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on the harmonized free allocation methodology for  
the EU-ETS post 2012

## **Verification of NIMs Baseline Data Reports and Methodology Reports**

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# 1 INTRODUCTION

## 1.1 Status of the Guidance Documents

This guidance document is part of a group of documents<sup>1</sup>, which are intended to support the Member States, and their Competent Authorities, in the coherent implementation throughout the Union of the new allocation methodology for Phase III of the EU ETS (post 2012) established by the Commission Decision [Date of adoption and OJ reference to be added when available] on “Transitional community-wide and fully harmonised implementing measures pursuant to Article 10a(1) of the EU ETS Directive” (CIMs) and developing the National Implementation Measures (NIMs).

The guidance does not represent an official position of the Commission and is not legally binding.

This guidance document is based on a draft provided by consultants (Umweltbundesamt GmbH Austria). It takes into account the discussions within several meetings of the informal Technical Working Group on Benchmarking under the WGIII of the Climate Change Committee (CCC), as well as written comments received from stakeholders and experts from Member States. It was agreed that this guidance document reflects the opinion of the Climate Change Committee, at its meeting on 14 April 2011.

## 1.2 Legal Requirements

The revised EU ETS Directive<sup>2</sup> has introduced EU-wide fully harmonised allocation rules based on benchmarking for the period starting in 2013. These “CIMs” (Community-wide Implementing Measures<sup>3</sup>) pursuant to Article 10a(1) of the EU ETS Directive require the Member States to collect relevant baseline data (Article 7 of the CIMs) for developing the “NIMs” (National Implementation Measures pursuant to Article 11(1) of the EU ETS Directive). Those data shall be independently verified (Article 8 of the CIMs).

This guidance is intended to help the Member State in setting up the relevant requirements for verification of the NIMs baseline data reports, and for verifiers active in this field.

This guidance does not cover any requirements related to allocations granted under Article 10c of the EU ETS Directive.

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<sup>1</sup> For a complete list of guidance documents please see the Annex, section 5.4.

<sup>2</sup> Directive 2003/87/EC, most recently amended by Directive 2009/29/EC, making it the so-called “revised EU ETS Directive”. Download at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2003L0087:20090625:EN:PDF>

<sup>3</sup> Draft Commission Decision of [...] determining transitional Union-wide rules for the harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC, see [http://ec.europa.eu/clima/documentation/ets/docs/decision\\_benchmarking\\_15\\_dec\\_en.pdf](http://ec.europa.eu/clima/documentation/ets/docs/decision_benchmarking_15_dec_en.pdf)

### 1.3 Information available

***This guidance supplements mainly EA 6/03***

**This guidance is not a self-standing document.** It is based on other relevant legislation and guidance documents. This guidance provides clarifications how those other documents (especially EA 6/03) are to be applied in the context of NIMs baseline data collection. The following documents must be taken into account for fully understanding the verification tasks and requirements for NIMs baseline data:

- the EU ETS Directive;
- the CIMs;
- the Monitoring and Reporting Guidelines<sup>4</sup> (“MRG 2007”), in particular section 10.4 of Annex I;
- EA 6/03 (“EA Document for Recognition of Verifiers under the EU ETS Directive”)<sup>5</sup>;
- The templates provided by the Commission for the data collection and for the methodology report [*include xxx link*];
- Guidance documents provided by the Commission for the data collection, giving further interpretation of the CIMs [*include xxx link*];
- Any relevant legislation of the Member State in which the installation is situated.

Furthermore, Member States may have organised workshops, provided guidance papers and/or have established helpdesks for operators and verifiers. Also the Commission has organised a helpdesk, which is intended to be available to competent authorities. In general, verifiers and operators should seek information from the competent authority, which will bring questions to the Commission’s helpdesk<sup>6</sup> only if they cannot be answered directly.

### 1.4 Outline of the data collection process

***NIMs require: baseline data & methodology report***

Each operator shall submit a NIMs baseline data report for each installation to the competent authority. Member States may use the Commission’s Excel template for this purpose, or another electronic template which requires at least the same data input. Operators must supplement this data report with a methodology report, which outlines how the data reported has been determined. For the methodology report the Commission has provided a template, too. Member States may offer translated and amended templates for the methodology report.

The operator is responsible for having the NIMs baseline data report verified by a competent and independent verifier based on the methodology report. The verifica-

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<sup>4</sup> Commission Decision 2007/589/EC of 18 July 2007 establishing guidelines for the monitoring and reporting of greenhouse gas emissions, pursuant to Directive 2003/87/EC of the European Parliament and of the Council, including all recent amendments. The amendments for activities included from 2013 onwards are not yet published. A copy can be obtained from the competent authority. The most recent consolidated version can be found at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2007D0589:20100622:EN:PDF>

<sup>5</sup> <http://www.european-accreditation.org/n1/doc/EA6-03.pdf>

<sup>6</sup> For details see [http://ec.europa.eu/clima/policies/ets/benchmarking\\_en.htm](http://ec.europa.eu/clima/policies/ets/benchmarking_en.htm)

tion report<sup>7</sup> is to be submitted together with the NIMs baseline data report and methodology report to the competent authority.

## 2 RECOGNITION OF VERIFIERS

### 2.1 Accreditation or other approaches to recognition

According to the CIMs, ‘verifier’ means a competent, independent, person or verification body with responsibility for performing and reporting on the verification process, in accordance with the detailed requirements established by the Member State pursuant to Annex V of Directive 2003/87/EC. Therefore, a simple and pragmatic approach is proposed here, which Member States should consider, if they do not aim at a full accreditation process especially dedicated to NIMs baseline data verification.

Member States should allow those verifiers<sup>8</sup>, who are allowed under national legislation<sup>9</sup> to carry out the verification of the annual emissions report of an installation, to carry out the verification of the NIMs baseline data. If the installation is covered by the EU ETS only from 2013 onwards, Member States may consider using the same acceptance criteria, in particular, similar requirements for providing evidence of their competence, as for verification of the data submitted to the Commission under Article 9a(2)<sup>10</sup> of the EU ETS Directive.

However, competent authorities<sup>11</sup> and verifiers shall be aware of the additional competence requirements needed for assessing NIMs baseline data reports outlined in the next section, and shall make all necessary provisions for ensuring that those requirements are met by each verification team. Such provisions include at least training on the main concepts of the CIMs, the functioning of the relevant reporting templates and the relevant guidance papers. For more technical issues in individual installations – as expressed in the relevant methodology report – the verifier shall consider if the support by external experts is needed.

It is proposed that competent authorities request from verifiers evidence how they intend to cover the additional competences required for NIMs baseline data assessment.

***Use existing acceptance system for verifiers***

***Additional competence***

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<sup>7</sup> No verification is needed if the installation is not eligible for free allocation under Article 10a.

<sup>8</sup> In this guidance, no distinction is made between a verification body and the individual auditor. It is up to the verifier to establish appropriate ways for ensuring that the relevant requirements are complied with in each assignment.

<sup>9</sup> In particular, this guidance does not exclude that a Member State may allow individual persons to act as verifier.

<sup>10</sup> That is the data needed for adjusting the total cap of allowances from 2013 for the new activities and greenhouse gases.

<sup>11</sup> In this guidance, the term „competent authority“ is used for both, the competent authority and the accreditation body, as Member States have used different systems of sharing responsibilities in the process of accepting verifiers.

## 2.2 Competence requirements for verifiers

Chapter 6 of EA 6/03 is relevant to the extent feasible<sup>12</sup>. In particular, the verifier must be able “to select a competent team (EU ETS Lead Verifiers / Verifiers, independent reviewers, and experts as applicable) to undertake a specific contracted assignment for a client/installation” in the context of the NIMs baseline data. The requirements of section 5.2.4 of EA 6/03 on verification team competency should be met.

### **Competence requirements for NIMs data**

In addition to the competences listed in EA 6/03, which in case of installations only aim at emissions, at least the following competences are required for verifying NIMs baseline data reports:

- understanding of the revised EU ETS Directive (in particular the revised Annex I of the Directive<sup>13</sup>), the CIMs and the general concepts therein (see section 4.1);
- system boundaries of product benchmark sub-installations (see guidance document 9), fall-back sub-installations, and the boundaries between those;
- the concept of “data of highest achievable accuracy” as outlined in Annex I of guidance document 3.

Depending on the circumstances of the individual installation, at least some of the additional competences listed in section 4.2 may be needed.

Due to the short available timeframe, which might not allow developing all the relevant competencies within the verifier’s personnel, it is advisable to make use of the support by external experts. For this purpose, chapter 6.4 (“Use of technical experts”) of EA 6/03 shall apply.

## 3 THE VERIFICATION PROCESS

### 3.1 General approach

#### **Use general approach as in MRG and EA 6/03**

In principle, the verification of NIMs baseline data reports shall follow the approach as outlined in section 5 of EA 6/03. This is especially true for all kinds of checking of data, which are not explained in detail within this guidance document. In order to supplement other existing documents, here the assessment of the methodology report is discussed more broadly. This should not be interpreted in a way that the assessment of the methodology report might be more important than providing assurance on the baseline data.

When “translating” the requirements of EA 6/03 for carrying out those activities, the verifier shall take into account that not installation level emissions, but historic activity levels at sub-installation level and other relevant data are subject to verification. Fur-

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<sup>12</sup> In particular it will not be appropriate to implement a full continual competence cycle as described in section 6.1 of EA 6/03, as the NIMs baseline data verification will happen not annually, but only once.

<sup>13</sup> Including the guidance developed by the Commission:  
[http://ec.europa.eu/clima/documentation/ets/docs/guidance\\_interpretation\\_en.pdf](http://ec.europa.eu/clima/documentation/ets/docs/guidance_interpretation_en.pdf)

thermore the methodology report has to be considered instead of a monitoring plan which has been approved by the competent authority. The methodology report itself is subject to the verification. Applying those considerations, the following main activities are to be carried out during verification:

- Pre-contract assessment: The verifier shall analyse based on the documents provided by the operator of an installation, if he is able to carry out the verification tasks for that installation. For this decision he has to decide inter alia if a verification team can be built which disposes of all relevant competences needed for that installation. Furthermore the verifier shall assess whether sufficient time can be allocated for the verification tasks to be carried out, whether the documentation provided by the operator is sufficient for making a quotation, and if the business risks involved with the verification can be mitigated sufficiently by developing a suitable verification approach.

Documents to be provided by the operator shall include at least:

- The NIMs baseline data report (in the format applicable in the Member State where the installation is situated);
  - the methodology report;
  - the permit and the approved monitoring plan<sup>14</sup>, and other relevant permits<sup>15</sup>;
  - a description of the installation (including a simplified flow chart, where it helps to improve clarity) if this is not included in one of the documents above;
  - where the NIMs baseline data report contains only aggregated emission data, verified emission reports of the baseline years should be attached;
  - any other relevant documentation which supports the verifier in understanding the activities carried out at the installation, such as a risk analysis carried out by the operator (if available), documentation of data flow and control procedures applied, descriptions of IT systems applied etc.
- Strategic analysis: The verifier shall analyse based on the documents provided by the operator the nature and complexity of the tasks to be carried out. He shall gain an understanding of how the operator has determined the data to be verified.
  - Risk analysis: The verifier shall assess the inherent risks, control risks and detection risks expected based on the outcome of the strategic analysis.
  - Set up verification plan (and sampling plan) based upon the previous steps.
  - Perform verification procedures (process analysis) according to the verification plan developed. If misstatements are found, the verifier shall adapt the strategic and risk analysis, and the verification plan accordingly.

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<sup>14</sup> Not applicable for installation which will be included in the EU ETS only from 2013.

<sup>15</sup> In particular permits received under Directive 2008/1/EC.

In particular, the verifier shall conduct a site<sup>16</sup> visit, to inspect the operation of meters and monitoring systems, conduct interviews, and collect sufficient information and evidence. The competent authority may allow the verifier to waive the site visit, if based on the risk analysis performed the verifier deems a site visit not required. In such case the verifier shall provide a clear justification in the verification report. If a verifier has not carried out any other verification at that installation before, he shall not waive the site visit.

- The operator is required to correct all found misstatements in the NIMs baseline data report if requested by the verifier. The operator shall furthermore update the methodology report, if necessary. If data gaps cannot be closed using existing data, conservative estimations must be proposed by the operator. “Conservative” means in this context that a set of assumptions is defined in order to ensure that parameters relevant for allocation of free allowances are assigned values in a way that the resulting allocation is not higher than with application of the true value of that parameter.
- Finalisation: The verifier shall compile all relevant documents used and all findings of the previous verification steps in the internal verification documentation. He shall prepare the verification report and carry out an internal review, before making the final decision on the verification opinion to be stated. Finally he shall issue the verification report including the final verification opinion to the operator.

### 3.2 Scope of verification

#### ***“Normal” verification***

The scope of a “normal” verification of annual emission reports is defined such that the verifier shall assess whether:

1. the data submitted in the emission report are fairly stated (i.e. that the report is free from material misstatements);
2. the operator has complied with the approved monitoring plan while carrying out monitoring throughout the reporting period and when preparing the emissions report.
3. The verifier shall furthermore report on recommendations of improvements found during verification.

However, for the NIMs baseline data no monitoring plan has been approved by the competent authority. Only data which is already available from historical activities can be used. Thus, it is not possible to define requirements for optimal measurement of data, for limiting uncertainties and for carrying out appropriate control activities on the data flows.

It is one of the most important tasks of the operator to develop a methodology of compiling existing data – supplemented by necessary (conservative) assumptions and estimations – for determining the baseline data and attributing the data to sub-installations. The aim is that only “data of highest achievable accuracy” is used. Where

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<sup>16</sup> The verifier shall decide based on the risk analysis if visits of additional locations are needed, in particular if relevant parts of data handling and control activities are carried out in other locations such as company headquarters and other off-site offices.

several sources for the same data are available, the operator is required to choose the data of the highest accuracy<sup>17</sup>, and attach the data from other sources for corroboration purposes. The essence of this data compilation process has to be documented in the methodology report.

Because this methodology report is not approved by the competent authority, the verifier cannot be dispensed from making a judgement on the methodology report, in line with Article 8(1) of the CIMs, 2<sup>nd</sup> sentence: *“The verification process shall relate to the methodology report and the reported parameters [...]”*. Consequently, the scope of NIMs baseline data verification can be summarized as follows:

- The verifier shall assess *based upon the methodology report*<sup>18</sup> whether the data submitted in the NIMs baseline data report are fairly stated<sup>19</sup> (i.e. that the report is free from material misstatements); and – equally important –
- The verifier shall give an opinion about the quality of the methodology report in line with section 3.3. Most importantly, the verifier has to assess if the division of the installation into sub-installations is correct.

**Scope of NIMs baseline data verification**

If an operator chooses to determine the initial installed capacity of a sub-installation by means of an “experimental verification of capacity” (Article 7(3)(b) of the CIMs), the verifier shall supervise this exercise. However, this should be considered as a separate task and should not be included in the process of NIMs baseline data verification as outlined in this guidance. The Annex (chapter 5.3) gives further guidance on this topic.

### 3.3 Assessment of the Methodology Report’s Quality

Before verification of the data contained in the NIMs baseline data report, the verifier shall assess the quality of the methodology report. For this purpose the verifier shall answer the following questions:

- Are the chosen sub-installations and their boundaries correct?
- Is the methodology report compliant with the requirements of the CIMs<sup>20</sup>?
- Is the methodology presented transparent, allowing for complete audit trails from primary data sources to final figures in the NIMs baseline data report?
- Is the data used qualifying as “data of highest achievable accuracy”?
- Is the methodology report commensurate with the complexity of the installation?

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<sup>17</sup> “Highest achievable accuracy” means that the data has been determined with the lowest uncertainty available, with measurement systems which are regularly checked and calibrated, and where the data flow is involving the lowest inherent risk for misstatements, where no gaps and no double counting occur, etc. At the other end of the range, lowest accuracy is assumed where data is incomplete, based on measurements of unknown uncertainty, or purely estimated from loosely related parameters.

<sup>18</sup> The data verification shall conclude on the data in relation to the final version of the methodology report, in which the operator has made all corrections found necessary based on the verifier’s findings.

<sup>19</sup> CIMs Article 8(1) last sentence: *“The verification shall address the reliability, credibility and accuracy of the data provided by the operator and shall come to a verification opinion that states with reasonable assurance whether the data submitted is free from material misstatements.”*

<sup>20</sup> For interpretation of the CIMs requirements the Commission’s NIMs reporting template, methodology report template and guidance papers should be taken into account.

- Is the methodology report complete, ensuring that neither gaps nor double counting occur?
- If assumptions must be made, and where substitution data are determined: Has a scientifically sound methodology been used, in line with allocation rules and sector specific guidance (guidance document number 9)?

The operator has to update and improve the methodology report in all instances found by the verifier to be incomplete or erroneous, or contradicting rules laid down in the CIMs. The operator shall correct the associated baseline data in accordance with any improvements of the methodology report. Any information gaps must be closed in a transparent way. If thereafter errors or shortcomings remain unsolved in the opinion of the verifier, the following situations can occur:

***Possible situations  
regarding methodology  
report***

- If some elements of the methodology report are obviously not scientifically justifiable, violate CIMs requirements or do not properly comply with sector specific guidance, or if the methodology is to a large extent lacking transparency, where the insufficiencies found are so severe that the data verification cannot reasonably be performed, the verifier will issue a negative verification opinion.
- If the verifier has reasonable doubts regarding the quality of minor elements of the methodology, e.g. regarding a particular estimation methodology for a part of the substitute data for closing data gaps, these doubts must be clearly mentioned in the verification report. If those non-conformities are found non-material, the verifier will be able to carry on with his tasks of data verification. The verification can be positive, if the derived data is found to be correct based on the methodology report, and if the operator cannot provide more accurate data.
- If the verifier finds that the methodology report hints at the use of data sources which do not qualify as “data of highest achievable accuracy”, again the verifier will report this fact as comment in the verification report. Nevertheless he can continue with further verification tasks, if those non-conformities are found non-material. The verification can be positive, if the derived data is found to be correct based on the methodology report, and if the operator cannot provide more accurate data.

As the verifier will describe his findings and all found insufficiencies in the verification report, the competent authority will be enabled to assess the findings of the verifier more closely. In particular the competent authority will be able to deal with comments by the verifier in line with section 3.5 below.

### **3.4 Data assessment**

During verification the verifier may find misstatements in the data or non-conformities between data and the methodology report. In such cases the verifier will request the operator to correct the found errors, misrepresentations or omissions. Where the data required for correction is not available, substitution data (conservative estimates) must be made.

The verifier must decide if remaining misstatements or non-conformities are material (see section 3.6.2). If material misstatements or non-conformities remain unresolved at the end of verification, the verifier shall issue a negative verification statement, in-

cluding as comments in the verification report all remaining misstatements and non-conformities with a reasoning why some of them are considered material.

If only non-material misstatements or non-conformities remain, the verifier shall issue a positive verification statement with comments (also known as “qualified verification statement”), and shall list those findings in the verification reports.

Where no misstatements or non-conformities have been found, or where all misstatements and non-conformities have been fully corrected, the verifier shall use the “fully positive” verification statement.

Proposals for wording of such verification statement are found in the Annex (section 5.2).

### 3.5 Dealing with negative verification opinions

In cases of negative verification opinions resulting from insufficient methodology reports, or if there is a dispute between verifier and operator over the data compilation methodology stated in the methodology report, the competent authority may request the operator to improve the methodology report. If the updated report enables the verifier to come to a positive verification opinion, the operator may resubmit<sup>21</sup> this NIMs baseline data report and methodology to the verifier in view of getting a positive verification report<sup>22</sup>.

#### **Conflict resolution**

### 3.6 Methodological choices

#### 3.6.1 Level of assurance

According to CIMs Article 8(1), “the verification [...] shall come to a verification opinion that states with reasonable assurance whether the data submitted is free from material misstatements.”

#### **Reasonable assurance**

For feasibility reasons this statement should be read as “the verifier shall design and carry out verification activities with a view to enable a verification opinion that states with reasonable assurance whether the data is free from material misstatements based on the data sources documented in the methodology report.”

Obviously it will be difficult for the verifier to obtain assurance that all relevant existing data has been taken into account by the operator, because of the retrospective character of the historical data. There is no possibility to influence or improve the data

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<sup>21</sup> This is an option which should enable the operator to receive allocation of allowances free of charge. CIMs Article 8(4) states: “Member States shall not allocate emission allowances free of charge to an installation where data relating to this installation has not been verified as satisfactory.” Only cases of force majeure are exempt from this provision. Therefore it seems logical that the operator has to go back to the verifier in order to get a positive verification opinion. There is no provision in the CIMs allowing the competent authority to decide upon the data needed for calculating the allocation, e.g. by establishing conservative estimates.

<sup>22</sup> Any resubmission must respect the relevant deadlines laid down in the Member State’s legislation and in the EU ETS Directive.

quality by imposing requirements for future data collections. However, the methodology reporting template provided by the Commission requires the operator to give an explanation how the data has been collected, why it is considered data of highest achievable accuracy, and to provide alternative data sets for corroboration, if other data sources are available (e.g. by using correlations to other parameters where data is available).

In this context, the verifier should be enabled to follow audit trails back to the point of primary data collected, such as production protocols or fuel invoices. It is obvious that often there will be data sources involved which have not been intended to be used for this purpose, and which might not have been subject to quality assurance or control activities. Such data bears a higher verification risk. The verifier must take this into account when developing the verification plan for reaching reasonable assurance.

### 3.6.2 Materiality

#### *Verifier's professional judgement*

When deciding about a verification opinion, the verifier has to consider if found misstatements (if they cannot be corrected by the operator) are material ones<sup>23</sup>. Furthermore the verifier needs a materiality threshold as parameter for designing the sampling plan. Materiality entails two different concepts:

- For quantifiable parameters materiality can be expressed as clear threshold, e.g. as percentage of overall emissions, or as absolute number like e.g. "1000 t of product A".
- Other findings of the verifier must be assessed qualitatively, if based on the professional judgement of the verifier the found circumstances could lead to a change in the opinion of the intended user of the report (in this case the competent authority). This may apply e.g. for cases of systematic over- or underestimations of values even if individual errors are lower than the quantitative materiality threshold, or where an operator refuses correction of found misstatements.

Another example is an estimation method used for attributing heat consumption to sectors exposed to carbon leakage or other sectors. Although this estimation method finally impacts on the quantity of allowances, it may be judged on qualitative level, as a quantitative analysis would require that an alternative method is available leading to other results, which could then be applied<sup>24</sup>.

From these considerations it can be seen that materiality has to take into account both the *size* and the *nature* of errors, omissions and misstatements. For the purpose of NIMs baseline data verification, a misstatement should be considered material if it has

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<sup>23</sup> Article 3(t) of the CIMs defines: "*material misstatement*' means a substantial misstatement (omissions, misrepresentations and errors, not considering the permissible uncertainty) in the data submitted that, according to the professional judgment of the verifier, could affect subsequent use of the data by the competent authority in the calculation of the allocation of emission allowances."

<sup>24</sup> It must be noted that the calculation of final allocation levels becomes possible only after the cross-sectoral correction factor has been determined by the Commission, which can happen only as soon as all Member States have notified their national implementation measures to the Commission, i.e. significantly after the verification considered here.

an impact of 5 % or more on the preliminary annual number of emission allowances allocated to the installation free of charge pursuant to Article 10(2) and (3) of the CIMs<sup>25</sup>.

Examples for non-conformities with the CIMs which can be considered material:

- the system boundaries for sub-installations have not been delimited in accordance with the CIMs and this affects the reported baseline data;
- the product definition (reflected in reported NACE or PRODCOM code) does not correspond with the actual production process and/or the correct carbon leakage status;
- the qualification of the installation as an electricity generator is not correct.

Where data contains misstatements which do not directly affect the allocation, because the data is to be reported only for enabling the verifier and competent authority to carry out plausibility checks, such as annual emissions attributable to product benchmark sub-installations, the verifier may consider this misstatement as non-material. However, this does not dispense the operator from the requirement to correct the data. The verifier shall add such misstatements as comment to the verification report.

Finally, verifiers shall be aware of the fact that some data may have no impact on the allocation of allowances free of charge to the incumbent installation, but to potential future allocations for significant capacity changes after 30 June 2011. Therefore NIMs baseline data referring to initial installed capacity<sup>26</sup> values of sub-installations must always be considered to have an impact on allocation.

### 3.7 Verification report

The verification report should be complete to the extent that the competent authority can understand the main steps of verification carried out, and can retrieve a clear picture of the quality of the operator's methodology report and data delivered. Thus, a mere verification statement is insufficient.

***Transparency and completeness***

The verification report must cover the assessment of the methodology report and of the baseline data, the findings of the strategic analysis and risk analysis, from the process analysis and the final verification opinion. Comments should be included in particular for all findings which may influence the opinion of the competent authority, i.e. misstatements and non-conformities which the operator has not been able to correct.

The Annex contains a brief template for a verification report (section 5.1) and for the verification statement (section 5.2). Member states should consider using this template (if relevant with modifications) in order to provide for a level playing field and for ensuring a reasonable minimum amount of information to be submitted for the competent authority's use. However, where the Member State chooses to use its own template for the NIMs baseline data reports, the verification statement or the whole verification report may also be included in the same template. Member States should

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<sup>25</sup> That is the preliminary allocation before application of the carbon leakage exposure factor, linear factor or cross-sectoral uniform correction factor.

<sup>26</sup> During the NIMs baseline data collection the reporting of initial installed capacity is mandatory only for product benchmark sub-installations.

aim at reaching a similar level of transparency and completeness as with the template proposed in this document.

## 4 SPECIAL TOPICS FOR NIMS BASELINE DATA

### 4.1 Principles of the CIMs

***Important concepts and guidance documents available***

All verifiers should understand the underlying principles of the CIMs. The most important ones are listed here. More details about those concepts can be obtained from guidance papers 1, 2, 3 and 5:

- sub-installations
- product benchmarks
- fall-back allocation approaches (heat benchmark, fuel benchmark, process emissions sub-installation)
- risk of significant exposure to carbon leakage, and its impact on allocation rules;
- definition of new entrants and incumbents,
- possible choices regarding the baseline period (2005-08 or 2009-10, or approaches based on initial installed capacity)
- historical activity levels (based on median values of the baseline period, and/or based on installed, added or reduced capacity multiplied by capacity utilisation factors)
- principles of determination of initial installed capacity, definition of significant capacity changes, definition and use of capacity utilisation factors;
- definition of electricity generator<sup>27</sup>,
- definitions of measurable heat and other heat,
- definition of the process emission sub-installation, including principles related to waste gases and applicable correction of the allocation calculation
- principles of treatment of cross-boundary heat flows
- definition of private households and related allocation rules
- PRODCOM and NACE classifications, and their impact on the classification of sub-installations regarding carbon leakage exposure;
- principles of system boundaries of product benchmarks, fall-back sub-installations, and between product benchmarks and fall-back sub-installations;
- Principles of attribution of data (emissions, fuel input, heat transfers, production data, etc) to sub-installations.

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<sup>27</sup> based on Article 3(u) of the EU ETS Directive, and on the Commission's guidance paper of 18 March 2010.

## 4.2 Special competences required

If relevant for the verification of specific installation's NIMs baseline data, the verifier must ensure that competence relating to the following topics is covered by his verification team:

**Requirements for more complex cases**

- understanding of methods for determining net heat flows eligible for allocation under the fall-back sub-installations, and for proxy data for measurable heat, and calculation of emissions related to heat in CHP installations (guidance document No. 6);
- understanding of the concepts related to process emission sub-installations, waste gases and correcting for the heat content therein, flaring and safety flaring etc. (guidance document No. 8);

Sector specific knowledge not covered by guidance papers, or only partly covered by guidance document No. 9:

- understanding of the concept of exchangeability of electricity and heat;
- knowledge on special topics such as CWT factors and how to determine related activity levels, and other special benchmarks as outlined in Articles 11 and 12 and Annex III of the CIMs;
- understanding of experimental verification of capacities, including sectoral knowledge for determining typical operation modes of the relevant installation or sub-installation.

## 4.3 Product definitions and production data

A key issue of NIMs baseline data verification is the checking of production data, which forms the basis for calculating HALs needed for determining the preliminary number of allowances allocated free of charge. This covers two aspects:

- a) Qualitative checks: Has the operator chosen the correct benchmark? In other words: Do the products fall under the relevant definition of Annex I of the CIMs<sup>28</sup>?
- b) Annual quantity of products.

For answering point a), the verifier will need an understanding of the relevant product definitions from the CIMs, but also of the PRODCOM and NACE classifications applicable. In case of dispute about product classifications, the verifier should seek to get clarification from the national statistical office in the Member State of the installation. Furthermore the operator should provide evidence about data he has provided in the data collections carried out on behalf of the European sector associations, which have led to the benchmarking curves for determining the product benchmarks based on the GHG efficiency of the 10% most efficient installations in the EU.

**Product classification**

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<sup>28</sup> Definitions are further elaborated in guidance document 9.

For determining the quantitative production data (including heat sales data), the operator will usually be able to provide figures from the financial accounting data, such as delivery notes and invoices, and/or production protocols. Often the data provided will be stored in electronic database systems. The verifier should consider the following issues:

***Considering results  
from financial or other  
audits***

- For HAL data, the amount of saleable product produced is relevant. If sales data are used, they must be corrected for annual stock changes in order to determine the production data. Equally, if financial years don't coincide with the calendar year, appropriate adjustments have to be made.
- The verifier may take into account the results of external independent audits performed for the purpose of tax or customs authorities, or in context of financial regulations. However, it is within the responsibility of the verifier to assess if relying on such audit opinions can be justified with a view of the scope and required level of assurance for NIMs baseline data verification. If needed, the verifier will have to carry out additional verification procedures.

#### **4.4 Making use of template features**

The NIMs baseline data reporting template provided by the Commission<sup>29</sup> contains several useful features, which should help the operator entering data. However, the same features can support the verifier in carrying out completeness and plausibility checks.

Some possibilities can be listed here:

- The template is designed such that it is difficult to miss important data fields when starting from the beginning and going straight through the template until the end. Where inputs are irrelevant because of inputs in other fields, the irrelevant fields usually turn grey. Note that this does not prevent the operator from entering data there. Also data entered before the field turned grey is not automatically removed. Thus, the verifier should check if data is found in grey fields, which could lead to conflicts in the calculation formulae. Furthermore the verifier can easily check if data is missing by checking if all yellow fields (corresponding to "mandatory" fields<sup>30</sup>) contain data.
- The sheets "A\_InstallationData", "F\_ProductBM" and "G\_Fall-back" have "incompleteness markers". That means that if data is entered in those sheets, but some elements needed for calculation of allocations are missing, the related hyperlink in the navigation area at the top of the page is highlighted in red.
- In many cases messages such as "incomplete!" appear in fields in the direct neighbourhood<sup>31</sup> of the cell where data entries are missing. Some other error messages are listed in the template in sheet "b\_Guidelines & conditions". The messages not mentioned there should be self-explaining.

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<sup>29</sup> Member States may use their own templates, in which case this section may be disregarded.

<sup>30</sup> "Mandatory" means "mandatory, if this topic is relevant at this installation".

<sup>31</sup> The message usually appears in the cell to the right or below the cell with the error.

- If several parameters are needed for a calculation, but some are incomplete, there will be no result for a specific calculation.
- However, the previous points bear no 100% guarantee for data completeness, as the Commission's template focuses only on the most important points regarding those error messages.
- As a further support, in many instances data can be expressed either as percentage or as absolute figures. In those cases consistency checks can be carried out quite easily by seeing if totals add up to 100%.
- Similarly, the attribution of emissions, fuel inputs and heat to fall-back sub-installations contain check sums for showing if 100% attribution is achieved.

## 5 ANNEX

### 5.1 Main elements of the verification report

It is proposed that the verifier's report should contain at least the following information:

- Name and address of the verifier
- Name and address of the experts involved in the verification, and their role in the verification process
- Date and duration of verification activities<sup>32</sup>
- Name and address of the installation
- Unique ID of the installation
- Contact person responsible for the NIMs baseline data report at the installation (name and address, telephone number and email address)
- A list of the documents provided by the operator
- An outline of the main activities of the verifier, containing approach and main findings:
  - results from strategic analysis;
  - results from risk analysis;
  - the verification plan (if in form of a checklist with results, it can be used directly to provide evidence for the following points);
  - results of the assessment of the methodology report (answers to questions listed in section 3.3);
  - results from checking data flow activities and control systems;
  - results from checking the baseline data;
  - other findings found relevant during the process analysis;
- A summary highlighting the main arguments leading to the verification opinion;
- A verification statement as proposed under section 5.2
- Date and signature

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<sup>32</sup> Especially the time used for site visits should be listed.

## 5.2 Proposed verification statement

### 5.2.1 General part:

*[Operator name and address]* (hereinafter “the operator”) of installation *[installation name]* (hereinafter “the installation”) with the unique ID *[unique ID from the template]* has submitted a report about baseline data for the purpose of establishing the national implementation measures pursuant to Article 7 of the Decision pursuant to Article 10a(1) of the EU ETS Directive (this Decision is referred to as the “CIMs” hereinafter). This report (in its final version) is dated *[xx.yy.2011]* and is identified using the file name *[xxxxxx.xls]*. The report was prepared using the electronic template provided by the European Commission / the Member State. Together with the baseline data report a methodology report pursuant to Article 7(7) of the CIMs has been submitted, which (in its final version) is dated *[xx.yy.2011]* and is identified using the file name *[xxxxxxx.doc]*.

We have assessed the above identified baseline data report and methodology report in accordance with Article 8 of the CIMs, [the guidelines provided by the European Commission] [and relevant national legislation, *to be referenced here*]. The verification was carried out in order to confirm:

- that the content and quality of the methodology report is compliant with the requirements of Article 7 of the CIMs, and
- that based upon this methodology report, the data submitted in the NIMs baseline data report are free from material misstatements.

*[Here one of the texts suggested under 5.2.2 to 5.2.4 is to be inserted]*

*[If the verification opinion is positive, the main relevant data should be shown:]*

The following data are confirmed as verified:

Type of sub-installation <sup>33</sup>	HAL <sup>34</sup> [unit]	Corrections <sup>35</sup>	Remarks

If applicable, the following data relevant in relation to private households is confirmed as verified<sup>36</sup>:

<sup>33</sup> This should be named in accordance with the sub-installation names used in the Commission's reporting template.

<sup>34</sup> Historic activity level as calculated in the Commission's reporting template in section K.IV as “Total Historical activity level (HAL), composed from the median of the baseline period, and the application of Article 9(6) and 9(9), as applicable”.

<sup>35</sup> Here factors taking into account the exchangeability of electricity of heat, the correction for heat imports from non-ETS installations, and for HVC and VCM as listed in section K.IV of the Commission's reporting template should be listed.

<sup>36</sup> As displayed in section K.III.7 of the Commission's reporting template.

- Median emissions related to households: ..... t CO<sub>2</sub>/year
- Median heat delivered to households: ..... TJ/year

*[Date and Signature of an authorised representative of the verifier]*

### **5.2.2 Positive verification opinion**

Based on the process and procedures conducted, we have found that

- the baseline data report based upon the data determination methodology described in the related methodology report is materially correct, and is a fair representation of the baseline data of the installation; and
- the related methodology report describes the methodology used for determining the data contained in the baseline data report in compliance with the requirements of the CIMs, and with related guidance documents published by the European Commission.

### **5.2.3 Positive verification opinion with comments**

*As under 5.2.2, but with the following addition:*

According to our findings the baseline data report and/or methodology report contain non-conformities with the relevant legal provisions. These non-conformities identified are of a minor nature and are considered not to influence the reported data materially.

*[A list of identified issues is to be appended.]*

### **5.2.4 Negative verification opinion**

Based on the process and procedures conducted, we have found that the baseline data of the installation cannot be verified, because:

*[At least one of the following points to be chosen:]*

- insufficient information has been provided by the operator;
- the methodology report does not sufficiently describe the methodology used for determining the data contained in the baseline data report;
- the methodology report contains elements which are not in compliance with the requirements of the CIMs, and these non-compliances have been found to be material;
- the baseline data report based upon the data determination methodology described in the related methodology report is materially misstated;
- *[other reasons]*.

*[A list of identified issues is to be appended.]*

### 5.3 Experimental verification of capacity

Where the initial installed capacity of a sub-installation cannot be determined using monthly production data, according to Article 7(3) of the CIMs a so-called “experimental verification of capacity” is to be carried out. Although this is not in itself part of the NIMs baseline data verification, the CIMs require that it must be carried out “under the supervision of a verifier”. Thus, some guidance is given here.

*Additional activities for verifiers*

For determining the initial installed capacity of a sub-installation by means of “experimental verification”, a defined real-life test is performed for 48 hours under the supervision of the verifier. It is advisable to consult the competent authority regarding the parameters used for such test. The resulting activity level of 48h is then converted to an annual capacity assuming that the installation operates 720h per month and 12 months per year.

The verifier should be present during this test and ensure that agreed parameters of the production process are applied. The verifier should collect evidence enabling to confirm the quantity produced as well as that the product meets the specification of the relevant sub-installation’s boundaries.

All relevant parameters of the test like its duration, the exact product type, and the setting of relevant process variables are to be defined and agreed before the test. An independent and competent expert for the industry sector shall be consulted by the verifier<sup>37</sup> where necessary in order to ensure that the agreed parameters are typical for the sector and will lead to a representative result. Test parameters need to be documented at a level of detail sufficient to allow the installation’s personnel to run the test without further instructions for at least 48 hours. The agreed test parameters have to be documented in the methodology report.

Examples for relevant parameters to be defined:

*Setting representative experiment conditions*

1. A paper machine can usually produce various paper grades (differences in area weight, colour, coating,...). Each grade can be produced by different process parameters, like e.g. different combinations of processing speed and drying temperature. However, an installation usually develops an optimal or preferred “recipe” for each grade based on experience. Where this experience is not available yet, the manufacturer of the machine can make proposals.

2. For the production of mixed granulated fertilizers, various mixtures of different raw materials can lead to the same nutrient content (i.e. the same saleable product). Some components lead to better (i.e. faster) growth of the granules and a lower internal recycling rate than others. Thus, the amount to be treated in the dryer (which is a potential bottleneck) and the energy consumption will be lower, and the possible production rate will be higher than with other mixing ratios.

In both examples, different product grades will lead to different production capacity results, and also process parameters applied to one product grade have an influence. Thus, minimum definition requirements for capacity tests would be the choice of the product itself, which should be the most typical grade (i.e. the most frequently produced grade), and a complete (i.e. sufficient for personnel’s understanding) set of production parameters usually applied for that grade, which often refers to the most eco-

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<sup>37</sup> This is in line with the general requirement that the verifier must ensure that he disposes of all necessary competences for a specific assignment.

nomie “recipe” which does not lead to practical problems when running the installation. Such “recipe” takes into account environmental permit aspects as well as safety instructions and the personnel’s experience how to avoid production failures.

#### **5.4 List of available guidance papers**

The Commission has provided with the help of its consultants the following guidance documents<sup>38</sup>:

1. General guidance: this guidance gives a general overview of the allocation process and explains the basics of the allocation methodology.
2. Guidance on allocation methodologies: this guidance explains how the allocation methodology works and its main features.
3. Data collection guidance: this guidance explains which data are needed from operators to be submitted to the Competent Authorities and how to collect them. It reflects the structure of the data collection template provided by the EC.
4. [This document] Guidance on NIMs baseline data verification: this guidance explains the verification process concerning the data collection for the National Implementation Measures.
5. Guidance on carbon leakage: it presents the carbon leakage issue and how it affects the free allocation calculation.
6. Guidance on cross boundary heat flows: it explains how the allocation methodologies work in case of heat transfer across the 'boundaries' of an installation.
7. [Planned] Guidance on new entrants and closures: this guidance is meant to explain allocation rules concerning new entrants as well as the treatment of closures.
8. Guidance on waste gas and process emission sub-installation: this document provides for explanation of the allocation methodology concerning process emission sub-installation, in particular, concerning the waste gas treatment.
9. Sector specific guidance: this guidance provides for detailed description of the product benchmarks as well as the system boundaries of each of the product benchmarks listed within the CIMs.

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<sup>38</sup> Taken from guidance paper No. 1