also relevant for EU ETS, and if so, have these recommendations been implemented etc..

With respect to the testing of the different control activities, the following should be considered by the verifier:

<b>Control activity</b>	<b>How the verifier checks the control activity</b>
Quality assurance of the measurement equipment	<p>An operator must ensure that all relevant measuring equipment is calibrated, adjusted and checked at regular intervals and checked against measurement standards traceable to international measurement standards.</p> <p>The required frequency and nature of checks and adjustments may be specified in the operator's MP or in the internal written procedures. In such cases, the verifier shall:</p> <ul style="list-style-type: none"> <li>▪ confirm that calibration, appropriate checks, adjustments and maintenance have been carried out; and</li> <li>▪ review the documentation to ensure that the checks have been performed in accordance with the required standards and procedures<sup>8</sup>. If the checks have not been carried out by the operator in accordance with the approved MP or procedure, this is to be noted as a non-conformity; and</li> <li>▪ check whether corrective action has been taken by the operator if the measurement equipment was found not functioning properly.</li> </ul>

**Art. 60(1)  
MRR**

<sup>8</sup> Including manufacturer's specifications

Control activity	How the verifier checks the control activity
	<p>Where the frequency and nature of the checks is not specified in the MP, the verifier should review the relevant documentation and records on quality assurance, and consider whether:</p> <ul style="list-style-type: none"> <li>▪ the operator has demonstrated that the relevant metering equipment has been calibrated, adjusted and checked at regular intervals including prior to use; and</li> <li>▪ maintenance has been carried out according to the manufacturer's recommendations and specifications; and</li> <li>▪ the metering equipment has been checked against appropriate calibration standards traceable to international measurement standards (if available); and</li> <li>▪ the operator has promptly taken necessary corrective action when the equipment was found not to conform to requirements.</li> </ul> <p>If appropriate international standards are not available, the operator shall follow draft standards, industry's best practice guidelines or on-site procedures and other scientifically proven methodologies, and provide evidence that the techniques used are appropriate. These will then be checked by the verifier.</p> <p>Examples of records that the verifier could request from the operator to assess whether the quality assurance of the measurement equipment is effective, include (inspection of) records demonstrating:</p> <ul style="list-style-type: none"> <li>▪ whether metering equipment has been calibrated, checked and adjusted prior to use, and at regular intervals (e.g. calibration certificates);</li> <li>▪ the age of the meter;</li> <li>▪ visual inspections undertaken;</li> <li>▪ maintenance has been carried out according to manufacturer's recommendations;</li> <li>▪ cleaning, calibration and adjustment of meters has been done; orifice plate/instrument sizing/isometrics;</li> <li>▪ laboratory calibration, and regular on-site loop calibrations of: <ul style="list-style-type: none"> <li>- differential pressure transmitters</li> <li>- pressure transmitters</li> <li>- temperature transmitters</li> <li>- density transducers (densitometers);</li> </ul> </li> <li>▪ flow (mass) calculation checks;</li> <li>▪ in use constant values;</li> <li>▪ results of flow totalisation tests.</li> </ul> <p>In addition to calibration and maintenance of meters, verifiers are reminded to check and consider the following:</p> <ul style="list-style-type: none"> <li>▪ meter installation, e.g. adequate straight pipework upstream and downstream of a meter (depending on meter type);</li> <li>▪ meters should be in the appropriate plane (vertical/horizontal pipework);</li> <li>▪ flow volumes being measured, e.g. volumes and type are still within the original design capacity of the meter; steady state flow etc.;</li> <li>▪ cross check between serial number on certificates with that on field instrument (this is not the same as Field TAG location identifier); the possible limitations of weighbridge calibrations;</li> <li>▪ whether corrective action has been taken if equipment was found not to comply with the requirements or was not functioning properly during the reporting period;</li> </ul>

Control activity	How the verifier checks the control activity
	<ul style="list-style-type: none"> <li>▪ competence of personnel carrying out calibration;</li> <li>▪ whether the correct factors have been used by operators to perform checks and adjustments. For example, verifiers must check that consistent standard temperature and pressure factors have been used and that these are consistent within any calculation for adjustments.</li> </ul> <p>If the operator cannot calibrate components of the measurement systems, the MRR requires the operator to propose alternative control activities in the MP. The verifier must in that case check whether the control activities are functioning and whether they are effective to mitigate the risk of misstatements.</p> <p>Where quality assurance of continuous measurement systems are used by the operator, the verifier checks:</p> <ul style="list-style-type: none"> <li>▪ whether calibration is carried out at the frequency and in accordance with the requirements mentioned in the standard: Quality assurance of automated measuring systems (EN 14181), and that parallel measurements are carried out at least once a year by competent staff;</li> <li>▪ the annual average hourly concentration used as a substitute for emission limit values, if applicable;</li> <li>▪ whether corrective action has been taken if the operator has found non-compliance with the quality assurance requirements and whether this has been reported to the CA.</li> </ul> <p>For more information please see MRR Guidance Document No. 7 on CEMS.</p>
Quality assurance of the IT system used for data flow activities	<p>IT systems can be used to collect and process data for the operator's report. However, an IT system is more than just hardware and software. It also concerns the IT environment/organisation, the IT -based processes, IT applications and infrastructure. Therefore the verifier should consider the following:</p> <ul style="list-style-type: none"> <li>▪ risks related to IT processes include, for example, lack of transparency in the data flows (black boxes), malfunctioning of the interface(s), risk that control measures only see to part of the process not the whole process, failure to collect data from automated monitoring equipment during the time of a computersystem failure;</li> <li>▪ risks in IT applications relating to malfunctioning of those applications include, for example, lack of data back-up procedures, lack of input controls, process controls and output controls (in particular where updates or new software are rolled out), potential software coding or scripting errors that could lead to misstatements;</li> <li>▪ risks related to the IT infrastructure include the vulnerability to interference and breaches of information security which may lead to increased risk in the collation, transfer, processing, analysis, aggregation, storage and reporting of data;</li> <li>▪ other risks are related to human errors in the computer information system e.g. overwriting a spreadsheet containing last month's data with this month's data before backing up the data.</li> </ul> <p>There can also be a combination of the above risks. Verifiers need to understand the extent of the risks and the control of these risks in relation to IT systems.</p> <p>In addition verifiers will also consider:</p>

**Art. 60(1)  
MRR**

**Art. 60(2)  
MRR**

**Art. 61  
MRR**

Control activity	How the verifier checks the control activity
	<ul style="list-style-type: none"> <li>▪ the proper use of calculation formulae, access controls, the possibility of recovering data, continuity planning and security with respect to IT;</li> <li>▪ whether the IT systems and processes are managed under an effective IT Management System such as ISO 20000.</li> </ul> <p>The verifier checks the control activities that are implemented for the IT system and electronic interfaces to ensure:</p> <ul style="list-style-type: none"> <li>▪ timeliness, availability and reliability of data;</li> <li>▪ correctness and accuracy of data, e.g. avoid double counting etc.;</li> <li>▪ completeness of data;</li> <li>▪ continuity of the data to avoid data being lost and to ensure traceability of data;</li> <li>▪ integrity of data: i.e. data is not modified by unauthorised persons.</li> </ul> <p>These control activities could include a manual check on whether the IT system is functioning and whether the aforementioned points are met. It will include control activities and maintenance tools built into the IT system such as access controls, backups, recovery, continuity planning, change management and security. The type of testing carried out by the verifier depends on whether these control measures are manual or electronic.</p>
Internal reviews and validation of reported data	<p>The operator must design and carry out internal reviews on defined data sets throughout the data flow. This includes horizontal and vertical checks as well as plausibility checks.</p> <p>Basically there are two types of control activities performed by the operator: controls that monitor the data flow to avoid failures, and detection controls that aim to detect errors. Examples of monitoring controls are the four eyes principle, i.e. double check by another person, and access controls. Examples of detection control are plausibility checks or routine checks for identifying errors. Both types of controls can be carried out manually or electronically.</p> <p>The verifier will check that these internal review control activities and associated corrective actions are undertaken regularly to rectify any errors in the data. This can include testing of the cross-checks and plausibility checks: for instance, the verifier can observe the operator carrying out these review checks or the verifier can perform cross-checks itself or test the access controls. The verifier will also assess to what extent these internal review checks and corrective actions are documented and which person is responsible for these checks. This documentation should contain proof that internal review checks were performed, and that clear criteria for rejecting data have been documented. Examples of such proof are visible sign-offs after review, approvals by email or visible reconciliations performed.</p>
Control of outsourced processes	<p>Parts of the data flow can be outsourced to external service providers such as external laboratories, measurement activities, etc.. In the case of outsourced processes, the operator will remain responsible for the correctness of the data entered in the operator's report and for the control of the quality of these processes.</p> <p>The verifier has to check to what extent a certain data flow activity or control activity has been outsourced. Moreover, it has to test the control activities that the operator has implemented to ensure the quality of the outsourced processes: e.g. assessing the procedures for procurement, internal audit (including frequency of audits), carrying out plausibility checks on the data,</p>

**Art. 63  
MRR**

**Art. 65  
MRR**

Control activity	How the verifier checks the control activity
	checking contracts with external parties including instrument engineers, checking how an operator ensures that the party to which the activity is outsourced, carries out the activities according to the MRR and other requirements.
Corrections and corrective actions	<p>If any part of the data flow activities or control activities is found not to function effectively or is outside boundaries that are set in the procedures for data flow activities or control activities, the operator must make appropriate corrections and correct rejected data.</p> <p>The verifier checks, for example, whether:</p> <ul style="list-style-type: none"> <li>▪ corrective action has actually been taken in those situations and whether the emissions are not underestimated;</li> <li>▪ effective control activities have been implemented to prevent data flow activities and control activities from not functioning effectively or from being outside the boundaries that are set in the relevant procedures;</li> <li>▪ the criteria in the procedures for data flow activities and control activities are addressed and met by the operator, and whether the details of these procedures are effective to avoid malfunctions;</li> <li>▪ the operator has notified the CA of any equipment failures or drops to lower tiers during the reporting period, and that efforts were made to correct the failures as promptly as possible.</li> </ul>
Records and documentation (as well as document retention)	<p>The verifier checks:</p> <ul style="list-style-type: none"> <li>▪ whether and how information on the monitoring methodology, primary data, data flow activities, control activities and procedures is documented. This includes information on repairs, malfunctioning and incidents at the installation that can affect the reported data;</li> <li>▪ whether the document management system for retaining information is effective.</li> </ul>
Segregation of duties	<p>The verifier checks whether the persons responsible for the data flow activities and control activities are competent and do not perform conflicting duties (e.g. whether the responsibilities for recording, processing and reporting are carried out by different persons).</p> <p>The verifier checks how the operator manages the competencies for the persons responsible for the data flows and control activities, and the verifier takes that into account when assessing the inherent and control risks.</p>

**Art. 64  
MRR**

**Art. 67  
MRR**

**Art. 62  
MRR**

### 2.3 Procedures mentioned in the approved MP

The MRR requires several elements to be put into written procedures. The objective of these procedures is to ensure that the control activities are effective and to mitigate the risks that ineffective control activities lead to misstatements and non-conformities. A summary of these procedures must be recorded in the approved MP. This includes procedures for:

- Management of responsibilities and competency of personnel;
- Data flow activities and control activities;
- Quality assurance of measurement equipment;
- Regular review of the MP for its appropriateness;
- Sampling plan if applicable and revision of that sampling plan;
- Methods of analyses if applicable;
- Demonstrating evidence for equivalence to EN ISO/IEC 17025 accreditation of laboratories, if relevant;

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MRR**

- Uncertainty analysis when the fall-back methodology is used;
- How to deal with missing data;
- Use of measurement-based methodologies, including corroborating calculations and methodology for subtracting biomass emissions.

The verifier must check that these procedures:

- are established, properly documented and properly maintained;
- contain the information recorded in the summary of the procedures in the approved MP;
- have been correctly implemented and are up to date;
- are applied throughout the reporting year;
- are effective to mitigate the inherent and control risks.

**Art. 14(c)**  
**AVR**

If the verifier considers that the procedures are inadequate, improvements should be clearly described in the verification report. If improper procedures lead to misstatements or if the verifier comes across a procedure that is not in line with the MRR, this should also be reported in the verification report (please see the Key guidance note on the scope of verification (KGN II.1)).

## **2.4 Evaluation of the control system**

The operator must monitor the effectiveness of the control system by, for example, carrying out internal audits using an internal auditor that is not involved in the data gathering, monitoring and reporting process, and by taking into account findings of the verifier. The verifier is responsible for assessing the quality of these internal audits and other evaluation processes, whether these processes are properly documented and whether findings of the verifier related to these procedures in a prior verification have been followed up.

**Art. 59(4)**  
**MRR**

## **3. Substantive data testing**

Substantive data testing consists of analytical procedures, data verification and assessing the correct application of the approved monitoring methodology to provide sufficient appropriate evidence on the completeness, accuracy and validity of the data. The extent to which this data testing is carried out depends on the outcome of the verifier's risk analysis and the verifier's assessment of the data flow, the control activities and the procedures listed in the approved MP. If the verifier does not have confidence in the robustness and appropriateness of the control activities and procedures, more extensive data testing is needed.

### **3.1 Analytical procedures**

If during the assessment of the inherent risks and the control risks, and the testing of the control activities the verifier has doubts about the robustness and appropriateness of the control activities, the verifier must apply analytical procedures, i.e. analysing fluctuations and trends in data, assessing relationships with other data<sup>9</sup> and using other relevant information to check deviations from predicted values. In most cases, analytical procedures will be applied.

**Art. 15**  
**AVR**

Key activities are assessing the plausibility of fluctuations and trends over time or between comparable items: e.g. comparing GHG emissions from the reporting period with previous

**Art. 15(2)**  
**AVR**

<sup>9</sup> This involves for example comparing emissions with production data or comparing emission data from this year with data from previous years.

year's emissions; comparing GHG emissions from various units with production figures for those units<sup>10</sup>; comparing emission data and underlying data such as fuel consumption; analysing trends in emissions and production data during a defined period to identify anomalies for further investigation; comparing operational conditions with fuel consumption; identifying immediate outliers; identifying unexpected data and data gaps.

Unusual high or low figures or unexpected relationships in the data that are identified may assist the verifier in identifying potential risk areas and thereby help to tailor further verification activities such as more strengthened data verification. In general, analytical procedures are therefore used in several stages of the verification process:

- preliminary analytical procedures on aggregated data before the process analysis. This is part of the strategic analysis and assessment of inherent risks (please see key guidance note on risk analysis (KGN II.2));
- substantive analytical procedures on aggregated data and the data points underlying these aggregated data to enable the verifier to identify potential structural errors and immediate outliers;
- final analytical procedures on the aggregated data to ensure that all errors identified during the verification process have been resolved correctly.

**Art. 15(3)  
AVR**

Analytical procedures are particularly effective when disaggregated data are readily available or when the verifier has reason to consider that the data to be used are reliable, such as when it is extracted from well-controlled sources, e.g.:

- from the financial reporting system that is subject to other audits; or
- from other systems where common input controls are applied (e.g. if the quantity of purchased fuel as recorded on the fuel invoice(s) is entered into the operator's account payable system in the same way as other data from the invoice).

Where the verifier identifies outliers, fluctuations, trends, data gaps or data that are inconsistent with other relevant information or that differ significantly from expected amounts or ratios, the verifier shall obtain explanations from the operator supported by additional relevant evidence. Based on the explanations and supporting evidence provided, the verifier shall assess the impact on the verification plan and the verification activities to be performed. This could result in additional data verification.

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AVR**

### **3.2 Data verification**

Taking the approved MP, the verifier shall check the correctness of the installation boundaries and the completeness of the source streams and emission sources. The verifier checks:

- whether the installation boundaries, emission sources and source streams as described in the approved MP, reflect the actual situation in the installation;
- the correct categorisation of the installation;
- the correct classification of emission source streams into de-minimis, minor and major source streams;

**Art. 16 (2)  
(a)(b) AVR**

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<sup>10</sup> The verifier checks to see if, for example, the increase in emissions and/or energy consumption is proportionate to, or at least explainable by, an increase of production of goods i.e. that there is evidence of a relationship between energy consumption and production and the increase/decrease is proportionate between the two.

- whether data gaps and double counting have occurred because emission sources or source streams are lacking or have been incorrectly defined in the MP or the emission reports.

The AVR requires the verifier to check the reported data as well as the underlying data. The key activity is to check the accuracy and reliability of the data and to see whether the aggregated reported data are consistent with primary source data. This can for example be done by:

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AVR**

- tracing the data back to the primary source: e.g. tracing emissions from reported CO<sub>2</sub> data back to activity data and then to primary sources, e.g. fuel invoice(s) or measurement data, tracing emission factors to appropriate sources such as national inventory values, lab analysis results;
- checking whether the data flow activities can be added up to a complete audit trail from primary data sources to the final figures in the report under verification;
- cross-checking data with internal data sources, e.g. cross-checking emission data with production data;
- cross-checking data with external data sources, e.g. cross-checking emission data with fuel data from the gas supplier(s);
- performing reconciliations, e.g. comparing data sets with each other;
- checking readings from measurement equipment;
- checking the accuracy of calculations and the suitability of calculation methods used (e.g. checking whether the input data in the calculation formulae result in the correct emission data, backtracking and recalculating the data to match with the reported emission data);
- checking how emissions established through the data gap approach<sup>11</sup> relate to actual reported emissions data;
- cross-checking fuel consumption data with total fuel consumption from other sources;
- checking the extraction of the emissions report data from internal systems or checking the collection/manipulation of data for the actual drafting of the operator's report;
- checking the transfer of data from the internal systems to the CA's defined reporting format (e.g. emissions report template or IT system).

### **3.3 Checking the correct application of the monitoring methodology**

The verifier must check the correct application of the monitoring methodology laid down in the approved MP. The verifier will check, for example, whether:

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AVR**

- the operator has applied the monitoring methodology in line with the approved MP;
- the spread sheets and other tools or software used to calculate emissions have been correctly used and/or function properly;
- correct totals and subtotals have been used in the formulae to calculate the emissions and parameters;
- the correct tiers were applied according to the approved MP and whether all relevant tier requirements have been met, in particular the uncertainty thresholds for the parameters;
- the correct units were used for the parameters (e.g. activity data and calculation factors, and the proper parameters such as the flue gas flow and concentration in the case where a measurement based methodology is applied);

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<sup>11</sup> Approach an operator has been using to fill a data gap that it has identified.

- the type of metering upon which data gathering relies, the type and location of the measurement equipment and that the measurement equipment has been included in the approved MP, whether this is in line with the requirements in the approved MP and whether regular calibration has been performed (please see under quality assurance of measurement equipment in section 2.2).

Table 1 below provides some examples of what a verifier should check for some specific elements of the monitoring methodology.

*Table 1 Examples of verifiers' checks on the monitoring methodology*

Element in monitoring methodology	Examples of what a verifier should check
Activity data (calculation based methodology)	<p>The verifier must, for example:</p> <ul style="list-style-type: none"> <li>▪ check invoices and delivery notes, and stocks if the activity data is based on liquid or solid fuel material that is stored on site;</li> <li>▪ check meter readings if the activity data are based on measurements carried out by measurement instruments;</li> <li>▪ check whether activity data and related data are properly documented;</li> <li>▪ carry out cross-checks with other data such as total fuel consumption.</li> </ul> <p>The MRR allows for the consumption of fuels and materials to be determined by either the operator or the supplier. Supplier determinations will often be presented in the form of invoiced data issued to the operator for the goods supplied. However, an invoiced quantity may not always exactly tally with the start (1 January) or end (31 December) of the reporting period. For example, it may concern gas where an invoice runs from mid-December to mid-January. In these circumstances operators are expected to show reasonable clarity in deciding how much of the invoice relates to which reporting period. The verifier should ensure that the two parts, i.e. the part that is allocated to the current reporting period, and the part allocated to the next period, add up to the total(s) in the invoice concerned. The operator should either take a gas meter reading on 31 December or otherwise proportion it using an appropriate pro rata mechanism.</p> <p>If a reading of a meter cannot be done by the operator on exactly 31 December, then the verifier must consider the potential impacts of the meter reading being taken at another time and its effect on data accuracy. If the entire plant has closed down for the Christmas break and during that time no fuel is used, then an earlier meter reading should be acceptable and should not affect the data. This also applies at the start of the next reporting year commencing on 1 January where the invoice has a different starting date. However, other circumstances will require more careful consideration of the robustness of any reconciliation involved.<sup>12</sup></p>
Calculation factors (net calorific value, carbon content, emission factor,	<p>The verifier must, for example, check:</p> <ul style="list-style-type: none"> <li>▪ whether correct default values have been applied if the calculation factors are based on default values (e.g. IPCC data, national inventory data);</li> </ul>

<sup>12</sup> Where pro rata apportionment is used; the verifier should check that the amount assigned to the start of the reporting year is consistent with data used for the end of the prior reporting period.

Element in monitoring methodology	Examples of what a verifier should check
oxidation factor/ conversion factor, biomass fraction)	<ul style="list-style-type: none"> <li>▪ results of sampling and analysis and whether results are applied to appropriate batches, if the operator is required to determine the calculation factor by analysis of samples;</li> <li>▪ whether sampling and analysis have been carried out according to applicable standards;</li> <li>▪ whether proper documentation is retained from laboratory tests to calculate emissions data, e.g. results from tests for establishing net calorific values and emission factors for fuels, activity specific oxidation factors, process emission factors and composition data, calibration procedures (reporting dates, certificates and data), and the biomass fraction;</li> <li>▪ corrections to standard conditions 0°C and 101 325 Pa.</li> </ul>
Accredited Laboratories	<p>The verifier must, for example, check whether:</p> <ul style="list-style-type: none"> <li>▪ the laboratory is accredited according to EN ISO/IEC 17025 by assessing the laboratory's accreditation certificate and confirming no relevant issues are noted in the latest surveillance report by the accreditation body;</li> <li>▪ analytical tests, as outlined in the contract, with the accredited laboratory have been carried out according to the approved MP;</li> <li>▪ the scope of accreditation of the laboratory covers the required test methods and analyses.</li> </ul> <p>For further information please see question 3.1 FAQ AV.</p>
Non- accredited laboratories	<p>The verifier must, for example check, whether:</p> <ul style="list-style-type: none"> <li>▪ the non-accredited lab is certified in line with EN ISO/IEC 9001 or another equivalent certified quality management system that covers the relevant activities of the laboratory;</li> <li>▪ the laboratory has provided evidence that the lab is capable of managing its personnel, procedures, documents and tasks in a reliable manner and that it is competent to generate technically valid results. Please see section 5 of the MRR guidance No. 5 on Sampling and Analyses (GD5);</li> <li>▪ laboratory procedures have been carried out as documented in the approved MP and related procedures.</li> </ul> <p>For further information please see question 3.2 FAQ AV.</p>
Sampling and sampling plan	<p>The verifier must, for example, check whether:</p> <ul style="list-style-type: none"> <li>▪ the sampling plan includes all items specified in the MRR and the Commission Guidance No. 5 on Sampling and Analyses (GD5);</li> <li>▪ the sampling plan is still appropriate and can deliver the most representative samples for the current circumstances<sup>13</sup>;</li> <li>▪ the sampling plan has changed and these changes were approved by the CA;</li> <li>▪ sampling is consistently being carried out according to the sampling plan approved by the CA.</li> <li>▪ sampling and analysis results have been applied to appropriate batches;</li> <li>▪ the personnel carrying out sampling are competent to do so;</li> </ul>

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AVR**

<sup>13</sup> Representativeness of samples is checked.

Element in monitoring methodology	Examples of what a verifier should check
	<ul style="list-style-type: none"> <li>▪ the procedure(s) underlying the sampling plan are documented, implemented, maintained and effective.</li> </ul> <p>Please see section 3.10 FAQ AV and 2017 and 2020 AV training handbooks.</p>
Measurement based methodology	MRR Guidance Document 7 on CEMS provides information on what specific checks a verifier has to carry out on the application of a measurement-based methodology.
Transfer of CO <sub>2</sub> or N <sub>2</sub> O	<p>The verifier must, for example, check whether<sup>14</sup>:</p> <ul style="list-style-type: none"> <li>▪ there are differences between the measured values at the transferring and the receiving installation and whether these can be explained by the uncertainty of the measurement systems;</li> <li>▪ the correct arithmetic average of measured values has been used in the emission reports of both the transferring and receiving installation;</li> <li>▪ the methodology as described in the MP has been applied;</li> <li>▪ the operator has used appropriate evidence to demonstrate to the CA that the equipment for measuring CO<sub>2</sub> or N<sub>2</sub>O is suitable for the type of measurements to be carried out on transferred CO<sub>2</sub> or N<sub>2</sub>O;</li> </ul> <p>If the measured values at the transferring and the receiving installation cannot be explained by the uncertainty of the measurement systems, the verifier must check whether:</p> <ul style="list-style-type: none"> <li>▪ there has been leakage in the transfer pipeline or other processing units;</li> <li>▪ adjustments were made to align the difference between the measured values;</li> <li>▪ such adjustments were conservative and did not lead to an overestimation of transferred CO<sub>2</sub> or N<sub>2</sub>O from the transferring installation;</li> <li>▪ the CA has approved the adjustments;</li> <li>▪ a new QAL2, maintenance or other corrective actions are performed to avoid the same situation in future.</li> </ul> <p>There are some verifier's specific checks only related to the <b>transfer of CO<sub>2</sub></b>. The verifier would, for example, check the purpose of the transfer of CO<sub>2</sub>: i.e. whether it is used for CCS purposes or is chemically bound in precipitated calcium carbonate. The verifier would check how much precipitated calcium carbonate is produced, its purity and purpose. The contract with the buyer could provide the necessary information or if the precipitated calcium carbonate is used for internal purposes, evidence that the chemical transformation process occurs and how the precipitated calcium carbonate was used. The verifier would in this case also check the correct application of the monitoring methodology and perform plausibility checks on the data.</p> <p>For the <b>transfer of N<sub>2</sub>O</b> the verifier would carry out some additional checks. Where the operator has claimed in the MP that quantities of N<sub>2</sub>O are destroyed using suitable emission abatement equipment the verifier would check whether the N<sub>2</sub>O was destroyed or whether the N<sub>2</sub>O is bottled or used</p>

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AVR

<sup>14</sup> MRR GD1 and MRR GD7 contains guidance on how an operator should deal with the transfer of CO<sub>2</sub> and the transfer of N<sub>2</sub>O.

Element in monitoring methodology	Examples of what a verifier should check
	as a gas in products or production processes. The verifier would also check whether the equipment used is fit for purpose and is appropriately maintained.
CCS	<p>In addition to the checks carried out under transfer of CO<sub>2</sub>, the verifier must check for installations for the capture of CO<sub>2</sub> and for transport networks for CO<sub>2</sub>, and for CO<sub>2</sub> storage sites:</p> <ul style="list-style-type: none"> <li>▪ the measurement systems at the CO<sub>2</sub> transfer points;</li> <li>▪ if measurements are carried out by the operators of the two (or more) connected installations, the applicability of those data, and compare this to the installation's own data if applicable.</li> </ul> <p>For CO<sub>2</sub> storage sites, the verifier must check:</p> <ul style="list-style-type: none"> <li>▪ all information regarding leakage detection, and if relevant leakage has occurred, the quantification of that leakage;</li> <li>▪ calculation of the annual emissions.</li> </ul>

#### 4. Specific issues related to checking the correct application of the monitoring methodology

During the actual verification, the verifier must check specific issues related to the application of the approved monitoring methodology. These concern, for example, the uncertainty of measurement equipment, the methods applied for missing data, checking the compliance with applicable sustainability and GHG savings criteria of any biomass fuels, biofuels and bioliquids used.

This section specifically applies to installations. For aviation specific guidance and examples please see the separate EU ETS aviation verification guidance document ([GD III](#)).



#### 4.1 Uncertainty

Managing the uncertainty associated with emissions monitoring, plays a critical role in the calculation-based methodologies, the measurement-based methodologies and the fall-back methodology. For both the calculation-based methodologies and the measurement-based methodology, the verifier must therefore check the validity of the information used to calculate the uncertainty levels as approved in the MP. The type of information used depends on the methodology, on the type of measurement instrument and on the approach the operator applies to calculate the uncertainty levels and to demonstrate that the required tier and corresponding uncertainty threshold are met.

Art. 19(1)  
AVR

When determining activity data for the calculation based methodology, the different tiers associated with the activity data of a source stream are directly related to a maximum uncertainty allowed for the determination of the quantity of fuel or material over the reporting period.<sup>15</sup> Meeting the relevant tier must be demonstrated by submitting an uncertainty assessment to the CA. However, this requirement is not applicable to installations with low emissions. The approach used to assess whether the required uncertainty is being

Art. 12(1)  
MRR

<sup>15</sup> MRR Guidance Document No. 4, on Uncertainty Assessment (GD4).

met, depends on whether the measurement instrument is under the operator's own control or under the control of other parties. For measurement instruments under the operator's control, different routes can be applied:

1. using the maximum permissible error in service allowed by the national legal metrological control, if the measurement instrument is subjected to that control;
2. using a maximum permissible error specified for that measurement instrument in service, or using an uncertainty assessment obtained by calibration multiplied by a conservative factor, if the measurement instrument is not subject to national legal metrological control and the instrument is installed in an environment and under conditions that is appropriate for its intended use<sup>16</sup>;
3. undertaking a specific and extensive uncertainty assessment.

For point 1, the verifier checks whether the measurement instrument is covered by national legal metrological control, e.g. checking the certificate of the official verification of the instrument and checking specifications from the national legal metrological control institute. The verifier must be sufficiently confident that the instrument is regularly calibrated.

For point 2, the verifier would, for example, check the manufacturer's specifications, calibration certificates, the specifications from legal metrological control and specifications of meters (flow range, checking what can influence the meter and how measurement results are determined), and the procedures implemented by the operator to ensure that the activity data are measured against the relevant standards.

For point 3, the information to calculate the uncertainty level is more substantive than under point 1 and 2 . This means that the verifier will have to check all information used for this specific uncertainty assessment.

If the measurement instruments are outside the control of the operator, the verifier must check the validity of the information provided as evidence by the operator. The operator needs to make relevant evidence and documents available to the verifier. This means that the operator must obtain information on, for example, the calibration results and the manufacturer's specifications of the instruments used by the trade partner.

Although small installations are not required to submit an uncertainty assessment to the CA, the verifier will still check the validity of the information that is used by the operator to see whether it complies with the required uncertainty threshold.

**Art. 47(3)  
(4) MRR**

For determining calculation factors in the calculation-based methodology, uncertainty plays a role in situations where the operator chooses not to use the minimum frequencies for the analysis listed in Annex VII of the MRR and the operator determines the frequency of analysis by using the approach of the Excel tool provided by the Commission and described in section 4.2 of the MRR Guidance No. 5 on Sampling and Analysis (GD5). This tool enables the operator to demonstrate that any variation in the analytical values for a fuel or material does not exceed 1/3 of the uncertainty value which the operator must meet for the monitoring of the activity data for that specific fuel or material. The determination of this variation has to be based on historical data, this includes being able to use analytical values from the monitoring

**Art. 35(2)  
MRR**

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<sup>16</sup> The intended use as indicated in the measurement instrument's specifications.

of the respective fuels or materials in the reporting period immediately preceding the current reporting period. The verifier checks the historical data and other information that is used in the Excel tool mentioned above.

The operator may apply a fall-back methodology if the operator cannot apply at least tier 1 because of technical infeasibility or unreasonable costs:

- for one or more major source streams or for minor source streams under a calculation-based methodology; or
- for one emission source related to the same source stream under a measurement-based methodology.

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MRR**

The fall-back methodology is not based on tiers. The operator is instead required to demonstrate compliance with an overall uncertainty threshold for the annual GHG emissions. However, the MRR contains specific requirements that an operator must adhere to when applying the fall-back methodology.

The verifier must therefore check:

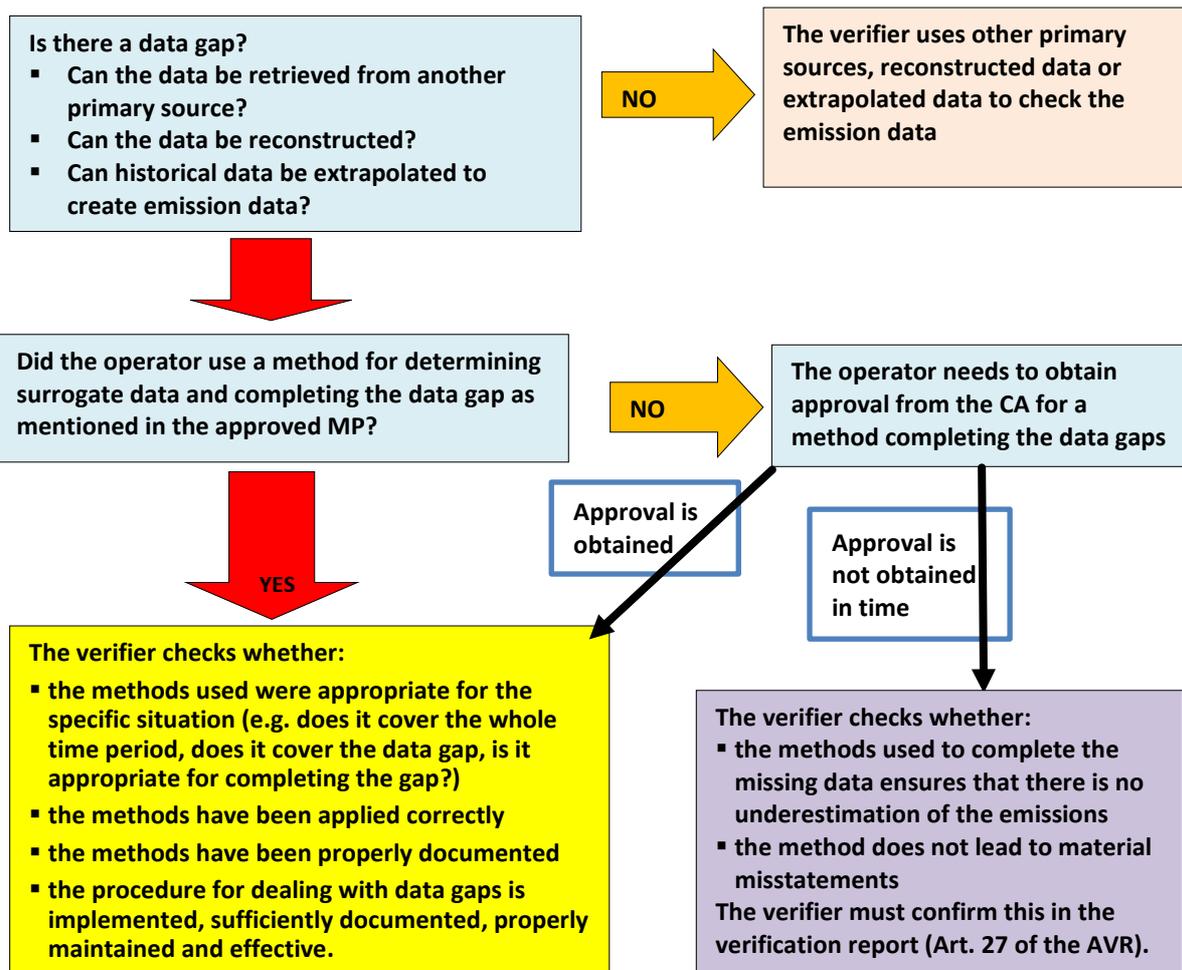
- whether the operator has carried out an assessment and quantification of the uncertainty during the reporting period to make sure that the required overall uncertainty is being met;
- the validity of the information used to assess and quantify the uncertainty; this can concern all types of information;
- whether the overall approach used for the assessment and quantification of the uncertainty is in line with the ISO guide to the expression of uncertainty in measurement JCGM 100:2008 or another equivalent internationally accepted standard;
- whether appropriate evidence is provided that the conditions for applying the fall-back methodology are applicable (e.g. the operator cannot apply at least tier 1).

**Art. 19(2)  
AVR**

#### **4.2 Data gaps**

Data gaps can be identified by the verifier when carrying out analytical tests and detailed data verification, or by the operator itself during the reporting period. The figure below shows what the verifier is required to check in the case of data gaps:

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AVR**



A data gap occurring several times over a longer period of time may show that the control activities are not functioning properly. The verifier will therefore assess the frequency of data gaps occurring and the control activities implemented to avoid these data gaps. The verifier assesses whether the control activities are effective (e.g. whether IT systems, automatically transferring data, are secure and functioning properly, whether the operator has built in manual controls to ensure that no data gaps occur).

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AVR

### 4.3 Verification of MRR biomass requirements

This section contains information on how a verifier should assess compliance with the MRR biomass requirements.

- Section 4.3.1 highlights the key requirements for biomass in phase 4;
- Section 4.3.2 outlines the key elements for the verifier to consider in the verification of biomass-related issues;
- Section 4.3.3 explains the checks a verifier should carry out on the application of MRR requirements related to biomass;
- Section 4.3.4 shows what checks a verifier should carry out on the operator's evidence demonstrating compliance with sustainability and GHG savings criteria. Annex I describes the role of the auditor that is carrying out audits under the Recast of the

Renewable Energy Directive (REDII)<sup>17</sup> and the role of the EU ETS verifier in EU ETS verifications;

- Section 4.3.5 gives guidance on what to do if non-compliance with sustainability and GHG savings criteria is identified;
- Section 4.3.6 explains whether EU ETS verifiers can do REDII audits.

#### 4.3.1 Key requirements on biomass in phase 4

In 2018, the Recast of the Renewable Energy Directive (RED II) was adopted which included new elements on biomass. Consequently, several amendments were made to the MRR and MRR Guidance Document No. 3 (MRR GD3). A key amendment of the MRR is the addition of Article 38(5) which aligns the application of biomass requirements with the RED II. Biofuels, bioliquids and biomass fuels used for combustion in EU ETS installations or by aircraft operators have to meet sustainability and GHG savings criteria laid down in Articles 29(2) to (7) and (10) of the RED II in order to apply an emission factor of zero for the biomass and to waive the obligation to surrender emission allowances for the emissions arising from biomass. If these criteria have not been met, the biomass may not be zero-rated and must be treated as a fossil source stream (meaning that emissions are calculated based on the preliminary emission factor / the total carbon content of the biomass material).

Sustainability and GHG savings criteria (REDII criteria) are not applicable in all situations. In some cases, only GHG savings or only sustainability criteria apply. Where REDII criteria are not applicable, the operator can apply an emission factor of zero without further evidence except the proof that the material under consideration is indeed one for which the criteria do not apply. The decision tree in section 3.4.2 of MRR GD3 provides an overview of when sustainability and GHG savings criteria are applicable.

Please note that for the year 2022, Member States or competent authorities may allow operators or aircraft operators to deviate from Article 38(5) and zero-rate biomass without demonstrating compliance with RED II criteria. Member States can thus choose to delay the application of criteria until 1 January 2023. Not every Member State will have used this option. Verifiers are recommended to contact the Member State CA to find out what rules are applicable in relation to biomass requirements under the EU ETS in that country.

If REDII criteria are applicable, compliance with these criteria has to be demonstrated in accordance with Article 30 and 31 of the RED II. There are several ways in which compliance with the criteria can be demonstrated:

- A voluntary national or international scheme that is accepted by the Member State. If this scheme is also formally recognised by the Commission, certificates and proofs of sustainability issued to economic operators by the scheme must be accepted in every Member State<sup>18</sup>;
- A national scheme established by the Member State. Member State legislation will regulate what evidence is required for demonstrating compliance with the criteria;

<sup>17</sup> Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (recast).

<sup>18</sup> Section 3.4 of MRR GD3.

- The operator provides all necessary evidence and GHG calculations and this information is audited<sup>19</sup>.

The Member State determines which approach is acceptable for demonstrating compliance with RED II criteria in their country. Some Member States only allow schemes recognised by the Commission, other Member States have established a national scheme with specific rules on what evidence is required and how this information is to be audited. Some Member States allow operators to apply any of the three methods. More information on the different schemes to demonstrate compliance with RED II criteria can be found in section 3.4 of MRR GD3. The approach applicable in a Member State has implications on the type of evidence that the operator has to provide and the checks that a verifier carries out (section 4.3.4).

Please note the verifier should have knowledge of the requirements on biomass: Article 38, 39, 43 and 54 of the MRR, the relevant articles in the RED II and Implementing Regulation 2022/996<sup>20</sup> and national legislation implementing the RED II in a Member State. The verifier should also have an understanding of MRR GD3 and of MRR GD2 if they are carrying out verification of aircraft operators' EU ETS annual emission reports.

#### 4.3.2 Elements for the verifier to consider in the verification of biomass-related issues

The new MRR requirements on biomass have an impact on what biomass-related elements a verifier will take into account in order to evaluate the likely type of evidence and to prepare for the verification. These elements include the following:

1. There can be several types of biomass source streams: i.e. 100% biomass<sup>21</sup>, mixed where the biomass<sup>22</sup> is 97% or higher and other mixed source streams. Different monitoring requirements may apply to each of these types of source streams (see section 4 of MRR GD3).
2. The applicability of, and compliance with, REDII criteria has an impact on the rating of the emissions:
  - Biomass where **these criteria do not apply**, can be zero-rated.
  - Biomass where **these criteria apply and have been met**, can be zero-rated. Non-compliance with these criteria means that the biomass must be treated as fossil source stream. If the criteria are partially met, the non-sustainable part is separately reported and its emissions treated like the fossil fraction.
  - For mixed source streams, the preliminary emission factor has to be multiplied by the fossil fraction in order to determine the emission factor.<sup>23</sup>
3. Biomass is heterogeneous and different batches may have different compositions. It is possible that some batches meet the applicable REDII criteria whereas other batches

<sup>19</sup> This audit is not necessarily carried out by the EU ETS verifier: it can be another auditor with the relevant competence to audit and accreditation under the RED II.

<sup>20</sup> Commission Implementing Regulation (EU) 2022/996 of 14 June 2022 on rules to verify sustainability and greenhouse gas emissions saving criteria and low indirect land use change-risk criteria

<sup>21</sup> Which comply with REDII criteria or to which REDII criteria is not applicable

<sup>22</sup> See footnote 21.

<sup>23</sup> This is true if RED II criteria are not applicable to the biomass part or if these criteria are applicable and have been met. If the biomass part in mixed source streams does not comply with the required criteria, the whole source stream has to be treated as a fossil source stream (although the non-sustainable biomass fraction is to be reported separately as a memo-item).

do not. Section 3.3 of MRR GD3 explains how an operator should deal with these situations.

4. The biomass chain from generation to final use can be complex. The evidence provided by the operator may not cover the whole chain; in which case the operator needs to obtain additional evidence for any missing stages. The verifier should therefore be aware of any limitations to the scope and coverage of evidence provided by the operator.
5. The approach used by the operator to demonstrate compliance with RED II criteria (see section 4.3.4).
6. What monitoring methodology is applied to determine the biomass fraction<sup>24</sup> (if applicable) and the preliminary emissions factor. Section 4 and 5 of MRR GD3 contains more information;
7. Whether waste is used and which implications this has on the applicability of the RED II criteria and the application of the monitoring methodology. Section 3.4.6.4 of MRR GD3 contains more information;
8. Where biogas is injected into the grid; what methodology has been applied to determine that biogas and comply with Article 39(3) and (4) MRR. For more information please see section 5.3 of MRR GD3;
9. Whether fossil and biomass materials are used in the same process, e.g. where fuels are produced in a refinery from a feedstock mixed of crude (mineral) oil and vegetable oil. For biofuels produced by this so-called “co-processing”, specific requirements apply (see section 3.4.6.3 of MRR GD3).

When preparing for the verification in the pre-contract stage, the strategic analysis and the risk analysis, the verifier should take these factors into account as this may impact the verification plan. Table 2 provides examples on how these factors are taken into account.

*Table 2 How to take the different factors into account during the verification*

Stages in verification	Explanation and examples
Time allocation	<p>Additional time may need to be allocated if biomass is used by the operator. For example:</p> <ul style="list-style-type: none"> <li>• if an operator demonstrates compliance with RED II criteria based on its own calculations and evidence<sup>25</sup>, more effort may be needed from the verifier to check whether the evidence is appropriate and whether the RED II criteria are complied with.</li> <li>• If the source stream is a mixed fuel, more extensive checks may be necessary on the monitoring methodology applied, the delineation of source streams, the biomass fraction determination, and whether the biomass part complies with RED II criteria.</li> </ul> <p>For more information, please see KGN II.12 on time allocation.</p>

<sup>24</sup> Whether simplifications for the determination of biomass fraction are applicable (see section 5.1 MRR GD 3), how to deal with biomass fraction in the case of mixed fuels or materials (see section 4 and 5 MRR GD3), determination of biomass fraction when CEMS is applied (section 5.2 MRR GD3), application of estimation methods (section 4.3 MRR GD 3).

<sup>25</sup> Including where an ETS operator has to supplement a scheme certificate that does not cover all required aspects of the biomass chain.

Stages in verification	Explanation and examples
Strategic analysis	Consideration of the aforementioned factors helps the verifier to understand what type of biomass is used, what type of source streams can be identified, what monitoring methodology applies to determine biomass fraction and how compliance with RED II criteria is demonstrated.
Risk analysis	The use of biomass can increase the risk of misstatement or non-conformities, in particular if the methodology for determining the biomass fraction is complex or if the approach selected for demonstrating compliance with applicable RED II criteria is not straightforward. This could mean that more extensive or tailored checks may be necessary on these areas.

In order to understand the activities of the operators and the risks of misstatement and non-conformities, it is crucial that the verifier is provided with all information that is necessary to carry out the verification. With respect to the application of biomass requirements, this does not only include the monitoring plan with the monitoring methodology for biomass-related source streams but also all evidence needed by the verifier to check compliance with RED II criteria (see section 4.3.4). The verifier should therefore determine at various stages of the verification what information and evidence is needed and request such information from the operator.

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AVR

Please note that the verifier should start sufficiently early to identify what evidence is missing so that the operator can collect missing evidence and present this to the verifier. This will allow verifier to perform the necessary checks on the MP and the requirements.

#### 4.3.3 Verifier's checks on the application of biomass requirements in the process analysis

Table 3 provides examples on which biomass-related checks should be carried out during the process analysis. In the verification of emission reports these checks are carried out as part of the MP implementation, the application of the monitoring methodology and compliance with the MRR to ensure the emission data is accurate and does not lead to material misstatements.

Table 3 Checks during process analysis on application of biomass requirements

Biomass aspect	Examples of what a verifier should check
Source streams	<p>The verifier will check the completeness and the description of the source streams, in particular:</p> <ul style="list-style-type: none"> <li>▪ whether all biomass source streams used by the operator are included in the MP (including any that are for temporary testing purposes);</li> <li>▪ whether source streams are fossil, 100% biomass meeting RED II, mixed with a RED II-compliant biomass share of more than 97%, or other mixed source streams;</li> <li>▪ whether the biomass source streams are correctly delineated and classified in line with the MP and the MRR;</li> <li>▪ where the operator uses biomass sources streams that are delivered in batches: whether these batches are considered to be the same source stream or different source streams and whether this has been applied consistently. The verifier checks also the written procedure applied to monitor batch properties.</li> </ul>

Biomass aspect	Examples of what a verifier should check
Monitoring of biomass	<p>The verifier will carry out checks similar as for other types of monitoring methodology. For example, checks on:</p> <ul style="list-style-type: none"> <li>▪ whether the monitoring methodology applied is in line with the MP;</li> <li>▪ sampling and analysis activities and on evidence regarding the use of laboratories and laboratory analysis (see Table 1 in section 3.3).</li> </ul>
Applicability of RED II criteria	<p>The written procedure(s) outlining how an operator demonstrates compliance with REDII criteria and specifies which criteria are applicable to the operator for each source stream used. Applicability of these criteria is a crucial part in determining whether biomass can be zero-rated. In order to determine whether emission data are accurate and free from material misstatements, the verifier checks evidence provided on the nature of biomass source streams. This will allow the verifier to assess whether the applicability of REDII criteria (in line with the decision tree in section 3.4.2 MRR GD3) has been satisfactorily demonstrated. It will also check whether evidence of compliance with the required criteria (proof of sustainability) is correctly attributed to different batches of biomass.</p>
Compliance with RED II criteria	<p>The approach to demonstrating compliance with REDII criteria determines what checks a verifier carries out. Section 4.3.4 provides information on the role of the verifier in checking compliance with RED II criteria and what checks are carried out on the operator's evidence.</p>
Biomass related procedures	<p>The verifier will check whether this procedure:</p> <ul style="list-style-type: none"> <li>▪ is established, properly documented and maintained;</li> <li>▪ contains the information recorded in the summary of the procedures in the approved MP and is in line with the MRR;</li> <li>▪ has been correctly implemented and is up to date;</li> <li>▪ is applied throughout the reporting year;</li> <li>▪ is effective to mitigate the inherent and control risks.</li> </ul>
Specific issues on waste	<p>The use of waste has implications for the applicability of REDII criteria. The CA will have already approved in the MP whether a fuel/material is a waste. The verifier will check whether the fuel/material used by the operator is in line with the classification in the MP. If the verifier identifies that a particular fuel/material is not as described in the MP and is not considered to be a waste or should have been considered as waste, the verifier has to report this as a non-compliance.</p>
Specific issues on biogas	<p>The verifier will, for example, check:</p> <ul style="list-style-type: none"> <li>▪ what monitoring methodology is applied and whether this is in line with the MP</li> <li>▪ whether there is double counting of the same biogas quantity and whether operator and producer of biogas are connected to the same grid. For this purpose, the verifier will check the purchase records/ supply contracts/ invoices and guarantees of origin, if applicable<sup>26</sup>.</li> <li>▪ compliance with RED II criteria by either checking the data on transfer of biogas in a national biogas registry or if this is not available as described in section 4.3.4.</li> </ul>

<sup>26</sup> Note that in line with MRR GD3 section 3.4.6.6, guarantees of origin (GoO) are not sufficient proof for REDII criteria. As single evidence, they are also not sufficient for proof of avoiding double counting. However, if GoO are available, they can support other evidence.

#### 4.3.4 Verifier’s checks on the evidence for compliance with RED II criteria

If the operator wants to apply a zero-rating to the emissions from biomass combustion, it must provide evidence that the RED II criteria are not applicable or, if they are applicable, that these criteria have been met. The approach used to demonstrate compliance with the RED II criteria determines what evidence is appropriate (see Table 4).

Table 4 Appropriate evidence for approaches demonstrating compliance with RED II criteria

Approach	Appropriate evidence
Voluntary scheme recognised by the Commission	<p>A certificate that the <i>economic operator under RED II</i><sup>27</sup> can manage the sustainability information, GHG savings data or the relevant mass balance system, depending on the certification scope, thereby proving that the economic operator is capable of issuing ‘proofs of sustainability’. These certificates are obtained by the economic operator from a certification system in line with Implementing Regulation 2022/996. In addition, the <i>EU ETS operator</i> has to provide evidence that each batch of biomass is complying with the applicable RED II criteria. This is also called proof of sustainability: a unique declaration<sup>28</sup> from the economic operator that the batch supplied is compliant with RED II criteria and conformant to its certified processes for ensuring RED II criteria are met.</p> <p>The EU ETS operator can obtain those certificates and proofs of sustainability by:</p> <ul style="list-style-type: none"> <li>• Requesting the supplier of the biomass to provide the certificate and evidence of compliance with REDII criteria (proof of sustainability).</li> <li>• Becoming an economic operator under the RED II Directive and getting the certificate through the certification system.</li> </ul> <p>A certificate may not cover all types of biomass or the whole biomass chain of custody. This chain consists of several stages: from the point of origin where biomass is harvested from (e.g. a farm or forest), the first gathering point<sup>29</sup>, various transport and storage stages, through to the processing the biomass into biofuel, bioliquid or solid/gaseous biomass. All of these stages and points must be covered by a mass balance system to ensure that there are no gaps or double counting in biomass quantities. Proof of sustainability is recorded in a mass balance system at every stage and information passes along the system until the biomass is consumed, for example because it is burnt in an EU ETS installation. The proof would then reflect the whole biomass chain of custody.</p>

<sup>27</sup> Article 2(11) of Commission Implementing Regulation (EU) 2022/996: *economic operator means a producer of raw material, a collector of waste and residues, an operator of installations processing raw material into final fuels or intermediate products, an operator of installations producing energy (electricity, heating or cooling) or any other operator, including of storage facilities or traders that are in physical possession of raw material or fuels, provided that they process information on the sustainability and greenhouse gas emissions saving characteristics of those raw materials or fuels.*

<sup>28</sup> See Article 2(23) of Commission Implementing Regulation (EU) 2022/996.

<sup>29</sup> Article 2(12) Commission Implementing Regulation (EU) 2022/996: *a first gathering point is a storage or processing facility managed directly by an economic operator or other counterpart under contractual agreement that is sourcing raw material directly from producers of agricultural biomass, forest biomass, wastes and residues. This can, for example, include a warehouse.*

Approach	Appropriate evidence
	If some of the points/stages in the chain of custody are not covered by the selected certification scheme, the EU ETS operator has to provide additional evidence of compliance with RED II criteria for those stages that are excluded from the specific certificate. This could be achieved through a certificate and proofs of sustainability from another voluntary scheme that covers the particular stage in the biomass chain or other evidence that is audited by a RED II auditor. Section 3.4.4 and 3.4.5 of MRR GD3 provides more information on certificates.
National Scheme	The type of evidence is dependent on the individual national scheme and national rules. This could be a certificate, statement of sustainability or other documentation that proves compliance with RED II criteria. As for voluntary schemes described above: if the evidence does not cover the whole biomass chain, the EU ETS operator has to provide additional evidence of compliance for those stages that are not covered by the proof of sustainability under the national scheme. Evidence under the national scheme is also subject to an audit requirement.
Operator provides all evidence	The EU ETS operator itself must assess compliance with sustainability criteria and carry out GHG calculations to show compliance with GHG savings criteria; this information must be independently audited by a competent auditor. Section 3.6.4 of MRR GD3 provides information on RED II criteria and the calculations that have to be made. Evidence would include, for example, actual values of emissions and other relevant data, GHG calculations, how information is transmitted through the chain of custody (e.g. delivery notes), and the auditor's report(s).

The evidence to be provided under each approach also determines what checks a verifier should carry out on that evidence. EU ETS verifiers should therefore be aware of which approaches are acceptable in a Member State where they carry out the verification and which specific national rules apply. Table 5 explains for the different approaches the specific checks a verifier should carry out on the evidence provided and what the role of the EU ETS verifier is in checking the operator's evidence of compliance with RED II criteria.

*Table 5 Examples of verifier's checks on evidence concerning compliance with REDII criteria*

Approach	Examples of what a verifier should check
1. Voluntary international and national scheme	<p>The verifier can rely on the certificate that has been obtained in accordance with the voluntary scheme recognised by the Commission provided it is still valid. The main focus of the verifier’s checks is on the certificate and proof of sustainability: the verifier will check whether:</p> <ul style="list-style-type: none"> <li>▪ proof of sustainability is available<sup>30</sup> confirming that the particular batch of biomass supplied is in conformance with the requirements of the certified process and meets the applicable RED II criteria. The verifier checks whether the proof of sustainability relates to the appropriate batch and whether it is complete by checking against batch/delivery numbers. It also checks the amounts of biomass delivered or produced<sup>31</sup>;</li> <li>▪ the certificate is issued by a voluntary scheme recognised by the Commission or a voluntary or mandatory national scheme. A verifier needs to check the validity of the Commission recognition<sup>32</sup> if the Member State does not accept the voluntary scheme without Commission’s recognition;</li> <li>▪ the biomass type and applicable RED II criteria are covered by the voluntary scheme concerned;</li> <li>▪ the geographical scope of the biomass origin is in line with the scope of the certification system;</li> <li>▪ the certificate covers the whole biomass chain, or if further certificates and proofs of sustainability are available for missing parts of the biomass chain;</li> <li>▪ the certificate was still valid when the fuel was produced and supplied: generally, a certificate is valid for one year or more, but the proof of sustainability should be valid until the fuel is actually consumed;</li> <li>▪ the certification of the <i>economic operator under RED II</i> is suspended or withdrawn and implications of this. A certificate from an economic operator that is suspended or has had its certificate withdrawn is no longer valid. The verifier will also check the impact on the validity of the proof of sustainability. A ‘proof of sustainability’ issued by an economic operator that is suspended or has had its certificate withdrawn is no longer valid if the ‘proof’ was issued after the date of suspension/withdrawal. In that case the proof cannot be used as evidence of RED II compliance.</li> </ul> <p>If the whole biomass chain is not covered by a certificate, or the biomass and the required criteria are not or are only partially covered by the scheme, the verifier checks whether additional evidence was provided by the EU ETS operator. If that evidence consists of certificate(s) from another voluntary scheme, the checks outlined above are also carried out on those certificate(s). If the evidence is based on audits for a national scheme (see under 2 in this table) or information collected by the operator itself (see under 3 in this table), the checks mentioned under those points are carried out.</p>

<sup>30</sup> Proof of sustainability is obtained from the fuel supplier or by the EU ETS operator itself if it has become an economic operator under RED II.

<sup>31</sup> If biomass (waste) is produced in the installation.

<sup>32</sup> The Commission’s recognition of a voluntary scheme is valid for five years.

Approach	Examples of what a verifier should check
	<p>In addition, the verifier will check whether the <i>economic operator</i> under the certification scheme has carried out verification of GHG savings criteria for each site including transport phases if the biomass is sourced from different sites. If not, the <i>EU ETS operator</i> must provide additional information and have this audited by an independent and competent auditor. The verifier would then check this additional audit report<sup>33</sup> and assess the scope and results of the audit as well as the competence and accreditation or recognition of the auditor, to determine whether the audits are appropriate.</p>
2.National scheme	<p>The verifier should familiarise itself with the requirements that apply to the national scheme in order to establish what evidence is appropriate and what requirements apply to the independent audit under the national scheme. Compared to voluntary schemes recognised by the Commission different rules on level of assurance, audit requirements and reporting may apply.</p> <p>The verifier will check:</p> <ul style="list-style-type: none"> <li>▪ what certification evidence is required by a national scheme and what information is provided by the <i>EU ETS operator</i>: e.g. a certificate, statement from a competent authority or other form of evidence;</li> <li>▪ whether the certificate, statement or other form of evidence is consistent with the rules of the national scheme. If a registry is in place that records these certificates or if statements of compliance with required criteria are published, the verifier could cross check information on the certificate or statement;</li> <li>▪ the biomass and associated RED II criteria are covered by the scheme concerned;</li> <li>▪ the certificate/ statement covers the batch(es) of fuel/material and the different fuel/material types;</li> <li>▪ validity of the statement or certificate. If the certificate or statement is not valid because of expiry of the certificate/statement, suspension or withdrawal, the verifier cannot place reliance on the certificate or statement and further evidence will be needed from the <i>EU ETS operator</i>. A ‘proof of sustainability’ issued by an <i>economic operator</i> that is suspended or has had its certificate withdrawn is no longer valid if the ‘proof’ was issued after the date of suspension/withdrawal;</li> <li>▪ the scope and results of the audit e.g. the statement, non-conformities, the level of assurance applied, standards applied in order to assess whether the audit results are acceptable and can be relied upon;</li> <li>▪ whether the audit and certificate/statement covers the mass balance and the full chain of custody<sup>34</sup>, or only parts thereof. If it only covers parts of the biomass chain the operator has to provide additional evidence for the missing parts;</li> </ul>

<sup>33</sup> The EU ETS operator would have to commission the RED II auditor that would audit the relevant evidence. The audit report would then be available to the EU ETS operator and the verifier can request that information from the EU ETS operator.

<sup>34</sup> Chain of custody audit means that there has been an audit check back through each stage from the installation to the original supplier and that all evidence is in place to show at each stage that the fuel meets the sustainability requirements; and that evidence is associated with a specific batch of fuel and this has been passed along the chain of supply.

Approach	Examples of what a verifier should check
	<ul style="list-style-type: none"> <li>▪ whether the independent auditor used is appropriately qualified, competent and accredited by a national accreditation body or recognised by a competent authority<sup>35</sup> to undertake the audit;</li> <li>▪ whether proof of sustainability is available<sup>36</sup> confirming that the particular batch of biomass supplied is in conformance with the requirements of the certified process and meets the applicable RED II criteria. The EU ETS verifier checks whether the proof of sustainability relates to the appropriate batch and whether it is complete by checking against batch/delivery numbers. It also checks the amounts of biomass delivered or produced<sup>37</sup>.</li> </ul>
3. Evidence provided by the EU ETS operator	<p>In this approach the <i>EU ETS operator</i> itself collects the proof of sustainability by providing evidence that each batch of biomass complies with the RED II criteria and by carrying out GHG calculations in relation to GHG savings criteria. This information must be audited by an independent and competent auditor. The verifier should understand what rules a Member State applies to such an audit.</p> <p>The checks that a verifier has to carry out in this situation are more extensive focusing on the evidence provided by the EU ETS operator. The verifier shall check:</p> <ul style="list-style-type: none"> <li>▪ whether the evidence of compliance with RED II criteria provided by the <i>EU ETS operator</i> for the different batches of fuel covers the full biomass chain. If the evidence does not cover the full biomass chain, the verifier informs the operator and requests the operator to provide additional information for the missing parts in the biomass chain and to have this information audited;</li> <li>▪ whether an appropriate chain of custody audit has been carried out by the independent auditor examining evidence back to the primary source showing that at every step in the biomass chain the required criteria have been met. An EU ETS verifier could carry out such a REDII audit provided the conditions in section 4.3.6 are met;</li> <li>▪ whether the independent auditor<sup>38</sup> used is appropriately qualified, competent and accredited by a national accreditation body or recognised by a competent authority to undertake the audit. The verifier should consult the applicable rules to conform what auditors are qualified to carry out such audits in the relevant Member State;</li> <li>▪ the scope and results of the audit: i.e. the statement, non-conformities identified, the level of assurance applied, standards applied to the audit, whether the full chain of custody was included in the audit; whether appropriate evidence is referenced in the audit report; and whether the audit report is consistent with the requirements in the applicable rules. This will allow the EU ETS verifier to assess whether the audit results are acceptable and can be relied upon;</li> </ul>

<sup>35</sup> Depending on the national rules that apply to national schemes.

<sup>36</sup> Proof of sustainability is obtained from the fuel supplier or by the EU ETS operator itself if it has become an economic operator under REDII.

<sup>37</sup> If biomass (waste) is produced in the installation.

<sup>38</sup> See section 4.3.6 if the EU ETS verifier carries out such an audit.

Approach	Examples of what a verifier should check
	<ul style="list-style-type: none"> <li>▪ whether the proof of sustainability relates to the appropriate batch, whether it is complete covering all batches by checking against batch/delivery numbers and whether the mass balance is complete, consistent and correct. The verifier also checks the amounts of biomass delivered or produced.<sup>39</sup></li> </ul> <p>If the verifier identifies that the audit does not cover the full chain of custody or if evidence for the different batches does not apply to the whole biomass chain, the verifier informs the operator and requests it to provide additional evidence on the parts that are missing. This additional information has to be audited by a qualified and competent certification body or auditor. Section 4.3.6 outlines under what conditions an EU ETS verifier may carry out such an audit. If the EU ETS verifier audits this additional evidence, it must carry out a chain of custody audit in line with the applicable national rules. A chain of custody audit includes an audit of the establishment/cultivation and harvesting; collection; drying, processing; storage and transport, provided all these steps are relevant. The audit would focus on the missing parts in the biomass chain of custody and involve for example the assessment of management systems, control system, procedures, mass balance systems and audit of data. Examples of what activities are carried out in a full chain of custody audit can be found in checklists that are used in schemes that are recognised by the Commission<sup>40</sup>. Such checklists can be of use for determining what is necessary for such audits. Please note that audits under national schemes can have additional or more specific requirements. The RED II audit would be a separate verification as compared to the EU ETS verification, with separate time allocation, risk analysis, activities and reporting (see section 4.3.6).</p>

<sup>39</sup> If biomass (waste) is produced in the installation.

<sup>40</sup> Checklists developed by voluntary schemes recognized by the Commission are generally published at the websites of those voluntary schemes: [https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes\\_en](https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes_en)

#### **4.3.5 Addressing non-compliance with REDII criteria**

When the verifier has identified non-compliance with the RED II and the biomass was inappropriately zero-rated, the verifier will raise this as a non-conformity and non-compliance with the MRR. Where this non-conformity and non-compliance also lead to errors, omissions and misrepresentations in the emission data, the verifier will also report the issue as a misstatement.

The verifier informs the operator and requests the operator to discuss this non-conformity and non-compliance issue with the CA. If this issue can be addressed before issuing the verification report, it is only recorded as a resolved non-conformity and non-compliance in the internal verification documentation. If it is not corrected, the verifier assesses whether it has material impact on the data and reports the issue as a non-conformity and non-compliance with the MRR in the verification report. If the impact on the emissions declared in the annual emissions report is material, then a negative verification opinion is issued and the verification statement is 'not verified'.

#### **4.3.6 Can an EU ETS verifier carry out RED II audits?**

Annex I explains the difference between the role of the REDII auditor and the EU ETS verifier in checking compliance with REDII criteria. A RED II audit is separate audit compared to the EU ETS verification and is subject to other requirements. An EU ETS verifier can carry out a RED II audit if certain conditions are met:

- The EU ETS verifier meets the required competencies that apply to RED II auditors as outlined in Article 11 of Implementing regulation 2022/996 (see Table 6 in Annex I of this guidance). Please note that an applicable certification scheme or national legislation may include additional requirements on competence.
- There is no conflict of interest or risk to impartiality.
- The appropriate ISO 17065 and EN ISO 14065 accreditation is held, or a license from the competent authority responsible for approval of verifiers for a national scheme if a NAB accreditation process is not applied.

It should be noted that EU ETS verifications and RED II audits are separate activities and involve different types of risks, require checks on different data sets and internal controls, are subject to different rules and standards, scopes of verification/audit and level of assurance.

Therefore, they require separate time allocations, and separately documented strategic analysis, risk analysis, verification plans and verification reports. There may be some synergies possible when an on-site visit is carried out to an installation or aircraft operator that would be subject to both, a RED II audit and an ETS verification, taking into account the different objectives. However, a full chain of custody RED II audit is likely to require visits to other locations.

If the EU ETS verifier has carried out a certification of an economic operator under a voluntary scheme or national scheme in one or more stages of the biomass custody chain and that audit information has been used by the EU ETS operator to demonstrate compliance of RED II criteria to the CA in the MP, the verifier would be allowed to do the verification of annual emission report of the same EU ETS operator provided measures are taken to ensure that no unacceptable conflict of interest arises, for example, by using different teams. The same applies if an EU ETS verifier has carried out a RED II audit for the EU ETS operator so that the

operator can become an economic operator under the RED II and manage its mass balance system containing proof of sustainability. That EU ETS verifier should put measures in place to avoid unacceptable risks to the impartiality of the EU ETS verifier and staff if it also carries out the EU ETS verification of the annual emission report.

## **Annex I – Role of the EU ETS verifier in assessing compliance with RED II criteria**

Compliance with REDII criteria has to be assessed in accordance with Article 30 and 31(1) of the RED II. Article 30 of the RED II requires information regarding compliance with these criteria to be independently audited by a competent and accredited or recognised certification body. Such independent auditing must be carried out regardless of the approach used to demonstrate compliance with the required criteria. During the EU ETS verification, the verifier can rely to a certain extent on the results of the independent auditing which means that the role of the EU ETS verifier is different compared to the role of the certification body or auditor that is carrying out an audit under the RED II Directive.

**Art. 38(5)  
MRR**

Table 6 shows the differences between a RED II audit and an EU ETS verification and the different roles of RED II certification bodies or auditors and EU ETS verifiers. This will facilitate the understanding of the activities an EU ETS verifier should carry out during the verification of operators' emission reports and the extent to which the EU ETS verifier can rely on the audited evidence of compliance with RED II criteria.

Table 6 Differences between a RED II audit and an EU ETS verification

Topic	RED II audit	EU ETS verification
Objective	To evaluate the internal processes of the economic operator <sup>41</sup> and the ability of that operator to manage compliance with RED II criteria, manage sustainability and GHG savings data, manage the mass balance system <sup>42</sup> , and issue ‘proof of sustainability’ declarations for batches of biomass.	To ensure that emissions of an EU ETS operator have been monitored in accordance with the EU ETS Monitoring and Reporting Regulation (MRR) and that reliable and correct emission data are reported.
Scope of verification or audit	The audit is an independent <i>ex ante</i> evaluation of the economic operator’s ability to manage and deliver proof of sustainability <sup>43</sup> , mainly focused on assessing whether the systems used by the economic operator are accurate, reliable and protected against fraud. The auditor will also evaluate whether materials are not intentionally modified or discarded so that biomass batches could become a waste or residue. It also evaluates the frequency and methodology of sampling and the robustness of the data.	The verification is an independent <i>ex post</i> evaluation of the emission data in the emission report and implementation of the EU ETS operator’s monitoring plan. The verifier assesses whether the operator’s report is free from material misstatements, whether there is compliance with the MP, whether the report is complete and in line with the MRR and whether there are areas of improvement (Article 7 (4) AVR). This means that the verifier will check the applicability of biomass requirements and the accuracy of data related to biomass.
Level of assurance	In voluntary national and international schemes, a reasonable level of assurance is applied in the initial audit <sup>44</sup> . If, based on the results of the initial audit, the economic operator is perceived to be at low risk, a limited level of assurance can be applied for subsequent audits. National schemes established by Member States prescribe the level of assurance in national legislation or let the auditor define this based on the risks involved.	Reasonable level of assurance

<sup>41</sup> Article 2(11) of Commission Implementing Regulation (EU) 2022/996: ‘economic operator’ means a producer of raw material, a collector of waste and residues, an operator of installations processing raw material into final fuels or intermediate products, an operator of installations producing energy (electricity, heating or cooling) or any other operator, including of storage facilities or traders that are in physical possession of raw material or fuels, provided that they process information on the sustainability and greenhouse gas emissions saving characteristics of those raw materials or fuels.

<sup>42</sup> As far as the mass balance system is covered by the scope of certification.

<sup>43</sup> Proof that a certain batch of biomass complies with RED II criteria.

<sup>44</sup> Article 10 of Commission Implementing Regulation (EU) 2022/996.

Topic	RED II audit	EU ETS verification
Activities carried out	<p>The audit consists of several key steps:</p> <ul style="list-style-type: none"> <li>• Obtaining an understanding of the economic operator by identifying: <ul style="list-style-type: none"> <li>➢ which activities are undertaken and how these relate to applicable RED II criteria</li> <li>➢ the systems, overall organization and management of the economic operators</li> </ul> </li> <li>• Analysing the risk of non-conformities based on information<sup>45</sup> obtained from the economic operator. The higher the risk the more intensive the audit will be.</li> <li>• Developing the audit plan based on the risk analysis and implementing that plan</li> <li>• Identifying non-conformities, having them corrected by the economic operator and assessing whether their impact is material.</li> <li>• Reporting: the audit report contains information on the audit process and results of audit, including a list of non-conformities, certificate and statement of validity of the certificate.<sup>46</sup></li> </ul> <p>The specific audit activities can be different depending on what scheme applies: a voluntary national and international scheme recognised by the Commission or a national scheme.</p>	<p>Chapter II of the AVR outlines the key steps:</p> <ul style="list-style-type: none"> <li>• Obtaining an understanding of the EU ETS operator (strategic analysis)</li> <li>• Analysing the risks to misstatements and non-conformities (risk analysis)</li> <li>• Drafting a verification plan based on the risk analysis and implementing that plan (process analysis)</li> <li>• Addressing misstatements, non-conformities and non-compliance issues (requiring operator to correct them and if these are not corrected, assessing the material impact of misstatements, non-conformities and non-compliance)</li> <li>• Reporting on verification: the verification report contains verification opinion statement, information on the verification process and a list of outstanding misstatements, non-conformities, non-compliance issues and recommendations of improvement.</li> </ul> <p>The activities are focused on assessing the accuracy of the data and implementation of the MP. See Chapter 3 of the Explanatory Guidance on ETS verification.</p>
Standards applied	<p>In voluntary national and international schemes, audits have to be carried out in accordance with ISO 19011 or an equivalent standard.<sup>47</sup> If audits are performed on actual GHG values, accreditation to EN ISO 14065 is required. Similar standards will likely apply in national schemes but there could be additional or other requirements.</p> <p>Each RED II certification scheme has specific documented rules and potentially templates that also have to be taken into account by the RED II auditor.</p>	<p>In an EU ETS verification, the verifier has to apply the AVR and EN ISO 14065</p>

<sup>45</sup> During this assessment the auditor will take into account the overall risk profile of the economic operator and its activities and supply chain.

<sup>46</sup> Annex II of Implementing Regulation 2022/996 provides requirements on the minimum content of the audit report in voluntary schemes. In national schemes additional or other requirements may apply to the content of the audit report.

<sup>47</sup> Article 10 of Commission Implementing Regulation (EU) 2022/996.

Topic	RED II audit	EU ETS verification
Results of audit or verification	In voluntary schemes, a certificate will not be issued if there are critical <sup>48</sup> or major non-conformities <sup>49</sup> and these have not been addressed. In the case of minor non-conformities <sup>50</sup> a certificate can be issued. For national schemes other requirements may apply.	Article 27(3) of the AVR outlines the minimum content of the verification report. Article 27(1) specifies the possible verification opinion statements. Guidance can be found in KGN II.6.
Body carrying out the audit or verification	Certification bodies have to be accredited against ISO 17065 <sup>51</sup> (and ISO 14065, if they perform audits on actual GHG values). Accreditation is carried out by a national accreditation body. However, Member States may allow voluntary schemes to have certification bodies recognised by a competent authority or to establish another type of independent oversight. Surveillance in national schemes can follow different rules.	Verifiers have to be accredited by a national accreditation body according to the AVR and EN ISO 14065
Competence of body carrying out audit or verification	Article 11 of Implementing Regulation 2022/996 defines competence requirements for a RED II auditor. <sup>52</sup> In short, the auditor must have: <ul style="list-style-type: none"> <li>• experience and technical knowledge of the RED II criteria laid down in Article 29 of the RED II Directive and the low ILUC<sup>53</sup> risk certification methodology;</li> <li>• experience in agriculture, agronomy, ecology, natural science, forestry, silviculture engineering, energy management or a related field;</li> </ul>	Article 38 to 40 of the AVR contains requirements on the competence of persons involved in the EU ETS verification. In short, EU ETS (lead) auditors must have: <ul style="list-style-type: none"> <li>• knowledge of the EU ETS Directive, the MRR, AVR, other relevant legislation<sup>54</sup>, relevant standards and guidance</li> <li>• knowledge and experience of data and information auditing</li> </ul>

<sup>48</sup> Article 10(3), second paragraph, Commission Implementing Regulation (EU) 2022/996: This can include non-compliance with a mandatory requirement of the RED II; fraudulent issue of a 'proof of sustainability or self-declarations, deliberate misstatement of raw material description, falsification of GHG values or input data as well as the deliberate production of wastes or residues.

<sup>49</sup> Article 10(3), third paragraph, Commission Implementing Regulation (EU) 2022/996: This can include repeated non-conformity and systematic problems, or aspects that alone, or in combination with further nonconformities, may result in a fundamental system failure, systematic problems with mass balance or GHG data reported, incorrect documentation is identified in more than 10 % of the claims included in the representative sample; the failure of an economic operator to declare its participation in other voluntary schemes during the certification process.

<sup>50</sup> Article 10(3), fourth paragraph, Commission Implementing Regulation (EU) 2022/996: A non-conformity that has a limited impact, constitutes an isolated or temporary lapse, is not systematic and does not result in a fundamental failure if not corrected, shall be considered to be a minor non-conformity.

<sup>51</sup> ISO 17065: Conformity assessment — Requirements for bodies certifying products, processes and services

<sup>52</sup> To ensure continued competence auditors have to participate in training courses that are organised by (or for) the voluntary scheme and follow refresher training regularly.

<sup>53</sup> Indirect land-use change

<sup>54</sup> For example if the verifier is carrying out verification of allocation data, the EU ETS auditor of that verifier should also have knowledge of the Free Allocation Rules, Implementing Regulation (EU) 2019/1842.

Topic	RED II audit	EU ETS verification
	<ul style="list-style-type: none"> <li>• a minimum 2 years of experience in auditing GHG emission calculations in line with the methodology in Annex V and VI of the RED II to be able to check compliance with GHG savings criteria;</li> <li>• experience in mass balance systems, supply chain logistics, book keeping, traceability, and data handling or a related field.</li> </ul>	<ul style="list-style-type: none"> <li>• the ability to perform the activities related to the verification of the operator's report as required by Chapter II of the AVR</li> <li>• knowledge of and experience in the sector specific technical monitoring and reporting aspects that are relevant for the scope of activities in which the EU ETS auditor is carrying out verification.</li> </ul> <p>Further guidance on the exact competence requirements for EU ETS auditors, EU ETS lead auditors and other relevant staff in the verification such as independent reviewers and technical experts can be found in Chapter 5 of the Explanatory Guidance and KGN II.7.</p>
Surveillance	If the certification is valid for more than one year, annual surveillance audits of economic operators participating in the scheme have to be carried out. <sup>55</sup> The frequency of surveillance audits depends on the risk concerning the economic operator, the supply chain and the results of previous audits.	Annual surveillance and regular re-assessment by the national accreditation body
Suspension and withdrawal	Critical non-conformities identified during surveillance or re-certification activities will lead to an immediate withdrawal of the certificate whereas major non-conformities will lead to an immediate suspension of the certificate. If major non-conformities are not addressed within 90 days from notification the certificate will be withdrawn. Minor non-conformities will not lead to a withdrawal or suspension provided these are addressed within 12 months of notification.	Article 54 of the AVR specifies the situations in which an accreditation certificate can be suspended or withdrawn. In such cases, the verifier cannot carry out further verifications. More guidance can be found in Chapter 6 of the Explanatory Guidance.

<sup>55</sup> An exception can be made for group audits. In those cases, a sample of group members can be covered in the annual surveillance.