1. Application

Accreditation Regulation for use of DS/EN 45011 as requirement specification for organisations that are accredited or apply for accreditation to verification of greenhouse gas emissions in accordance with:

- Current legislation applying at any time on CO_2 allowances, at present, Consolidated Act on CO_2 Allowance No. 348 of 9 May 2008 with amendments, cf. Act No. 1267 of 16 December 2009.
- Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 with amendments, cf. Directive 2008/101/EC of 19 November 2008.
- 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 (the MRG Decision) with amendments, cf. Commission Decision 2009/339/EC of 16 April 2009 concerning amendment of Decision 2007/589/EC with regard to additional guidelines for the monitoring and reporting of emissions and ton/kilometre data from aircraft activities.

2. Validity

The Accreditation Regulation determines the interpretation of the relevant sections in the Accreditation Standard used for accreditation for CO_2 verification.

As DS/EN 45011 is not aimed at verification of emissions reports or tonne-kilometre reports, Annex 4 to this Accreditation Regulation defines how the text in this Accreditation Standard shall be used in connection with CO_2 verification.

The Accreditation Regulation is based on IAF's (International Accreditation Forum) guidance GD 5, which is a general interpretation of DS/EN 45011, and EA's (European cooperation for Accreditation) Mandatory Document EA-6/03 For Recognition of Verifiers under EU ETS Directive.

3 Introduction

Headings and subheadings from DS/EN 45011 – possibly with modification (cf. Annex 4) are printed in bold. Accreditation Regulations are, with a view to references, identified by the letter "G" followed by the main section number from DS/EN 45011 and a number for the interpretation section in question.

The term "shall" is used in this Regulation to indicate those provisions which, reflecting the requirements in DS/EN 45011 and Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 with subsequent amendments, are mandatory. The term "should" is used to indicate the provisions that are expected to be complied with by the verification company. Deviation from these regulations will be permitted only after DANAK has accepted that the verification company conforms with the requirement in the relevant section in DS/EN 45011 and the intention of the guideline correspondingly.

Where under individual sections *"No special accreditation regulations"* is indicated, this means that only the requirements in DS/EN 45011 shall apply.

Annexes 2, 3 and 5 are extracts direct from EA-6/03 rev. 03, and appear in the original language.

4 Accreditation regulations applying to sections in DS/EN 45011:1998.

3 – Definitions

Non-conformity: Lack of implementation or non-conformity with one or more requirements in the CO_2 emission permit, monitoring plan or other relevant requirements in the MRG Decision. Non-conformity may occur by:

- Inconsistency between the emission permit, the approved monitoring plan and the actual situation in the organisation.
- Non-conformity with the guidelines in the approved monitoring plan.
- Lack of documentation of reported data and information.

Non-conformities shall appear from the verification team's report to the organisation.

Calculation factors: Emission and oxidation factors and net calorific values.

EU ETS Directive: Directive 2003/87/EC of the European Parliament and of the Council (EU ETS Directive), with subsequent amendments.

Allowance Act: The current Act on CO_2 Allowance, at present Consolidated Act on CO_2 Allowance No. 348 of 9 May 2008 with amendments, cf. Act No. 1267 of 16 December 2009.

Site: With regard to aircraft operators this is the location where the monitoring process is determined and controlled, and where relevant data and information are kept and stored. Identification of location(s) shall be included in the strategic analysis.

MRG-Decision : Commission Decision 2007/589/EC of 18 July 2007 on guidelines for the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council with amendments, cf. Commission Decision 2009/339/EC of 16 April 2009 concerning amendment of Decision 2007/589/EC with regard to addition of guidelines for the monitoring and reporting of emissions and tonne-kilometre data from aircraft activities.
In Annexes 2, 3 and 5 ”MRG” is used as an abbreviation for Guidelines for the Monitoring and Reporting of Green House Gas Emissions, cf. decisions by the Commission mentioned above.

Installation: A technical unit consisting of one or more units situated at the same site from where the activities comprised by the Act on CO_2 Allowance are carried out.

Verification rapport: In this Accreditation Regulation the term "verification report" is used for the report drawn up in accordance with Annexes 6, 8 and 10.

Organisation: In this Guideline the term "organisation" is used synonymously with

operator (the Act on CO_2 Allowance) and translation of "operator" in the Commission Decision (MRG Decision). An organisation may comprise several installations.

Groups of organisations: The installations of Danish organisations that are comprised by the EU ETS Directive, have by the competent authority, the Danish Energy Agency (Energistyrelsen), been divided into three defined groups plus "others". For groups 1, 2 and 3 standards have been drawn up for monitoring plans and reporting. The verification procedures are different for the different groups. For the definitions of these groups, see the Danish Energy Agency's Guidance on the CO_2 allowance scheme which can be found on the Energy Agency's website, www.ens.dk

4 – Verification company

4.1. – General provisions

G4.1 Verification companies shall not exercise any form of discrimination, including concealed discrimination in the form of expediting or impeding applications.

4.2. – Organisation

G4.2 Accreditation should be granted only to a body which is a legal entity, as mentioned in Art. 4.2 d) in DS/EN 45011, and the accreditation will be limited to predetermined scopes, activities and localities. If the verification activities are carried out by a legal entity that is part of a larger organisation, the connections to other parts of the larger organisation must be clearly defined. Moreover, there must not be any conflict of interest as defined in G4.11 and G4.13. The verification company shall provide DANAK with relevant information about activities carried out by other parts of any larger organisation that the verification company is part of.

G4.3 If an applicant verification company is a department within a larger legal entity, the accreditation shall be granted only in the name of the larger legal entity. In such a situation DANAK may subject the relevant functions of the legal entity to an audit in order to follow certain audit observations and/or review records with relation to the verification company. The part of the legal entity that constitutes the actual verification

company may operate under a specific name which shall appear from the accreditation certificate.

G4.4 The verification company's impartiality and independence should be secured at three levels:

a) strategy and policy;

b) decisions on verification;

c) verification.

G4.5 Art. 4.2 e) in DS/EN 45011 requires that the verification company's documented organisational structure ensures that all parties with a significant interest in the verification scheme shall have the possibility of influence. This should normally be exercised through a committee. The established structure should be specified in the verification company's written articles of association, and it should not be changed without notification to the accreditation body

(DANAK).

G4.6 Use of Art. 4.2 e) in DS/EN 45011 requires a decision as to whether all parties with a significant interest in the system are able to participate. The most essential thing is that it should be possible for all identifiable major stakeholders to participate, and that a balance of interests is achieved where no single interest predominates.

G4.7 A verification committee, or similar, cf. Art. 4.32 e), should be informed about the background for all important decisions and actions as well as the selection of the persons responsible for specific activities in relation to verification. In the event of the management's failure to respect advice from this committee or similar, the committee (or similar) shall take appropriate steps, which include notifying the accreditation body.

G4.8 The verification company shall under no circumstances offer services such as those described in 4.2 o) in DS/EN 45011. Activities of related bodies must not affect the confidentiality, objectivity and impartiality of the verification company.

G4.8.1 The verification company or another part of the same legal entity shall not offer or supply the following services:

a) consultancy services with a view to developing methods for monitoring conformity with the MRG Decision or the drawing up of emissions reports or tonne-kilometre reports,

b) technical assistance for development or maintenance of systems for monitoring the emission of CO_2,

c) other consultancy services or technical assistance where financial dependency could compromise the independence of the verification company's activities.

G4.9 Advice from a related body and verification should never be marketed together, and information should not be included in marketing material or in connection with presentations, written or verbal, which could leave the impression that the two activities are related, cf. Art. 4.2 o).

G4.10 A verification company should not in writing or orally leave the impression that verification would be simpler, easier or less costly if certain consultancy or educational services were applied, cf. Art. 4.2 o).

G4.11 A related body as mentioned in Art. 4.2 o) in DS/EN 45011, is a body related to the verification company through joint ownership or board of directors, contractual relationship, common name, informal understanding or in any other manner, so that the related body has a direct interest in the outcome of an assessment or has a potential possibility for affecting the outcome of an assessment.

G4.12 The verification company should analyse and document the connection with such related bodies to decide whether there could be a conflict of interest in connection with the verification service. Related bodies and their activities must not be able to affect the confidentiality, objectivity or impartiality of the verification.

G4.13 Verification companies shall demonstrate how they operate their verification activities and possibly other activities with a view to eliminating actual interest conflicts and minimising any visible risk of their impartiality being compromised. This shall comprise all potential

possibilities of an interest conflict regardless of whether they occur internally in the verification company or from the activities of related bodies.

This may, to the extent possible and legitimate, result in follow-up on observations for reviewing the documents of both the verification company and its related bodies concerning the activity in question.

G4.14 Persons who have provided consultancy services cannot be used to perform verification if they have within the last two years been involved in consultancy activities for the organisation concerned or a company connected with the organisation. Situations such as an employer's present or previous engagement in the organisation that is being assessed, may involve an interest conflict for the persons who are engaged in the verification process. The verification company is responsible for identifying and evaluating such situations and for delegating responsibility and duties in such a manner that impartiality is secured.

G4.15 The verification company is responsible for ensuring that neither related bodies nor sub-suppliers or external experts/verifiers are in breach of the declarations they have made. The verification company is also responsible for the implementation of appropriate corrective action in cases where such a breach has been ascertained.

G4.16 The verification company is permitted to explain observations and non-conformities with the requirements, but solutions must not be recommended or consultancy offered as part of the verification.

G4.17 The policies and procedures mentioned in Art 4.2 p) in DS/EN 45011, should ensure that all disputes and complaints are resolved in a constructive and appropriate manner. Where the application of such procedures has not resulted in an acceptable resolution of the case, or where the suggested procedure is not acceptable for the complainant or other involved parties, the verification company's procedures may be subject to an appeal process. This appeal procedure should comprise rules for the following:

a) that the appellant be given opportunity for a formal presentation of its case;

b) that appropriate measures be taken to ensure impartiality of the appeal process;

c) that the appellant is given access to a copy of the reply to the appeal with the premises for the decision.

The verification company shall ensure that all interested parties in the case concerned are notified that an appeal case has been brought, and what the procedure is.

4.3. – Organisation

No special guidelines.

4.4. – Sub-suppliers

G4.18 Verification activities carried out by sub-suppliers shall give the same confidence in the result as if they had been carried out by the verification company itself.

4.5. – Quality system

G4.19 Section 4.5.3 i) in DS/EN 45011 requires that the verification company monitors the performance of its personnel. The verification company shall ensure that all personnel involved in the verification activities are regularly monitored in order to confirm their continued competence. The procedures and criteria for monitoring shall be based on the type of task performed by the individual member of the personnel, and the risk that the result of the verification activities will affect the decision on the issuing of a verification declaration. Procedures for monitoring shall comprise observation of the performance of the individual lead verifier and expert "in the field", and the results from the independent review of each single verification.

4.6. – Conditions and procedures for granting, maintaining, extending, suspending and withdrawal certification

No special guidelines.

4.7. – Internal audits and management reviews

G4.20 Section 4.7 in DS/EN 45011 does not specify the frequency for the conducting of periodic internal audits or management reviews. Internal audits and management reviews of the quality system should be conducted as needed, however at least once every year.

G4.21 Recordings from internal audits and management reviews shall be submitted to the accreditation body on request.

4.8. – Documentation

No special guidelines.

4.9. – Recordings

G4.22 Recordings shall be kept for a minimum of 10 years after conclusion of the annual verification.

G4.23 For each individual task, the recordings shall demonstrate that an analysis has been made concerning the necessary requirements for competence to perform the task, and that a competent verification team has been set up on the basis of this analysis.

G4.24 Recordings concerning the personnel shall be established and maintained to verify that the personnel have been evaluated as competent prior to performing verification tasks. These recordings shall demonstrate competence in relation to the different verification activities, including the categories of activities, cf. Annex 1 to the EU ETS Directive, that the individual member of the personnel is competent to perform.

4.10. – Confidentiality

No special guidelines.

5 – Verification company's personnel

5 – Personnel

G5.1 The verifier shall establish and implement procedures comprising qualification criteria for the responsible lead verifier, experts (technical know how and experience in the specific field) and of the person(s) who make(s) the decision on the issue of a verification declaration. It should be noted that there are other functions/tasks that require different levels and forms of competence. It is the verification company's obligation to define the requirements for these other functions.

The procedures shall comprise identification of the need for education and training in order to maintain the necessary competences.

The procedures shall comprise a description of how it will be assessed whether the competence is available; including the monitoring of personnel involved in the verification activities.

Recordings of educational, training and monitoring activities shall be maintained. The expert and lead verifier may be the same person if all the competence requirements have been complied with. It is also possible that the competence requirements of expert/technical experience have been met jointly by several persons.

G5.2 **Lead verifier –** the lead (responsible) verifier shall comply with the following requirements:

A) EU/ETS Directive and the MRGDecision:
Familarity with the provisions in
a) EU ETS Directive 2003/87/EC;
b) EU Directive 2008/101/EC;
c) Commission Decision 2007/589/EC (MRG II);
d) Commission Decision 2009/339/EC (aviation)
and the Danish provisions and guidelines in this field, including the Allowance Act.

B) Verification methodologies – Training and experience in verification:

a) completed verification/auditor course;

b) worked as CO_2 verifier under supervision at not less than four CO_2 verifications (including preparation and subsequent processing);

c) participation furthermore in not less than three, CO_2 verifications, of which at least one should be in the function as lead verifier under the supervision of a qualified lead verifier.

The field of function for a qualified verifier shall be coordinated with the activities during the training period (size and complexity of installations and aircraft operators, cooperation with technical experts, etc.).

C) Assessment of data and information:

a) Broad knowledge of data monitoring and reporting principles, uncertainty assessment, materiality concept (cf. Annex 1), data calculation principles, assessment of electronic data processing systems, quality assurance in connection with data processing and possible sources of error.

b) Understanding the extent of measuring processes and calibration.

c) Ability to draw up verification plan, uncover errors in reported data and decide whether they are material.

d) Ability to identify the effectiveness of control systems as input for strategic analysis and risk analysis.

D) Emission aspects – in general: Basic knowledge about technical, environmental and energy aspects in connection with emissions.

E) Aviation – in general:
For aircraft activities, including tonne-kilometre data, knowledge and understanding of:

a) aircraft data from Eurocontrol and other data sources;

b) included and excluded aircraft operations, cf. Annex 1 to EU Directive 2003/87/EC;

c) fuel systems and calculation of consumption;

d) maintenance of measurement systems;

e) use of approved tools to calculate the consumption of fuel for aircraft operators with small emission volumes;

f) calculation of tonne-kilometre data.

G5.3 **Expert** (expertise in energy and specialist fields)

A) Relevant legislation, requirements, etc.:
Knowledge and understanding of the provisions of
a) EU ETS Directive 2003/87/EC;
b) EU Directive 2008/101/EC;
c) Commission Decision 2007/589/EC (MRG II);
d) Commission Decision 2009/339/EC (aviation)
and the Danish decisions and guidelines in the field, including the Allowance Act.

Furthermore the expert shall have a solid knowledge of administrative requirements and any legislation that regulates processes and activities that are important for energy issues or energy consumption in the specific field.

B) Energy aspects – in general: The expert shall have a technical education as an engineer, or similar, in the field of energy technology and shall within the last 5 years have worked intensively with the use of energy. The general knowledge of energy and environmental aspects may have been achieved by the expert working as an energy consultant, advisor, or working with research and fact finding work or concrete work with energy aspects in industrial enterprises.

The relevant environmental, process and energy-technical insight may have been obtained through a variety of research projects and/or consultancy assignments in various enterprises or public institutions.

C) Energy aspects/emissions: Within the specific technical sector, process or activity the expert shall have:

a) thorough and updated knowledge of the relevant energy conversion equipment, measurement equipment and activities, including the risk of accidents and unintended

emission;

b) knowledge about the process with special focus on energy conversion and CO_2 calculation;

c) knowledge about the generation of all information concerning individual emission sources (activities) in the installation, especially with regard to collection, measurement (including calibration), calculation and reporting of data;

d) knowledge of raw materials, intermediary products and production output, where relevant for CO_2 emissions;

e) knowledge about mapping and analysis tools in relation to emissions.

D) Aviation: With regard to aircraft activities, including tonne-kilometre data, the expert should moreover have knowledge of and understand:

a) aircraft data from Eurocontrol and other data sources;

b) included and excluded flights, cf. Annex 1 to EU Directive 2003/87/EC;

c) fuel systems and calculation of consumption;

d) maintenance of measurement systems;

e) use of approved tools for calculating fuel consumption for aircraft operators with small emission volumes;

f) calculation methods for tonne-kilometre data, including methods and sources for calculating "great circle distance".

G5.4 **Decision-maker:** The person or group of persons who – on the basis of the lead verifier's reports and other material makes decisions about the issue of a positive/negative verification declaration:

Sufficient knowledge about:

- the verification basis (EU ETS Directive 2003/87/EC, Directive 2008/101/EC relating guidelines and the Danish provisions and guidelines in this field);
- procedures for verification;
- technical insight (if the decision-maker does not have sufficient technical insight himself, it shall be possible to allocate the necessary expertise from experts to the decision process).

Competence at a level corresponding to that of a lead verifier, cf. G5.2, will normally be considered sufficient to be responsible for decisions on the issuing of positive and negative verification declarations.

6 – Changes in the verification requirements (certification requirements)
No special guidelines.

7 – Appeals , complaints and disputes

G7.1 Personnel, including persons in the verification company's management, should not deal with appeals , complaints or disputes if within the latest two years, cf. 4.2 o) in DS/EN 45011, they have been involved in activities with the involved organisation, installation or aircraft operator, or are in other ways connected with it, cf. G4.11.

G7.2 Appeals, complaints and disputes are sources of possible non-conformities. When a complaint is received, the verification company shall to the relevant extent carry out remedial actions within the verification company's own management system in order to avoid repetitions.

G7.3 The verification company's procedures for handling complaints should comprise measures to:

- limit the consequences of any non-conformity;
- restore conformity with the verification requirements as soon as practically possible;
- prevent repetition of the non-conformity;
- assess the effectiveness of the chosen remedial and preventive measures.

G7.4 Complaints about the verifier shall be dealt with by the verification company's complaints/appeal system, and the relevant documentation shall be kept in the verification company, cf. Section 7 in DS/EN 45011.

8 – Application for verification (certification)

G8.1 With reference to Section 8.2.2 in DS/EN 45011 the verification company shall ensure that the organisation or the aircraft operator has provided sufficient information about the extent and scope of the verification, including as a minimum the following:

- descriptions of the organisation and delimitations, including for aircraft operators included flights, cf. Annex 1 to Directive 2003/87/EC;
- CO_2 emission permit, where relevant, and approved monitoring plan;
- activities, emission sources and types;
- aircraft types in the aircraft operator's fleet;
- description of processes and technologies used;
- site(s) where information and data relating to emissions and tonne-kilometres are kept.

G8.2 Prior to making a quotation, this should be reviewed and approved by qualified personnel.

G8.3 The verification company's contract with the organisation shall include requirements to the effect that the installation:

- shall make the necessary arrangements for implementation of verification on site, including providing access to relevant documentation, areas, recordings and personnel relating to performance of the verification;
- does not use the verification report and verification declaration of parts of these in a misleading manner, and
- on completion of the verification gives written confirmation to the effect that all required data and information have been provided.

Moreover, the contract shall contain reservations that make it possible to spend more time, if the performance of strategic analysis or risk analysis makes it necessary, and if non-conformities, insufficient data or errors in the data basis are disclosed.

G8.4 The verification company shall carry out and document that contracts have been reviewed for

each application for verification. The review of contracts shall, inter al., comprise:

a) Definition of purpose and scope of verification, including whether the verification company is accredited for the field;

b) Assessment of the various risks connected with the verification assignment (see Annex 1);

c) Documentation to the effect that the procedure of the verification company ensures that the verification assignment can be carried out with due consideration for the risks identified;

d) Competence analysis with a view to the appointment of verification team;

e) Review and approval by an appointed and qualified person in the verification company before the organisation is informed that verification assignment is accepted;

f) Determination of time allocation, cf. G8.5 and documentation of the basis for the allocation.

G8.5 The verification company shall take the following factors into account in determining time allocation:

a) complexity of the installation and the aircraft operator's activities and fleet of aircraft;

b) complexity of the monitoring plan, including monitoring methodologies;

c) relevant materiality level;

d) internal control system of the installation or aircraft operator;

e) site at which information and data in relation to emission and tonne-kilometre data are kept;

f) complexity of data processing.

(Examples of other factors to be considered in determining time allocation see Annex 3).

G8.6 The verification company shall maintain records concerning implementation of Section G8.1 to G8.5.

9 – Preparation for verification (evaluation)

G9.1 The verification can be implemented at different levels all according to the installation's or aircraft operator's type, activities and volume of emissions, and according to whether the installation or aircraft operator has a management system in which the CO_2 calculation principles are incorporated.

G9.2 The verification methodology shall be planned on the basis of the installation's or aircraft operator's type, activities and monitoring plan, including a calculation system that has been evaluated and approved by the Danish Energy Agency. See moreover Annex 2 on factors to be considered when drawing up the verification plan.

G9.3 When applying for verification of a installation or aircraft operator that have previously been verified by another verifier, the verifier shall carry out the verification as a first-time verification , cf. G10.10 as well as verification of the emissions report or tonne-kilometre report, cf. G10.11.

10 – Verification (evaluation)

G10.1 Annual verification of the calculations of CO_2 emissions shall be carried out pursuant to the Act on CO_2 Allowance. Emissions report for the installation or aircraft operator shall be verified before the end of March for emissions data from the previous year.

The aircraft operator's calculation of tonne-kilometre data shall be verified before the end of March in the year following the year of monitoring (ref. Directive 2008/101/EC, Article 3e, 1, and 3f, 2).

G10.2 The principles for implementation of the verification assessment appear from Annex 1 to this guideline. The required elements of the procedures for verification appear from Annex V in the EU ETS Directive and the Allowance Act.

G10.3 The verification is based on a strategic analysis of the activities of the installation or aircraft operator and their importance for emissions. In the strategic analysis the verification company should involve the competent authority's (the Danish Energy Agency) grouping of the installations.

G10.4 The strategic analysis shall, i.a. include a review of documents and any necessary examinations/interviews/visits concerning the organisation in order to disclose the scope and complexity of the verification activities and of the verification assignment.

G10.5 The strategic analysis shall – regardless of procedure – ensure the requisite knowledge of and include the following elements:

a) current emission permit (if relevant), approval by the Danish Energy Agency of the current monitoring plan and allocation of allowance;

b) products and production, aircraft operator's fleet of aircraft and included flights;

c) any changes at the installation or aircraft operator during the year (organisation structure, product composition and changes, changes in production or process conditions, aircrafts and included flights);

d) the installation's or aircraft operator's control system for identification and control of risks in the data processing that may mean incorrect figures stated in the emissions report or tonne-kilometre report;

e) for aircraft operators – accessibility and complexity of additional procedures required in MRG, Annex XIV, Section 6 and Annex XV, Section 3;

f) any energy, environmental or other management system that the installation or the aircraft operator uses in connection with the handling and processing of emission data or tonne-kilometre data;

g) any energy, environmental or other management system that the installation or the aircraft operator uses in connection with the handling and processing of emission data or tonne-kilometre data;

h) availability of information in data bases, including data bases from Eurocontrol, other similar organisations and the aircraft operator’s own data bases, and the need for further visits in connection with verification of the generation and processing of data;

i) type, scope and complexity of equipment and processes used for generating emissions or

tonne-kilometre data, including calculation methods;

j) any use of simplified procedures for aircraft operators with small volumes of emissions;

k) installation's or aircraft operator's defined materiality level.

G10.5.1 The result of the strategic analysis shall be documented and recorded together with other relevant information obtained through the strategic analysis in the verification company's internal case documentation.

G10.6 On the basis of the result of the strategic analysis the verification company shall carry out a risk analysis (identification and evaluation of uncertainty/errors in the installation's or aircraft operator's basis for emissions and their importance for the result in the installation's or aircraft operator's emissions report or tonne-kilometre report), which as a minimum shall comprise:

a) total emission in relation to individual emission sources and source streams;

b) complexity of the installation's processes or aircraft operator's activities;

c) approved monitoring plan;

d) adequacy of the management system, system for data processing and control system;

e) for aircraft operators, adequacy of additional procedures MRG, Annex XIV, Section 6 and Annex XI, Section 8;

f) relevant information from previous verifications at the installation or aircraft operator's premises.

If visits are not conducted at the installation, cf. G10.18, the risk analysis shall include the risks connected herewith

On the basis of the risk analysis, a verification plan for implementation of the actual verification shall be drawn up.

G10.6.1 The result of the risk analysis shall together with other relevant information collected in connection with the risk analysis be documented and recorded in the internal case documentation at the verification company.

G10.7 The verification plan shall incorporate the strategic analysis and the risk analysis for planning and sampling as well as their scope. The verification plan shall comprise:

a) visits to the installation or aircraft operator's premises and assessment of emission sources;

b) interviews with relevant functions;

c) review of documents and data;

d) plan for sampling emission data or tonne-kilometre data, including giving priority to fields and data, identified by the strategic analysis, and significant factors for compliance with the monitoring plan;

e) assessment as to whether the delimitation and completeness of comprehensive activities at the installation or aircraft operator's premises are in accordance with the approved monitoring plan.

The verification plan shall clearly state the activities to be carried out at the visit to the installation or aircraft operator's premises.

For other relevant matters that should be included in the planning, see Annex 2.

G10.8 The verification shall be carried out at the installation or aircraft operator's premises unless another procedure can be justified in individual cases (cf. the Emission Directive, Annex V, point 7), cf. G10.18. The verifier shall take samples to verify the reliability of the reported data and information.

Visits to aircraft operators shall be conducted in accordance with definition of "Site" in Section 4 – 3 Definitions.

G10.9 The verification can be divided into 3 categories:

1. First-time verification, cf. G10.10. Verification as to whether the emission permit (if relevant) and the approved monitoring plan correspond to the actual conditions at the installation or aircraft operator.
2. Verification of the CO_2 emissions report or tonne-kilometre report, cf. G10.11. Verification of the installation's or aircraft operator's CO_2 calculation or tonne-kilometre calculation (emissions report or tonne-kilometre report) for conformity with the approved monitoring plan.
3. Annual verification, cf. G10.12. Verification that the current monitoring of CO_2 emission in the installation or at the aircraft operator is carried out in accordance with the approved monitoring plan, and that the monitoring plan and current emission permit, if relevant, correspond to the actual conditions at the installation or at the aircraft operator's premises and the annual emissions report or tonne-kilometre report.

G10.10 At the **first-time verification** (at all installations and aircraft operators) the verifier shall assess whether the emission permit (if relevant) and approved monitoring plan issued by the competent authority (Danish Energy Agency) correspond to the actual conditions in the installation or at the aircraft operator. The assessment shall i.a. include an assessment of:

a) whether the delimitation in the emission permit (if relevant), and the monitoring plan related to the section of the installation or aircraft operator that is comprised by the Allowance Act , correspond to the actual conditions;

b) whether the conditions in the emission permit (if relevant) and the conditions in the monitoring plan are complied with;

c) whether activities that have considerable technical connection with the activities mentioned in §§ 5-8 of the Allowance Act, and which may have influence on the emission of CO_2, are included in the monitoring plan for that specific activity;

d) whether activities that are important for the activities mentioned in § 8a of the Allowance Act, and which may have an influence on the emission of CO_2 and the calculation of tonne-kilometre data, have been included in the monitoring plan;

e) whether the monitoring plan approved by the Danish Energy Agency is adequate for the conditions at the installation or the aircraft operator's premises, including i.a.:

- whether all fuel-consuming units have been included in the monitoring plan, e.g. also emergency units where the total rated thermal input exceeds 20 MW, and installations that do not utilise the energy content (flaring);
- whether emissions from all fuels are included in the monitoring plan, including e.g. also fuels for rarely used emergency units; whether aircraft data, emission data and tonne-

kilometre data are complete compared with data about air traffic, such as for example data collected by Eurocontrol;

f) whether there is consistency between reported data and mass and balance documents;

g) general coherence between data on total fuel consumption and data on fuel purchased or otherwise delivered to the aircraft included;

h) whether the applied measurement-based methodologies and meters, including the placing of energy and fuel meters, will contribute to giving an accurate picture of the installation's or aircraft operator's CO_2 emission with the required accuracy;

i) whether the net calorific values, emission factors, etc. are determined as stated in the monitoring plan, including whether the determination has been made by accredited laboratories to the extent required by the monitoring plan, and

j) whether the quality assurance stated in the monitoring plan, including procedures for calibration of meters, and handling of documents in connection with measurement and recording of CO_2 emission or tonne-kilometre data, are implemented in the installation or at the aircraft operator;

k) whether supplementary procedures MRG, Annex XIV, Section 6 and Annex XI, Section 8, have been implemented at the aircraft operator.

G10.11 **Verification of CO_2 emissions report or tonne-kilometre report** in the period 1 January to 31 March shall comprise the organisation's emissions report or tonne-kilometre report for the installation or aircraft operator and the monitoring carried out in the year subject to verification. The verification is as a rule performed at the address of the installation or aircraft operator, cf. however, G10.18. At the verification, the reliability, credibility and accuracy of the monitoring systems and reported data shall be assessed as well as information concerning emissions or tonne-kilometres, including especially:

a) the reported activity data and related measurements and calculations, including possible data that have been adjusted as a result of the verification and basis for the adjustment;

b) selection and use of calculation factors and tier-levels;

c) calculations to determine total emissions and tonne-kilometre data;

d) the most appropriate choice and use of measurement methods if measurements are used.

G10.12 **Annual verification**

The annual verification shall be carried out every year in the period 1 January to 31 March. At the annual verification the verifier shall assess whether the actual conditions and working routines are in accordance with the current emission permit (if relevant), and the current monitoring plan from the Danish Energy Agency and emissions report.

The verifier may choose to perform a divided verification, so that the first part of the verification (the system part) is performed earlier, however, not earlier that the fourth quarter of the previous year.

a) Prior to the annual verification an assessment shall be made of:

- overview of organisation (for example spreadsheet or similar) with data for the year covered by the verification;
- current emission permit (if relevant), and any previous version(s);

- current monitoring plan and any previous version(s), including the Energy Agency's approval of the monitoring plan;
- emissions report for the preceding year, including data basis;
- any draft versions of emissions report for the year covered by the verification;
- information about any changes in activities at the installation or at the aircraft operator's premises;
- remarks and reservations in the verification report and declaration from the previous year;

and a review and if necessary a revision of:

- the strategic analyses;
- the initial risk analyses.

b) On the basis of the result of the above, the verifier shall prepare a verification plan, cf. G.10.7.

c) The annual verification shall as a rule be carried out at the address of the installation, see however G10.18, or at the address of the aircraft operator, cf., however, definition of site in sections 4-3 Definitions, and shall include an assessment of:

- consistency between the actual situation and current emission permit, current monitoring plan, communication with the Danish Energy Agency, reporting/return of allowances;
- handling of changes at the installation or aircraft operator;
- whether all emission sources at the installation or aircraft operator have been included;
- data in relation to data from the previous year, including date of calculation at the turn of the year;
- any changes in responsibility and personnel in the chain from the acquisition of data to reporting;
- any changes in calculation methods and any software used in connection herewith;
- implementation of quality assurance procedures as laid down in the current monitoring plan, including i.a.:
  - measurement equipment, calibration routines and the handling of non-conformities, if any;
  - internal evaluation and audit;
  - internal review of reported data;
  - remedial and preventive actions;
  - procedures for the data acquisition and handling;

and

- follow-up on remarks and reservations in the verification report from the previous verification;
- data sampling for verification of reliability;

- review of emissions report for verification of data and information based on audited data and information;
- review of strategic analysis, risk analysis, verification plan and objective evidence for the evaluation of, whether there is a need for changes and/or additional verification activities.

Drawing up report on the visit and verification report, cf. G11.1 to G11.7.

Decision on issue of verification declaration, cf. G12.1 and G12.2.

G10.13 During the whole of the verification process the verifier shall identify and report any non-conformities or misrepresentations by assessing whether:

- the procedures for quality assurance and control, as described in the MRG Decision, Annex 1, Sections 10.1, 10.2, and 10.3, and as stated in the approved monitoring plan for the installation or the aircraft operator, are implemented;
- there is clear and objective evidence obtained through the collection of data that supports any non-conformities.

G10.14 With regard to installations the verification process and scope shall be adjusted to the competent authority's (Danish Energy Agency) division of installations into groups, cf. the description of groups of organisations (Section 3 in this guideline under definitions).

G10.15 Groups 1, 2 and 3: Verification of the **annual emissions report** every year after 1 January may for these installations be a verification of the documentation for the use of fuel. For group 3, moreover, verification of the documentation for the process emission calculation. This shall – apart from verification of the implementation of the system for handling documents and quality assurance – consist in a review of the documentation:

- that measurement and recording of fuel consumption, and for group 3 also that the carbonate content in the raw materials and for waste gas scrubbing, are carried out in conformity with the approved monitoring plan, including that the fuels used appear from the monitoring plan;
- that calculation of the consumption of the individual fuels, and for group 3 also the carbonate content in the raw materials and for waste gas scrubbing, are carried out as stated in the monitoring plan, including that sufficient documentation for this (invoice, etc.) is available;
- that calculation/computation of CO_2 emissions, including process emissions for group 3, has been carried out as stated, and that the calculation for it complies with the requirements of precision and credibility, including use of the correct factors for calculating emissions.

G10.16 Visits to the installation or aircraft operator's premises have the purpose of establishing the correctness of the calculation, whether the data material has been generated under satisfactory conditions, and whether the calculation methods are appropriate and cover the conditions in the organisation, further whether derived activities, calculations, measurement and calculation methods, calibrations, etc. are carried out in a satisfactory manner as described in the monitoring plan.

G10.17 With reference to the guidelines in G10.16 and G10.21, the first-time verification at the

installation or aircraft operator to establish conformity with the monitoring plan and, if relevant, permit, may possibly be conducted in the course of the year preceding the verification due to take place before the end of March in the following year.

G10.18 For installations in group 1 with a CO_2 emission below 50,000 tonnes/year, and installations in group 2, the following special guidelines make it possible to pay fewer visits.

If a previous visit to the installation has already taken place, and the verifier can prove:

- that the monitoring plan and emission permit are adequate , and
- that a review of the installation's final reporting (including the enclosed documentation material) shows that the monitoring plan has been complied with, and
- that the CO_2 calculation conforms to the requirements of precision and credibility,

it is not considered necessary to visit the installation in connection with each annual verification, see however G10.22.

G10.19 If during the verifier's review of the documentation submitted (cf. G10.18) doubts arise or problems occur that cannot be clarified without a visit to the installation, the verifier shall in all cases visit the organisation to have the issue clarified on site.

G10.20 With regard to other installations that are not covered by G10.18, that is installations in group 1 with CO_2 emission over 50,000 tonnes/year, installations in group 3 and installations in the group "others", that is units with individual monitoring plans, the verification of the CO_2 calculation shall include visits to the installation every year.

G10.21 Visits at the installation or aircraft operator's premises have moreover the purpose of verifying whether the approved monitoring plan still conforms to the actual situation and whether changes have been made to the calculation method and use since the last verification, leading to a different choice of emission factors and levels of accuracy.

G10.22 All installations, including also groups 1 and 2 with CO_2 emission, cf. G10.18, shall under all circumstances be paid a visit at minimum:

- the beginning of a new trading period,
- every 3 years.

11 – Verification report (evaluation report)

G11.1 The verifier shall assess all the installation's or aircraft operator's emission sources for reliability of data for each individual source that contributes to the installation's or aircraft operator's total emissions or tonne-kilometre data.

G11.2 On the background of this analysis the verifier shall indicate the sources for which the risk of miscalculation is significant, and other aspects of the monitoring and reporting procedure that may contribute to miscalculation of the total emissions or tonne-kilometre data. This particularly concerns the determination of calculation factors and the calculations for determining emissions from individual emission sources, and the method for calculating tonne-kilometre data for individual flights. Emphasis is on emission sources and data, and the aspects of the monitoring procedure that carry a serious risk of error.

G11.3 Following each visit, the verifier shall draw up a report so that the installation or aircraft operator is immediately informed of the result of the verification visit. The report shall contain a conclusion of conformity with the basic requirements for the verification, a description of any identified non-conformities and an agreement concerning the further process. This report may include several installations or localities for aircraft operators.

G11.4 The verification shall be concluded by the verifier drawing up a report on all important aspects of the verification process for each individual installation or aircraft operator. The report shall state whether the emissions report or tonne-kilometre report for the installation or aircraft operator in accordance with Article 14 of the EU ETS Directive are adequate for recommending the verification company to issue a verification declaration. Recommendation to issue of a verification declaration presupposes that the information in the emissions report concerning total emissions or that de data in the tonne-kilometre report are not materially incorrect.

The verification report shall as a minimum contain the points described in the Danish Energy Agency's proposed layout for verification reports, referred to in Annexes 6, 8 and 10.

G11.5 The internal verification documentation of the verification company shall as a minimum cover documentation for strategic analysis, risk analysis, the verification plan and its implementation, as well as the basis for decisions concerning materially incorrect information and non-conformities. The internal verification documentation shall contain sufficient documentation to enable evaluation of the verification process before the issue of a verification declaration. The internal verification documentation should cover the documentation stated in Annex 5

At the conclusion of the verification, the internal documentation for the individual verification assignment shall be collected and filed to make it easily accessible to the competent authority and the accreditation body.

G11.6 In cases where errors or omissions are identified in the emissions report or tonne-kilometre report of the installation or aircraft operator, the basis for it, or in the monitoring or calculation procedures of the installation or aircraft operator, the verifier shall require additional information or documentation to the effect that the defective situation is remedied and brought in accordance with the emission permit (if relevant), the monitoring plan or other relevant requirements before recommendation for the issue of a positive verification declaration can take place. The above shall appear from the report and documentation, cf. G.11.3 and G11.5.

G11.7 If additional documentation, cf. G.11.6, cannot document that the situation has been remedied and is in conformity with the requirements, the lead verifier shall recommend the verification company to issue a negative verification declaration (the installation or aircraft operator will have to bring up the situation with the competent authority). This situation shall appear from the report, cf. G11.4.

G11.8 The verifier shall agree on a method and time limit for the follow-up on any remarks and/or reservations in relation to the recommendation with the person responsible for these matters at the installation or aircraft operator's premises. Factors that require follow-up shall appear from the verification report.

Follow-up on any remarks and/or reservations from the previous verification shall be documented in the verification report in the following year, possibly with reference to a separate report on the follow-up.

If the installation or aircraft operator has not taken corrective actions, the verifier shall assess whether this may lead to materially incorrect information in the next emissions report.

The result shall be reported, cf. G11.3 and G11.4.

G11.9 The verification company shall have procedures for the issue of a revised verification report or declaration if required.

12 – Decision on certification (issue of verification declaration)

G12.1 The decision-maker shall not have been involved in verification activities in connection with the specific verification.

The decisions collected during the verification process should be sufficient to:

1. enable the verification company to make a well-founded decision on the issue of a positive/negative verification declaration;
2. ensure traceability to the case documents in the event of any complaints or for planning of the next verification;
3. ensure continuity.

In connection with a decision, focus should be on the following:

a) Appointment of a verification team and assessment of competence.

b) Assessment of "Business Risk", including especially decision on acceptance of the assignment and time allocation.

c) Strategic analysis.

d) Risk analysis.

e) Verification plan, including data sampling plan.

f) Implementation of the verification.

g) Adequacy of the internal verification documentation.

h) Matters raised by the verification team which mean issue of a negative verification declaration.

i) Incorrect information and errors that have been corrected during the verification process.

j) Any outstanding incorrect information and non-conformities.

G12.2 The verification declaration for each individual installation or aircraft operator shall contain the points described in the Danish Energy Agency's proposed layout for verification declarations, shown in Annexes 7, 9 and 11.

13 – Follow-up
No special guidelines.

14 – Use of licences, verification declarations and conformity labels
No special guidelines.

15 – Complaints to organisations (suppliers)
No special guidelines.

This Accreditation Regulation enters into force on 5 July 2010. Any differences between the Danish and the English version of this document are not intended, but in case of doubt with respect to the correctness the version in Danish should be consulted.

DANAK, 5 July 2010

Jesper Høy	Allan Munck
Director	Quality manager

REFERENCES

- Consolidated Act on CO_2 Allowance No. 348 of 9 May 2008 with subsequent amendments.
- Consolidated Act on amendment of the Act on CO_2 Allowance and Act on Promotion of Renewable Energy No. 1267 of 16 December 2009.
- Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 with subsequent amendments.
- Directive 2008/101/EC of the European Parliament and of the Council of 19 November 2008.
- Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009.
- Commission Decision 2007/589/EC of 18/07/2007 on guidelines for the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council (the MRG Decision).
- Commission Decision 2009/339/EC of 16 April 2009 on Amendment of Decision 2007/589/EC with regard to addition of guidelines for the monitoring and reporting of emissions and tonne-kilometre data from aircraft activities.
- DS/EN 45011, 3rd version, General requirements for bodies operating product certification systems.
- EA-6/03, rev. 03 EA Document for Recognition of Verification Bodies under EU ETS Directive.

ANNEXES

Annex 1: Principles for verification

Annex 2: Verification plan – details, from EA-6/03, rev. 03, Annex C (informative)

Annex 3: Factors to consider when allocating time and determining data sampling, from EA-6/03, rev. 03, Annex E (informative)

Annex 4: Terminology – CO_2 verification

Annex 5: Content of verifier's internal verification documentation, from EA-6/03, rev. 03, Annex G (informative)

Annex 6: Verification of CO_2 emissions from installations. Proposed layout for verification report

Annex 7: Verification of CO2 emissions from installations. Verification declaration

Annex 8: Verification of CO_2 emissions from aviation. Proposed layout for verification report

Annex 9: Verification of tonne-kilometre data from aircraft operators. Verification declaration

Annex 10: Verification of tonne-kilometre data from aircraft operators. Proposed layout for verification report

Annex 11: Verification of CO_2 emissions from aviation. Verification declaration

Annex 1
Principles for verification

1.1 Role of the verification company

Article 15 of the EU ETS Directive requires that reports submitted by the organisation or aircraft operator in accordance with Article 14(3) are verified in accordance with the criteria stated in Annex V, and that the competent authorities be informed accordingly.

The verification shall comprise the monitoring systems and reported emission data or tonne-kilometre data and – reliability, credibility and accuracy of the information, including:

- the reported activity data and the related measurements and calculations;
- monitoring methods, frequency and use of systematics;
- choice and use of emission and oxidation factors and net calorific values;
- calculations for determining total emissions or tonne-kilometre data;
- if measurements are used: - the appropriateness of choosing and using measurement-based methodologies.

The reported emissions or tonne-kilometre data can only be verified if, on the basis of reliable and credible data and information, it is possible to determine emissions or tonne-kilometre data with a high degree of certainty. A high degree of certainty means:

- that the reported data are consistent (that is, can be reconstructed as being correct);
- that the collection of data has taken place in accordance with relevant scientific standards;
- that the installation's or aircraft operator's recordings are complete and coherent.

The verification company shall have access to all relevant parts of the installation's or aircraft operator's activities and information related to the object of the verification.

At the verification, the verification company evaluates the information gathered as result of the process and presents a conclusion in the form of a statement or part of a report.

Annex 5 of the EU ETS Directive refers to "a high degree of certainty", which means that the verification company is required to carry out the verification work with a high degree of certainty, as opposed to a limited degree of certainty. The verification company shall therefore ensure a high, but not total degree of certainty that the organisation's information is not faulty. This shall be confirmed by a comprehensive verification declaration that confirms that the verification company through high requirements of certainty has ensured that the emissions report or tonne-kilometre report are free of error, in contrast to a negative verification declaration, which indicates that the information in the emissions report or tonne-kilometre report has been ascertained as not being in conformity with the specified requirements.

1.2 Sufficient verification information

In order to be able to present a conclusion to the emissions report or tonne-kilometre report and its data, the verification company shall obtain sufficient information as part of a repeated, systematic procedure, including:

- for installations – obtaining understanding of the installation's activities, emission permit, approved monitoring plan, processes, measurement-based methodologies, data acquisition and handling of data;
- for aircraft operators – obtaining understanding of the aircraft operator's activities, the approved monitoring plan, data system and control of data, calculation methods and interpretation of tonne-kilometre data;
- obtaining understanding of any activity carried out by the installation or aircraft operator, emission sources, measurement equipment, use of emission factors and oxidation factors and other relevant data used for calculating or measuring emission or tonne-kilometre;
- obtaining understanding of the control environment and control system to ensure conformity to the CO_2 emission permit, if relevant, the monitoring plan and other relevant requirements;
- on the basis of the understanding obtained, assess the risk that the emissions report or tonne-kilometre report and its data can be misunderstood;
- on the basis of the understanding obtained, assessing the risk that the control environment and control system do not conform to the requirements of the CO_2 emission permit, the monitoring plan and other relevant requirements;
- following up on assessed risks, including drawing up general answers and determining the nature, times and content of the further assessment process;
- ensuring that the carrying out of the further assessment process is clearly connected with the identified risks through the use of a combination of inspection, observation, confirmation, recalculation, repeated performance, analytical procedures and inquiries. A further assessment process of this kind also comprises independent procedures– where applicable – in order to obtain confirmed information from sources that are independent of the installation or aircraft operator, and perhaps comprise inspection of the effectiveness of various control measures;
- assessing the adequacy and relevance of the information.

1.3 Materiality

Materiality is defined as the verification company's professional evaluation of whether one or more omissions, incorrect information or errors which are important for the reported information about a installation or aircraft operator, will materially affect the users' decisions. The verification company will consider incorrect information on the total emission figures as material, if they result in that the omissions, incorrect information or errors in the total emission figures exceed the accuracies corresponding to the tier levels (see the MRG Decision Section 5.2, which shall be used for the specific installation, or Annex XIV, Section 2.2.2, for aircraft operators).

Materiality is relevant when the verification company decides on the form, time and scope of the data acquisition procedure, and when an assessment is to be made as to whether the installation or aircraft operator's emissions report or tonne-kilometre report is without errors, omissions and incorrect information. In considering the level of materiality, the verification company shall understand and evaluate what factors might have an influence on the decisions of intended users. The materiality concept acknowledges that some factors, either individually or together, are important if the emissions report or tonne-kilometre report shall be fairly presented in accordance with the requirements in the EU ETS Directive and the MRG Decision. The verification company shall take into consideration quantitative errors as well as qualitative non-conformities, such as failure to

formulate and report emission data in accordance with the mandatory requirements in the MRG Decision, Annex 1, Section 14, Annex XIV, Section 8, and Annex XV, Section 6. As a consequence of the interaction of these considerations, minor inconsistencies might have material importance for the emissions report or tonne-kilometre report.

Considerations about the level of materiality shall be discussed already at the planning stage of the verification and shall be further communicated internally in the verification company. The verification company shall plan and perform work to provide sufficiently relevant information as to whether the emissions report or tonne-kilometre report and its data are free of material discrepancies.

The assessment of the level of materiality shall influence the assessment of the risk of errors, omissions and misstatements in the emissions report, or tonne-kilometre report and its data. The risk assessment shall be based on the results of examination by the Technical and Environmental Administration (Miljøkontrollen) under the Environmental Department (Center for Miljø) and the control systems. A conclusion on materiality comprises all results from the strategic analysis, risk analysis and process analysis.

1.4 Uncertainty

The competent authority is responsible for approving the monitoring plan. It is thus the competent authority's responsibility to evaluate and approve the uncertainty level laid down in the monitoring plan.

The verifier shall use the requirements in the MRG Decision Annex 1, Section 10.4.2 a) or Annex XV, Section 8, concerning the uncertainty of performed measurements or an active-specific factor.

This means that the verifier shall confirm the continued validity of the information used by the installation or aircraft operator in their evaluation of uncertainty, as stated in the approved monitoring plan.

1.5 Verification risk analysis

Verification risk is defined as the risk that the verification company presents an inappropriate conclusion where the installation's or aircraft operator's emissions report or tonne-kilometre report is materially misstated. The verification company may reduce the verification risk by creating and implementing a verification process that leads to a reasonable expectation that it will be able to identify material non-conformities. The verification risk shall be reduced to an acceptable level in order to achieve a high degree of certainty as the basis for a satisfactory verification declaration.

Risk assessments shall direct the verification efforts in the direction of the installation's or aircraft operator's data development, control environment, control system, management and reporting processes, which raise the level of misrepresentation of the risk, including:

- **Risk of non-conformity:** The emission or tonne-kilometre data's vulnerability to having material non-conformities and not being derived from monitoring methods and other relevant requirements. The verification company shall take account of the risks related to conformity with monitoring methodologies and control measures used by the installation or aircraft operator in order to support them, remembering, however, that there will always be some risks left owing to limitations in the construction and function of internal control measures.

- **Detection risk:** Risk that the verification company will not deal with a material non-conformity detected.

The degree to which the verification company shall evaluate the above lies within values defined in the MRG Decisions Annex 1, Section 10.4.2 a), or Annex XV, Section 8.

Annex 2
Verification plan – details
from EA-6/03 rev. 03 - annex C (informative)

The following three factors may have a major influence on the verification plan:

Computerised information systems
Where the verification of data takes place within a computer information system the verifier should consider the following:

1. The operator's inherent risks to the completeness, consistency, reliability and accuracy of reported data from actual or potential failures in the computer information system (e.g., computer system failures resulting in a failure to collect data from automated monitoring equipment during the time of the system failure).
2. Potential software coding or scripting errors that may lead to misstatements or material misstatements in the reported data (e.g., the manual inputting of a function in a spreadsheet or a fundamental high-level programming code error that leads to an incorrect aggregate figure or an incorrect emissions factor/conversion).
3. Human errors in the computer information system (e.g. overwriting a spreadsheet containing last month's data with this month's data before backing up the data).
4. Where the computer information system is bespoke (non-standard) software it may be necessary to include specialist information technology/software engineering expertise within the verification team.
5. The prevailing information security environment within which the data is managed – breaches of information security may lead to failures or increased risk in the collation, transfer, processing, analysis, aggregation (or disaggregation) and storage reporting of data. Failures in information security may also arise from inadequate back-up procedures for data.
6. Proper use of the calculation formula and access control, the possibility of recovering data, continuity planning and security with respect to information technology.

The installation or aircraft operator's control environment
Verifiers should obtain a sufficient understanding of the control environment and control system to assess management's awareness and actions regarding internal controls and their importance in the generation and reporting of emissions or tonne-kilometre information and conformity with permit, where applicable, and monitoring plan requirements.
When planning the verification, verifiers should make enquiries of management to obtain an understanding of:

1. operator's risk assessment of inherent and control risks, misstatements in the annual emissions report or tonne-kilometre report and non-conformities against the approved monitoring plan and the MRG;
2. the accounting and internal control systems management as well as other control activities referred to in MRG Annex I, section 10.3 the operator has put in place to address such inherent and control risks;
3. management's understanding of the implementation and maintenance of the accounting and internal control systems as well as other control activities as referred to in MRG Annex I, section 10.3 to prevent and detect errors;
4. whether management has discovered any misstatements and non-conformities.

Using techniques such as enquiry, observation, inspection and analytical procedures, together with previous experience, the verifier obtains a sufficient understanding of the installation or aircraft operator's control environment to enable the verification plan to be developed and implemented. The verifier obtains an understanding of the installation or aircraft operator's:

1. business structure;
2. operating processes
3. personnel policies and practices;
4. communication of information;
5. computer information systems.

In order to be able to develop and implement the verification plan the verifier should have an understanding of the control systems in the installation or the aircraft operator and assess whether the control systems and related activities laid down in the approved monitoring plan have been implemented correctly and are functioning properly in relation to the data flows and the generation of emission or tonne-kilometre data.

Neither the operator nor the verifier should assume that adaptation and implementation of such systems can on their own merits, minimise the various risks associated with the EU ETS verification. However, where the installation or aircraft operator has an environmental management system such as ISO 14001, EMAS or an equivalent system in place this may make the gathering of material for verification within the EU ETS simpler provided that the management systems addresses all the issues associated with the data and information system for the EU ETS. The adaptation and implementation of a management system can help enhance as well as formalise the management, implementation and continuous improvements of the activities required to support the EU ETS permits, the MRG and other supporting requirements of the EU ETS.

The verifier shall address the procedures needed for monitoring and reporting of greenhouse gases and the correct application of these procedures, as identified in the approved monitoring plan, within the installation or aircraft operator's activities. In view of the control environment and the control system the verification plan shall include at least:

1. data flow activities according to MRG Annex I, section 10.1, including identification of source streams and emission sources covered by the EU ETS permit and the approved monitoring plan;
2. the sequence and interaction of data acquisition and handling activities according to MRG Annex I, section 10.1, including the methods of calculations or measurement which are used;
3. risk assessment of the definition and evaluations of the control system according to MRG Annex I, section 10.2;
4. management of the necessary competences for the responsibilities assigned according to MRG Annex I, section 10.3.1;
5. quality assurance of the measuring equipment and information technology used (if applicable) according to MRG Annex I, section 10.3.2, and other MRG requirements relating to the quality assurance of continuous emission measurements;
6. internal reviews of reported data according to MRG Annex I, section 10.3.3;
7. outsourced processes according to MRG Annex I, section 10.3.4;
8. corrections and corrective action according to MRG Annex I, section 10.3.5;
9. records and documentation according to MRG Annex I, section 10.3.6.

Conformity of the implementation of the approved monitoring plan
The verifier shall check and confirm the correct implementation of the approved monitoring plan and associated EU ETS permit, where applicable, including the correct application of the monitoring methodology.

The verifier should therefore define the verification plan to include:

1) spreadsheets and calculation methods to ensure they are accurate and transparent and that they follow the methodology defined in the approved monitoring plan

2) the source of external data such as emission factors and oxidation factors to ensure they are correct and correctly applied

3) the type of metering upon which data gathering relies and whether the meter has

   i) been included in the approved monitoring plan

   ii) conforms to the requirements (including uncertainty) specified in the approved monitoring plan

   iii) current valid calibration status to be in line with the operators procedures on quality assurance of the measurement equipment and information technology used (if applicable) according to MRG Annex I, section 10.3.2. Where components of the measurement equipment cannot be calibrated and alternative control activities have been approved by the competent authority and detailed in the monitoring plan this should also be checked by the verifier.

4) the accuracy and applicability of the processing activities applied to primary data flows before they are put into intermediate data storage and processed for submission in the emissions report

5) any changes to equipment maintenance and calibration regimes that may have a material effect on the reported data and emissions reports, and whether these impact upon conformity with the approved monitoring plan;

6) the documentation of the installation or aircraft operator's legal and operational structure and boundaries, including issues of ownership, mergers and acquisitions, outsourcing, dominant management control (over GHG emissions or removals) and contractual requirements and how they relate to the scope of the approved monitoring plan, reported data and emissions reports.

Annex 3
Factors to consider when allocating time and determining data sampling from EA-6/03, rev. 03, annex E (informative)

The verifier should take the following factors into account in determining time allocation. The same factors shall at least apply when determining the extent of data sampling.

The following factors shall at least be taken into account:

1. the installation or aircraft operator's activities complexity;
2. the approved monitoring plan and its complexity;
3. the types and number of GHG sources and source streams;
4. number of data parameters;
5. size of the total data universe and the quantity of data to be checked including data that have not been processed for use (and going back to such data);
6. accuracy of the procedures for data management and storage, validity of the sampling rates and whether emission data are missing due to equipment failure or malfunctioning;
7. accounting system and its complexity;
8. accuracy and completeness of the data acquisition and handling activities;
9. robustness of the control activities as part of the control system that are implemented to mitigate inherent and control risks identified in the risk assessment to be performed by the operator;
10. sampling size based on materiality, reasonable assurance, inherent risk, control risk and detection risk;
11. competence of verifier personnel and the way they will be used during the verification engagement;
12. transparency of the control system and the number of times humans have to handle the data;
13. the organization culture related to management and adherence to internal procedures and their correction;
14. validation of computer managed interfaces and system related to data;
15. record keeping;
16. internal verification (horizontal and vertical checks);
17. whether activity-specific factors are determined (emission factors, net calorific value, oxidation factor etc.), by the operator or by third parties (suppliers, external accredited/non-accredited laboratories), or whether they have been based on standard factors.

For installations the following additional factors shall be taken into account:

1. application of a calculation method or measurement method for determining the GHG emissions;
2. the types and number of emission sources where continuous measurement methods are applied;
3. the way the quantity of the source stream is determined (through assessment via stock changes or direct metered usage), the operator's own measurement or relying on supplier's data;
4. if the installation applies a fall back approach an assessment of the annual update of the uncertainty analysis that is part of verification according to MRG Annex I, section 5.3;
5. the way in which the EU ETS emissions have been determined by continuous emission measurement if applied, including standards applicable, the measurement principle and parameters used;
6. the application of EN 14181 and other calibration requirements in case of CEMS.

For aviation the following additional factors shall be taken into account:

1. completeness of the GHG sources;
2. if that aircraft operator has any data gaps;

3. completeness of flight, emissions and tonne-kilometre data;
4. complexity of data for mass and balance;
5. complexity of data for fuel consumption and purchased fuel;
6. availability of external data sources to support the above.

Annex 4
Terminology – CO_2 verification

DS/EN 45011:1998 is an international standard that describes the general requirements of bodies performing verification. Use of this standard in connection with accreditation of verifiers that perform CO_2 verification of companies, the following adjustments shall be made to DS/EN 45011:

New text	**Text in ISO Guide 65**
verification company	certification body
verification	certification
verification	evaluation
verification	product certification
verification procedure	certification procedure
verification declaration	certificate
requirements of verification	product standards
Not relevant	product type, product assortment
emissions report or tonne-kilometre report, cf. Article 14(3)	product
verification scheme	certification scheme
organisation	supplier
verification activity	certification activity
verification process	certification process
verify	certify
verification scheme	product certification scheme
verification assignment	certification task
verification personnel	certification personnel
verification document	certification document
Not relevant	certification cycle
verification requirements	certification requirements
scope of verification	scope of certification
verification service	certification service
verification criterion	certification criterion

Annex 5
Content of verifier's internal verification documentation from EA-6/03, rev. 03, annex G (informative)

The internal verification documentation of the verifier should at least cover the following elements:

1. Information on the verification team that has performed the verification:
   a. names of the EU ETS auditor, EU ETS Lead Verifier and other relevant team members;
   b. roles and responsibility of each verification team member;
   c. time spent on verification activities by each team member.
2. Scope of the verification. This should in principle be in line with the scope of the verification activities that have been indicated in the verification plan unless changes have occurred during the verification process;
3. Conclusions on independence and impartiality checks and clearance of independence of reviewers to start the verification;
4. Conclusions on follow up of points/ recommendations from previous audits;
5. The verification plan;
6. The client's emissions report or tonne kilometre report;
7. The identification of the criteria against which the emissions report or tonne kilometre report was verified so that the verifier's technical reviewer, competent authority, the accreditation body and other relevant persons understand the basis for the verifier's verification conclusion;
8. Where appropriate a description of any significant, inherent limitation associated with the verification of the emissions report or tonne kilometre report against the criteria. It should be clear whether there is a limitation of scope in the verification, when circumstances prevented or a restriction was imposed that prevented the verifier from obtaining evidence required to reduce the verification risk to the reasonable level (MRG Annex I, section 10.4.2. (e));
9. The conclusions of the strategic analysis, risk analysis and process analysis and these analyses in full;
10. The verification activities undertaken. The activities described in the internal verification documentation should in principle be in line with the verification plan unless changes have occurred during the verification process;
11. Changes that have occurred during the verification process.
12. Reasons for increasing or decreasing the sampling size and resolution of all issues identified which required further investigation and their eventual outcome as well as evidence on the rationale for conclusions reached regarding the compliance of the emissions report or tonne kilometre report.
13. Conclusions on data quality and materiality with regard to the approval of the installation or aircraft operator's data in the emissions report or tonne kilometre report. This includes the materiality threshold that has been applied;
14. Non-conformities and misstatements that have been identified by the verifier**,** and indication of resolutions as relevant.
15. The conclusions on the verification of the emissions report or tonne kilometre report.

The competent authority and the accreditation body evaluating the verification should be allowed full access to the internal verification documentation (file) of the verifier.

Annex 6
Verification of CO_2 emissions from installations
Verification report
Standard format October 2008

Verification carried out for:
Name of installation: [ ]

Address: [ ]

Installation no. (P-no.): [ ]

Permit no.: [ ]

Basis:

- Permit to emit CO_2 from the installation:
  [no. and date/year]
- Monitoring plan:
  [date/year and version no., date/year for approval by the Danish Energy Agency]
- Emissions report
  [date/year and version no.]

Verification of:

- Conformity of the monitoring plan with the actual conditions and implementation of the monitoring plan (first-time verification): [ ]
- And/or the installation's emissions report (annual verification): [ ]

Verification criteria:

- The Allowance Act: [reference to Section and subsection, stating the energy-related activities comprised]
- Statutory Order on Verification: [ ]
- EU guidelines for monitoring and reporting: [ ]

Type of verification:

- First-time and/or annual verification: [ ]

Dates of visits and verification:
[dates and reference to attached programmes for visits and any sub-reports, clear indication of whether or not visits have been conducted. If visits have not been conducted, the reason should be stated, for instance, reference to rules in G10.18]

Participants in the verification team:
[names and functions]

Participants from the installation during the verification:
[names and functions]

Documents used in connection with the verification:
[material received from the installation or seen during the verification]

Verification procedure and scope:
State scope of sampling, interviews, analyses and reviews in connection with the verification of:

- [installation],
- [management system and procedures],
- [documents],
- [data basis].

Summary and conclusion:
[result of the verification]

Any non-conformities and background for their correction:
[state here]

Remarks and reservations:
[state any remarks and reservations in relation to recommendation.

Recommendation:
[positive verification declaration/negative verification declaration]

Signatures:
[Date/year, Lead Verifier's signature]

Annex 7
Verification of CO_2 emissions from installations
Verification declaration
Standard format October 2008

Verification declaration for [state year**] for the installation**

Name of installation: [ ]

Address: [ ]

Installation no. (P-no.): [ ]

Permit no.: [ ]

Basis

Verification of the installation's CO_2 emission has been performed on the basis of:

- Permit to emit CO_2 from the installation:
  [no. and date/year]
- Monitoring plan:
  [date/year and version no., date/year for approval by the Danish Energy Agency]
- Emissions report:
  [date/year and version no.]

Declaration

Verification has been performed in accordance with Statutory Order No. [state no, version and title of the current version of the Statutory Order on Verification] and DANAK's Accreditation Regulation AB 16 : Use of DS/EN 45011:1998 for accreditation for CO_2 verification.

In connection with the verification, all the installation's CO_2 emission sources have been assessed for reliability of the data for each individual source that contributes to the installation's total CO_2 emissions.

Positive declaration

With point of departure in the above and a review of the installation's emissions report, its data basis and its generation, it is hereby declared (with reservations for any remarks stated in the following):

- That the actual conditions at the installation are in accordance with the monitoring plan and emission permit approved by the Danish Energy Agency
- That the monitoring plan has been implemented
- That the CO_2 emission has been calculated in accordance with the implemented monitoring plan
- That the emissions report has been drawn up in accordance with the Act on CO_2 Allowance, cf. Consolidated Act No. 348 of 9 May 2008, Consolidated Act on CO_2 Allowance.

Against this background and on the basis of verification report dated [date] it is concluded that the data presented in the emissions report are without omissions, material non-conformities, misrepresentations or errors that lead to materially incorrect statements of the total volume of emissions.

The CO_2 emission for [year] in the emissions report is:
[tonnes CO_2]

The following remarks are attached to the above declaration:
[statement of observed circumstances in relation to the declaration, and possibly with reference to the verification report]

The positive declaration is based on the assumption that the above-stated remarks do not have material influence on the calculation of the CO_2 emission.

Verification company's address, accreditation and registration no.: [ ]

Verification company's stamp: [ ]

Accreditation body's logo/accreditation mark: [ ]

Date/year and signature on behalf of the verification company: [ ]

Negative declaration

On the basis of the above it is declared that a positive verification **cannot** be issued. The background for this is as follows:
[Text with possible reference to the verification report]

The verification company's address, accreditation and registration no.: [ ]

The verification company's stamp: [ ]

The accreditations body's logo/accreditation mark: [ ]

Date/year and signature on behalf of the verification company: [ ]

Annex 8
Verification of CO_2 emissions from aviation
Verification report
Standard format February 2010

Verification carried out for:

Name of aircraft operator: [ ]

Address: [ ]

Aircraft operator's unique identification no.: [ ]

Basis:

- Monitoring plan:
  [date/year and version no., date/year of approval by the Danish Energy Agency]

- Emissions report
  [date/year and version no.]

Verification of:

- Conformity of the monitoring plan with the actual conditions and implementation of monitoring plan (first-time verification): [ ]

- And/or the aircraft operator's emissions report (annual verification): [ ]

Verification criteria:

- The Allowance Act: [ ]

- Statutory Order on Verification: [ ]

- EU guidelines for monitoring and reporting: [ ]

Type of verification:

First-time and/or annual verification: [ ]

Dates of visits and verification:
[dates and reference to enclosed programmes for visits and possible sub-reports, clear indication of where visits have been conducted]

Participants in the verification team:
[names and functions]

Participants from the aircraft operator during the verification:
[names and functions]

[material received from the aircraft operator or seen during the verification]

Procedure and scope of the verification:
State scope of sampling, interviews, analyses and reviews in connection with the verification of:

- [CO_2 emission sources]
- [management system and procedures]
- [documents]
- [data basis]

Summary and conclusion:
[result of the verification]

Any non-conformities and background for their correction:
[state here]

Remarks and reservations:
[state any remarks and reservations in relation to recommendation

Recommendation:
[positive verification declaration/negative verification declaration]

Signatures:
[Date/year, Lead Verifier's signature]

Annex 9
Verification of tonne-kilometre data from aircraft operators
Verification declaration
Standard format February 2010

Verification declaration concerning tonne-kilometre for [state year] **for aircraft operator**

Name of aircraft operator: [ ]

Address: [ ]

Aircraft operator's unique identification no.: [ ]

Basis

Verification of the aircraft operator's CO_2 emission has been carried out on the basis of:

- Monitoring plan for tonne-kilometres:
  [date/year and version no., date/year of approval by the Danish Energy Agency]

- Tonne-kilometre report:
  [date/year and version no.]

Declaration

The verification has been carried out in accordance with Statutory Order No. [state no., version and title of current version of the Statutory Order on Verification] and DANAK's Accreditation Regulation AB 16: Use of DS/EN 45011:1998 for accreditation for CO_2 verification.

In connection with the verification, all the aircraft operator's CO_2 emission sources have been assessed for reliability of the data for each individual source that contributes to the aircraft operator's total number of tonne-kilometres.

Positive declaration

On the basis of the above and a review of the aircraft operator's tonne-kilometre report, its data basis and generation it is hereby declared (with reservations for any remarks stated below):

- That the actual conditions at the aircraft operator are in accordance with the monitoring plan for tonne-kilometres approved by the Danish Energy Agency
- That the monitoring plan has been implemented
- That the tonne-kilometres have been made up in accordance with the implemented monitoring plan, and
- that the tonne-kilometre report has been drawn up in accordance with the Act on CO_2 Allowance, cf. Consolidated Act No. 348 of 9 May 2008, Consolidated Act on CO_2 Allowance, as amended § 18 in Act No. 1336 of 19 December 2008, Act on amendment of the Tax-at-Source Act (Kildeskatteloven), the Collection Act (Opkrævningsloven), the Distraint Act (Udpantningsloven) and various other Acts, and Act No. 1267 of 16 December 2009, Act on amendment of the Act on CO_2 Allowance and Act on the Promotion of Renewable Energy.

Against this background and on the basis of verification report dated [date] it is concluded that the data presented in the tonne-kilometre report are without omissions, material non-conformities, misrepresentations or errors that lead to materially incorrect statements of the total number of tonne-kilometre.

The total number of tonne-kilometre for 2010 in the tonne kilometre report is:

[tonne-kilometre]

The following remarks are attached to the above declaration:
[statement of observed circumstances in relation to the declaration and possibly with reference to the verification report]

The positive declaration is based on an assumption that the above-stated remarks do not have material influence on the specification of total number of tonne-kilometres.

Verification company's address, accreditation and registration no.: [ ]

Verification company's stamp: [ ]

Accreditation body's logo/accreditation mark: [ ]

Date/year and signature on behalf of the verification company [ ]

Negative declaration

On the basis of the above it is declared that a positive verification declaration **cannot** be issued. The background for this is as follows:
(Text with possible reference to the verification report]

Verification company's address, accreditation and registration no.: [ ]

Verification company's stamp: [ ]

Accreditation body's logo/accreditation mark: [ ]

Date/year and signature on behalf of the verification company: [ ]

Annex 10
Verification of tonne-kilometre data from aircraft operators
Verification report
Standard format February 2010

Verification carried out for:

Name of aircraft operator: [ ]

Address: [ ]

Aircraft operator's unique identification no.: [ ]

Basis:

- Monitoring plan for tonne-kilometres:
  [date/year and version no, date/year of approval by the Danish Energy Agency]

- Tonne-kilometre report
  [date/year and version no.]

Verification of:

- Conformity of the monitoring plan with the actual conditions and implementation of the monitoring plan: [ ]

- Aircraft operator's tonne-kilometre report: [ ]

Verification criteria:

- The Allowance Act: [ ]

- Statutory Order on Verification: [ ]

- EU guidelines for monitoring and reporting: [ ]

Dates for visits and verification:
[dates and reference to enclosed visit programmes and possibly sub-reports, clear indication of where visits have been conducted]

Participants in the verification team:
[names and functions]

Participants from the aircraft operator during the verification:
[names and functions]

Documents used at the verification: [ ]
[material received from the aircraft operator or seen during the verification]

Verification procedure and scope:
State scope of sampling, interviews, analyses and reviews in connection with the verification of:

- CO_2 emission sources],
- [management system and procedures],
- [documents],
- [data basis],

Summary and conclusion:
[result of the verification]

Any non-conformities and background for their correction:
[state here]

Remarks and reservations:
[state any remarks and reservation in relation to recommendation]

Recommendation:
[positive verification declaration/negative verification declaration]

Signatures:
[Date/year, Lead Verifier's signature]

Annex 11
Verification of CO_2 emissions from aviation
Verification declaration
Standard format February 2010

Verification declaration for [state year**] for the aircraft operator**

Name of aircraft operator: [ ]

Address: [ ]

Aircraft operator's unique identification no.: [ ]

Basis

Verification of the aircraft operator's CO_2-emission has been carried out on the basis of:

- Monitoring plan:
  [date/year and version no., date/year for approval by the Danish Energy Agency]

- Emissions report:
  [date/year and version no.]

Declaration

The verification has been carried out in accordance with Statutory Order No. [state no., version and title of the current version of the Statutory Order on Verification] and DANAK's Accreditation Regulation AB 16: Use of DS/EN 45011:1998 for accreditation for CO_2-verification.

In connection with the verification, all the aircraft operator's CO_2 emission sources have been evaluated for reliability of the data on each individual source that contributes to the aircraft operator's total CO_2 emissions.

Positive declaration

On the basis of the above and a review of the aircraft operator's emissions report, its data basis and generation it is hereby declared (with reservation for any remarks stated in the following):

- That the actual conditions at the aircraft operator's premises are in conformity with the monitoring plan approved by the Danish Energy Agency
- That the monitoring plan has been implemented
- That the CO_2-emission has been made up in accordance with the implemented monitoring plan,
- And that the emissions report has been prepared in accordance with the Act on CO_2 Allowance, cf. Consolidated Act No. 348 of 9 May 2008, Consolidated Act on CO_2 Allowance, as amended § 18 of Act No. 1336 of 19 December 2008, Act on amendment of the Tax-at-Source Act (Kildeskatteloven), the Collection Act (Opkrævningsloven), the Distraint Act (Udpantningsloven) and various other Acts, and Act No. 1267 of 16 December 2009. Act on amendment of the Act on CO_2 Allowance and Act on the Promotion of Renewable Energy.

Against this background and on the basis of verification report dated [date] it is concluded that the data presented in the emissions report are without omissions, material non-conformities, misrepresentations or errors that lead to materially incorrect statements of the total volume of emission.

The CO_2-emission for [year] in the emissions report is:

[tonnes CO_2]

The following remarks are attached to the above declaration are as follows:
[statement of observed circumstances in relation to the declaration, and possibly with reference to the verification, report]

The positive declaration is based on an assumption that the above-mentioned remarks have no material influence on the calculation of the CO_2-emission.

Verification company's address, accreditation and registration no.: [ ]

Verification company's stamp: [ ]

The accreditation body's logo/accreditation mark: [ ]

Date/year and signature on behalf of the verification company: [ ]

Negative declaration

On the basis of the above it is declared that a positive verification declaration **cannot** be issued. The background for this is as follows:
(Text with possible reference to the verification report]

The verification company's address, accreditation and registration no.: [ ]

Verification company's stamp: [ ]

Accreditation body's logo/accreditation mark: [ ]

Date/year and signature on behalf of the verification company: [ ]