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CLIMA.C.2 - Governance and Effort Sharing

## Guidance Document

### The Accreditation and Verification Regulation - Site visits

#### **AVR Key guidance note No. II.5, Updated Version of December 2020**

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) 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 on the Accreditation and Verification Regulation under the WGIII of the Climate Change Committee (CCC), as well as written comments received from stakeholders and experts from Member States.

*[This is the version of the guidance document unanimously re-endorsed by the Climate Change Committee by written procedure on 21 December 2020]*

All guidance documents and templates can be downloaded from the documentation section of the Commission's website at the following address:  
[http://ec.europa.eu/clima/policies/ets/monitoring/index\\_en.htm](http://ec.europa.eu/clima/policies/ets/monitoring/index_en.htm).

## 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 Accreditation and Verification Regulation (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 explains the site visit requirements in the AVR, the activities to be carried out during a site visit, and under which exceptional conditions a site visit may be waived. The note also provides guidance on how to deal with site visits in the case of force majeure circumstances. Guidance on site visits during the verification of baseline data reports, new entrants reports and annual activity level reports is included in Guidance Document 4 on the verification of allocation data.

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

Section 1 – 3 of this key guidance note cover the requirements and conditions for site visits in relation to installations only; guidance on site visits for EU ETS aviation is provided in section 3.2.7 of EU ETS aviation verification guidance document (GD III). Sections 4 and 5 are applicable to both installations and EU ETS aviation.



### 1. What is a site visit?

The verifier must conduct a site visit at one or more appropriate times during the verification process. The purpose of a site visit is to gather sufficient evidence to conclude with reasonable assurance that the operator's emission report is free from material misstatements. Activities during site visits include:

- interviewing staff, reviewing documents and assessing operator's procedures in practice;
- checking the installation's boundaries, the data flow and assessing the completeness of source streams and emission sources;
- actual testing of the control activities and assessing the application of procedures mentioned in the approved monitoring plan;
- obtaining physical evidence through assessment of measurement equipment, monitoring systems and processes.

The EU ETS lead auditor will usually conduct the site visit himself/herself since he/she is responsible for assigning the tasks to other team members and implementing the verification

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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 (OJ L 334, 31.12.2018, p. 94).

plan. The lead auditor decides which team member carries out or joins him/her in the site visit and whether he/she needs a technical expert during the site visit.

Depending on the circumstances and the outcome of its risk analysis, the verifier shall decide whether visits to additional locations are needed. If the objectives set in accordance with the strategic and risk analysis are not met during a site visit, this may result in the need for more walkthrough tests, interviews, sampling, document reviews, and possibly further follow-up site visits. In those cases, it may be necessary to allocate more time to the verification and adjust the time allocation that was originally made in the contract.

**Art. 9(2)**  
**AVR**

Without a site visit to the installation, the process analysis in most cases is unable to generate sufficient evidence to conclude with reasonable assurance that the report is free from material misstatements.

For the verification of the reports of some installations, site visits will cover more than one location.<sup>2</sup> On-site activities are described in the verification plan and generally involve:

**Art. 21(4)**  
**AVR**

- sampling<sup>3</sup> at the site of the installation to check whether the monitoring plan (MP) reflects the actual situation, whether the source streams and emission sources are complete and whether the data are accurate and all requirements have been met;
- sampling at the installation's head office or regional offices if this is where the emission data or relevant procedures are processed or held;
- sampling at any other relevant location where verification work may be necessary: e.g. fuel supplier facilities if this is necessary to assess the accuracy of the reported data, or to carry out assessment of control activities that are not located at the installation site or at headquarters and which are relevant to the operator's data flow and monitoring process.

It is not adequate to visit only the operator's headquarters without visiting the emitting installation itself. Visiting only the headquarters would constitute a waiver of the site visit since site visits for installations include the site of the emitting installation itself. Except for installations of low emissions, waive of the visit to the emitting installation requires the approval of the competent authority (CA) and is only allowed if the specific conditions mentioned under section 3 of this guidance note have been met.

## **2. Role of the risk analysis with respect to the site visit**

The verifier's risk analysis will assess the likelihood of risks of misstatements and/or non-conformities and their likely material impact on the reported data.<sup>4</sup> This will enable an effective verification to be designed. Hence the risk analysis is not only a determining factor in planning the need for the site visit(s); it also plays an important role in organizing the site visit(s) to the installation, basically determining:

- the number of locations to be visited when verifying an installation; and
- activities to be carried out during the site visit(s).

If the risk analysis or the process analysis indicates questions or problems that can only be solved by a second visit or a visit to another location, the verifier shall conduct such a visit to resolve the matter.

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<sup>2</sup> For smaller installations the head office and the installation site are often located at the same location.

<sup>3</sup> Please see for guidance on sampling the Key guidance note on sampling (KGD II.4).

<sup>4</sup> For more information please see the key guidance note on the verifier's risk analysis (KGD II.2).

## Examples

### Example 1:

A large electricity company with a number of production installations may retain primary data and other information centrally at company headquarters or at other locations. For such a large and complex company, the risk analysis is likely to indicate that the headquarters, the other locations and the site of the installation have to be visited to get a complete overview of the installation and assess the accuracy of the data.

### Example 2:

If however the installation is a simple category B installation with several source streams using natural gas and continual metering with its own measurement system, it is likely that one site visit during the verification process will suffice and the locations to be visited can be limited to the site of the installation, assuming this is also the location where data and records are kept.

**Please note** that this is only an example: such a scenario is not limited to a category B installation and not all category B installations with source streams using natural gas are necessarily simple installations. It very much depends on the number of source streams, the quality of the measurement equipment, calibration and other control activities and procedures in place.

### 3. Conditions for waiving a site visit

The AVR requires site visits to be carried out. Only under specific conditions and exceptional circumstances can a site visit be waived.

Art. 31  
AVR

Article 31 only relates to installations. For aircraft operators, specific requirements have been listed in Article 32 of the AVR: these are not covered in this guidance note.



The conditions for waiving site visits to installations are:

- the verifier has decided, based on its risk analysis, that it is justified to waive the site visit;
- the verifier has determined that, based on its risk analysis, all relevant data can be remotely accessed;
- the criteria in Article 32 of the AVR are being met;
- the operator obtains the CA's approval for waiving the site visit.<sup>5</sup>

Art. 31(1)  
AVR

For the verification of annual activity level reports site visits can also be waived under certain conditions. These conditions and specific criteria are explained in Guidance Document 4 on the verification of baseline data reports, new entrant reports and annual activity level reports.

#### ***Justification of waiving the site visit based on the risk analysis***

When considering whether it is justifiable to waive the site visit, the verifier has to base this conclusion on its risk analysis, in particular the assessment of the risks involved in not visiting the site of the installation. As explained in the Key guidance note on risk analysis (KGD II.2), the risk analysis is an iterative process and subject to change as a result of findings and further analysis of the risks during the verification process. So even if the CA has already approved the waiving of a site visit, this does not exempt the verifier from updating its risk analysis and adjusting its verification plan if it identifies higher inherent and control risks than initially thought.

<sup>5</sup> The approval from the CA is not needed if it concerns installations emitting less than 25 ktonnes of CO<sub>2</sub> (installations mentioned in Article 47(2) of the MRR).

This may result in a situation that the magnitude of the risks requires the verifier to carry out the site visit after all. In that case the verifier must conduct a visit to the site of that installation, regardless of the earlier approval of the CA to waive the site visit. In short, the verifier remains at all times responsible and cannot use the CA's approval as an excuse for not visiting the site if the risk analysis (original or updated) shows that a site visit is needed.

The following examples of verification risks should be taken into account in the verifier's risk analysis with respect to the possibility of waiving site visits.

<b>Verification risks involved when waiving site visits</b>
<ul style="list-style-type: none"> <li>▪ The conclusions of the strategic and risk analysis can be based on inaccurate information and the verification plan is compromised as a result.</li> <li>▪ The verifier is not able to confirm the scope of the installation and the approved MP because it cannot view all the emission sources and source streams associated with the site.</li> <li>▪ The verifier is not able to confirm the tier requirements in relation to the metering etc. since it is not able to confirm that the physical meters meet the description in the MP, their correct installation and their maintenance requirements.</li> <li>▪ The verifier is not able to <i>'confirm the validity of the information used to calculate the uncertainty level as set in the approved MP'</i>.</li> <li>▪ The verifier is not able to check whether changes to the MP have occurred which have not been approved by or notified to the competent authority.</li> <li>▪ The verifier is not able to check the effectiveness and correct implementation of the data flow activities, and the control activities that have been implemented to mitigate the risks related to the data flow (inherent risks).</li> <li>▪ The verifier is not able to check that the monitoring and reporting of the emissions of the installation complies with the requirements of the MP and the Monitoring and Reporting Regulation (MRR). Overall, the verifier is not able to undertake adequate walkthrough tests, interviews as well as document and data reviews (including on traceability of emissions data to source, and horizontal and vertical corroborative checks of validity, e.g. by cross-checks with logbooks, inventories or similar data sources) to form an appropriate verification opinion.</li> <li>▪ An incorrect verification opinion is issued based on an incorrect emission report resulting in an inaccurate number of allowances being surrendered in April.</li> </ul>

In cases where site visits have been waived, the verifier should use alternative means of verification to reduce the potential for the above risks to result in misstatements or non-conformities being missed.

***All relevant data can be remotely accessed***

The verifier has to show that based on its risk analysis, all relevant data can be remotely accessed. The verifier should be sufficiently confident that it will be able to give a verification opinion statement with reasonable assurance based on data that is remotely accessed. It should also be confident that the installation's boundaries and other relevant data have been thoroughly checked at an initial site visit and that these boundaries and other relevant configuration data can subsequently be confirmed without visiting the site (e.g. through photographic evidence that no units have been added, or evidence that no changes in the meters have occurred).

***Criteria laid down in Article 32 (1) – (3) and (4) and (5) of the AVR***

Only one of the following listed criteria is required to justify waiving of a site visit provided that the verifier's risk analysis shows that such a waiver is appropriate and that other required conditions are met.

*I. The verification concerns a Category A installation<sup>6</sup> or Category B installation<sup>7</sup>:*

- having one single source stream using natural gas where the monitoring of activity data is based on fiscal metering by the gas supplier<sup>8</sup> and where default values for the calculation factors are applied<sup>9</sup>; and/or
- one or more de-minimis source streams (e.g. back-up fuel) which aggregated do not exceed the threshold for de-minimis source streams in accordance with Article 19 of the MRR.

Art. 32(1)  
AVR

*II The following situation applies*

- the verification concerns a Category A installation or a Category B installation<sup>10</sup> that has one single source stream using a fuel without process emissions, whereby the fuel is either a solid fuel directly combusted in the installation without intermediate storage or a liquid/gaseous fuel which may have intermediate storage; **and**
- the activity data related to the source stream is monitored by fiscal metering or the activity data is based solely on invoice data taking into account stock changes if relevant in accordance with the first bullet point and default values for the calculation factors are used; **and**
- may involve one or more de-minimis source streams (e.g. concerning back-up fuel) which aggregated do not exceed the threshold for de-minimis source streams in accordance with Article 19 of the MRR; **and**
- the CA has allowed the installation to use a simplified monitoring plan according to Article 13 of the MRR.

Art. 32(2)  
AVR

*III The following situation applies:*

- the verification concerns an installation with low emissions in accordance with Article 47 of the MRR that has one single source stream using a fuel without process emissions, whereby the fuel is either a solid fuel directly combusted in the installation without intermediate storage or a liquid/gaseous fuel which may have intermediate storage; **and**
- the activity data related to the source stream is monitored by fiscal metering or the activity data is based solely on invoice data taking into account stock changes if relevant

Art. 32(3)  
AVR

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<sup>6</sup> A Category A installation, where average verified annual emissions of the trading period immediately preceding the current trading period, with the exclusion of CO<sub>2</sub> stemming from biomass and before subtraction of transferred CO<sub>2</sub>, are equal to or less than 50 000 tonnes of CO<sub>2(e)</sub>.

<sup>7</sup> A Category B installation, where the average verified annual emissions of the trading period immediately preceding the current trading period, with the exclusion of CO<sub>2</sub> stemming from biomass and before subtraction of transferred CO<sub>2</sub>, are more than 50 000 tonnes of CO<sub>2(e)</sub> and equal to or less than 500 000 tonnes of CO<sub>2(e)</sub>.

<sup>8</sup> Subject to there being an appropriate legal regime for control of fiscal meters that meets the tier requirements for MRR uncertainty.

<sup>9</sup> This covers Category B installations using natural gas that are allowed by the CA to use default values for the calculation factors: e.g. Category B installations that can use lower tiers because of technical infeasibility or unreasonable costs. Category B installations that can meet the highest tier and apply tier 3 for the calculation factors are not allowed to use default factors and do not fall under this criterion.

<sup>10</sup> For Category B installations, this only concerns those Category B installations that are approved by the CA to use calculation factors based on default values. Category B installations that can meet the highest tier and apply tier 3 for the calculation factors are not eligible in relation to this criterion.

in accordance with the first bullet point and default values for the calculation factors are used; **and**

- may involve one or more de-minimis source streams (e.g. concerning back-up fuel) which aggregated do not exceed the threshold for de-minimis source streams in accordance with Article 19 of the MRR.

*IV. The following situation applies:*

- there is an unmanned site with telemetered data sent directly to another location where all data is collected, processed, managed and stored; and the same person is responsible for all data management and recording for the site; **and**
- meters have already been inspected on site by the operator or a laboratory in line with Article 59 of the MRR and a signed document or date stamped photographic evidence from the operator demonstrates that no metering or operational changes have occurred at the installation since that inspection.

**Art. 32(4)**  
**AVR**

*V. The following situation applies:*

- the site is at a remote or inaccessible location<sup>11</sup>, and there is a high level of centralisation of data collected from that site and transmitted directly to another location where all this data is processed, managed and stored with good quality assurance; **and**
- meters have already been inspected on site by the operator or a laboratory in line with Article 59 of the MRR and a signed document or date stamped photographic evidence from the operator demonstrates that no metering or operational changes have occurred at the installation since that inspection.

**Art. 32(5)**  
**AVR**

**Note:**

When fiscal metering is used by an operator (Criterion I, II and III), that operator must demonstrate to the verifier that:

- there is an appropriate regulatory and calibration regime for the fiscal meters and that the uncertainty requirements of that regime meet the required MRR uncertainty related to the applicable tier. If the instrument is subject to legal metrological control, the verifier must check the certificate of the official verification of the instrument; and
- there is appropriate maintenance and calibration in place and the utility or network company makes relevant data available to the operator to use as evidence. The verifier must be sufficiently confident that the instrument is regularly maintained and calibrated (e.g. checking calibration results and manufacturer's specifications).

When invoice data is used by an operator to monitor the activity data (Criterion II and III), the invoice data is based on fiscal metering and the paragraph above applies as well. Furthermore, the operator must demonstrate that the correct data has been taken from the invoices (e.g. base meter reading and not KWh readings).

For Criterion IV and V the operator must also demonstrate to the verifier that an appropriate calibration and maintenance regime is in place for the meters and that these meters are calibrated according to the required frequencies and other requirements and that these meet the approved uncertainty requirements.

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<sup>11</sup> This will in most cases concern off-shore installations if the risk analysis justifies waive of site visit.

### **Obtaining the Competent Authority's approval**

Unless it concerns an installation with low emissions, it is the operator who has to submit an application to the competent authority requesting approval of the waiver of a site visit. The application for a waiver of a site visit shall be accompanied by evidence that all conditions have been met. The evidence should at least include:

**Art. 31(1)  
(2) AVR**

- the outcome of the verifier's risk analysis justifying the conclusion that the inherent and control risks are low and a site visit is not needed to check the accuracy of the data and the implementation of and compliance with the MP;
- a statement from the verifier that it is confident that the site visit is not needed based on its risk analysis, and it accepts the risks of not undertaking a site visit;
- a statement from the verifier that, based on the verifier's risk analysis, all data can be remotely accessed;
- a statement from the verifier stating which criterion set by the Commission applies;
- evidence that the quality of the calibration, management and inspection of the monitoring equipment is sound, e.g. by providing calibration certificates and referring to supplier contracts, calibration reports and maintenance reports;
- for Criteria IV and V, evidence that the meters have been inspected on site by the operator or a laboratory in line with the MRR, and a signed document or date stamped photographic evidence from the operator that demonstrates that no metering or operational changes have occurred at the installation since that inspection;
- a statement from the verifier that the conditions for refusing approval by the CA, listed in the paragraph below, are not applicable.

The CA will only decide favorably on such an application if all conditions have been met. When making the decision, the CA will also take into account the installation's compliance history (e.g. if it concerns an installation that has a history of receiving a not verified verification opinion statement, the CA will be less inclined to approve the waiver of a site visit).

The CA will not give its approval if:

- the emission report is being verified for the first time by that verifier<sup>12</sup>;
- no site visit has been carried out in the previous 2 years;
- significant changes to the monitoring plan laid down in Article 15 of the MRR<sup>13</sup> have occurred.

**Art. 31(3)  
AVR**

If there is only a change in a default value for a calculation factor and none of the other significant changes laid down in Article 15 of the MRR a site visit can still be waived if the other conditions apply.

### **4. Virtual site visits in the case of force majeure<sup>14</sup>**

Article 21 of the AVR requires the verifier to carry out physical visits to the site of the installation or aircraft operator. As the COVID19-pandemic has shown, force majeure circumstances may prevent the verifier from carrying out such a physical site visit. Article 34a of the AVR allows verifiers to carry out virtual site visits if certain conditions have been met.

**Art. 34a  
AVR**

<sup>12</sup> The verifier means the legal entity or legal person accredited by National Accreditation Body to carry out verification or a natural person certified by the National Certification Authority to carry out verification.

<sup>13</sup> Section 5.6.1 of the MRR Guidance Document No.1 (GD1) and section 6.5.1 of the MRR Guidance Document No.2 for aircraft operators (GD2) explains what constitutes significant changes to the monitoring plan.

<sup>14</sup> Article 34a can apply to the verification of annual emission reports, baseline data reports and annual activity level reports for installations and the verification of annual emission reports for aircraft operators.

**What is a virtual site visit?**

A virtual site visit is a site visit that is carried out in an online environment allowing EU ETS (lead) auditors, experts and operator’s personnel to execute activities and processes on a remote basis irrespective of physical locations.<sup>15</sup> The verifier would carry out the same activities as in a physical site visit but these activities would be done through electronic means. Different approaches can be applied during the virtual site visit depending on the verification activity that needs to be carried out, including:

- Interviews with operator’s or aircraft operator’s staff can be carried out by means of web meeting or teleconference facilities, including audio, video, screen and data sharing.
- A person within the operator or aircraft operator can go on site, take photos and fill out a relevant checklist, while the verifier gives instructions on the phone. Photos need to be dated and time stamped.
- A person within the operator or aircraft operator can go on site and do a walkover of the site with a camera or tablet using a live stream connection. The verifier gives instructions about what the camera should focus on. A recording is made of the walkover. New technology can allow the verifier to mark items when the video is recording<sup>16</sup>.
- Drones can be used to take aerial views when it is not possible to go on site<sup>16, 17</sup>.
- All relevant information, documentation and procedures are sent to the verifier in a secured environment or shared with the verifier through electronic means. An assessment of these documents, records or procedures can be done based on remote access, either synchronously while the operator is explaining the procedures, or asynchronously.

The verifier’s risk analysis determines the appropriate Information and Communications Technology (ICT) method to be applied in the virtual site visit. Given practical limitations of control, timing, capacity, accuracy and complexity of the ICT, more than one technology and approach listed above will often be used in a verification. The table below gives examples on how a verifier could deal with specific activities in a virtual site visit.

Activity	Examples of how to carry out the activity in a virtual site visit
Checking the installation’s boundaries, data flow, completeness of source streams and sources, checking implementation of monitoring plan	<ul style="list-style-type: none"> <li>▪ Obtain data flow and diagrams, photographic<sup>18</sup> evidence and other relevant information from the operator or aircraft operator. This enables the verifier to check the data flow, and type of control activities.</li> <li>▪ Interviews with staff responsible for monitoring and reporting activities in the different steps of the data flow through web meetings, web-sharing etc.</li> <li>▪ Walkover checks using video or other ICT tools with livestream audio and video connection to check completeness, actual implementation of the MP,</li> </ul>

<sup>15</sup> This definition of a virtual site visit is based on IAF Mandatory Document for the use of Information and Communication Technology for Auditing/ assessment purposes, MD 4, 2018.

<sup>16</sup> Subject to site health & safety requirements

<sup>17</sup> Subject to Member States drone flight safety rules

<sup>18</sup> Date and time stamped

Activity	Examples of how to carry out the activity in a virtual site visit
	<p>installation boundaries, following a sample in the process</p> <ul style="list-style-type: none"> <li>▪ Use drones in places where it is not possible to send staff<sup>16, 17</sup></li> </ul>
Assessing implementation of procedures; and actual testing of control activities.	<ul style="list-style-type: none"> <li>▪ Having the operator or aircraft operator send relevant information on control activities and procedures to the verifier or providing them with remote access to this information so they can prepare in advance.</li> <li>▪ Inquiring how operators or aircraft operators have carried out control activities by interviewing them in web meetings (and having them explain how control activities are carried out)</li> <li>▪ Observing how staff are carrying out control activities by walk through demonstrations using web meeting screen share, livestream (or recorded) narration audio and video, and interviews. The type of technology used depends on the control activity being implemented.</li> <li>▪ Inspection of output documents and records to determine whether, when and how manual controls are being/have been implemented</li> <li>▪ Inspection of IT systems through screen sharing or remote access with ability to take screen grabs as records.</li> <li>▪ Cross checking control activities by asking for them to be reperformed on screen; the verifier can redo an individual check and/or compare the latest data to underlying primary data etc. Depending on the operator's data flow this may be more easily done in some cases; in other cases where applying planned tests prove to be more difficult in a virtual site visit this should be recorded in the internal verification documentation.</li> </ul>
Data checking and sampling	<ul style="list-style-type: none"> <li>▪ In principle checks on data and data sampling can be done behind a desk if the verifier is provided with access to all relevant information and records; e.g. copies of spreadsheets and other records, and access to online databases etc., where possible<sup>19</sup></li> <li>▪ Tracing data back from the final report/calculation sheet to the primary source and doing checks on the data trail is done by the verifier remotely and in walkthrough tests with video (see above)</li> </ul>
Assessment of measurement equipment, monitoring systems and processes and assessment of calibration and maintenance	<ul style="list-style-type: none"> <li>▪ Visual inspection of meters, systems and equipment through livestream connections with audio and video, smartphones, drones, head cameras and microphones or by the use of date and timestamped photos specified by the verifier.</li> <li>▪ Obtain from the operator all relevant records (the planned maintenance programme for each instrument (complete loop<sup>20</sup>), along with associated calibration and maintenance records, calibration gas bottle certificates</li> </ul>

<sup>19</sup> If this is not possible, checks would need to be done online through screen sharing and direction of the operator to show different parts of the database etc. And/or by provision of database downloads taken under the direction of the verifier.

<sup>20</sup> For example, for a gas meter this would include the flow element, temperature and pressure compensation units, flow computer and data links.

Activity	Examples of how to carry out the activity in a virtual site visit
	<p>for online analysers, and relevant maintenance etc. procedures) .</p> <ul style="list-style-type: none"> <li>▪ Where relevant obtain information on the configuration of flow computers<sup>21</sup>, distributed control systems<sup>22</sup> etc. to assess if algorithms give rise to anomalies.</li> <li>▪ Cross check whether the installed equipment matched information on calibration records (type, manufacturer, serial number etc.) in date stamped photographic evidence of the instrument in its location.</li> <li>▪ Web meeting interview of relevant personnel to talk through the evidence obtained and for them to demonstrate systems in action.</li> </ul>
Assessment of data management systems; Advanced Process Controls and IT systems	<ul style="list-style-type: none"> <li>▪ Obtain from the operator relevant procedures and process diagrams related to systems security, backup, archive and control</li> <li>▪ Interview relevant personnel in relation to the application of IT controls covered by the procedures; including their frequency, security controls etc.</li> </ul>

A verification using a virtual site visits follows the normal verification process starting with pre-contract stage, strategic analysis and risk analysis subsequently followed by drafting the verification plan, the verification itself, the finalisation of the verification process, the compilation of the draft verification report and independent review. The normal requirements in the AVR on the verification process apply. However, there are some elements a verifier needs to consider when carrying out virtual site visits:

- The verifier needs to have formal procedures describing and documenting the approaches and ICT it accepts for virtual site visits to ensure that it provides a flexible approach to optimise the verification; that adequate controls are in place to avoid abuse that could impact the integrity of the verification; and to ensure that security and confidentiality are maintained.
- Carrying out virtual site visits requires careful planning and proper time allocation to the different activities; programmes will need to be more structured so that web meetings etc. can be set up in advance at appropriate times (taking account of any time differences between the locations of the verifier and the operator or aircraft operator).
- Virtual site visits can mean that additional planning is needed which may have an impact on the time allocated to the verification. They may also require additional technical expertise in the relevant ICT to ensure competency requirements are met (e.g. drone pilots) and that the verification team has the ability to understand and utilize the selected ICT methods to achieve the verification objectives. The verifier needs to take these into account when determining the time allocation at the pre-contract stage; audit duration and time allocation cannot be reduced from the normal expected for a physical site visit.

<sup>21</sup> It should be possible to download and send electronically

<sup>22</sup> Depending on the system this may need to be done through web meeting screen share.

- In principle the ICT methods applied during the virtual site visit should be mutually agreed between the verifier and the operator or aircraft operator – especially any proposed recording of its personnel and processes<sup>23</sup>. However, the verifier’s risk analysis is a determining factor on which ICT methods or combination of methods is deemed appropriate. Both parties need to have the necessary infrastructure to support the use of the ICT methods selected. The verification plan should outline what ICT methods will be used and how these will be used. Methods selected should be tested in advance of the virtual visit to ensure both parties can access them.
- Consideration needs to be given to information security, confidentiality and data protection for both the verifier and the operator (including its intellectual property).
- If misstatements, non-conformities or non-compliance issues are identified by the verifier during the virtual site visit, Article 22 of the AVR applies and the material impact of these issues on the emissions need to be assessed by the verifier. As in the normal verification process the risk analysis and the verification plan will need to be updated.
- If the issues are material, it could be that the verifier needs to carry out a physical site visit in order to close out the issue and to be able to state with reasonable assurance that the report is free from material misstatements (see condition 4). This also applies if there are complications with the ICT technology and the virtual site visit could not be carried out properly.
- The verifier should record in its internal verification documentation the approach and extent to which ICT was used to conduct remote verification, any issues that arose, and the effectiveness of the approach in achieving the verification objectives. A list of personnel who attended remote sessions should be included.

### ***Conditions for carrying out virtual site visits***

Article 34a of the AVR only allows the verifier to carry out virtual site visits if certain conditions have been met:

**Art. 34a  
(1) AVR**

1. There are force majeure circumstances, outside the control of the operator or aircraft operator, which cannot be overcome after using all reasonable efforts;
2. The decision of a verifier to carry out a virtual site visit shall be based on the outcome of its risk analysis of the impact upon the verification and after determining that the conditions for carrying out a virtual site visit are met;
3. The verifier has to take measures to reduce the verification risk to an acceptable level to obtain reasonable assurance that the operator’s or aircraft operator’s report is free from material misstatement;
4. A physical site visit is carried out without undue delay. How to interpret “without undue delay” is explained under condition 4;
5. CA approval is required.

### **Condition 1: Force majeure**

<sup>23</sup> There may be personal and commercial confidentiality issues that need to be taken into account.

According to Article 34a of the AVR force majeure circumstances are serious, extraordinary and unforeseeable circumstances outside the control of the operator or aircraft operator which cannot be overcome after using all reasonable efforts. These circumstances prevent the verifier from carrying out physical site visits. Such circumstances could for example be pandemics, earthquakes, war, terrorism, other natural or man-made disaster or other disasters which result in the closure of the installation to non-employees or in an inability to travel to the site. Force majeure circumstances can be very specific to national, regional or even local conditions. CA approval (condition 5) on whether there is indeed a force majeure circumstance is therefore an important condition.

**Force majeure in the case of COVID19**

The current COVID19 pandemic can create force majeure circumstances depending on national, regional or local conditions. Examples may be:

- The installation is closed off for physical site visits because of legally imposed national health and safety requirements.
- Legally imposed travel restrictions because of government COVID19 health and safety policies that do not allow the verifier to travel to the site of the installation.
- Quarantine rules may in some cases lead to a force majeure case depending on national and local conditions. Some verifiers have implemented procedures to manage quarantine rules or some quarantine rules may not be strict. Flexibility may be needed to accommodate changing circumstances in a country.

**Condition 2: The decision of the verifier is based on its risk analysis**

The verifier should base its decision to carry out virtual site visits on its risk analysis, in particular the assessment of the risks to the verification involved in performing a virtual site visit. The verifier should therefore identify and document the risks concerned with the use of ICT methods and their impact on the effectiveness of the verification. The verifier assesses the different technologies to be used and the management of these technologies. As for the overall verification risk analysis explained in the Key guidance note on risk analysis (KGD II.2), the analysis looking at the risks concerning the virtual site visit is an iterative process and subject to change as a result of findings and further analysis of the risks during the verification process. So even if the CA has already approved the virtual site visit, this does not exempt the verifier from updating both its risk analysis and adjusting its verification plan if it identifies higher inherent and control risks than initially thought or if the mitigation measures planned for the virtual visit prove not to be effective.

This may result in a situation where the magnitude of the risks requires the verifier to carry out a physical site visit without undue delay once the force majeure circumstances have lifted. This may have implications for the time and cost associated with the verification and should be communicated to the operator promptly.

The following examples of verification risks should be taken into account in the verifier’s risk analysis with respect to carrying out virtual site visits.

<b>Verification risks involved when carrying out virtual site visits</b>
<ul style="list-style-type: none"> <li>▪ The verifier is not able to confirm the scope of the installation and the approved MP because it cannot view all the emission sources, source streams associated with the site. The same can apply to the implementation of the approved monitoring methodology plan and assessment of sub-installation</li> </ul>

#### Verification risks involved when carrying out virtual site visits

boundaries if the verifier is verifying annual activity level reports and baseline data reports. The risks could be larger if the verifier verifies the installation or aircraft operator for the first time. This depends on the circumstances and the risks involved.

- Online connections or ICT are not functioning properly making it difficult to carry out a good virtual site visit and so having an impact on the validity and objectivity of the information gathered and evidence collected during the virtual site visit.
- The verifier is not able to confirm the tier requirements in relation to the metering etc. since it is not able to confirm that the physical meters meet the description in the MP, their correct installation and their maintenance requirements.
- The verifier is not able to check calibration equipment, other monitoring or IT systems properly on a remote basis which makes it difficult to assess whether the MP or MMP have been implemented correctly and whether the relevant legislation has been applied correctly.
- The verifier is not able to check the effectiveness and correct implementation of the data flow activities, and the control activities that have been implemented to mitigate the risks related to the data flow (inherent risks). It could be more difficult for the verifier to carry out re-performance testing or observing how operator's personnel carry out certain quality assurance and control activities.
- It will be more difficult for the verifier to undertake adequate walkover tests, data reviews and to trace the data back to the source. Complications in the virtual site visit could lead to an inability to perform proper data and traceability checks leading to an inappropriate verification opinion.
- The operator or aircraft operator's processes and key personnel could be impacted by the force majeure circumstances. The verifier should be aware of that and also focus its verification activities on how the operator or aircraft operator have dealt with this impact and managed the consequences.
- An incorrect verification opinion is issued based on an incorrect emission report resulting in an inaccurate number of allowances being surrendered in April.

#### Condition 3: Measures to reduce the verification risk to an acceptable level

A virtual site visit may only be carried out if the verifier takes measures to reduce the verification risk to an acceptable level to obtain reasonable assurance that the operator's or aircraft operator's report is free from material misstatements. The type of measures to be taken depends the risk analysis and the specific circumstances. This should include the following methods:

- Adequate controls have to be implemented in the electronic auditing methodologies to ensure data cannot be tampered with and the integrity of the verification is not compromised. The verifier also has to establish and implement procedure for managing these methodologies and virtual site visits;
- The security and confidentiality of electronic or electronically-transmitted information is important when using ICT for audit/assessment purposes. Robust safeguards need to be implemented to ensure virtual site visits can be carried out properly.
- ICT methods should be selected that optimise the effectiveness and efficiency of the assessment during the virtual site visit while still maintaining the integrity of the auditing process. The verifier's analysis of the risks concerning virtual site visits is a determining factor in assessing which ICT method or combination of methods to use during the virtual site visit. A complex installation with a large and complex data flow will require more robust approaches and intensive testing in line with the main risk analysis used for planning the verification.

- Testing of proposed ICT in advance of the virtual site visit; along with a contingency or back-up plan for the circumstance where ICT technology malfunctions (for example switching platforms<sup>24</sup> being used, or moving from web meeting to phone calls);
- The EU ETS (lead) auditors need to have the competence and ability to understand and utilise ICT to do the virtual site visit. If needed, they can involve technical experts that are experienced in or qualified to use relevant ICT technologies in the verification team. The verifier needs to take that into account when compiling the verification team for the verification.
- Proper planning of the virtual site visits is needed to ensure that:
  - Operator's or aircraft operator's provide access to relevant documents, procedures, processes and any other relevant information that is needed for the verification. Information can be requested from the operator or aircraft operator according to Article 10 of the AVR;
  - The appropriate type of technologies is applied. This depends on the extent to which the verifier is restricted in carrying out site visits and any site health and safety considerations necessary.
  - Possible conditions in the contract to facilitate the exchange of information, access to the installation, and additional time requirements specific to this situation.
- The verifier needs to allocate sufficient time to the verification and consider that virtual site visit may have an impact on the time allocated. This not only includes preparation time and managing and testing ICT, but also doing the verification checks. Sufficient time needs to be built in to communicate with operators or aircraft operators for follow up and in order for them to correct issues identified in the verification.

**Condition 4: A physical site visit must be carried out without undue delay**

If the information obtained through the virtual site visit does not give the verifier sufficient clarity or confidence to state with reasonable assurance that the operator's or AO's report is free from material misstatement, the verifier has to carry out a physical visit to the site of the installation or aircraft operator as soon as the force majeure circumstances are lifted. This can for example happen if:

- The verifier has identified material misstatements, non-conformities or non-compliance issues that cannot be easily corrected in a remote environment;
- The verifier has identified material misstatements, non-conformities or non-compliance issues that require further detailed testing that cannot be done using a virtual site visit.
- The verifier could not obtain sufficient evidence in the virtual site visit to state with reasonable assurance that the operator's or AO's report is free from material misstatements.<sup>25</sup> This includes for example:
  - The operator or aircraft operator did not provide the necessary information in order for the verifier to form the appropriate verification opinion;
  - The ICT technologies did not function properly making it difficult for the verifier to correctly assess the implementation of the MP/MMP, completeness of

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<sup>24</sup> E.g. Skype, Teams, Zoom etc.

<sup>25</sup> If the verifier is carrying out the verification for the first time, the risks of not obtaining sufficient evidence could be higher. This needs to be taken into account in the verifier's risk analysis and planning.

source streams and sources and (sub-)installation boundaries. This leaves the verifier unable to state with reasonable assurance that the report is free from material misstatements.

If the force majeure circumstances are not lifted before the operator's or aircraft operator's report and accompanying verification report must be submitted to CA and there is still insufficient clarity or evidence to state with reasonable assurance that the report is free from material misstatements or the material issues are not corrected, the verifier must issue a negative verification opinion. The verifier will in that case outline in the verification report not only the misstatements, non-conformities and non-compliances that are not corrected but also information on why the virtual site visit could not lead to sufficient clarity or evidence.

In the case of a negative verification opinion statement the CA must conservatively estimate the emissions according to Article 70 of the MRR. Alternatively, the physical site visit is, in close consultation with the CA, carried out without undue delay after the emission report and verification report is submitted. If the material issues are closed out and a positive verification opinion statement could be issued that is acceptable to the CA, the CA corrects the emission figure in the Registry according to Article 35(6) of the Registry Regulation.

Where the verifier has only identified non-material misstatements, non-conformities and non-compliance issues and the virtual site visits provides the verifier with sufficient evidence to state with reasonable assurance that the operator's report or AO's report is free from material misstatements, the physical site visit is carried out as part of next year's verification. This could also apply if there are material misstatements, non-conformities, non-compliance issues but these can be easily corrected remotely. If the verifier in next year's verification is a different verifier, it should pay close attention to findings reported in the prior year verification report and the correspondence with the CA in relation to the virtual site visit. That information can be obtained according to Article 10 of the AVR.

If issues are identified in next year's verification that could have an impact on the previous year data, the verifier reports this in the verification report as it would normally do. It is up to the CA to address this with the operator or aircraft operator.

#### Condition 5: CA approval is required

The operator or aircraft operator has to obtain the CA's approval for the virtual site visit and must therefore submit to the CA evidence that all conditions have been met. The evidence shall at least include:

- evidence that it is not possible to carry out a physical site visit because of the force majeure circumstances, outside the control of the operator or aircraft operator. The CA is the appropriate party to decide whether for example COVID19 restrictions prevent the verifier from going to the site of the installation or aircraft operator or making alternative arrangements;
- a statement of the verifier that demonstrates that it has taken into account the risks of undertaking the virtual site visits;
- information on the measures that have been taken to reduce the verification risk to an acceptable level;

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- information on how the virtual site visit will be carried out, e.g. technologies used, activities to be carried out virtually.

The CA will take this information into consideration when approving virtual site visits.

If the same verifier is carrying out verification of emission reports and annual activity level reports it should be aware that these are separate verifications involving different types of risks, requiring checks on different data sets and internal controls, and subject to different rules and scope of verification. This can have an impact on how virtual site visits are carried out, the risks concerned and measures taken to reduce verification risks. The evidence could therefore differ for both verifications. In principle these would be separate approval decisions.

Where the site visits for verification of emission report and annual activity level data have been combined because the data sets and internal controls on the collection of data for both verifications are the same and synergies could be found by combining these visits, the approval decision would in that case be applicable to that combined virtual site visit. However the evidence submitted by the operator needs to indicate where there are differences between both verifications: e.g. the risks concerned with virtual site visits, the measures used to reduce the verification risk and even different virtual methods applied to assess the annual activity level data. The CA needs to consider these aspects and this needs to be reflected in the decision.

If a large number of installations or aircraft operators are affected by similar force majeure circumstances and immediate action is needed because of legally imposed national health reasons, the conditions in Article 34a of the AVR still apply but the CA may authorise the verifier to carry out virtual site visits without a need for an individual approval.

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In that case the CA must have established that there are force majeure circumstances outside the control of the operator or aircraft operator and immediate action is needed because of legally imposed national health reasons. The operator or aircraft operator must inform the CA about the verifier's decision to carry out virtual site visits and submit the evidence that all conditions have been met (see above on the type of evidence that has to be submitted).

In such approval cases, it is important that the CA monitors the situation by assessing the operator's or aircraft operator's report together with the verification report. The CA therefore has to review the information submitted by the operator or aircraft operator during that assessment. The CA must inform the NAB of the outcome of the assessment. This is of particular importance if the CA identifies anomalies in the verification report or suspects that the conditions for virtual site visits were not met. The NAB shall have to assess the issues identified by the CA and take the requisite action. It might also be necessary for the CA to monitor the installation's or aircraft operator's situation more closely during its inspection.

***Recording information in internal verification documentation and the verification report***

According to Article 26 of the AVR, the verifier has to compile an internal verification documentation which includes at least the results of the verification activities, strategic analysis, risk analysis, verification plan and sufficient information to support the verification opinion. In addition to the normal information to be included in the internal verification

documentation the verifier will also record information regarding any virtual site visit applied, including:

- the assessment of the risks concerning virtual site visits and any evidence that all conditions for carrying out a virtual site visit have been met: i.e. measures taken to reduce the verification risk to an acceptable level, evidence of a force majeure circumstances, evidence of CA approval and correspondence with the CA on this;
- how the virtual site visit was carried out, what ICT technologies were used (and for what activities) and whether there were complications during the virtual site visit;
- activities carried out during the virtual site visit and dates on which these activities took place;
- experts and team members involved in any virtual site visit;
- the CA approval and correspondence on this;
- information on whether a physical site visit was carried out after the virtual site visit and the reasons for carrying out this physical site visit.

Evidence retrieved in the virtual site visit and electronic interviews can be recorded by means of screen grabs, photos, video or audio recordings, as well as shared electronic documents. As with the normal site visit approach, this evidence should be clearly referenced in the internal verification documentation to ensure a clear audit trail on what activities were carried out during the virtual site visit, what methodologies were used, what findings were identified, and what evidence was retrieved. The internal verification documentation should be sufficiently transparent and clear to facilitate an evaluation of the independent reviewer, the NAB or if applicable the CA.

When reporting on the verification in the verification report, the verifier shall also include information on:

- the justification for carrying out a virtual site visit and the date of CA approval for the virtual site visit;
- the dates on which a virtual site visit has been carried out<sup>26</sup> and, if a physical site visit was subsequently carried out before the completion of the verification, the date of that visit and the reasons for carrying out such a physical site visit;
- the number of days spent on the virtual site visit;
- where complications have arisen in the virtual site visit that affected the verification opinion statements or the findings, the verifier reports this under the relevant sections on compliance with EU ETS rules, compliance with principles, verification opinion statement and Annex I.

### ***The role of the national accreditation body (NAB)***

According to Article 77 of the AVR the verifier has to notify planned verifications and updates of that information to the NAB that has accredited the verifier. As part of this notification, the verifier has to notify plans to carry out virtual site visits and dates for these to the NAB. This allows the NAB to take this into account when planning witness audits and annual surveillance.

As part of the normal annual surveillance and re-assessment activities, the NAB has to monitor whether the virtual site visit was justified. The NAB will evaluate the evidence that was

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<sup>26</sup> I.e. the date range that covered virtual interactions with the operator that constituted a substitute for the physical site visit

submitted to the CA, correspondence with the CA and the internal verification documentation and assess whether all of the conditions have been met and adequate measures were taken to reduce the verification risk to an acceptable level.

The NAB will also assess whether the verifier has an appropriately documented process for developing virtual site visits; how the verifier has carried out the virtual site visit, how they considered the risks in carrying out virtual site visits and evaluate the verifier's performance during virtual site visits. Relevant observations will be shared with the CAs in the management report as part of the normal information exchange requirements.

#### **5. Reporting on site visits in the internal verification documentation and in the verification report**

Annex II of the Explanatory Guidance (EG I) and Key guidance note on the verification report (KGD II.6) explain what information on site visits and waiver of site visits has to be included in the internal verification documentation and the verification report. Section 4 of this guide highlights what specific information needs to be included on virtual site visits in the case of force majeure circumstances.