THE INCLUSION OF AVIATION IN THE EU EMISSIONS TRADING SCHEME

A PRACTICAL GUIDE
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INTRODUCTION

This information document details the ERA Directorate’s interpretation of the legislation to include aviation in the European Union’s Emissions Trading Scheme (EU ETS). Full details of the Directive can be found in the final text adopted by the European Council on 24 October (Annex 1) and the existing ETS Directive 2003/87/EC (Annex 2). The final text will be published in the Official Journal early in 2009 and the Member States will have 12 months to transpose the Directive into national law.

Please note that the ERA Directorate does not accept responsibility for the accuracy of the interpretation of the Directive adopted by the Council on 24 October. This document is a working document and is therefore subject to change. This document should be read in conjunction with the adopted Directive (Annex 1).

1 THE EXISTING EU ETS

- The existing Community scheme works by allocating to operators a number of allowances each giving them a right to emit one tonne of carbon dioxide per allowance.
- The total number of allowances allocated sets a limit on the overall emissions from participants in the scheme.
- By 30 April each year operators must surrender allowances to cover their actual emissions for the previous calendar year. Operators can trade allowances so that emissions reductions can be made where they are most cost-effective.

2 KEY ASPECTS OF THE AVIATION SCHEME

2.1 Overview

Note: key dates and actions required by operators are shown graphically in Section 5 of this document.

- Aviation will be integrated into the existing EU ETS through an EU Directive which became law on 24 October 2008.
- Aircraft operators will be the legal entities responsible for complying with the obligations imposed by the scheme.
- The scheme will start and will cover all flights arriving at or departing from an airport in the EU. All non-EU and EU carriers will be subject to the scheme.
- By 30 June 2009¹ aircraft operators will be required to submit a monitoring and reporting plan setting out the procedures that they will use to monitor emission and tonne kilometre data (for the purposes of applying for free permits)
- From 01 January 2010 aircraft operators will be required to monitor and report tonne kilometre data in order to apply for free allowances
- From 01 January 2010 aircraft operators will be required to monitor and report emissions data. The period from 2010-2011 is known as a pre-trading period and operators will not be required to surrender allowances to cover their emissions for this period only.

¹ This date is the suggested date in the draft Monitoring, Reporting and Verification Guidelines which are currently subject to a European Commission public consultation. More details of the consultation and the guidelines can be found at http://ec.europa.eu/environment/climat/aviation_en.htm
• The reports must be verified to make sure that they are accurate. The basic principles for monitoring, reporting and verifying emissions set out in the proposal will be elaborated in monitoring and reporting guidelines currently being developed by the Commission.
• From 01 January 2012 aircraft operators will be required to surrender allowances to cover their emissions in each year.
• Some flights will be excluded from the scheme
  • flights by State aircraft
  • military flights
  • flights under visual flight rules
  • circular flights
  • flights for testing navigation equipment or for training purposes
  • rescue flights
  • flights by aircraft with a maximum take-off weight of less than 5,700kg
  • PSO flights on routes within outermost regions or on routes where capacity does not exceed 30000 seats per year
  • flights performed by a commercial air operator operating either less than 243 flights per year or whose total annual emissions are less than 10000 tonnes per year.
• Each aircraft operator, including operators from non-EU countries, will be administered by one Member State only.
• The method of allocating allowances will be harmonised across the EU.
• The total number of allowances to be allocated to the aviation sector will be determined at EU Community level by reference to the average annual emissions from aviation in the years 2004-2006.
• A fixed percentage of the total quantity of allowances will be allocated free of charge to aircraft operators on the basis of a benchmark to aircraft operators that submit an application (the earliest application relating to 2010 data).
• For the period 2012 15% of allowances will be auctioned. From 2013 15% will also be auctioned however this percentage may be increased as part of the general review of the Directive.
• Member States will be responsible for determining the use of revenue made from auctioning. The revenues should be used:
  • to reduce greenhouse gas emissions
  • to adapt to the impacts of climate change in the EU and third countries
  • to fund research and development for mitigation and adaption in the field of aeronautics and air transport
  • to reduce emissions through low emissions transport, and
  • to cover the administrative costs of the scheme.
• Aircraft operators will be able to buy allowances from other sectors in the EU scheme for use to cover their emissions.
• Allowances are currently traded in an open market. Operators requiring allowances to cover their emissions will have to buy allowances from the open market.
• Aircraft operators will also be able to use project credits – so-called Emission Reduction Units (ERUs) and Certified Emission Reductions (CERs) - from the Joint Implementation or Clean Development Mechanisms (JI/CDM) up to a total level of 15% of the total amount of allowances that they have to surrender for 2012. From 2013 this percentage will be reviewed under the general review of the Directive.
2.2 Start Date and Applicability

Note: key dates and actions required by operators are shown graphically in Section 5 of this document.

As figure 1 shows the scheme will commence on 01 January 2012. The scheme will apply to all flights arriving and departing in the EU from this date. This means that from 2012 flights arriving from and departing to third country destinations will fall within the scope of the scheme. The scheme is applicable to all EU and non-EU operators. The scheme will operate in trading periods. Each trading period will cover 5 years. Aviation will join the EU ETS in the last year of a trading period, the 2008-2012 period. Therefore the first trading period for aviation will be the year 2012. The second trading period begins in 2013 and ends at the end of 2017 - a full 5 year period. See figure 1.

2.3 Thresholds and Exemptions

The scheme will cover all flights that arrive or depart from an airport in an EU Member State. The following flights will be excluded from the scheme:

- flights performed exclusively for the transport, on official mission, of a reigning Monarch and his immediate family, Heads of State, Heads of Government and Government Ministers, of a non-EU state with the appropriate status indicator included in the flight plan
- military flights performed by military aircraft and customs and police flights
- flights related to search and rescue, fire-fighting flights, humanitarian flights and emergency medical service flights authorised by the appropriate competent authority
- any flights performed exclusively under visual flight rules as defined in Annex 2 to the Chicago Convention
- flights terminating at the aerodrome from which the aircraft has taken off and during which no intermediate landing has been made
- training flights performed exclusively for the purpose of obtaining a licence, or a rating with the appropriate remark in the flight plan provided that the flight does not transport passengers and/or cargo or for the positioning or ferrying of the aircraft
- flights performed exclusively for the purpose of scientific research or for the purpose of checking, testing or certifying aircraft or equipment whether airborne or ground-based
• flights performed by aircraft with a certified maximum take-off mass of less than 5 700 kg
• flights performed under public service obligations framework on routes within outermost regions or on routes where the capacity offered does not exceed 30 000 seats per year
• flights performed by a commercial air transport operator operating either
  o fewer than 243 flights per period for three consecutive four-month periods or
  o flights with total annual emissions lower than 10 000 tonnes per year.
(Flights performed exclusively for the transport, on official mission, of Monarchs/Heads of State/Government of EU member States cannot be excluded under the last exemption.)

2.4 Allowances for Aviation (Article 3c)

For the 1\textsuperscript{st} trading period 1 January 2012 to 31 December 2012, the total quantity of allowances to be allocated to the aviation industry will be equivalent to 97\% of the ‘historical aviation emissions’. This figure will be calculated by the European Commission. ‘Historical aviation emissions’ will be the average of the annual emissions in the calendar years 2004, 2005 and 2006. Effectively CO\textsubscript{2} emissions for aviation will be capped at 97\% of approximately 2005 levels. Any CO\textsubscript{2} produced above this level by the industry during 2012 will need to be purchased by airspace operators. See figure 2.

![CO\textsubscript{2} Cap](image)

Figure 2

For the 2\textsuperscript{nd} trading period beginning on 1 January 2013, and each subsequent five year period, the total quantity of allowances to be allocated will be equivalent to 95\% of the historical aviation emissions (approximately 2005 data) multiplied by five i.e. the number of years in the period. This means that, going forward, the industry’s emissions are capped at 95\% of 2005 levels. The industry expects that from 2005 aviation CO\textsubscript{2} emissions are expected to grow at 4\% per year if growth is unconstrained. This means that there will be a shortfall of CO\textsubscript{2} allocated to the industry. Figure 3 below shows this shortfall in red. The level of 95\% may be reviewed and increased at a later date as part of the general review of the Directive.
Aircraft operators will be allocated some CO₂ allowances free of charge. Aircraft operators will need to apply for these free permits. Any additional permits that are needed to cover CO₂ emissions will need to be purchased from a CO₂ market. The amount of CO₂ above the cap, the red shaded area in figure 3 will need to be purchased by aircraft operators.

The amount of free permits an aircraft operator receives will be based on a benchmark which takes into account tonne-km transported by an individual carrier in a reference year.

The cap will be reduced each period as the scheme will set aside an amount each period for auctioning. This means that more permits will need to be purchased as the amount allocated free of charge is reduced over time. See figure 4 below.

At the start of the scheme the CO₂ allowance allocated to aviation will, in fact, be less that the 2005 CO₂ levels due to the auctioning process and the reduced cap of 97% in the first period and 95% in the second period. See figure 4.
2.5 Auctioning Process

For the 1st trading period 15% of allowances will be auctioned (Article 3d (1)). From 2013 15% of allowances will also be auctioned. (Article 3d(2)) However from 2013 the percentage may be increased as part of the general review of the Directive. Therefore, in future trading periods the auctioning percentage could be higher. The number of allowances that can be auctioned by each Member State is proportionate to its share of the total attributed to aviation emissions for all Member States for the reference year reported. For the 1st trading period (2012) the reference year is 2010 and for subsequent periods the reference year is the year that ends 24 months before the start of the trading period. (Article 3d(3)). For the 2nd trading period (2013-2017) the reference year will also be 2010.

The allowance auction price is expected to track the market price. It is currently 18 euro\(^2\) per tonne of CO\(_2\). One of the aims of the auctioning process is to allow Member States a means of funding the administration of the scheme. In addition to administration the revenue from auctioning should be used:

- to reduce green house gas emissions in the EU and in third countries
- to adapt to the impacts of climate change in the EU and third countries
- to fund research and development for mitigation and adaption in the field of aeronautics and air transport
- to reduce emissions through low emissions transport
- to fund contributions to the Global Energy Efficiency and Renewable Energy Fund and measures to avoid deforestation

2.6 Special Reserve (Article 3f)

There will be a special reserve of free allowances for certain aircraft operators. The special reserve is designed to enable new entrants (start up operators) who were not in existence before 1st January 2011. The special reserve is also designed to enable operators that have had significant traffic growth in a certain period to also apply for additional free allowances.

Of the total quantity of allowances available for a trading period 3% will be set aside for the special reserve. In order to apply for free allowances in the special reserve aircraft operators will need to prove that they either:

- started operating after the monitoring year (2010 for the 1st and 2nd trading periods) for which tonne-kilometre data was submitted under the application for free allowances for the period beginning 2013 or
- that their tonne kilometre data increased by an average of more than 18% annually between the monitoring year for which data was submitted in the application for free allowances for the trading period beginning 2013 and the second year of that period.

An aircraft operator who meets one of the above criteria can apply for a free allocation of allowances from the special reserve by 30 June of the third year (2015) of the trading period beginning in 2013. The application must provide evidence of fulfilling the eligibility criteria including verified tonne kilometre data. For the second criteria evidence of the percentage growth must also be shown.

Member States have to submit applications for allowances under the special reserve criteria to the Commission by 31 December. The Commission then has a further 12 months to decide on the

\(^2\) Source: www.pointcarbon.com 30 October 2008
benchmark for the allocation. The Member State will then have a further 3 months to calculate and publish the amount of allowances allocated to each aircraft operator under each of the two criteria for the special reserve each year.

2.7 Administering Member State
In each Member State there will be a competent authority who is responsible for administering the scheme in that state. Each aircraft operator will have only one administering Member State. The administering Member State will be determined by the European Commission by 01 February 2009. The administering Member State for an aircraft operator will be:

- for EU operators - the Member State that granted the operating licence to that operator and
- for non EU operators - the Member State with the greatest estimated attributed aviation emissions from flights performed by that operator in 2006 or the first year of operation if they were not in operation from 01 January 2006.

3 WHEN TO APPLY FOR FREE PERMITS

3.1 Allocation of allowances

For each trading period an aircraft operator must apply for an allocation of allowances that will be allocated free of charge.

Applications must be made to the administering Member State by submitting verified tonne kilometre data in a standardized format for the year ending 24 months before the trading period starts. Applications must be made 21 months before the start of the relevant period. However for the 1st trading period (January 2012 to 31 December 2012) an exception has been made and an operator must submit verified data for the period 1 January-31 December 2010 by 31 March 2011 (Article 3e(1))

For the 2nd trading period (January 2013- December 2017) an operator must submit verified data for the period 1 January-31 December 2010 by 31 March 2011. This is the year ending 24 months before the trading period starts.

*Between 1 January and 31 March 2011 - tonne kilometre data must be verified and submitted for the 1st and 2nd trading period*

3.2 Data that needs to be submitted by operators to receive free permits for a trading period

Each aircraft operator needs to include the following information in its application for the calendar year ending 24 months before the start of the trading period *(For the 2nd trading period this is 2010. It is also 2010 for the 1st trading period as an exception has been made)*:

A. Data identifying the operator, including:
   - Name of the operator
   - Its administering Member State
   - Its address, including postcode and country and, where different, its contact address in the administering Member State
   - The aircraft registration numbers and types of aircraft used during the year covered by the application to perform the aviation activities listed in Annex I for which it is the aircraft operator
• The number and issuing authority of the air operator certificate and operating licence under which the aviation activities listed in Annex I for which it is the aircraft operator were performed
• Address, telephone, fax and email details for a contact person and
• Name of the aircraft owner.

B. Tonne-kilometre data:
• Number of flights by airport pair
• Number of passenger-kilometres by airport pair
• Number of tonne kilometres by airport pair
• Total number of tonne kilometres for all flights performed during the year to which the report relates falling within the aviation activities listed in Annex I for which it is the operator.

The data will need to be audited and verified – see below for information on the verification process. The operator may need to collect and store data on a flight by flight basis for the purpose of satisfying the verifier that the submitted data is accurate. This will confirmed when the EC releases its monitoring and reporting guidelines which are expected in May 2009.3

3.3 What happens next?

At least 18 months (30 June), before the start of the trading period Member States must submit the applications submitted by operators to the European Commission. (For the 1st trading period an exception has been made to this rule and the date will be 30 June 2011. For the 2nd trading period the date is 30 June 2011 i.e. the date for the 1st and 2nd periods is the same)

By at least 15 months before the start of the trading period (30 September) (For the 1st trading period an exception has been made to this rule and the date will be 30 September 2011. For the 2nd trading period the date is 30 September 2011 i.e. the date for the 1st and 2nd periods is the same) the European Commission will decide on
• the total quantity of allowances to be allocated for that period
• the number of allowances to be auctioned in that period
• the number of allowances in the special reserve for aircraft operators in that period
• the number to be allocated free of charge in that period, and
• the benchmark to be used to allocate allowances free of charge to aircraft operators.

The benchmark is determined by taking the total quantity of allowances to be allocated free of charge and dividing it by the total sum of all tonne-kilometre included in the applications.

Within 3 months of the Commission deciding the above i.e. by 31 December the Member States must calculate and publish (For the 1st trading period an exception has been made to this rule and the date will be 31 December 2011. For the 2nd trading period the date is 30 December 2011 i.e. the date for the 1st and 2nd periods is the same.)
• the total allocation of allowances for the trading period for each operator which is calculated by multiplying its tonne-kilometre data by the benchmark figure
• the allocation of allowances for each operator for each year which is calculated by dividing the total allocation for the period by the number of years in the period.

3 Draft Monitoring, Reporting and Verification Guidelines which are subject to a European Commission public consultation are available. The suggested date for their publication is May 2009. More details of the consultation and the guidelines can be found at http://ec.europa.eu/environment/climat/aviation_en.htm
### 3.4 Issue of allowances

By **28 February 2012** and each 28 February thereafter (**for the 2nd trading period this is 28 February 2013**) the competent authority of the administering Member State will issue each aircraft operator the number of allowances allocated to that aircraft operator for that year.

*Allowances are only valid for the trading period for which they were issued and cannot be carried over to the next period.*

### 3.5 Surrender of allowances by operators

From **30 April 2013** each year operators will need to surrender allowances equal to the total of their emissions for the preceding year. Operators will **not** need to surrender allowances for the years 2010 **and 2011** although they are required to submit verified reports of their emissions for these years to their competent authority. Operators will need to ensure that they have enough permits to cover the amount of allowances that need to be surrendered (either free or purchased). Operators will be able to buy permits from the existing CO₂ market. Operators may use a percentage of CER & ERU with these allowances. The Commission will have published the percentages of CER and ERUs that can be used 6 months prior to the start of the trading period. (Article 11a (1a)) For the year 2012 aircraft operators may use CERs and ERUs up to 15% of the total number of allowances they are required to surrender. From 2013 this figure will be reviewed as part of the general review of the Directive.

### 4 MONITORING AND REPORTING OF EMISSIONS AND TONNE KILOMETRE DATA

#### 4.1 Submission of a Monitoring and Reporting Plan

Each aircraft operator will need to submit to their administering authority a monitoring plan setting out the procedures that they will use to monitor and report emissions and tonne-kilometre data for the purpose of an application for free allowances. These plans will need to be approved by the Member State’s competent authority in advance and in accordance with the monitoring and reporting guidelines laid down by the Commission. This plan needs to be submitted by 30 June each year⁴. All data will need to be monitored and reported in accordance with the approved plan. Details of what is required to be included in the plan will be adopted by the Commission in the Monitoring, Reporting and Verification Guidelines which are due to be published in May 2009. For information Annex 4 of this document contains an extract from the current 2007 guidelines which cover the other sectors currently in the EU ETS.

#### 4.2 Specific details for the monitoring and reporting of emissions

Aircraft operators will need to monitor and then report their verified emissions each year to the competent authority by 31 March of the following year. (Article 14(3)). **Aircraft operator emissions data is to be reported from 1 January 2010** and for each calendar year thereafter. (Article 14(3)). As noted above operators will **not** need to surrender allowances for the years 2010 **and 2011** although they are required to submit verified reports of their emissions for these years to their competent authority.

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⁴ This date is the suggested date in the draft Monitoring, Reporting and Verification Guidelines which are currently subject to a European Commission public consultation. More details of the consultation and the guidelines can be found at [http://ec.europa.eu/environment/climat/aviation_en.html](http://ec.europa.eu/environment/climat/aviation_en.html)
The Commission will issue guidelines on the monitoring and reporting of emissions and tonne kilometre data. (Article 14(1)) Operators will need to follow these guidelines. Details are found in Annex IV to the directive which is found in Annex 3 to this document. See also the extract from the current Guidelines on monitoring and reporting found in Annex 5 of this document.

Details for the monitoring of emissions including a formula for their calculation are given in Annex IV to the Directive. A separate calculation will need to be made for each flight and for each fuel.

The following needs to be included by the operator in the annual emissions report under Article 14(3)

A. Data identifying the operator, including:
   - Name of the operator
   - Its administering Member State
   - Its address, including postcode and country and, where different, its contact address in the administering Member State
   - The aircraft registration numbers and types of aircraft used in the period covered by the report
   - The number and issuing authority of the air operator certificate and operating licence under which the aviation activities listed in Annex I for which it is the aircraft operator were performed
   - Address, telephone, fax and email details for a contact person and
   - Name of the aircraft owner.

B. For each type of fuel for which emissions are calculated:
   - Fuel consumption
   - Emission factor
   - Total aggregated emissions from all flights performed during the period covered by the report
   - Aggregated emissions from:
     - all flights performed during the period covered by the report for which it is the aircraft operator and which departed from an airport situated in the territory of a Member State and arrived at an airport situated in the territory of the same Member State
     - all other flights performed during the period covered by the report for which it is the aircraft operator
   - Aggregated emissions from all flights performed during the period covered by the report for which it is the aircraft operator which:
     - departed from each Member State and
     - arrived in each Member State from a third country
   - Uncertainty.

The data will need to be audited and verified – see below for information on the verification process. The operator will need to collect and store data on a flight by flight basis for the purpose of satisfying the verifier that the submitted data is accurate.

4.3 Specific details for the monitoring and reporting of tonne kilometre data for Article 3d (1) application

Tonne kilometre data will also need to be monitored and is reported as noted above to determine the number of allowances under Article 3(e). This data is only required for the year which ends 24 months

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5 See footnote 4 above
before the start of a trading period. For the first trading period there is an exception and data is required for the year 2010. For the second trading period data will be required for 2010 as well.

Details for the monitoring of tonne kilometre data including a formula for their calculation are given in Annex IV to the Directive. Details on reporting are also found and more information was given above in ‘Data that needs to be submitted for the free permits’ section

4.4 Verification of emissions and tonne kilometre reports under Article 14(3) and Article 3(e) and 3(f)

An independently verified report needs to be submitted to the aircraft operator’s administering Member State by 31 March each year for emissions. The first verified emissions report is due by 31 March 2011 for the year 2010.

For tonne kilometre data a verified report needs to be submitted by 31 March for the year after the year which ends 24 months before the start of a period i.e. for the 31 March of that year. For the 1st trading period (01 January – 31 December 2012 this is by 31 March 2011. In each case this report is submitted by individual aircraft operators.

The operator will need to contract a verifier to verify its emissions and tonne kilometre. A verifier will need to follow the guidelines laid down in the amended Annex V to the Directive and any detailed provisions that the Commission may adopt in respect of verification. Amended Annex V is attached to this document in Annex 5. If an operator submits an unverified report they will not be allowed to transfer allowances until a satisfactory verified report has been submitted. (Article 15)

The Commission will adopt detailed guidelines on the verification of reports including the procedures to be used by verifiers. These guidelines for aviation have yet to be adopted but are currently subject to a consultation process and are expected to be published in May 2009.

The general principles on verification that apply to stationary installation currently in the EU ETS set out in Annex V to the Directive will apply to aviation. This means

• The verifier will look at the reliability, credibility and accuracy of monitoring system
• The reported data will be assessed including its measurements and calculations
• All sources of data need to be submitted in order for verifier to identify any source of error
• Verifiers will be able to do spot checks
• A report on validation process will be produced
• There must be a high degree of certainty with the data and no inconsistencies
• Scientific standards are to be applied to the collection of data
• Records must be complete and consistent
• The verifier is to be given access to information and sites

Particular to aviation for the verification of emission reports the verifier needs to ascertain that all flights have been taken into account excluding exempt ones. The verifier will need to see time table data and other traffic data which the operator needs to request from Eurocontrol. There must be consistency between fuel consumption data and fuel purchased data. Particular to aviation for verification of tonne kilometre data the verifier needs to ascertain that only the flights performed under Annex 1 of the

6 Draft Monitoring, Reporting and Verification Guidelines are currently subject to a European Commission public consultation. More details of the consultation and the guidelines can be found at http://ec.europa.eu/environment/climat/aviation_en.htm
Directive are taken into account. No extra ones. The verifier needs to be assisted by the operators own traffic data including data requested by the operator from Eurocontrol. There must be consistency between payload reported and payload records kept for safety purposes.

4.5 Verifiers

• Verifiers need to be independent of the operator and carry out his role in accordance with Annex V of the directive.
• Verifiers need to have minimum competency requirements which are stated under Annex V
5 EMISSIONS TRADING TIMESCALES

5.1 Timeline for the Pre-trading Period - 2010-2011

EMISSIONS TRADING TIMELINE FOR PRE-TRADING PERIOD (2010-2011)

EC assigns airlines to Member State regulators
Operators submit ITUP
Start collecting emissions data for 2010
Operators write emissions verified report for 2010 data
Start collecting emissions data for 2011
Operators file verified emissions report for 2010 data
Operators write emissions verified report for 2011 data
Start of scheme
Operators file verified emissions report for 2011 data

01 Feb 2009
Jun 2009
01 Jan 2010
31 Dec 2010
01 Jan 2011
31 Mar 2011
31 Dec 2011
01 Jan 2012
31 Mar 2012
5.2 Timeline for the First Trading Period - 2012

EMISSIONS TRADING TIMELINE FOR 1ST YEAR (2012)

- EC assigns airlines to Member State regulators
- Operators submit MRP
- Start collecting RTK & emissions data
- Operators apply for free allowances by submitting RTK data to regulator
- Regulator submits applications to EC to calculate benchmark
- EC calculates benchmark to allocate allowances and no of allowances to be free
- Regulator publishes final RTK allocations by operator
- Regulator issues free allowances
- Operators write verified emissions report
- Operators file verified emissions report
- Operators surrender allowances for previous year
- Regulator reports to the EC on application of Directive

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>EC assigns airlines to Member State regulators</td>
<td>Jun 2009</td>
</tr>
<tr>
<td>Operators apply for free allowances by submitting RTK data to regulator</td>
<td>01 Jan 2010</td>
</tr>
<tr>
<td>Regulator submits applications to EC to calculate benchmark</td>
<td>31 Dec 2010</td>
</tr>
<tr>
<td>EC calculates benchmark to allocate allowances and no of allowances to be free</td>
<td>31 Mar 2011</td>
</tr>
<tr>
<td>Regulator publishes final RTK allocations by operator</td>
<td>30 Jun 2011</td>
</tr>
<tr>
<td>Regulator issues free allowances</td>
<td>30 Sep 2011</td>
</tr>
<tr>
<td>Operators write verified emissions report</td>
<td>31 Dec 2011</td>
</tr>
<tr>
<td>Operators file verified emissions report</td>
<td>01 Jan 2012</td>
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<tr>
<td>Operators surrender allowances for previous year</td>
<td>28 Feb 2012</td>
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<td>Regulator reports to the EC on application of Directive</td>
<td>31 Dec 2012</td>
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<td>First reporting year</td>
<td>31 Mar 2013</td>
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<td>Operators surrender allowances for previous year</td>
<td>30 Apr 2013</td>
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<tr>
<td>Regulator reports to the EC on application of Directive</td>
<td>30 Jun 2013</td>
</tr>
</tbody>
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5.3 Timeline for the Second and Subsequent Trading Periods - 2013-2017


- EC assigns airlines to Member State regulators
- Operators submit MRP
- Start collecting RTK & emissions data
- Operators apply for free allowances by submitting RTK data to regulator
- Regulator submits applications to EC to calculate benchmark
- EC calculate benchmark to allocate allowances and no of allowances to be free
- Regulator publishes final RTK allocations by operator
- Operators write verified report
- Operators file verified report
- Operators surrender allowance for previous year
- Regulator reports to the EC on application of Directive

Benchmarking year for second trading period

First reporting year for second trading period

These events only happen once for each trading period

These events are repeated for each year of the trading period
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EUROPEAN UNION

THE EUROPEAN PARLIAMENT

Brussels, 10 October 2008
(OR. en)

2006/0304 (COD)

PE-CONS 3657/08

THE COUNCIL

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AVIATION 146
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LEGISLATIVE ACTS AND OTHER INSTRUMENTS

Subject: DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community

In accordance with Article 251(3) of the EC Treaty,

this document will not be the subject of approval by the Council;

it is intended solely for the information of delegates

PE-CONS 3657/08  CR/ved

DG I

EN
DIRECTIVE OF THE EUROPEAN PARLIAMENT
AND OF THE COUNCIL

of

amending Directive 2003/87/EC
so as to include aviation activities
in the scheme for greenhouse gas emission allowance
trading within the Community

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Economic and Social Committee¹,

Having regard to the opinion of the Committee of the Regions²,

Acting in accordance with the procedure laid down in Article 251 of the Treaty³,

¹ OJ C 175, 27.7.2007, p. 47.
Whereas:

(1) Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community\(^1\) established a scheme for greenhouse gas emission allowance trading within the Community in order to promote reductions of greenhouse gas emissions in a cost-effective and economically efficient manner.

(2) The ultimate objective of the United Nations Framework Convention on Climate Change (UNFCCC), which was approved on behalf of the European Community by Council Decision 94/69/EC\(^2\), is to stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.

(3) The European Council meeting in Brussels on 8 and 9 March 2007 underlined the vital importance of achieving the strategic objective of limiting the global average temperature increase to not more than 2°C above pre-industrial levels. The latest scientific findings reported by the Intergovernmental Panel on Climate Change (IPCC) in its Fourth Assessment Report demonstrate even more clearly that the negative impacts of climate change are increasingly posing a serious risk to ecosystems, food production and the attainment of sustainable development and of the Millennium Development Goals, as well as to human health and security. Keeping the 2°C objective within reach requires stabilisation of the concentration of greenhouse gases in the atmosphere in line with about 450 ppmv CO\(_2\) equivalent, which requires global greenhouse gas emissions to peak within the next 10 to 15 years and substantial global emission reductions to at least 50 % below 1990 levels by 2050.

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\(^1\) OJ L 275, 25.10.2003, p. 32.
\(^2\) OJ L 33, 7.2.1994, p. 11.
(4) The European Council emphasised that the European Union is committed to transforming Europe into a highly energy-efficient and low greenhouse gas-emitting economy and, until a global and comprehensive post-2012 agreement is concluded, made a firm independent commitment for the EU to reduce its greenhouse gas emissions to at least 20 % below 1990 levels by 2020. The limitation of greenhouse gas emissions from aviation is an essential contribution in line with this commitment.

(5) The European Council emphasised that the EU is committed to a global and comprehensive agreement for reductions in greenhouse gas emissions beyond 2012, providing an effective, efficient and equitable response on the scale required to face climate change challenges. It endorsed a 30 % reduction in the EU’s greenhouse gas emissions below 1990 levels by 2020 as its contribution to a global and comprehensive agreement for the period beyond 2012, provided that other developed countries commit themselves to comparable emission reductions and economically more advanced developing countries to contributing adequately according to their responsibilities and respective capabilities. The EU is continuing to take the lead in the negotiation of an ambitious international agreement that will achieve the objective of limiting the global temperature increase to 2°C and is encouraged by the progress made towards this objective at the 13th Conference of the Parties to the UNFCCC in Bali in December 2007. The EU will seek to ensure that such a global agreement includes measures to reduce greenhouse gas emissions from aviation and, in this event, the Commission should consider which amendments to this Directive as it applies to aircraft operators are necessary.
(6) On 14 February 2007 the European Parliament adopted a resolution on climate change\(^1\) in which it referred to the objective to limit the average global temperature increase to 2°C above pre-industrialisation levels, and in which it urged the EU to maintain its leading role in the negotiations with a view to establishing a post-2012 international framework on climate change and to maintain a high level of ambition in future discussions with its international partners, and it emphasised the need to undertake overall emission reductions for all industrialised countries of 30 % compared to 1990 emission levels by 2020 with a view to achieving a reduction in the order of 60 to 80 % by 2050.

(7) The UNFCCC requires all parties to formulate and implement national and, where appropriate, regional programmes containing measures to mitigate climate change.

(8) The Kyoto Protocol to the UNFCCC, which was approved on behalf of the European Community by Council Decision 2002/358/EC\(^2\), requires developed countries to pursue the limitation or reduction of emissions of greenhouse gases not controlled by the Montreal Protocol from aviation, working through the International Civil Aviation Organisation (ICAO).

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\(^1\) OJ C 287 E, 29.11.2007, p. 344.
While the Community is not a Contracting Party to the 1944 Chicago Convention on International Civil Aviation ("the Chicago Convention"), all Member States are Contracting Parties to that Convention and members of the ICAO. Member States continue to support work with other States in the ICAO on the development of measures, including market-based instruments, to address the climate change impacts of aviation. At the sixth meeting of the ICAO Committee on Aviation Environmental Protection in 2004, it was agreed that an aviation-specific emissions trading system based on a new legal instrument under ICAO auspices seemed sufficiently unattractive that it should not then be pursued further. Consequently, Resolution A35-5 of the ICAO's 35th Assembly held in September 2004 did not propose a new legal instrument but instead endorsed open emissions trading and the possibility for States to incorporate emissions from international aviation into their emissions trading schemes. Appendix L to Resolution A36-22 of the ICAO's 36th Assembly held in September 2007 urges Contracting States not to implement an emissions trading system on other Contracting States' aircraft operators except on the basis of mutual agreement between those States. Recalling that the Chicago Convention recognises expressly the right of each Contracting Party to apply on a non-discriminatory basis its own air laws and regulations to the aircraft of all States, the Member States of the European Community and fifteen other European States placed a reservation on this resolution and reserved the right under the Chicago Convention to enact and apply market-based measures on a non-discriminatory basis to all aircraft operators of all States providing services to, from or within their territory.
(10) The Sixth Community Environment Action Programme established by
Decision No 1600/2002/EC of the European Parliament and of the Council\(^1\) provided for
the Community to identify and undertake specific actions to reduce greenhouse gas
emissions from aviation if no such action were agreed within the ICAO by 2002. In its
conclusions of October 2002, December 2003 and October 2004, the Council has
repeatedly called on the Commission to propose action to reduce the climate change
impact of international air transport.

(11) Policies and measures should be implemented at Member State and Community level
across all sectors of the Community economy in order to generate the substantial
reductions needed. If the climate change impact of the aviation sector continues to grow at
the current rate, it would significantly undermine reductions made by other sectors to
combat climate change.

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(12) In its Communication of 27 September 2005 to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions entitled "Reducing the Climate Change Impact of Aviation", the Commission outlined a strategy for reducing the climate impact of aviation. As part of a comprehensive package of measures, the strategy proposed the inclusion of aviation in the Community scheme for greenhouse gas emission allowance trading and provided for the creation of a multi-stakeholder working group on aviation as part of the second phase of the European Climate Change Programme to consider ways of including aviation in the Community scheme. In its Conclusions of 2 December 2005, the Council recognised that, from an economic and environmental point of view, the inclusion of the aviation sector in the Community scheme seemed to be the best way forward and called on the Commission to bring forward a legislative proposal by the end of 2006. In its resolution of 4 July 2006 on reducing the climate change impact of aviation\(^1\), the European Parliament recognised that emissions trading has the potential to play a role as part of a comprehensive package of measures to address the climate impact of aviation, provided that it is appropriately designed.

(13) A comprehensive package of measures should also include operational and technological measures. Improvements of air traffic management under the Single European Sky and SESAR programmes could help increase overall fuel efficiency by up to 12%. Research into new technologies, including into methods for improving the fuel efficiency of aircraft, can further cut emissions from aviation.

\(^1\) OJ C 303 E, 13.12.2006, p. 119.
(14) The objective of the amendments made to Directive 2003/87/EC by this Directive is to reduce the climate change impact attributable to aviation by including emissions from aviation activities in the Community scheme.

(15) Aircraft operators have the most direct control over the type of aircraft in operation and the way in which they are flown and should therefore be responsible for complying with the obligations imposed by this Directive, including the obligation to prepare a monitoring plan and to monitor and report emissions in accordance with that plan. An aircraft operator may be identified by the use of an ICAO designator or any other recognised designator used in the identification of the flight. If the identity of the aircraft operator is not known, the owner of the aircraft should be regarded as the aircraft operator unless it proves which other person was the aircraft operator.

(16) In order to avoid distortions of competition and improve environmental effectiveness, emissions from all flights arriving at and departing from Community aerodromes should be included from 2012.
(17) The Community and its Member States should continue to seek an agreement on global measures to reduce greenhouse gas emissions from aviation. The Community scheme may serve as a model for the use of emissions trading worldwide. The Community and its Member States should continue to be in contact with third parties during the implementation of this Directive and to encourage third countries to take equivalent measures. If a third country adopts measures, which have an environmental effect at least equivalent to that of this Directive, to reduce the climate impact of flights to the Community, the Commission should consider the options available in order to provide for optimal interaction between the Community scheme and that country's measures, after consulting with that country. Emissions trading schemes being developed in third countries are beginning to provide for optimal interaction with the Community scheme in relation to their coverage of aviation. Bilateral arrangements on linking the Community scheme with other trading schemes to form a common scheme or taking account of equivalent measures to avoid double regulation could constitute a step towards global agreement. Where such bilateral arrangements are made, the Commission may amend the types of aviation activities included in the Community scheme, including consequential adjustments to the total quantity of allowances to be issued to aircraft operators.

(18) In line with the principle of better regulation, certain flights should be exempt from the Community scheme. To further avoid disproportionate administrative burdens, commercial air transport operators operating, for three consecutive four-month periods, fewer than 243 flights per period should be exempt from the Community scheme. This would benefit airlines operating limited services within the scope of the Community scheme, including airlines from developing countries.
(19) Aviation has an impact on the global climate through releases of carbon dioxide, nitrogen oxides, water vapour and sulphate and soot particles. The IPCC has estimated that the total climate impact of aviation is currently two to four times higher than the effect of its past carbon dioxide emissions alone. Recent Community research indicates that the total climate impact of aviation could be around two times higher than the impact of carbon dioxide alone. However, none of these estimates takes into account the highly uncertain cirrus cloud effects. In accordance with Article 174(2) of the Treaty, Community environment policy is to be based on the precautionary principle. Pending scientific progress, all impacts of aviation should be addressed to the extent possible. Emissions of nitrogen oxides will be addressed in other legislation to be proposed by the Commission in 2008. Research on the formation of contrails and cirrus clouds and effective mitigation measures, including operational and technical measures, should be promoted.

(20) In order to avoid distortions of competition, a harmonised allocation methodology should be specified for determining the total quantity of allowances to be issued and for distributing allowances to aircraft operators. A proportion of allowances will be allocated by auction in accordance with rules to be developed by the Commission. A special reserve of allowances should be set aside to ensure access to the market for new aircraft operators and to assist aircraft operators which increase sharply the number of tonne-kilometres that they perform. Aircraft operators that cease operations should continue to be issued with allowances until the end of the period for which free allowances have already been allocated.
(21) Full harmonisation of the proportion of allowances issued free of charge to all aircraft operators participating in the Community scheme is appropriate in order to ensure a level playing field for aircraft operators, given that each aircraft operator will be regulated by a single Member State in respect of all their operations to, from and within the EU and by the non-discrimination provisions of bilateral air service agreements with third countries.

(22) Aviation contributes to the overall climate change impact of human activities and the environmental impact of greenhouse gas emissions from aircraft can be mitigated through measures to tackle climate change in the EU and third countries, especially in developing countries, and to fund research and development for mitigation and adaptation including in particular in the fields of aeronautics and air transport. Decisions on national public expenditure are a matter for Member States, in line with the principle of subsidiarity. Without prejudice to that position, revenues generated from the auctioning of allowances, or an equivalent amount where required by overriding budgetary principles of the Member States, such as unity and universality, should be used to reduce greenhouse gas emissions, to adapt to the impacts of climate change in the EU and third countries, to fund research and development for mitigation and adaptation and to cover the cost of administering the Community scheme. Revenues generated from auctioning should also be used on low-emission transport. The proceeds of auctioning should in particular be used to fund contributions to the Global Energy Efficiency and Renewable Energy Fund, and measures to avoid deforestation and facilitate adaptation in developing countries. The provisions of this Directive relating to the use of revenues should not prejudge any decision on the use to be made of revenues generated from the auctioning of allowances in the broader context of the general review of Directive 2003/87/EC.
(23) Provisions for the use of funds from the auctioning should be notified to the Commission. Such notification does not release Member States from the obligation laid down in Article 88(3) of the Treaty to notify certain national measures. This Directive should be without prejudice to the outcome of any future State aid procedures that may be undertaken in accordance with Articles 87 and 88 of the Treaty.

(24) To increase the cost-effectiveness of the Community scheme, aircraft operators should be able to use certified emission reductions ("CERs") and emission reduction units ("ERUs") from project activities to meet obligations to surrender allowances up to a harmonised limit. The use of CERs and ERUs should be consistent with the criteria for acceptance for use in the trading scheme set out in this Directive. The average of the percentages specified by Member States for the use of CERs and ERUs during the Kyoto Protocol's first commitment period is approximately 15%.

(25) In its Conclusions, the European Council meeting in Brussels on 13 and 14 March 2008 recognised that in a global context of competitive markets the risk of carbon leakage is a concern that needs to be analysed and addressed urgently in the new Emissions Trading System Directive, so that if international negotiations fail appropriate measures can be taken. An international agreement remains the best way of addressing this issue.
(26) In order to reduce the administrative burden on aircraft operators, one Member State should be responsible for each aircraft operator. Member States should be required to ensure that aircraft operators which were issued with an operating licence in that Member State, or aircraft operators without an operating licence or from third countries whose emissions in a base year are mostly attributable to that Member State, comply with the requirements of this Directive. In the event that an aircraft operator fails to comply with the requirements of this Directive and other enforcement measures by the administering Member State have failed to ensure compliance, Member States should act in solidarity. The administering Member State should therefore be able to request the Commission to decide on the imposition of an operating ban at Community level on the aircraft operator concerned, as a last resort.

(27) To maintain the integrity of the accounting system for the Community scheme in view of the fact that emissions from international aviation are not integrated into Member States' commitments under the Kyoto Protocol, allowances allocated to the aviation sector should only be used to meet the obligations placed on aircraft operators to surrender allowances under this Directive.

(28) In order to ensure equal treatment of aircraft operators, Member States should follow harmonised rules for the administration of aircraft operators for which they have responsibility, in accordance with specific guidelines to be developed by the Commission.

(29) To safeguard the environmental integrity of the Community scheme, units surrendered by aircraft operators should only count towards greenhouse gas reduction targets that take these emissions into account.
(30) The European Organisation for the Safety of Air Navigation (Eurocontrol) may possess information which could assist Member States or the Commission in discharging their obligations imposed by this Directive.

(31) The provisions of the Community scheme relating to monitoring, reporting and verifying emissions and to penalties applicable to operators should also apply to aircraft operators.


(33) The review of the functioning of Directive 2003/87/EC in relation to aviation activities should consider the structural dependence on aviation of countries which do not have adequate and comparable alternative modes of transport and which are therefore highly dependent on air transport and in which the tourism sector provides a high contribution to those countries' gross domestic product. Special consideration should be given to mitigating or even eliminating any accessibility and competitiveness problems arising for the outermost regions of the Community, as specified in Article 299(2) of the Treaty, and problems for public service obligations in connection with the implementation of this Directive.

(34) The Ministerial Statement on Gibraltar Airport, agreed in Cordoba on 18 September 2006, during the first Ministerial meeting of the Forum of Dialogue on Gibraltar, will replace the Joint Declaration on the Airport made in London on 2 December 1987, and full compliance with it will be deemed to constitute compliance with the 1987 Declaration.

(35) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission.1

In particular, the Commission should be empowered to adopt measures for the auctioning of allowances not required to be issued for free; to adopt detailed rules on the operation of the special reserve for certain aircraft operators and on the procedures relating to requests for the Commission to decide on the imposition of an operating ban on an aircraft operator; and to amend the aviation activities listed in Annex I where a third country introduces measures to reduce the climate change impact of aviation. Since those measures are of general scope and are designed to amend non-essential elements of this Directive, inter alia by supplementing this Directive with new non-essential elements, they must be adopted in accordance with the regulatory procedure with scrutiny provided for in Article 5a of Decision 1999/468/EC.

Since the objective of this Directive cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale and effects of the proposed action, be better achieved at Community level, the Community may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective.

In accordance with point 34 of the Interinstitutional Agreement on better law-making, Member States are encouraged to draw up, for themselves and in the interest of the Community, their own tables illustrating, as far as possible, the correlation between the Directive and the transposition measures, and to make them public.

Directive 2003/87/EC should therefore be amended accordingly,

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HAVE ADOPTED THIS DIRECTIVE:

Article 1

Amendments to Directive 2003/87/EC

Directive 2003/87/EC is hereby amended as follows:

1) the following title shall be inserted before Article 1:

"Chapter I

General provisions";

2) the following paragraph shall be added to Article 2:

"3. The application of this Directive to the airport of Gibraltar is understood to be without prejudice to the respective legal positions of the Kingdom of Spain and the United Kingdom with regard to the dispute over sovereignty over the territory in which the airport is situated."

3) Article 3 shall be amended as follows:

(a) point (b) shall be replaced by the following:

"(b) "emissions" means the release of greenhouse gases into the atmosphere from sources in an installation or the release from an aircraft performing an aviation activity listed in Annex I of the gases specified in respect of that activity;";
(b) the following points shall be added:

(o) "aircraft operator" means the person who operates an aircraft at the time it performs an aviation activity listed in Annex I or, where that person is not known or is not identified by the owner of the aircraft, the owner of the aircraft;

(p) "commercial air transport operator" means an operator that, for remuneration, provides scheduled or non-scheduled air transport services to the public for the carriage of passengers, freight or mail;

(q) "administering Member State" means the Member State responsible for administering the Community scheme in respect of an aircraft operator in accordance with Article 18a;

(r) "attributed aviation emissions" means emissions from all flights falling within the aviation activities listed in Annex I which depart from an aerodrome situated in the territory of a Member State and those which arrive in such an aerodrome from a third country;

(s) "historical aviation emissions" means the mean average of the annual emissions in the calendar years 2004, 2005 and 2006 from aircraft performing an aviation activity listed in Annex I.";
the following Chapter shall be inserted after Article 3:

"Chapter II
Aviation

Article 3a
Scope

The provisions of this Chapter shall apply to the allocation and issue of allowances in respect of aviation activities listed in Annex I.

Article 3b
Aviation activities

By ... *, the Commission shall, in accordance with the regulatory procedure referred to in Article 23(2), develop guidelines on the detailed interpretation of the aviation activities listed in Annex I.

Article 3c
Total quantity of allowances for aviation

1. For the period from 1 January 2012 to 31 December 2012, the total quantity of allowances to be allocated to aircraft operators shall be equivalent to 97 % of the historical aviation emissions.

2. For the period referred to in Article 11(2) beginning on 1 January 2013, and, in the absence of any amendments following the review referred to in Article 30(4), for each subsequent period, the total quantity of allowances to be allocated to aircraft operators shall be equivalent to 95 % of the historical aviation emissions multiplied by the number of years in the period.

* Six months from the date of entry into force of this Directive.
This percentage may be reviewed as part of the general review of this Directive.

3. The Commission shall review the total quantity of allowances to be allocated to aircraft operators in accordance with Article 30(4).

4. By ... *, the Commission shall decide on the historical aviation emissions, based on best available data, including estimates based on actual traffic information. That decision shall be considered within the Committee referred to in Article 23(1).

Article 3d
Method of allocation of allowances for aviation through auctioning

1. In the period referred to in Article 3c(1), 15 % of allowances shall be auctioned.

2. From 1 January 2013, 15 % of allowances shall be auctioned. This percentage may be increased as part of the general review of this Directive.

3. A Regulation shall be adopted containing detailed provisions for the auctioning by Member States of allowances not required to be issued free of charge in accordance with paragraphs 1 and 2 of this Article or Article 3f(8). The number of allowances to be auctioned in each period by each Member State shall be proportionate to its share of the total attributed aviation emissions for all Member States for the reference year reported pursuant to Article 14(3) and verified pursuant to Article 15. For the period referred to in Article 3c(1), the reference year shall be 2010 and for each subsequent period referred to in Article 3c the reference year shall be the calendar year ending 24 months before the start of the period to which the auction relates.

* Six months from the date of entry into force of this Directive.
That Regulation, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 23(3).

4. It shall be for Member States to determine the use to be made of revenues generated from the auctioning of allowances. Those revenues should be used to tackle climate change in the EU and third countries, inter alia to reduce greenhouse gas emissions, to adapt to the impacts of climate change in the EU and third countries, especially developing countries, to fund research and development for mitigation and adaptation, including in particular in the fields of aeronautics and air transport, to reduce emissions through low-emission transport and to cover the cost of administering the Community scheme. The proceeds of auctioning should also be used to fund contributions to the Global Energy Efficiency and Renewable Energy Fund, and measures to avoid deforestation.

Member States shall inform the Commission of actions taken pursuant to this paragraph.

5. Information provided to the Commission pursuant to this Directive does not free Member States from the notification obligation laid down in Article 88(3) of the Treaty.

Article 3e
Allocation and issue of allowances to aircraft operators
1. For each period referred to in Article 3c, each aircraft operator may apply for an allocation of allowances that are to be allocated free of charge. An application may be made by submitting to the competent authority in the administering Member State verified tonne-kilometre data for the aviation activities listed in Annex I performed by that aircraft operator for the monitoring year. For the purposes of this Article, the monitoring year shall be the calendar year ending 24 months before the start of the period to which it relates in accordance with Annexes IV and V or, in relation to the period referred to in Article 3c(1), 2010. Any application shall be made at least 21 months before the start of the period to which it relates or, in relation to the period referred to in Article 3c(1), by 31 March 2011.

2. At least eighteen months before the start of the period to which the application relates or, in relation to the period referred to in Article 3c(1), by 30 June 2011, Member States shall submit applications received under paragraph 1 to the Commission.

3. At least fifteen months before the start of each period referred to in Article 3c(2) or, in relation to the period referred to in Article 3c(1), by 30 September 2011, the Commission shall calculate and adopt a decision setting out:

   (a) the total quantity of allowances to be allocated for that period in accordance with Article 3c;

   (b) the number of allowances to be auctioned in that period in accordance with Article 3d;
(c) the number of allowances in the special reserve for aircraft operators in that period in accordance with Article 3f(1);

(d) the number of allowances to be allocated free of charge in that period by subtracting the number of allowances referred to in points (b) and (c) from the total quantity of allowances decided upon under point (a); and

(e) the benchmark to be used to allocate allowances free of charge to aircraft operators whose applications were submitted to the Commission in accordance with paragraph 2.

The benchmark referred to in point (e), expressed as allowances per tonne-kilometre, shall be calculated by dividing the number of allowances referred to in point (d) by the sum of the tonne-kilometre data included in applications submitted to the Commission in accordance with paragraph 2.

4. Within three months from the date on which the Commission adopts a decision under paragraph 3, each administering Member State shall calculate and publish:

(a) the total allocation of allowances for the period to each aircraft operator whose application it submitted to the Commission in accordance with paragraph 2, calculated by multiplying the tonne-kilometre data included in the application by the benchmark referred to in paragraph 3(e); and
(b) the allocation of allowances to each aircraft operator for each year, which shall be determined by dividing its total allocation of allowances for the period calculated under point (a) by the number of years in the period for which that aircraft operator is performing an aviation activity listed in Annex I.

5. By 28 February 2012 and by 28 February of each subsequent year, the competent authority of the administering Member State shall issue to each aircraft operator the number of allowances allocated to that aircraft operator for that year under this Article or Article 3f.

Article 3f
Special reserve for certain aircraft operators

1. In each period referred to in Article 3c(2), 3 % of the total quantity of allowances to be allocated shall be set aside in a special reserve for aircraft operators:

   (a) who start performing an aviation activity falling within Annex I after the monitoring year for which tonne-kilometre data was submitted under Article 3e(1) in respect of a period referred to in Article 3c(2); or

   (b) whose tonne-kilometre data increases by an average of more than 18 % annually between the monitoring year for which tonne-kilometre data was submitted under Article 3e(1) in respect of a period referred to in Article 3c(2) and the second calendar year of that period;
and whose activity under point (a), or additional activity under point (b), is not in whole or in part a continuation of an aviation activity previously performed by another aircraft operator.

2. An aircraft operator who is eligible under paragraph 1 may apply for a free allocation of allowances from the special reserve by making an application to the competent authority of its administering Member State. Any application shall be made by 30 June in the third year of the period referred to in Article 3c(2) to which it relates.

An allocation to an aircraft operator under paragraph 1(b) shall not exceed 1 000 000 allowances.

3. An application under paragraph 2 shall:

(a) include verified tonne-kilometre data in accordance with Annexes IV and V for the aviation activities listed in Annex I performed by the aircraft operator in the second calendar year of the period referred to in Article 3c(2) to which the application relates;

(b) provide evidence that the criteria for eligibility under paragraph 1 are fulfilled; and
(c) in the case of aircraft operators falling within paragraph 1(b), state:

(i) the percentage increase in tonne-kilometres performed by that aircraft operator between the monitoring year for which tonne-kilometre data was submitted under Article 3e(1) in respect of a period referred to in Article 3c(2) and the second calendar year of that period;

(ii) the absolute growth in tonne-kilometres performed by that aircraft operator between the monitoring year for which tonne-kilometre data was submitted under Article 3e(1) in respect of a period referred to in Article 3c(2) and the second calendar year of that period; and

(iii) the absolute growth in tonne-kilometres performed by that aircraft operator between the monitoring year for which tonne-kilometre data was submitted under Article 3e(1) in respect of a period referred to in Article 3c(2) and the second calendar year of that period which exceeds the percentage specified in paragraph 1(b).

4. No later than six months from the deadline for making an application under paragraph 2, Member States shall submit applications received under that paragraph to the Commission.
5. No later than twelve months from the deadline for making an application under paragraph 2, the Commission shall decide on the benchmark to be used to allocate allowances free of charge to aircraft operators whose applications were submitted to the Commission in accordance with paragraph 4.

Subject to paragraph 6, the benchmark shall be calculated by dividing the number of allowances in the special reserve by the sum of:

(a) the tonne-kilometre data for aircraft operators falling within paragraph 1(a) included in applications submitted to the Commission in accordance with paragraphs 3(a) and 4; and

(b) the absolute growth in tonne-kilometres exceeding the percentage specified in paragraph 1(b) for aircraft operators falling within paragraph 1(b) included in applications submitted to the Commission in accordance with paragraphs 3(c)(iii) and 4.

6. The benchmark referred to in paragraph 5 shall not result in an annual allocation per tonne-kilometre greater than the annual allocation per tonne-kilometre to aircraft operators under Article 3e(4).
7. Within three months from the date on which the Commission adopts a decision under paragraph 5, each administering Member State shall calculate and publish:

(a) the allocation of allowances from the special reserve to each aircraft operator whose application it submitted to the Commission in accordance with paragraph 4. This allocation shall be calculated by multiplying the benchmark referred to in paragraph 5 by:

(i) in the case of an aircraft operator falling within paragraph 1(a), the tonne-kilometre data included in the application submitted to the Commission under paragraphs 3(a) and 4;

(ii) in the case of an aircraft operator falling within paragraph 1(b), the absolute growth in tonne-kilometres exceeding the percentage specified in paragraph 1(b) included in the application submitted to the Commission under paragraphs 3(c)(iii) and 4; and

(b) the allocation of allowances to each aircraft operator for each year, which shall be determined by dividing its allocation of allowances under point (a) by the number of full calendar years remaining in the period referred to in Article 3c(2) to which the allocation relates.

8. Any unallocated allowances in the special reserve shall be auctioned by Member States.
9. The Commission may establish detailed rules on the operation of the special reserve under this Article, including the assessment of compliance with eligibility criteria under paragraph 1. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 23(3).

Article 3g

Monitoring and reporting plans

The administering Member State shall ensure that each aircraft operator submits to the competent authority in that Member State a monitoring plan setting out measures to monitor and report emissions and tonne-kilometre data for the purpose of an application under Article 3e and that such plans are approved by the competent authority in accordance with the guidelines adopted pursuant to Article 14.

5) the following title and Article shall be inserted:

"Chapter III
Stationary installations

Article 3h
Scope

The provisions of this Chapter shall apply to greenhouse gas emissions permits and the allocation and issue of allowances in respect of activities listed in Annex I other than aviation activities.";
6) point (e) of Article 6(2) shall be replaced by the following:

"(e) an obligation to surrender allowances, other than allowances issued under Chapter II, equal to the total emissions of the installation in each calendar year, as verified in accordance with Article 15, within four months following the end of that year."

7) the following title shall be inserted after Article 11:

"Chapter IV
Provisions applying to aviation and stationary installations"

8) in Article 11a the following paragraph shall be inserted:

"1a. During the period referred to in Article 3c(1), aircraft operators may use CERs and ERUs, up to 15 % of the number of allowances they are required to surrender pursuant to Article 12(2a).

For subsequent periods, the percentage of CERs and ERUs that may be used in relation to aviation activities shall be reviewed as part of the general review of this Directive and taking into consideration the development of the international climate change regime.

The Commission shall publish this percentage at least six months before the start of each period referred to in Article 3c."

9) in Article 11b(2), the word "installations" shall be replaced by the word "activities";
10) Article 12 shall be amended as follows:

(a) in paragraph 2, after the word "purpose" the words "of meeting an aircraft operator's obligations under paragraph 2a or" shall be inserted;

(b) the following paragraph shall be inserted:

"2a. Administering Member States shall ensure that, by 30 April each year, each aircraft operator surrenders a number of allowances equal to the total emissions during the preceding calendar year from aviation activities listed in Annex I for which it is the aircraft operator, as verified in accordance with Article 15. Member States shall ensure that allowances surrendered in accordance with this paragraph are subsequently cancelled."

(c) paragraph 3 shall be replaced by the following:

"3. Member States shall ensure that, by 30 April each year, the operator of each installation surrenders a number of allowances, other than allowances issued under Chapter II, equal to the total emissions from that installation during the preceding calendar year as verified in accordance with Article 15, and that these are subsequently cancelled."

11) in Article 13(3), the words "Article 12(3)" shall be replaced by the words "Article 12(2a) or (3)";
12) Article 14 shall be amended as follows:

(a) in the first sentence of paragraph 1:

(i) after the words "those activities" the words "and of tonne-kilometre data for the purpose of an application under Articles 3e or 3f" shall be inserted;

(ii) the words ", by 30 September 2003" shall be deleted;

(b) paragraph 3 shall be replaced by the following:

"3. Member States shall ensure that each operator or aircraft operator reports the emissions during each calendar year from the installation, or, from 1 January 2010, the aircraft, which it operates to the competent authority after the end of that year in accordance with the guidelines."

13) Article 15 shall be replaced by the following:

"Article 15
Verification

Member States shall ensure that the reports submitted by operators and aircraft operators pursuant to Article 14(3) are verified in accordance with the criteria set out in Annex V and any detailed provisions adopted by the Commission in accordance with this Article, and that the competent authority is informed thereof."
Member States shall ensure that an operator or aircraft operator whose report has not been verified as satisfactory in accordance with the criteria set out in Annex V and any detailed provisions adopted by the Commission in accordance with this Article by 31 March each year for emissions during the preceding year cannot make further transfers of allowances until a report from that operator or aircraft operator has been verified as satisfactory.

The Commission may adopt detailed provisions for the verification of reports submitted by aircraft operators pursuant to Article 14(3) and applications under Articles 3e and 3f, including the verification procedures to be used by verifiers, in accordance with the regulatory procedure referred to in Article 23(2)."

14) Article 16 shall be amended as follows:

(a) in paragraph 1, the words "by 31 December 2003 at the latest," shall be deleted;

(b) paragraphs 2 and 3 shall be replaced by the following:

"2. Member States shall ensure publication of the names of operators and aircraft operators who are in breach of requirements to surrender sufficient allowances under this Directive."
3. Member States shall ensure that any operator or aircraft operator who does not surrender sufficient allowances by 30 April of each year to cover its emissions during the preceding year shall be held liable for the payment of an excess emissions penalty. The excess emissions penalty shall be EUR 100 for each tonne of carbon dioxide equivalent emitted for which the operator or aircraft operator has not surrendered allowances. Payment of the excess emissions penalty shall not release the operator or aircraft operator from the obligation to surrender an amount of allowances equal to those excess emissions when surrendering allowances in relation to the following calendar year."

(c) the following paragraphs shall be added:

"5. In the event that an aircraft operator fails to comply with the requirements of this Directive and where other enforcement measures have failed to ensure compliance, its administering Member State may request the Commission to decide on the imposition of an operating ban on the aircraft operator concerned.

6. Any request by an administering Member State under paragraph 5 shall include:

(a) evidence that the aircraft operator has not complied with its obligations under this Directive;
(b) details of the enforcement action which has been taken by that Member State;

(c) a justification for the imposition of an operating ban at Community level;

and

(d) a recommendation for the scope of an operating ban at Community level and any conditions that should be applied.

7. When requests such as those referred to in paragraph 5 are addressed to the Commission, the Commission shall inform the other Member States through their representatives on the Committee referred to in Article 23(1) in accordance with the Committee's Rules of Procedure.

8. The adoption of a decision following a request pursuant to paragraph 5 shall be preceded, when appropriate and practicable, by consultations with the authorities responsible for regulatory oversight of the aircraft operator concerned. Whenever possible, consultations shall be held jointly by the Commission and the Member States.
9. When the Commission is considering whether to adopt a decision following a request pursuant to paragraph 5, it shall disclose to the aircraft operator concerned the essential facts and considerations which form the basis for such decision. The aircraft operator concerned shall be given an opportunity to submit written comments to the Commission within 10 working days from the date of disclosure.

10. At the request of a Member State, the Commission may, in accordance with the regulatory procedure referred to in Article 23(2), adopt a decision to impose an operating ban on the aircraft operator concerned.

11. Each Member State shall enforce, within its territory, any decisions adopted under paragraph 10. It shall inform the Commission of any measures taken to implement such decisions.

12. Where appropriate, detailed rules shall be established in respect of the procedures referred to in this Article. Those measures, designed to amend non-essential elements of this Directive by supplementing it, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 23(3).";
the following Articles shall be inserted:

"Article 18a

Administering Member State

1. The administering Member State in respect of an aircraft operator shall be:

(a) in the case of an aircraft operator with a valid operating licence granted by a Member State in accordance with the provisions of Council Regulation (EEC) No 2407/92 of 23 July 1992 on licensing of air carriers*, the Member State which granted the operating licence in respect of that aircraft operator; and

(b) in all other cases, the Member State with the greatest estimated attributed aviation emissions from flights performed by that aircraft operator in the base year.

2. Where in the first two years of any period referred to in Article 3c, none of the attributed aviation emissions from flights performed by an aircraft operator falling within paragraph 1(b) of this Article are attributed to its administering Member State, the aircraft operator shall be transferred to another administering Member State in respect of the next period. The new administering Member State shall be the Member State with the greatest estimated attributed aviation emissions from flights performed by that aircraft operator during the first two years of the previous period.
3. Based on the best available information, the Commission shall:

   (a) before 1 February 2009, publish a list of aircraft operators which performed an aviation activity listed in Annex I on or after 1 January 2006 specifying the administering Member State for each aircraft operator in accordance with paragraph 1; and

   (b) before 1 February of each subsequent year, update the list to include aircraft operators which have subsequently performed an aviation activity listed in Annex I.

4. The Commission may, in accordance with the regulatory procedure referred to in Article 23(2), develop guidelines relating to the administration of aircraft operators under this Directive by administering Member States.

5. For the purposes of paragraph 1, "base year" means, in relation to an aircraft operator which started operating in the Community after 1 January 2006, the first calendar year of operation, and in all other cases, the calendar year starting on 1 January 2006.

Article 18b

Assistance from Eurocontrol

For the purposes of carrying out its obligations under Articles 3c(4) and 18a, the Commission may request the assistance of Eurocontrol or another relevant organisation and may conclude to that effect any appropriate agreements with those organisations.

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16) in Article 19, paragraph 3 shall be amended as follows:

(a) the last sentence shall be replaced by the following:

"That Regulation shall also include provisions concerning the use and identification of CERs and ERUs in the Community scheme and the monitoring of the level of such use and provisions to take account of the inclusion of aviation activities in the Community scheme.";

(b) the following subparagraph shall be added:

"The Regulation on a standardised and secured system of registries shall ensure that allowances, CERs and ERUs surrendered by aircraft operators are transferred to Member States' retirement accounts for the Kyoto Protocol's first commitment period only to the extent that those allowances, CERs and ERUs correspond to emissions included in the national totals of Member States' national inventories for that period.";

17) in Article 23, paragraph 3 shall be replaced by the following:

"3. Where reference is made to this paragraph, Article 5a(1) to (4) and Article 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.";
18) the following Article shall be inserted:

"Article 25a
Third country measures to reduce the climate change impact of aviation

1. Where a third country adopts measures for reducing the climate change impact of flights departing from that country which land in the Community, the Commission, after consulting with that third country, and with Member States within the Committee referred to in Article 23(1), shall consider options available in order to provide for optimal interaction between the Community scheme and that country's measures.

Where necessary, the Commission may adopt amendments to provide for flights arriving from the third country concerned to be excluded from the aviation activities listed in Annex I or to provide for any other amendments to the aviation activities listed in Annex I which are required by an agreement pursuant to the fourth subparagraph. Those measures, designed to amend non-essential elements of this Directive, shall be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 23(3).

The Commission may propose to the European Parliament and the Council any other amendments to this Directive.

The Commission may also, where appropriate, make recommendations to the Council in accordance with Article 300(1) of the Treaty to open negotiations with a view to concluding an agreement with the third country concerned.
2. The Community and its Member States shall continue to seek an agreement on global measures to reduce greenhouse gas emissions from aviation. In the light of any such agreement, the Commission shall consider whether amendments to this Directive as it applies to aircraft operators are necessary."

19) Article 28 shall be amended as follows:

(a) point (b) of paragraph 3 shall be replaced by the following:

"(b) to be responsible for surrendering allowances, other than allowances issued under Chapter II, equal to the total emissions from installations in the pool, by way of derogation from Articles 6(2)(e) and 12(3); and"

(b) paragraph 4 shall be replaced by the following:

"4. The trustee shall be subject to the penalties applicable for breaches of requirements to surrender sufficient allowances, other than allowances issued under Chapter II, to cover the total emissions from installations in the pool, by way of derogation from Article 16(2), (3) and (4).";
the following paragraph shall be added to Article 30:

"4. By 1 December 2014 the Commission shall, on the basis of monitoring and experience of the application of this Directive, review the functioning of this Directive in relation to aviation activities in Annex I and may make proposals to the European Parliament and the Council pursuant to Article 251 of the Treaty as appropriate. The Commission shall give consideration in particular to:

(a) the implications and impacts of this Directive as regards the overall functioning of the Community scheme;

(b) the functioning of the aviation allowance market, covering in particular any possible market disturbances;

(c) the environmental effectiveness of the Community scheme and the extent by which the total quantity of allowances to be allocated to aircraft operators under Article 3c should be reduced in line with overall EU emissions reduction targets;

(d) the impact of the Community scheme on the aviation sector, including issues of competitiveness, taking into account in particular the effect of climate change policies implemented for aviation outside the EU;

(e) continuing with the special reserve for aircraft operators, taking into account the likely convergence of growth rates across the industry;"
(f) the impact of the Community scheme on the structural dependency on aviation transport of islands, landlocked regions, peripheral regions and the outermost regions of the Community;

(g) whether a gateway system should be included to facilitate the trading of allowances between aircraft operators and operators of installations whilst ensuring that no transactions would result in a net transfer of allowances from aircraft operators to operators of installations;

(h) the implications of the exclusion thresholds as specified in Annex I in terms of certified maximum take-off mass and number of flights per year performed by an aircraft operator;

(i) the impact of the exemption from the Community scheme of certain flights performed in the framework of public service obligations imposed in accordance with Council Regulation (EEC) No 2408/92 of 23 July 1992 on access for Community air carriers to intra-Community air routes*;

(j) developments, including the potential for future developments, in the efficiency of aviation and in particular the progress towards meeting the Advisory Council for Aeronautics Research in Europe (ACARE) goal to develop and demonstrate technologies able to reduce fuel consumption by 50 % by 2020 and whether further measures to increase efficiency are necessary;
(k) developments in scientific understanding on the climate change impacts of contrails and cirrus clouds caused by aviation with a view to proposing effective mitigation measures.

The Commission shall then report to the European Parliament and the Council.

21) the following title shall be inserted after Article 30:

"Chapter V
Final provisions";

22) Annexes I, IV and V shall be amended in accordance with the Annex to this Directive.

Article 2
Transposition

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before ...*. They shall forthwith inform the Commission thereof.

When Member States adopt those measures, they shall contain a reference to this Directive or shall be accompanied by such reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

* 12 months after date of entry into force of this Directive.
2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive. The Commission shall inform the Member States thereof.

Article 3

Entry into force

This Directive shall enter into force on the twentieth day following its publication in the Official Journal of the European Union.

Article 4

Addressees

This Directive is addressed to the Member States.

Done at

For the European Parliament For the Council
The President The President
Annexes I, IV and V to Directive 2003/87/EC are hereby amended as follows:

1) Annex I shall be amended as follows:

(a) the title shall be replaced by the following:

"CATEGORIES OF ACTIVITIES TO WHICH THIS DIRECTIVE APPLIES";

(b) the following subparagraph shall be inserted in paragraph 2 before the table:

"From 1 January 2012 all flights which arrive at or depart from an aerodrome situated in the territory of a Member State to which the Treaty applies shall be included.";
(c) the following category of activity shall be added:

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Aviation
Flights which depart from or arrive in an aerodrome situated in the territory of a Member State to which the Treaty applies.
This activity shall not include:
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<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Carbon dioxide</td>
<td></td>
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<tr>
<td>(a) flights performed exclusively for the transport, on official mission, of a reigning Monarch and his immediate family, Heads of State, Heads of Government and Government Ministers, of a country other than a Member State, where this is substantiated by an appropriate status indicator in the flight plan;</td>
<td></td>
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<tr>
<td>(b) military flights performed by military aircraft and customs and police flights;</td>
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<tr>
<td>(c) flights related to search and rescue, fire-fighting flights, humanitarian flights and emergency medical service flights authorised by the appropriate competent authority;</td>
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<tr>
<td>(d) any flights performed exclusively under visual flight rules as defined in Annex 2 to the Chicago Convention;</td>
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<tr>
<td>(e) flights terminating at the aerodrome from which the aircraft has taken off and during which no intermediate landing has been made;</td>
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</tbody>
</table>
(f) training flights performed exclusively for the purpose of obtaining a licence, or a rating in the case of cockpit flight crew where this is substantiated by an appropriate remark in the flight plan provided that the flight does not serve for the transport of passengers and/or cargo or for the positioning or ferrying of the aircraft;

(g) flights performed exclusively for the purpose of scientific research or for the purpose of checking, testing or certifying aircraft or equipment whether airborne or ground-based;

(h) flights performed by aircraft with a certified maximum take-off mass of less than 5 700 kg;
(i) flights performed in the framework of public service obligations imposed in accordance with Regulation (EEC) No 2408/92 on routes within outermost regions, as specified in Article 299(2) of the Treaty, or on routes where the capacity offered does not exceed 30 000 seats per year; and

(j) flights which, but for this point, would fall within this activity, performed by a commercial air transport operator operating either:

- fewer than 243 flights per period for three consecutive four-month periods; or

- flights with total annual emissions lower than 10 000 tonnes per year.

Flights performed exclusively for the transport, on official mission, of a reigning Monarch and his immediate family, Heads of State, Heads of Government and Government Ministers, of a Member State may not be excluded under this point.
2) Annex IV shall be amended as follows:

(a) the following title shall be inserted after the title of the Annex:

"PART A – Monitoring and reporting of emissions from stationary installations";

(b) the following part shall be added:

"PART B – Monitoring and reporting of emissions from aviation activities

Monitoring of carbon dioxide emissions

Emissions shall be monitored by calculation. Emissions shall be calculated using the formula:

Fuel consumption x emission factor

Fuel consumption shall include fuel consumed by the auxiliary power unit. Actual fuel consumption for each flight shall be used wherever possible and shall be calculated using the formula:

Amount of fuel contained in aircraft tanks once fuel uplift for the flight is complete – amount of fuel contained in aircraft tanks once fuel uplift for subsequent flight is complete + fuel uplift for that subsequent flight.

If actual fuel consumption data are not available, a standardised tiered method shall be used to estimate fuel consumption data based on best available information.
Default IPCC emission factors, taken from the 2006 IPCC Inventory Guidelines or subsequent updates of these Guidelines, shall be used unless activity-specific emission factors identified by independent accredited laboratories using accepted analytical methods are more accurate. The emission factor for biomass shall be zero.

A separate calculation shall be made for each flight and for each fuel.

Reporting of emissions

Each aircraft operator shall include the following information in its report under Article 14(3):

A. Data identifying the aircraft operator, including:

- name of the aircraft operator,
- its administering Member State,
- its address, including postcode and country and, where different, its contact address in the administering Member State,
- the aircraft registration numbers and types of aircraft used in the period covered by the report to perform the aviation activities listed in Annex I for which it is the aircraft operator,
- the number and issuing authority of the air operator certificate and operating licence under which the aviation activities listed in Annex I for which it is the aircraft operator were performed,
- address, telephone, fax and email details for a contact person, and
- name of the aircraft owner.
B. For each type of fuel for which emissions are calculated:

- fuel consumption,
- emission factor,
- total aggregated emissions from all flights performed during the period covered by the report which fall within the aviation activities listed in Annex I for which it is the aircraft operator,
- aggregated emissions from:
  - all flights performed during the period covered by the report which fall within the aviation activities listed in Annex I for which it is the aircraft operator and which departed from an aerodrome situated in the territory of a Member State and arrived at an aerodrome situated in the territory of the same Member State,
  - all other flights performed during the period covered by the report which fall within the aviation activities listed in Annex I for which it is the aircraft operator,
  - aggregated emissions from all flights performed during the period covered by the report which fall within the aviation activities listed in Annex I for which it is the aircraft operator and which:
    - departed from each Member State, and
    - arrived in each Member State from a third country,
- uncertainty.
Monitoring of tonne-kilometre data for the purpose of Articles 3e and 3f

For the purpose of applying for an allocation of allowances in accordance with Article 3e(1) or Article 3f(2), the amount of aviation activity shall be calculated in tonne-kilometres using the following formula:

\[
\text{tonne kilometres} = \text{distance} \times \text{payload}
\]

where:

"distance" means the great circle distance between the aerodrome of departure and the aerodrome of arrival plus an additional fixed factor of 95 km; and

"payload" means the total mass of freight, mail and passengers carried.

For the purposes of calculating the payload:

- the number of passengers shall be the number of persons on-board excluding crew members,
- an aircraft operator may choose to apply either the actual or standard mass for passengers and checked baggage contained in its mass and balance documentation for the relevant flights or a default value of 100 kg for each passenger and his checked baggage.

Reporting of tonne-kilometre data for the purpose of Articles 3e and 3f

Each aircraft operator shall include the following information in its application under Article 3e(1) or Article 3f(2):
A. Data identifying the aircraft operator, including:

- name of the aircraft operator,
- its administering Member State,
- its address, including postcode and country and, where different, its contact address in the administering Member State,
- the aircraft registration numbers and types of aircraft used during the year covered by the application to perform the aviation activities listed in Annex I for which it is the aircraft operator,
- the number and issuing authority of the air operator certificate and operating licence under which the aviation activities listed in Annex I for which it is the aircraft operator were performed,
- address, telephone, fax and email details for a contact person, and
- name of the aircraft owner.
B. Tonne-kilometre data:

– number of flights by aerodrome pair,
– number of passenger-kilometres by aerodrome pair,
– number of tonne-kilometres by aerodrome pair,
– chosen method for calculation of mass for passengers and checked baggage,
– total number of tonne-kilometres for all flights performed during the year to which the report relates falling within the aviation activities listed in Annex I for which it is the aircraft operator;";

3) Annex V shall be amended as follows:

(a) the following title shall be inserted after the title of the Annex:

"PART A – Verification of emissions from stationary installations";

(b) the following part shall be added:

"PART B – Verification of emissions from aviation activities

13. The general principles and methodology set out in this Annex shall apply to the verification of reports of emissions from flights falling within an aviation activity listed in Annex I."
For this purpose:

(a) in paragraph 3, the reference to operator shall be read as if it were a reference to an aircraft operator, and in point (c) of that paragraph the reference to installation shall be read as if it were a reference to the aircraft used to perform the aviation activities covered by the report;

(b) in paragraph 5, the reference to installation shall be read as if it were a reference to the aircraft operator;

(c) in paragraph 6 the reference to activities carried out in the installation shall be read as a reference to aviation activities covered by the report carried out by the aircraft operator;

(d) in paragraph 7 the reference to the site of the installation shall be read as if it were a reference to the sites used by the aircraft operator to perform the aviation activities covered by the report;

(e) in paragraphs 8 and 9 the references to sources of emissions in the installation shall be read as if they were a reference to the aircraft for which the aircraft operator is responsible; and

(f) in paragraphs 10 and 12 the references to operator shall be read as if they were a reference to an aircraft operator.
Additional provisions for the verification of aviation emission reports

14. The verifier shall in particular ascertain that:

   (a) all flights falling within an aviation activity listed in Annex I have been taken into account. In this task the verifier shall be assisted by timetable data and other data on the aircraft operator's traffic including data from Eurocontrol requested by that operator;

   (b) there is overall consistency between aggregated fuel consumption data and data on fuel purchased or otherwise supplied to the aircraft performing the aviation activity.

Additional provisions for the verification of tonne-kilometre data submitted for the purposes of Articles 3e and 3f

15. The general principles and methodology for verifying emissions reports under Article 14(3) as set out in this Annex shall, where applicable, also apply correspondingly to the verification of aviation tonne-kilometre data.
16. The verifier shall in particular ascertain that only flights actually performed and falling within an aviation activity listed in Annex I for which the aircraft operator is responsible have been taken into account in that operator's application under Articles 3e(1) and 3f(2). In this task the verifier shall be assisted by data on the aircraft operator's traffic including data from Eurocontrol requested by that operator. In addition, the verifier shall ascertain that the payload reported by the aircraft operator corresponds to records on payloads kept by that operator for safety purposes.".
Annex 2

DIRECTIVE 2003/87/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

of 13 October 2003

establishing a scheme for greenhouse gas emission allowance trading within the Community and

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof,

Having regard to the proposal from the Commission (1),

Having regard to the opinion of the European Economic and Social Committee (2),

Having regard to the opinion of the Committee of the Regions (3),

Acting in accordance with the procedure laid down in Article 251 of the Treaty (4),

Whereas:

(1) The Green Paper on greenhouse gas emissions trading within the European Union launched a debate across Europe on the suitability and possible functioning of greenhouse gas emissions trading within the European Union. The European Climate Change Programme has considered Community policies and measures through a multi-stakeholder process, including a scheme for greenhouse gas emission allowance trading within the Community (the Community scheme) based on the Green Paper. In its Conclusions of 8 March 2001, the Council recognised the particular importance of the European Climate Change Programme and of work based on the Green Paper, and underlined the urgent need for concrete action at Community level.

(2) The Sixth Community Environment Action Programme established by Decision No 1600/2002/EC of the European Parliament and of the Council (5) identifies climate change as a priority for action and provides for the establishment of a Community-wide emissions trading scheme by 2005. That Programme recognises that the Community is committed to achieving an 8% reduction in emissions of greenhouse gases by 2012 compared to 1990 levels, and that, in the longer-term, global emissions of greenhouse gases will need to be reduced by approximately 70% compared to 1990 levels.

(3) The ultimate objective of the United Nations Framework Convention on Climate Change, which was approved by Council Decision 94/69/EC of 15 December 1993 concerning the conclusion of the United Nations Framework Convention on Climate Change (6), is to achieve stabilisation of greenhouse gas concentrations in the atmosphere at a level which prevents dangerous anthropogenic interference with the climate system.

(4) Once it enters into force, the Kyoto Protocol, which was approved by Council Decision 2002/358/EC of 25 April 2002 concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfilment of commitments thereunder (7), will commit the Community and its Member States to reducing their aggregate anthropogenic emissions of greenhouse gases listed in Annex A to the Protocol by 8% compared to 1990 levels in the period 2008 to 2012.

(5) The Community and its Member States have agreed to fulfil their commitments to reduce anthropogenic greenhouse gas emissions under the Kyoto Protocol jointly, in accordance with Decision 2002/358/EC. This Directive aims to contribute to fulfilling the commitments of the European Community and its Member States more effectively, through an efficient European market in greenhouse gas emission allowances, with the least possible diminution of economic development and employment.

(6) Council Decision 93/389/EEC of 24 June 1993 for a monitoring mechanism of Community CO₂ and other greenhouse gas emissions (8), established a mechanism for monitoring greenhouse gas emissions and evaluating progress towards meeting commitments in respect of these emissions. This mechanism will assist Member States in determining the total quantity of allowances to allocate.

(7) Community provisions relating to allocation of allowances by the Member States are necessary to contribute to preserving the integrity of the internal market and to avoid distortions of competition.

(2) OJ C 221, 17.9.2002, p. 27.
(8) Member States should have regard when allocating allowances to the potential for industrial process activities to reduce emissions.

(9) Member States may provide that they only issue allowances valid for a five-year period beginning in 2008 to persons in respect of allowances cancelled, corresponding to emission reductions made by those persons on their national territory during a three-year period beginning in 2005.

(10) Starting with the said five-year period, transfers of allowances to another Member State will involve corresponding adjustments of assigned amount units under the Kyoto Protocol.

(11) Member States should ensure that the operators of certain specified activities hold a greenhouse gas emissions permit and that they monitor and report their emissions of greenhouse gases specified in relation to those activities.

(12) Member States should lay down rules on penalties applicable to infringements of this Directive and ensure that they are implemented. Those penalties must be effective, proportionate and dissuasive.

(13) In order to ensure transparency, the public should have access to information relating to the allocation of allowances and to the results of monitoring of emissions, subject only to restrictions provided for in Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information (1).


(15) The inclusion of additional installations in the Community scheme should be in accordance with the provisions laid down in this Directive, and the coverage of the Community scheme may thereby be extended to emissions of greenhouse gases other than carbon dioxide, inter alia from aluminium and chemicals activities.

(16) This Directive should not prevent any Member State from maintaining or establishing national trading schemes regulating emissions of greenhouse gases from activities other than those listed in Annex I or included in the Community scheme, or from installations temporarily excluded from the Community scheme.

(17) Member States may participate in international emissions trading as Parties to the Kyoto Protocol with any other Party included in Annex B thereto.

(18) Linking the Community scheme to greenhouse gas emission trading schemes in third countries will increase the cost-effectiveness of achieving the Community emission reductions target as laid down in Decision 2002/358/EC on the joint fulfilment of commitments.

(19) Project-based mechanisms including Joint Implementation (JI) and the Clean Development Mechanism (CDM) are important to achieve the goals of both reducing global greenhouse gas emissions and increasing the cost-effective functioning of the Community scheme. In accordance with the relevant provisions of the Kyoto Protocol and Marrakech Accords, the use of the mechanisms should be supplemental to domestic action and domestic action will thus constitute a significant element of the effort made.

(20) This Directive will encourage the use of more energy-efficient technologies, including combined heat and power technology, producing less emissions per unit of output, while the future directive of the European Parliament and of the Council on the promotion of cogeneration based on useful heat demand in the internal energy market will specifically promote combined heat and power technology.

(21) Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control (3) establishes a general framework for pollution prevention and control, through which greenhouse gas emissions permits may be issued. Directive 96/61/EC should be amended to ensure that emission limit values are not set for direct emissions of greenhouse gases from an installation subject to this Directive and that Member States may choose not to impose requirements relating to energy efficiency in respect of combustion units or other units emitting carbon dioxide on the site, without prejudice to any other requirements pursuant to Directive 96/61/EC.

(22) This Directive is compatible with the United Nations Framework Convention on Climate Change and the Kyoto Protocol. It should be reviewed in the light of developments in that context and to take into account experience in its implementation and progress achieved in monitoring of emissions of greenhouse gases.

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(23) Emission allowance trading should form part of a comprehensive and coherent package of policies and measures implemented at Member State and Community level. Without prejudice to the application of Articles 87 and 88 of the Treaty, where activities are covered by the Community scheme, Member States may consider the implications of regulatory, fiscal or other policies that pursue the same objectives. The review of the Directive should consider the extent to which these objectives have been attained.

(24) The instrument of taxation can be a national policy to limit emissions from installations temporarily excluded.

(25) Policies and measures should be implemented at Member State and Community level across all sectors of the European Union economy, and not only within the industry and energy sectors, in order to generate substantial emissions reductions. The Commission should, in particular, consider policies and measures at Community level in order that the transport sector makes a substantial contribution to the Community and its Member States meeting their climate change obligations under the Kyoto Protocol.

(26) Notwithstanding the multifaceted potential of market-based mechanisms, the European Union strategy for climate change mitigation should be built on a balance between the Community scheme and other types of Community, domestic and international action.

(27) This Directive respects the fundamental rights and observes the principles recognised in particular by the Charter of Fundamental Rights of the European Union.

(28) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission (1).

(29) As the criteria (1), (5) and (7) of Annex III cannot be amended through comitology, amendments in respect of periods after 2012 should only be made through co-decision.

(30) Since the objective of the proposed action, the establishment of a Community scheme, cannot be sufficiently achieved by the Member States acting individually, and can therefore by reason of the scale and effects of the proposed action be better achieved at Community level, the Community may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective,

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Subject matter

This Directive establishes a scheme for greenhouse gas emission allowance trading within the Community (hereinafter referred to as the 'Community scheme') in order to promote reductions of greenhouse gas emissions in a cost-effective and economically efficient manner.

Article 2

Scope

1. This Directive shall apply to emissions from the activities listed in Annex I and greenhouse gases listed in Annex II.

2. This Directive shall apply without prejudice to any requirements pursuant to Directive 96/61/EC.

Article 3

Definitions

For the purposes of this Directive the following definitions shall apply:

(a) ‘allowance’ means an allowance to emit one tonne of carbon dioxide equivalent during a specified period, which shall be valid only for the purposes of meeting the requirements of this Directive and shall be transferable in accordance with the provisions of this Directive;

(b) ‘emissions’ means the release of greenhouse gases into the atmosphere from sources in an installation;

(c) ‘greenhouse gases’ means the gases listed in Annex II;

(d) ‘greenhouse gas emissions permit’ means the permit issued in accordance with Articles 5 and 6;

(e) ‘installation’ means a stationary technical unit where one or more activities listed in Annex I are carried out and any other directly associated activities which have a technical connection with the activities carried out on that site and which could have an effect on emissions and pollution;

(f) ‘operator’ means any person who operates or controls an installation or, where this is provided for in national legislation, to whom decisive economic power over the technical functioning of the installation has been delegated;

(g) ‘person’ means any natural or legal person;

(h) ‘new entrant’ means any installation carrying out one or more of the activities indicated in Annex I, which has obtained a greenhouse gas emissions permit or an update of its greenhouse gas emissions permit because of a change in the nature or functioning or an extension of the installation, subsequent to the notification to the Commission of the national allocation plan;

(i) ‘the public’ means one or more persons and, in accordance with national legislation or practice, associations, organisations or groups of persons;

(j) ‘tonne of carbon dioxide equivalent’ means one metric tonne of carbon dioxide (CO₂) or an amount of any other greenhouse gas listed in Annex II with an equivalent global-warming potential.

**Article 4**

**Greenhouse gas emissions permits**

Member States shall ensure that, from 1 January 2005, no installation undertakes any activity listed in Annex I resulting in emissions specified in relation to that activity unless its operator holds a permit issued by a competent authority in accordance with Articles 5 and 6, or the installation is temporarily excluded from the Community scheme pursuant to Article 27.

**Article 5**

**Applications for greenhouse gas emissions permits**

An application to the competent authority for a greenhouse gas emissions permit shall include a description of:

(a) the installation and its activities including the technology used;

(b) the raw and auxiliary materials, the use of which is likely to lead to emissions of gases listed in Annex I;

(c) the sources of emissions of gases listed in Annex I from the installation; and

(d) the measures planned to monitor and report emissions in accordance with the guidelines adopted pursuant to Article 14.

The application shall also include a non-technical summary of the details referred to in the first subparagraph.

**Article 6**

**Conditions for and contents of the greenhouse gas emissions permit**

1. The competent authority shall issue a greenhouse gas emissions permit granting authorisation to emit greenhouse gases from all or part of an installation if it is satisfied that the operator is capable of monitoring and reporting emissions.

A greenhouse gas emissions permit may cover one or more installations on the same site operated by the same operator.

2. Greenhouse gas emissions permits shall contain the following:

(a) the name and address of the operator;

(b) a description of the activities and emissions from the installation;

(c) monitoring requirements, specifying monitoring methodology and frequency;

(d) reporting requirements; and

(e) an obligation to surrender allowances equal to the total emissions of the installation in each calendar year, as verified in accordance with Article 15, within four months following the end of that year.

**Article 7**

**Changes relating to installations**

The operator shall inform the competent authority of any changes planned in the nature or functioning, or an extension, of the installation which may require updating of the greenhouse gas emissions permit. Where appropriate, the competent authority shall update the permit. Where there is a change in the identity of the installation’s operator, the competent authority shall update the permit to include the name and address of the new operator.

**Article 8**

**Coordination with Directive 96/61/EC**

Member States shall take the necessary measures to ensure that, where installations carry out activities that are included in Annex I to Directive 96/61/EC, the conditions of, and procedure for, the issue of a greenhouse gas emissions permit are coordinated with those for the permit provided for in that Directive. The requirements of Articles 5, 6 and 7 of this Directive may be integrated into the procedures provided for in Directive 96/61/EC.

**Article 9**

**National allocation plan**

1. For each period referred to in Article 11(1) and (2), each Member State shall develop a national plan stating the total quantity of allowances that it intends to allocate for that period and how it proposes to allocate them. The plan shall be based on objective and transparent criteria, including those listed in Annex III, taking due account of comments from the public. The Commission shall, without prejudice to the Treaty, by 31 December 2003 at the latest develop guidance on the implementation of the criteria listed in Annex III.
For the period referred to in Article 11(1), the plan shall be published and notified to the Commission and to the other Member States by 31 March 2004 at the latest. For subsequent periods, the plan shall be published and notified to the Commission and to the other Member States at least 18 months before the beginning of the relevant period.

2. National allocation plans shall be considered within the committee referred to in Article 23(1).

3. Within three months of notification of a national allocation plan by a Member State under paragraph 1, the Commission may reject that plan, or any aspect thereof, on the basis that it is incompatible with the criteria listed in Annex III or with Article 10. The Member State shall only take a decision under Article 11(1) or (2) if proposed amendments are accepted by the Commission. Reasons shall be given for any rejection decision by the Commission.

Article 10

Method of allocation

For the three-year period beginning 1 January 2005 Member States shall allocate at least 95% of the allowances free of charge. For the five-year period beginning 1 January 2008, Member States shall allocate at least 90% of the allowances free of charge.

Article 11

Allocation and issue of allowances

1. For the three-year period beginning 1 January 2005, each Member State shall decide upon the total quantity of allowances it will allocate for that period and the allocation of those allowances to the operator of each installation. This decision shall be taken at least three months before the beginning of the period and be based on its national allocation plan developed pursuant to Article 9 and in accordance with Article 10, taking due account of comments from the public.

2. For the five-year period beginning 1 January 2008, and for each subsequent five-year period, each Member State shall decide upon the total quantity of allowances it will allocate for that period and initiate the process for the allocation of those allowances to the operator of each installation. This decision shall be taken at least 12 months before the beginning of the relevant period and be based on the Member State's national allocation plan developed pursuant to Article 9 and in accordance with Article 10, taking due account of comments from the public.

3. Decisions taken pursuant to paragraph 1 or 2 shall be in accordance with the requirements of the Treaty, in particular Articles 87 and 88 thereof. When deciding upon allocation, Member States shall take into account the need to provide access to allowances for new entrants.

4. The competent authority shall issue a proportion of the total quantity of allowances each year of the period referred to in paragraph 1 or 2, by 28 February of that year.

Article 12

Transfer, surrender and cancellation of allowances

1. Member States shall ensure that allowances can be transferred between:

(a) persons within the Community;

(b) persons within the Community and persons in third countries, where such allowances are recognised in accordance with the procedure referred to in Article 25 without restrictions other than those contained in, or adopted pursuant to, this Directive.

2. Member States shall ensure that allowances issued by a competent authority of another Member State are recognised for the purpose of meeting an operator's obligations under paragraph 3.

3. Member States shall ensure that, by 30 April each year at the latest, the operator of each installation surrenders a number of allowances equal to the total emissions from that installation during the preceding calendar year as verified in accordance with Article 15, and that these are subsequently cancelled.

4. Member States shall take the necessary steps to ensure that allowances will be cancelled at any time at the request of the person holding them.

Article 13

Validity of allowances

1. Allowances shall be valid for emissions during the period referred to in Article 11(1) or (2) for which they are issued.

2. Four months after the beginning of the first five-year period referred to in Article 11(2), allowances which are no longer valid and have not been surrendered and cancelled in accordance with Article 12(3) shall be cancelled by the competent authority.

Member States may issue allowances to persons for the current period to replace any allowances held by them which are cancelled in accordance with the first subparagraph.

3. Four months after the beginning of each subsequent five-year period referred to in Article 11(2), allowances which are no longer valid and have not been surrendered and cancelled in accordance with Article 12(3) shall be cancelled by the competent authority.
Member States shall issue allowances to persons for the current period to replace any allowances held by them which are cancelled in accordance with the first subparagraph.

Article 14

Guidelines for monitoring and reporting of emissions

1. The Commission shall adopt guidelines for monitoring and reporting of emissions resulting from the activities listed in Annex I of greenhouse gases specified in relation to those activities, in accordance with the procedure referred to in Article 23(2), by 30 September 2003. The guidelines shall be based on the principles for monitoring and reporting set out in Annex IV.

2. Member States shall ensure that emissions are monitored in accordance with the guidelines.

3. Member States shall ensure that each operator of an installation reports the emissions from that installation during each calendar year to the competent authority after the end of that year in accordance with the guidelines.

Article 15

Verification

Member States shall ensure that the reports submitted by operators pursuant to Article 14(3) are verified in accordance with the criteria set out in Annex V, and that the competent authority is informed thereof.

Member States shall ensure that an operator whose report has not been verified as satisfactory in accordance with the criteria set out in Annex V by 31 March each year for emissions during the preceding year cannot make further transfers of allowances until a report from that operator has been verified as satisfactory.

Article 16

Penalties

1. Member States shall lay down the rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive and shall take all measures necessary to ensure that such rules are implemented. The penalties provided for must be effective, proportionate and dissuasive. Member States shall notify these provisions to the Commission by 31 December 2003 at the latest, and shall notify it without delay of any subsequent amendment affecting them.

2. Member States shall ensure publication of the names of operators who are in breach of requirements to surrender sufficient allowances under Article 12(3).

3. Member States shall ensure that any operator who does not surrender sufficient allowances by 30 April of each year to cover its emissions during the preceding year shall be held liable for the payment of an excess emissions penalty. The excess emissions penalty shall be EUR 100 for each tonne of carbon dioxide equivalent emitted by that installation for which the operator has not surrendered allowances. Payment of the excess emissions penalty shall not release the operator from the obligation to surrender an amount of allowances equal to those excess emissions when surrendering allowances in relation to the following calendar year.

4. During the three-year period beginning 1 January 2005, Member States shall apply a lower excess emissions penalty of EUR 40 for each tonne of carbon dioxide equivalent emitted by that installation for which the operator has not surrendered allowances. Payment of the excess emissions penalty shall not release the operator from the obligation to surrender an amount of allowances equal to those excess emissions when surrendering allowances in relation to the following calendar year.

Article 17

Access to information

Decisions relating to the allocation of allowances and the reports of emissions required under the greenhouse gas emissions permit and held by the competent authority shall be made available to the public by that authority subject to the restrictions laid down in Article 3(3) and Article 4 of Directive 2003/4/EC.

Article 18

Competent authority

Member States shall make the appropriate administrative arrangements, including the designation of the appropriate competent authority or authorities, for the implementation of the rules of this Directive. Where more than one competent authority is designated, the work of these authorities undertaken pursuant to this Directive must be coordinated.

Article 19

Registries

1. Member States shall provide for the establishment and maintenance of a registry in order to ensure the accurate accounting of the issue, holding, transfer and cancellation of allowances. Member States may maintain their registries in a consolidated system, together with one or more other Member States.

2. Any person may hold allowances. The registry shall be accessible to the public and shall contain separate accounts to record the allowances held by each person to whom and from whom allowances are issued or transferred.
3. In order to implement this Directive, the Commission shall adopt a Regulation in accordance with the procedure referred to in Article 23(2) for a standardised and secured system of registries in the form of standardised electronic databases containing common data elements to track the issue, holding, transfer and cancellation of allowances, to provide for public access and confidentiality as appropriate and to ensure that there are no transfers incompatible with obligations resulting from the Kyoto Protocol.

Article 20

Central Administrator

1. The Commission shall designate a Central Administrator to maintain an independent transaction log recording the issue, transfer and cancellation of allowances.

2. The Central Administrator shall conduct an automated check on each transaction in registries through the independent transaction log to ensure there are no irregularities in the issue, transfer and cancellation of allowances.

3. If irregularities are identified through the automated check, the Central Administrator shall inform the Member State or Member States concerned who shall not register the transactions in question or any further transactions relating to the allowances concerned until the irregularities have been resolved.

Article 21

Reporting by Member States

1. Each year the Member States shall submit to the Commission a report on the application of this Directive. This report shall pay particular attention to the arrangements for the allocation of allowances, the operation of registries, the application of the monitoring and reporting guidelines, verification and issues relating to compliance with the Directive and on the fiscal treatment of allowances, if any. The first report shall be sent to the Commission by 30 June 2005. The report shall be drawn up on the basis of a questionnaire or outline drafted by the Commission in accordance with the procedure laid down in Article 6 of Directive 91/692/EEC. The questionnaire or outline shall be sent to Member States at least six months before the deadline for the submission of the first report.

2. On the basis of the reports referred to in paragraph 1, the Commission shall publish a report on the application of this Directive within three months of receiving the reports from the Member States.

3. The Commission shall organise an exchange of information between the competent authorities of the Member States concerning developments relating to issues of allocation, the operation of registries, monitoring, reporting, verification and compliance.

Article 22

Amendments to Annex III

The Commission may amend Annex III, with the exception of criteria (1), (5) and (7), for the period from 2008 to 2012 in the light of the reports provided for in Article 21 and of the experience of the application of this Directive, in accordance with the procedure referred to in Article 23(2).

Article 23

Committee

1. The Commission shall be assisted by the committee instituted by Article 8 of Decision 93/389/EEC.

2. Where reference is made to this paragraph, Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at three months.

3. The Committee shall adopt its rules of procedure.

Article 24

Procedures for unilateral inclusion of additional activities and gases

1. From 2008, Member States may apply emission allowance trading in accordance with this Directive to activities, installations and greenhouse gases which are not listed in Annex I, provided that inclusion of such activities, installations and greenhouse gases is approved by the Commission in accordance with the procedure referred to in Article 23(2), taking into account all relevant criteria, in particular effects on the internal market, potential distortions of competition, the environmental integrity of the scheme and reliability of the planned monitoring and reporting system.

From 2005 Member States may under the same conditions apply emissions allowance trading to installations carrying out activities listed in Annex I below the capacity limits referred to in that Annex.

2. Allocations made to installations carrying out such activities shall be specified in the national allocation plan referred to in Article 9.
3. The Commission may, on its own initiative, or shall, on request by a Member State, adopt monitoring and reporting guidelines for emissions from activities, installations and greenhouse gases which are not listed in Annex I in accordance with the procedure referred to in Article 23(2), if monitoring and reporting of these emissions can be carried out with sufficient accuracy.

4. In the event that such measures are introduced, reviews carried out pursuant to Article 30 shall also consider whether Annex I should be amended to include emissions from these activities in a harmonised way throughout the Community.

Article 25

Links with other greenhouse gas emissions trading schemes

1. Agreements should be concluded with third countries listed in Annex B to the Kyoto Protocol which have ratified the Protocol to provide for the mutual recognition of allowances between the Community scheme and other greenhouse gas emissions trading schemes in accordance with the rules set out in Article 300 of the Treaty.

2. Where an agreement referred to in paragraph 1 has been concluded, the Commission shall draw up any necessary provisions relating to the mutual recognition of allowances under that agreement in accordance with the procedure referred to in Article 23(2).

Article 26

Amendment of Directive 96/61/EC

In Article 9(3) of Directive 96/61/EC the following subparagraphs shall be added:

‘Where emissions of a greenhouse gas from an installation are specified in Annex I to Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (*) in relation to an activity carried out in that installation, the permit shall not include an emission limit value for direct emissions of that gas unless it is necessary to ensure that no significant local pollution is caused.

For activities listed in Annex I to Directive 2003/87/EC, Member States may choose not to impose requirements relating to energy efficiency in respect of combustion units or other units emitting carbon dioxide on the site.

Where necessary, the competent authorities shall amend the permit as appropriate.

The three preceding subparagraphs shall not apply to installations temporarily excluded from the scheme for greenhouse gas emission allowance trading within the Community in accordance with Article 27 of Directive 2003/87/EC.

(*) OJ L 275, 25.10.2003, p. 32.’

Article 27

Temporary exclusion of certain installations

1. Member States may apply to the Commission for installations to be temporarily excluded until 31 December 2007 at the latest from the Community scheme. Any such application shall list each such installation and shall be published.

2. If, having considered any comments made by the public on that application, the Commission decides, in accordance with the procedure referred to in Article 23(2), that the installations will:

(a) as a result of national policies, limit their emissions as much as would be the case if they were subject to the provisions of this Directive;

(b) be subject to monitoring, reporting and verification requirements which are equivalent to those provided for pursuant to Articles 14 and 15; and

(c) be subject to penalties at least equivalent to those referred to in Article 16(1) and (4) in the case of non-fulfilment of national requirements;

it shall provide for the temporary exclusion of those installations from the Community scheme.

It must be ensured that there will be no distortion of the internal market.

Article 28

Pooling

1. Member States may allow operators of installations carrying out one of the activities listed in Annex I to form a pool of installations from the same activity for the period referred to in Article 11(1) and/or the first five-year period referred to in Article 11(2) in accordance with paragraphs 2 to 6 of this Article.

2. Operators carrying out an activity listed in Annex I who wish to form a pool shall apply to the competent authority, specifying the installations and the period for which they want the pool and supplying evidence that a trustee will be able to fulfil the obligations referred to in paragraphs 3 and 4.
3. Operators wishing to form a pool shall nominate a trustee:

(a) to be issued with the total quantity of allowances calculated by installation of the operators, by way of derogation from Article 11;

(b) to be responsible for surrendering allowances equal to the total emissions from installations in the pool, by way of derogation from Articles 6(2)(e) and 12(3); and

(c) to be restricted from making further transfers in the event that an operator's report has not been verified as satisfactory in accordance with the second paragraph of Article 15.

4. The trustee shall be subject to the penalties applicable for breaches of requirements to surrender sufficient allowances to cover the total emissions from installations in the pool, by way of derogation from Article 16(2), (3) and (4).

5. A Member State that wishes to allow one or more pools to be formed shall submit the application referred to in paragraph 2 to the Commission. Without prejudice to the Treaty, the Commission may within three months of receipt reject an application that does not fulfil the requirements of this Directive. Reasons shall be given for any such decision. In the case of rejection the Member State may only allow the pool to be formed if proposed amendments are accepted by the Commission.

6. In the event that the trustee fails to comply with penalties referred to in paragraph 4, each operator of an installation in the pool shall be responsible under Articles 12(3) and 16 in respect of emissions from its own installation.

**Article 29**

**Force majeure**

1. During the period referred to in Article 11(1), Member States may apply to the Commission for certain installations to be issued with additional allowances in cases of force majeure. The Commission shall determine whether force majeure is demonstrated, in which case it shall authorise the issue of additional and non-transferable allowances by that Member State to the operators of those installations.

2. The Commission shall, without prejudice to the Treaty, develop guidance to describe the circumstances under which force majeure is demonstrated, by 31 December 2003 at the latest.

**Article 30**

**Review and further development**

1. On the basis of progress achieved in the monitoring of emissions of greenhouse gases, the Commission may make a proposal to the European Parliament and the Council by 31 December 2004 to amend Annex I to include other activities and emissions of other greenhouse gases listed in Annex II.

2. On the basis of experience of the application of this Directive and of progress achieved in the monitoring of emissions of greenhouse gases and in the light of developments in the international context, the Commission shall draw up a report on the application of this Directive, considering:

(a) how and whether Annex I should be amended to include other relevant sectors, inter alia the chemicals, aluminium and transport sectors, activities and emissions of other greenhouse gases listed in Annex II, with a view to further improving the economic efficiency of the scheme;

(b) the relationship of Community emission allowance trading with the international emissions trading that will start in 2008;

(c) further harmonisation of the method of allocation (including auctioning for the time after 2012) and of the criteria for national allocation plans referred to in Annex III;

(d) the use of credits from project mechanisms;

(e) the relationship of emissions trading with other policies and measures implemented at Member State and Community level, including taxation, that pursue the same objectives;

(f) whether it is appropriate for there to be a single Community registry;

(g) the level of excess emissions penalties, taking into account, inter alia, inflation;

(h) the functioning of the allowance market, covering in particular any possible market disturbances;

(i) how to adapt the Community scheme to an enlarged European Union;

(j) pooling;

(k) the practicality of developing Community-wide benchmarks as a basis for allocation, taking into account the best available techniques and cost-benefit analysis.

The Commission shall submit this report to the European Parliament and the Council by 30 June 2006, accompanied by proposals as appropriate.
3. Linking the project-based mechanisms, including Joint Implementation (JI) and the Clean Development Mechanism (CDM), with the Community scheme is desirable and important to achieve the goals of both reducing global greenhouse gas emissions and increasing the cost-effective functioning of the Community scheme. Therefore, the emission credits from the project-based mechanisms will be recognised for their use in this scheme subject to provisions adopted by the European Parliament and the Council on a proposal from the Commission, which should apply in parallel with the Community scheme in 2005. The use of the mechanisms shall be supplemental to domestic action, in accordance with the relevant provisions of the Kyoto Protocol and Marrakesh Accords.

Article 31

Implementation

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 31 December 2003 at the latest. They shall forthwith inform the Commission thereof. The Commission shall notify the other Member States of these laws, regulations and administrative provisions.

When Member States adopt these measures, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States.

2. Member States shall communicate to the Commission the text of the provisions of national law which they adopt in the field covered by this Directive. The Commission shall inform the other Member States thereof.

Article 32

Entry into force

This Directive shall enter into force on the day of its publication in the Official Journal of the European Union.

Article 33

Addressees

This Directive is addressed to the Member States.

Done at Luxembourg, 13 October 2003.

For the European Parliament
    The President
    P. COX

For the Council
    The President
    G. ALEMANNO
ANNEX I

CATEGORIES OF ACTIVITIES REFERRED TO IN ARTICLES 2(1), 3, 4, 14(1), 28 AND 30

1. Installations or parts of installations used for research, development and testing of new products and processes are not covered by this Directive.

2. The threshold values given below generally refer to production capacities or outputs. Where one operator carries out several activities falling under the same subheading in the same installation or on the same site, the capacities of such activities are added together.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Greenhouse gases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Energy activities</strong></td>
<td></td>
</tr>
<tr>
<td>Combustion installations with a rated thermal input exceeding 20 MW (except</td>
<td>Carbon dioxide</td>
</tr>
<tr>
<td>hazardous or municipal waste installations)</td>
<td></td>
</tr>
<tr>
<td>Mineral oil refineries</td>
<td>Carbon dioxide</td>
</tr>
<tr>
<td>Coke ovens</td>
<td>Carbon dioxide</td>
</tr>
<tr>
<td><strong>Production and processing of ferrous metals</strong></td>
<td></td>
</tr>
<tr>
<td>Metal ore (including sulphide ore) roasting or sintering installations</td>
<td>Carbon dioxide</td>
</tr>
<tr>
<td>Installations for the production of pig iron or steel (primary or secondary</td>
<td>Carbon dioxide</td>
</tr>
<tr>
<td>fusion) including continuous casting, with a capacity exceeding 2.5 tonnes</td>
<td></td>
</tr>
<tr>
<td>per hour</td>
<td></td>
</tr>
<tr>
<td><strong>Mineral industry</strong></td>
<td></td>
</tr>
<tr>
<td>Installations for the production of cement clinker in rotary kilns with a</td>
<td>Carbon dioxide</td>
</tr>
<tr>
<td>production capacity exceeding 500 tonnes per day or lime in rotary kilns</td>
<td></td>
</tr>
<tr>
<td>with a production capacity exceeding 50 tonnes per day or in other furnaces</td>
<td></td>
</tr>
<tr>
<td>with a production capacity exceeding 50 tonnes per day</td>
<td></td>
</tr>
<tr>
<td>Installations for the manufacture of glass including glass fibre with a</td>
<td>Carbon dioxide</td>
</tr>
<tr>
<td>melting capacity exceeding 20 tonnes per day</td>
<td></td>
</tr>
<tr>
<td>Installations for the manufacture of ceramic products by firing, in</td>
<td>Carbon dioxide</td>
</tr>
<tr>
<td>particular roofing tiles, bricks, refractory bricks, tiles, stoneware or</td>
<td></td>
</tr>
<tr>
<td>porcelain, with a production capacity exceeding 75 tonnes per day, and/or</td>
<td></td>
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<tr>
<td>with a kiln capacity exceeding 4 m$^3$ and with a setting density per kiln</td>
<td></td>
</tr>
<tr>
<td>exceeding 300 kg/m$^3$</td>
<td></td>
</tr>
<tr>
<td><strong>Other activities</strong></td>
<td></td>
</tr>
<tr>
<td>Industrial plants for the production of</td>
<td>Carbon dioxide</td>
</tr>
<tr>
<td>(a) pulp from timber or other fibrous materials</td>
<td></td>
</tr>
<tr>
<td>(b) paper and board with a production capacity exceeding 20 tonnes per</td>
<td>Carbon dioxide</td>
</tr>
<tr>
<td>day</td>
<td></td>
</tr>
</tbody>
</table>
ANNEX II

GREENHOUSE GASES REFERRED TO IN ARTICLES 3 AND 30

Carbon dioxide (CO₂)
Methane (CH₄)
Nitrous Oxide (N₂O)
Hydrofluorocarbons (HFCs)
Perfluorocarbons (PFCs)
Sulphur Hexafluoride (SF₆)

ANNEX III

CRITERIA FOR NATIONAL ALLOCATION PLANS REFERRED TO IN ARTICLES 9, 22 AND 30

1. The total quantity of allowances to be allocated for the relevant period shall be consistent with the Member State's obligation to limit its emissions pursuant to Decision 2002/358/EC and the Kyoto Protocol, taking into account, on the one hand, the proportion of overall emissions that these allowances represent in comparison with emissions from sources not covered by this Directive and, on the other hand, national energy policies, and should be consistent with the national climate change programme. The total quantity of allowances to be allocated shall not be more than is likely to be needed for the strict application of the criteria of this Annex. Prior to 2008, the quantity shall be consistent with a path towards achieving or over-achieving each Member State's target under Decision 2002/358/EC and the Kyoto Protocol.

2. The total quantity of allowances to be allocated shall be consistent with assessments of actual and projected progress towards fulfilling the Member States' contributions to the Community's commitments made pursuant to Decision 93/389/EEC.

3. Quantities of allowances to be allocated shall be consistent with the potential, including the technological potential, of activities covered by this scheme to reduce emissions. Member States may base their distribution of allowances on average emissions of greenhouse gases by product in each activity and achievable progress in each activity.

4. The plan shall be consistent with other Community legislative and policy instruments. Account should be taken of unavoidable increases in emissions resulting from new legislative requirements.

5. The plan shall not discriminate between companies or sectors in such a way as to unduly favour certain undertakings or activities in accordance with the requirements of the Treaty, in particular Articles 87 and 88 thereof.

6. The plan shall contain information on the manner in which new entrants will be able to begin participating in the Community scheme in the Member State concerned.

7. The plan may accommodate early action and shall contain information on the manner in which early action is taken into account. Benchmarks derived from reference documents concerning the best available technologies may be employed by Member States in developing their National Allocation Plans, and these benchmarks can incorporate an element of accommodating early action.

8. The plan shall contain information on the manner in which clean technology, including energy efficient technologies, are taken into account.

9. The plan shall include provisions for comments to be expressed by the public, and contain information on the arrangements by which due account will be taken of these comments before a decision on the allocation of allowances is taken.

10. The plan shall contain a list of the installations covered by this Directive with the quantities of allowances intended to be allocated to each.

11. The plan may contain information on the manner in which the existence of competition from countries or entities outside the Union will be taken into account.
**ANNEX IV**

**PRINCIPLES FOR MONITORING AND REPORTING REFERRED TO IN ARTICLE 14(1)**

**Monitoring of carbon dioxide emissions**

Emissions shall be monitored either by calculation or on the basis of measurement.

**Calculation**

Calculations of emissions shall be performed using the formula:

\[
\text{Activity data} \times \text{Emission factor} \times \text{Oxidation factor}
\]

Activity data (fuel used, production rate etc.) shall be monitored on the basis of supply data or measurement.

Accepted emission factors shall be used. Activity-specific emission factors are acceptable for all fuels. Default factors are acceptable for all fuels except non-commercial ones (waste fuels such as tyres and industrial process gases). Seam-specific defaults for coal, and EU-specific or producer country-specific defaults for natural gas shall be further elaborated. IPCC default values are acceptable for refinery products. The emission factor for biomass shall be zero.

If the emission factor does not take account of the fact that some of the carbon is not oxidised, then an additional oxidation factor shall be used. If activity-specific emission factors have been calculated and already take oxidation into account, then an oxidation factor need not be applied.

Default oxidation factors developed pursuant to Directive 96/61/EC shall be used, unless the operator can demonstrate that activity-specific factors are more accurate.

A separate calculation shall be made for each activity, installation and for each fuel.

**Measurement**

Measurement of emissions shall use standardised or accepted methods, and shall be corroborated by a supporting calculation of emissions.

**Monitoring of emissions of other greenhouse gases**

Standardised or accepted methods shall be used, developed by the Commission in collaboration with all relevant stakeholders and adopted in accordance with the procedure referred to in Article 23(2).

**Reporting of emissions**

Each operator shall include the following information in the report for an installation:

A. Data identifying the installation, including:
   - Name of the installation;
   - Its address, including postcode and country;
   - Type and number of Annex I activities carried out in the installation;
   - Address, telephone, fax and email details for a contact person; and
   - Name of the owner of the installation, and of any parent company.

B. For each Annex I activity carried out on the site for which emissions are calculated:
   - Activity data;
   - Emission factors;
   - Oxidation factors;
   - Total emissions; and
   - Uncertainty.

C. For each Annex I activity carried out on the site for which emissions are measured:
   - Total emissions;
   - Information on the reliability of measurement methods; and
   - Uncertainty.

D. For emissions from combustion, the report shall also include the oxidation factor, unless oxidation has already been taken into account in the development of an activity-specific emission factor.

Member States shall take measures to coordinate reporting requirements with any existing reporting requirements in order to minimise the reporting burden on businesses.
ANNEX V

CRITERIA FOR VERIFICATION REFERRED TO IN ARTICLE 15

General Principles

1. Emissions from each activity listed in Annex I shall be subject to verification.

2. The verification process shall include consideration of the report pursuant to Article 14(3) and of monitoring during the preceding year. It shall address the reliability, credibility and accuracy of monitoring systems and the reported data and information relating to emissions, in particular:
   (a) the reported activity data and related measurements and calculations;
   (b) the choice and the employment of emission factors;
   (c) the calculations leading to the determination of the overall emissions; and
   (d) if measurement is used, the appropriateness of the choice and the employment of measuring methods.

3. Reported emissions may only be validated if reliable and credible data and information allow the emissions to be determined with a high degree of certainty. A high degree of certainty requires the operator to show that:
   (a) the reported data is free of inconsistencies;
   (b) the collection of the data has been carried out in accordance with the applicable scientific standards; and
   (c) the relevant records of the installation are complete and consistent.

4. The verifier shall be given access to all sites and information in relation to the subject of the verification.

5. The verifier shall take into account whether the installation is registered under the Community eco-management and audit scheme (EMAS).

Methodology

Strategic analysis

6. The verification shall be based on a strategic analysis of all the activities carried out in the installation. This requires the verifier to have an overview of all the activities and their significance for emissions.

Process analysis

7. The verification of the information submitted shall, where appropriate, be carried out on the site of the installation. The verifier shall use spot-checks to determine the reliability of the reported data and information.

Risk analysis

8. The verifier shall submit all the sources of emissions in the installation to an evaluation with regard to the reliability of the data of each source contributing to the overall emissions of the installation.

9. On the basis of this analysis the verifier shall explicitly identify those sources with a high risk of error and other aspects of the monitoring and reporting procedure which are likely to contribute to errors in the determination of the overall emissions. This especially involves the choice of the emission factors and the calculations necessary to determine the level of the emissions from individual sources. Particular attention shall be given to those sources with a high risk of error and the abovementioned aspects of the monitoring procedure.

10. The verifier shall take into consideration any effective risk control methods applied by the operator with a view to minimising the degree of uncertainty.

Report

11. The verifier shall prepare a report on the validation process stating whether the report pursuant to Article 14(3) is satisfactory. This report shall specify all issues relevant to the work carried out. A statement that the report pursuant to Article 14(3) is satisfactory may be made if, in the opinion of the verifier, the total emissions are not materially misstated.
Minimum competency requirements for the verifier

12. The verifier shall be independent of the operator, carry out his activities in a sound and objective professional manner, and understand:

(a) the provisions of this Directive, as well as relevant standards and guidance adopted by the Commission pursuant to Article 14(1);

(b) the legislative, regulatory, and administrative requirements relevant to the activities being verified; and

(c) the generation of all information related to each source of emissions in the installation, in particular, relating to the collection, measurement, calculation and reporting of data.
Annex 3

of 27 October 2004
amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading
within the Community, in respect of the Kyoto Protocol’s project mechanisms
(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Economic and Social Committee (1),

After consulting the Committee of the Regions,

Acting in accordance with the procedure laid down in Article 251 of the Treaty (2),

Whereas:

Directive 2003/87/EC (3) establishes a scheme for greenhouse gas emission allowance trading within the Community (the Community scheme) in order to promote reductions of greenhouse gas emissions in a cost-effective and economically efficient manner, recognising that, in the longer-term, global emissions of greenhouse gases will need to be reduced by approximately 70% compared to 1990 levels. It aims at contributing towards fulfilling the commitments of the Community and its Member States to reduce anthropogenic greenhouse gas emissions under the Kyoto Protocol which was approved by Council Decision 2002/358/EC of 25 April 2002 concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfilment of commitments thereunder (4).

(1) Directive 2003/87/EC (5) states that the recognition of credits from project-based mechanisms for fulfilling obligations as from 2005 will increase the cost-effectiveness of achieving reductions of global greenhouse gas emissions and shall be provided for by provisions for linking the Kyoto project-based mechanisms, including joint implementation (JI) and the clean development mechanism (CDM), with the Community scheme.

(2) Linking the Kyoto project-based mechanisms to the Community scheme, while safeguarding the latter’s environmental integrity, gives the opportunity to use emission credits generated through project activities eligible pursuant to Articles 6 and 12 of the Kyoto Protocol in order to fulfil Member States’ obligations in accordance with Article 12(3) of Directive 2003/87/EC. As a result, this will increase the diversity of low-cost compliance options within the Community scheme leading to a reduction of the overall costs of compliance with the Kyoto Protocol while improving the liquidity of the Community market in greenhouse gas emission allowances. By stimulating demand for JI credits, Community companies will invest in the development and transfer of advanced environmentally sound technologies and know-how. The demand for CDM credits will also be stimulated and thus developing countries hosting CDM projects will be assisted in achieving their sustainable development goals.

(3) In addition to the use of the Kyoto project-based mechanisms by the Community and its Member States, and by companies and individuals outside the Community scheme, those mechanisms should be linked to the Community scheme in such a way as to ensure consistency with the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol and subsequent decisions adopted thereunder as well as with the objectives and architecture of the Community scheme and provisions laid down by Directive 2003/87/EC.

(4) Member States may allow operators to use, in the Community scheme, certified emission reductions (CERs) from 2005 and emission reduction units (ERUs) from 2008. The use of CERs and ERUs by operators from 2008 may be allowed up to a percentage of the allocation to

(1) OJ C 80, 30.3.2004, p. 61.
each installation, to be specified by each Member State in its national allocation plan. The use will take place through the issue and immediate surrender of one allowance in exchange for one CER or ERU. An allowance issued in exchange for a CER or ERU will correspond to that CER or ERU.

(6) The Commission Regulation for a standardised and secured system of registries, to be adopted pursuant to Article 19(3) of Directive 2003/87/EC and Article 6(1) of Decision No 280/2004/EC of the European Parliament and of the Council of 11 February 2004 concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol (1), will provide for the relevant processes and procedures in the registries system for the use of CERs during the period 2005 to 2007 and subsequent periods, and for the use of ERUs during the period 2008 to 2012 and subsequent periods.

(7) Each Member State will decide on the limit for the use of CERs and ERUs from project activities, having due regard to the relevant provisions of the Kyoto Protocol and the Marrakesh Accords, to meet the requirements therein that the use of the mechanisms should be supplemental to domestic action. Domestic action will thus constitute a significant element of the effort made.

(8) In accordance with the UNFCCC and the Kyoto Protocol and subsequent decisions adopted thereunder, Member States are to refrain from using CERs and ERUs generated from nuclear facilities to meet their commitments pursuant to Article 3(1) of the Kyoto Protocol and pursuant to Decision 2002/358/EC.

(9) Decisions 15/CP.7 and 19/CP.7 adopted pursuant to the UNFCCC and the Kyoto Protocol emphasise that environmental integrity is to be achieved, inter alia, through sound modalities, rules and guidelines for the mechanisms, and through sound and strong principles and rules governing land use, land-use change and forestry activities, and that the issues of non-permanence, additionality, leakage, uncertainties and socioeconomic and environmental impacts, including impacts on biodiversity and natural ecosystems, associated with afforestation and reforestation project activities are to be taken into account. The Commission should consider, in its review of Directive 2003/87/EC in 2006, technical provisions relating to the outcome of the evaluation of potential risks associated with the use of genetically modified organisms and potentially invasive alien species in afforestation and reforestation project activities, to allow operators to use CERs and ERUs resulting from land use, land use change and forestry project activities in the Community scheme from 2008, in accordance with the decisions adopted pursuant to the UNFCCC or the Kyoto Protocol.

(10) In order to avoid double counting, CERs and ERUs should not be issued as a result of project activities undertaken within the Community that also lead to a reduction in, or limitation of, emissions from installations covered by Directive 2003/87/EC, unless an equal number of allowances is cancelled from the registry of the Member State of the CERs’ or ERUs’ origin.

(11) In accordance with the relevant treaties of accession, the acquis communautaire should be taken into account in the establishment of baselines for project activities undertaken in countries acceding to the Union.

(12) Any Member State that authorises private or public entities to participate in project activities remains responsible for the fulfilment of its obligations under the UNFCCC and the Kyoto Protocol and should therefore ensure that such participation is consistent with the relevant guidelines, modalities and procedures adopted pursuant to the UNFCCC or the Kyoto Protocol.

(13) In accordance with the UNFCCC, the Kyoto Protocol and subsequent decisions adopted for their implementation, the Commission and the Member States should support capacity building activities in developing countries and countries with economies in transition in order to help them take full advantage of JI and the CDM in a manner that supports their sustainable development strategies. The Commission should review and report on efforts in this regard.

(14) Criteria and guidelines that are relevant to considering whether hydroelectric power production projects have negative environmental or social impacts have been identified by the World Commission on Dams in its November 2000 Report ‘Dams and Development — A New Framework for Decision-Making’, by the OECD and by the World Bank.

Since participation in JI and CDM project activities is voluntary, corporate environmental and social responsibility and accountability should be enhanced in accordance with paragraph 17 of the Plan of implementation of the world summit on sustainable development. In this connection, companies should be encouraged to improve the social and environmental performance of JI and CDM activities in which they participate.

Information on project activities in which a Member State participates or authorises private or public entities to participate should be made available to the public in accordance with Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information (1).

The Commission may mention impacts on the electricity market in its reports on emission allowance trading and the use of credits from project activities.

Following entry into force of the Kyoto Protocol, the Commission should examine whether it could be possible to conclude agreements with countries listed in Annex B to the Kyoto Protocol which have yet to ratify the Protocol, to provide for the recognition of allowances between the Community scheme and mandatory greenhouse gas emissions trading schemes capping absolute emissions established within those countries.

Since the objective of the proposed action, namely the establishment of a link between the Kyoto project-based mechanisms and the Community scheme, cannot be sufficiently achieved by the Member States acting individually, and can therefore by reason of the scale and effects of this action be better achieved at Community level, the Community may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective.

Directive 2003/87/EC should therefore be amended accordingly,

Article 1

Amendments to Directive 2003/87/EC

Directive 2003/87/EC is hereby amended as follows:

1. In Article 3, the following points are added:

   (k) “Annex I Party” means a Party listed in Annex I to the United Nations Framework Convention on Climate Change (UNFCCC) that has ratified the Kyoto Protocol as specified in Article 1(7) of the Kyoto Protocol;

   (l) “project activity” means a project activity approved by one or more Annex I Parties in accordance with Article 6 or Article 12 of the Kyoto Protocol and the decisions adopted pursuant to the UNFCCC or the Kyoto Protocol;

   (m) “emission reduction unit” or “ERU” means a unit issued pursuant to Article 6 of the Kyoto Protocol and the decisions adopted pursuant to the UNFCCC or the Kyoto Protocol;

   (n) “certified emission reduction” or “CER” means a unit issued pursuant to Article 12 of the Kyoto Protocol and the decisions adopted pursuant to the UNFCCC or the Kyoto Protocol.'

2. The following Articles are inserted after Article 11:

   Article 11a

   Use of CERs and ERUs from project activities in the Community scheme

   1. Subject to paragraph 3, during each period referred to in Article 11(2), Member States may allow operators to use CERs and ERUs from project activities in the Community scheme up to a percentage of the allocation of allowances to each installation, to be specified by each Member State in its national allocation plan for that period. This shall take place through the issue and immediate surrender of one allowance by the Member State in exchange for one CER or ERU held by the operator in the national registry of its Member State.

2. Subject to paragraph 3, during the period referred to in Article 11(1), Member States may allow operators to use CERs from project activities in the Community scheme. This shall take place through the issue and immediate surrender of one allowance by the Member State in exchange for one CER. Member States shall cancel CERs that have been used by operators during the period referred to in Article 11(1).

3. All CERs and ERUs that are issued and may be used in accordance with the UNFCCC and the Kyoto Protocol and subsequent decisions adopted thereunder may be used in the Community scheme:

(a) except that, in recognition of the fact that, in accordance with the UNFCCC and the Kyoto Protocol and subsequent decisions adopted thereunder, Member States are to refrain from using CERs and ERUs generated from nuclear facilities to meet their commitments pursuant to Article 3(1) of the Kyoto Protocol and in accordance with Decision 2002/358/EC, operators are to refrain from using CERs and ERUs generated from such facilities in the Community scheme during the period referred to in Article 11(1) and the first five-year period referred to in Article 11(2);

and

(b) except for CERs and ERUs from land use, land use change and forestry activities.

Article 11b

Project activities

1. Member States shall take all necessary measures to ensure that baselines for project activities, as defined by subsequent decisions adopted under the UNFCCC or the Kyoto Protocol, undertaken in countries having signed a Treaty of Accession with the Union fully comply with the acquis communautaire, including the temporary derogations set out in that Treaty of Accession.

2. Except as provided for in paragraphs 3 and 4, Member States hosting project activities shall ensure that no ERUs or CERs are issued for reductions or limitations of greenhouse gas emissions from installations falling within the scope of this Directive.

3. Until 31 December 2012, for JI and CDM project activities which reduce or limit directly the emissions of an installation falling within the scope of this Directive, ERUs and CERs may be issued only if an equal number of allowances is cancelled by the operator of that installation.

4. Until 31 December 2012, for JI and CDM project activities which reduce or limit indirectly the emission level of installations falling within the scope of this Directive, ERUs and CERs may be issued only if an equal number of allowances is cancelled from the national registry of the Member State of the ERUs' or CERs' origin.

5. A Member State that authorises private or public entities to participate in project activities shall remain responsible for the fulfilment of its obligations under the UNFCCC and the Kyoto Protocol and shall ensure that such participation is consistent with the relevant guidelines, modalities and procedures adopted pursuant to the UNFCCC or the Kyoto Protocol.

6. In the case of hydroelectric power production project activities with a generating capacity exceeding 20 MW, Member States shall, when approving such project activities, ensure that relevant international criteria and guidelines, including those contained in the World Commission on Dams November 2000 Report "Dams and Development — A New Framework for Decision-Making", will be respected during the development of such project activities.

7. Provisions for the implementation of paragraphs 3 and 4, particularly in respect of the avoidance of double counting, and any provisions necessary for the implementation of paragraph 5 where the host party meets all eligibility requirements for JI project activities shall be adopted in accordance with Article 23(2).’

3. Article 17 is replaced by the following:

‘Article 17

Access to information

Decisions relating to the allocation of allowances, information on project activities in which a Member State participates or authorises private or public entities to participate, and the reports of emissions required under the greenhouse gas emissions permit and held by the competent authority, shall be made available to the public in accordance with Directive 2003/4/EC.’
4. In Article 18 the following subparagraph is added:

‘Member States shall in particular ensure coordination between their designated focal point for approving project activities pursuant to Article 6 (1)(a) of the Kyoto Protocol and their designated national authority for the implementation of Article 12 of the Kyoto Protocol respectively designated in accordance with subsequent decisions adopted under the UNFCCC or the Kyoto Protocol.’

5. In Article 19(3) the following sentence is added:

‘That Regulation shall also include provisions concerning the use and identification of CERs and ERUs in the Community scheme and the monitoring of the level of such use.’

6. Article 21 is amended as follows:

(a) in paragraph 1 the second sentence is replaced by the following:

‘This report shall pay particular attention to the arrangements for the allocation of allowances, the use of ERUs and CERs in the Community scheme, the operation of registries, the application of the monitoring and reporting guidelines, verification and issues relating to compliance with the Directive and the fiscal treatment of allowances, if any.’

(b) paragraph 3 is replaced by the following:

‘3. The Commission shall organise an exchange of information between the competent authorities of the Member States concerning developments relating to issues of allocation, the use of ERUs and CERs in the Community scheme, the operation of registries, monitoring, reporting, verification and compliance with this Directive.’

7. The following Article is inserted after Article 21:

‘Article 21a

Support of capacity-building activities

In accordance with the UNFCCC, the Kyoto Protocol and any subsequent decision adopted for their implementation, the Commission and the Member States shall endeavour to support capacity-building activities in developing countries and countries with economies in transition in order to help them take full advantage of JI and the CDM in a manner that supports their sustainable development strategies and to facilitate the engagement of entities in JI and CDM project development and implementation.’

8. Article 30 is amended as follows:

(a) in paragraph 2, point (d) is replaced by the following:

‘(d) the use of credits from project activities, including the need for harmonisation of the allowed use of ERUs and CERs in the Community scheme;’

(b) in paragraph 2 the following points are added:

‘(l) the impact of project mechanisms on host countries, particularly on their development objectives, whether JI and CDM hydroelectric power production project activities with a generating capacity exceeding 500 MW and having negative environmental or social impacts have been approved, and the future use of CERs or ERUs resulting from any such hydroelectric power production project activities in the Community scheme;

(m) the support for capacity-building efforts in developing countries and countries with economies in transition;

(n) the modalities and procedures for Member States’ approval of domestic project activities and for the issuing of allowances in respect of emission reductions or limitations resulting from such activities from 2008;

(o) technical provisions relating to the temporary nature of credits and the limit of 1 % for eligibility for land use, land-use change and forestry project activities as established in Decision 17/CP.7, and provisions relating to the outcome of the evaluation of potential risks associated with the use of genetically modified organisms and potentially invasive alien species by afforestation and reforestation project activities, to allow operators to use CERs and ERUs resulting from land use, land-use change and forestry project activities in the Community scheme from 2008, in accordance with the decisions adopted pursuant to the UNFCCC or the Kyoto Protocol.’
The text below adheres to the guidelines, ensuring coherent and natural representation:

(c) paragraph 3 is replaced by the following:

‘3. In advance of each period referred to in Article 11(2), each Member State shall publish in its national allocation plan its intended use of ERUs and CERs and the percentage of the allocation to each installation up to which operators are allowed to use ERUs and CERs in the Community scheme for that period. The total use of ERUs and CERs shall be consistent with the relevant supplementarity obligations under the Kyoto Protocol and the UNFCCC and the decisions adopted thereunder. Member States shall, in accordance with Article 3 of Decision No 280/2004/EC of the European Parliament and of the Council of 11 February 2004 concerning a mechanism for monitoring Community greenhouse gas emissions and for implementing the Kyoto Protocol (\*), report to the Commission every two years on the extent to which domestic action actually constitutes a significant element of the efforts undertaken at national level, as well as the extent to which use of the project mechanisms is actually supplemental to domestic action, and the ratio between them, in accordance with the relevant provisions of the Kyoto Protocol and the decisions adopted thereunder. The Commission shall report on this in accordance with Article 5 of the said Decision. In the light of this report, the Commission shall, if appropriate, make legislative or other proposals to complement provisions adopted by Member States to ensure that use of the mechanisms is supplemental to domestic action within the Community.


9. In Annex III the following point is added:

‘12. The plan shall specify the maximum amount of CERs and ERUs which may be used by operators in the Community scheme as a percentage of the allocation of the allowances to each installation. The percentage shall be consistent with the Member State’s supplementarity obligations under the Kyoto Protocol and decisions adopted pursuant to the UNFCCC or the Kyoto Protocol.’

Article 2

Implementation

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 13 November 2005. They shall forthwith inform the Commission thereof.

When Member States adopt these measures, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. The methods of making such reference shall be laid down by the Member States.

2. Member States shall communicate to the Commission the text of the provisions of national law which they adopt in the field covered by this Directive. The Commission shall inform the other Member States thereof.

Article 3

Entry into force

This Directive shall enter into force on the day of its publication in the Official Journal of the European Union.

Article 4

Addressees

This Directive is addressed to the Member States.

Done at Strasbourg, 27 October 2004.

For the European Parliament
J. BORRELL FONTELLES
The President

For the Council
A. NICOLAI
The President
Annex 4


4.3. THE MONITORING PLAN

Pursuant to Article 6(2)(c) of Directive 2003/87/EC greenhouse gas emissions permits shall contain monitoring requirements, specifying monitoring methodology and frequency.

The monitoring methodology is part of the monitoring plan which shall be approved by the competent authority in accordance with the criteria set out in this Section and its subsections. The Member State or its competent authorities shall ensure that the monitoring methodology to be applied by installations shall be specified either under the conditions of the permit or, where consistent with Directive 2003/87/EC, in general binding rules.

The competent authority shall check and approve the monitoring plan prepared by the operator before the start of the reporting period, and again after any substantial changes to the monitoring methodology are applied to an installation as listed three paragraphs below.

Subject to Section 16, the monitoring plan shall contain the following contents:

(a) the description of the installation and activities carried out by the installation to be monitored;

(b) information on responsibilities for monitoring and reporting within the installation;

(c) a list of emissions sources and source streams to be monitored for each activity carried out within the installation;

(d) a description of the calculation-based methodology or measurement-based methodology to be used;

(e) a list and description of the tiers for activity data, emission factors, oxidation and conversion factors for each of the source streams to be monitored;

(f) a description of the measurement systems, and the specification and exact location of the measurement instruments to be used for each of the source streams to be monitored;

(g) evidence demonstrating compliance with the uncertainty thresholds for activity data and other parameters (where applicable) for the applied tiers for each source stream;

(h) if applicable, a description of the approach to be used for the sampling of fuel and materials for the determination of net calorific value, carbon content, emission factors, oxidation and conversion factor and biomass content for each of the source streams;

(i) a description of the intended sources or analytical approaches for the determination of the net calorific values, carbon content, emission factor, oxidation factor, conversion factor or biomass fraction for each of the source streams;

(j) if applicable, a list and description of non-accredited laboratories and relevant analytical procedures
including a list of all relevant quality assurance measures, e.g. inter-laboratory comparisons as described in Section 13.5.2;

(k) if applicable, a description of continuous emission measurement systems to be used for the monitoring of an emission source, i.e. the points of measurement, frequency of measurements, equipment used, calibration procedures, data collection and storage procedures and the approach for corroborating calculation and the reporting of activity data, emission factors and alike;

(l) if applicable, where the so-called ‘fall-back approach’ (Section 5.3) is applied: a comprehensive description of the approach and the uncertainty analysis, if not already covered by items (a) to (k) of this list;

(m) a description of the procedures for data acquisition, handling activities and control activities as well as a description of the activities (see Section 10.1-3);

(n) where applicable, information on relevant links with activities undertaken under the Community ecomanagement and audit scheme (EMAS) and other environmental management systems (e.g. ISO14001:2004), in particular on procedures and controls with relevance to greenhouse gas emissions monitoring and reporting.

The monitoring methodology shall be changed if this improves the accuracy of the reported data, unless this is technically not feasible or would lead to unreasonably high costs.

A substantial change to the monitoring methodology as part of the monitoring plan shall be subject to the approval of the competent authority if it concerns:

— a change of the categorisation of the installation as laid down in Table 1,

— a change between the calculation-based or the measurement-based methodology used to determine emissions,

— an increase of the uncertainty of the activity data or other parameters (where applicable) which implies a different tier level.

All other changes and proposed changes in monitoring methodology or the underlying data sets shall be notified to the competent authority without undue delay after the operator has become aware of it or could in all reasonableness have become aware of it, unless otherwise specified in the monitoring plan.

Changes to the monitoring plan shall be clearly stated, justified and fully documented in internal records of the operator.

A competent authority shall require the operator to change its monitoring plan if its monitoring plan is no longer in conformity with the rules laid down in these Guidelines.

To exchange information between the competent authorities and the Commission on monitoring, reporting and verification under these guidelines and its coherent application Member States shall facilitate an annual quality assurance and evaluation process of monitoring, reporting and verification initiated by the Commission pursuant to Article 21(3) of Directive 2003/87/EC.
ANNEX V TO DIRECTIVE 2003/87/EC AS AMENDED BY DIRECTIVE TO INCLUDE AVIATION IN THE EU ETS

Text in italics is the text taken from the directive to include aviation in the EU ETS

ANNEX V

CRITERIA FOR VERIFICATION REFERRED TO IN ARTICLE 15

PART A – Verification of emissions from stationary installations

General Principles
1. Emissions from each activity listed in Annex I shall be subject to verification.

2. The verification process shall include consideration of the report pursuant to Article 14(3) and of monitoring during the preceding year. It shall address the reliability, credibility and accuracy of monitoring systems and the reported data and information relating to emissions, in particular:
   (a) the reported activity data and related measurements and calculations;
   (b) the choice and the employment of emission factors;
   (c) the calculations leading to the determination of the overall emissions; and
   (d) if measurement is used, the appropriateness of the choice and the employment of measuring methods.

3. Reported emissions may only be validated if reliable and credible data and information allow the emissions to be determined with a high degree of certainty. A high degree of certainty requires the operator to show that:
   (a) the reported data is free of inconsistencies;
   (b) the collection of the data has been carried out in accordance with the applicable scientific standards; and
   (c) the relevant records of the installation are complete and consistent.

4. The verifier shall be given access to all sites and information in relation to the subject of the verification.

5. The verifier shall take into account whether the installation is registered under the Community eco-management and audit scheme (EMAS).

Methodology

Strategic analysis
6. The verification shall be based on a strategic analysis of all the activities carried out in the installation. This requires the verifier to have an overview of all the activities and their significance for emissions.

Process analysis
7. The verification of the information submitted shall, where appropriate, be carried out on the site of the installation. The verifier shall use spot-checks to determine the reliability of the reported data and information.
Risk analysis
8. The verifier shall submit all the sources of emissions in the installation to an evaluation with regard to the reliability of the data of each source contributing to the overall emissions of the installation.

9. On the basis of this analysis the verifier shall explicitly identify those sources with a high risk of error and other aspects of the monitoring and reporting procedure which are likely to contribute to errors in the determination of the overall emissions. This especially involves the choice of the emission factors and the calculations necessary to determine the level of the emissions from individual sources. Particular attention shall be given to those sources with a high risk of error and the abovementioned aspects of the monitoring procedure.

10. The verifier shall take into consideration any effective risk control methods applied by the operator with a view to minimising the degree of uncertainty.

Report
11. The verifier shall prepare a report on the validation process stating whether the report pursuant to Article 14(3) is satisfactory. This report shall specify all issues relevant to the work carried out. A statement that the report pursuant to Article 14(3) is satisfactory may be made if, in the opinion of the verifier, the total emissions are not materially misstated.

Minimum competency requirements for the verifier
12. The verifier shall be independent of the operator, carry out his activities in a sound and objective professional manner, and understand:
   (a) the provisions of this Directive, as well as relevant standards and guidance adopted by the Commission pursuant to Article 14(1);
   (b) the legislative, regulatory, and administrative requirements relevant to the activities being verified; and
   (c) the generation of all information related to each source of emissions in the installation, in particular, relating to the collection, measurement, calculation and reporting of data.

PART B – Verification of emissions from aviation activities

"PART B – Verification of emissions from aviation activities
13. The general principles and methodology set out in this Annex shall apply to the verification of reports of emissions from flights falling within an aviation activity listed in Annex I.

For this purpose:
(a) in paragraph 3, the reference to operator shall be read as if it were a reference to an aircraft operator, and in point (c) of that paragraph the reference to installation shall be read as if it were a reference to the aircraft used to perform the aviation activities covered by the report;
(b) in paragraph 5, the reference to installation shall be read as if it were a reference to the aircraft operator;
(c) in paragraph 6 the reference to activities carried out in the installation shall be read as a reference to aviation activities covered by the report carried out by the aircraft operator;
(d) in paragraph 7 the reference to the site of the installation shall be read as if it were a reference to the sites used by the aircraft operator to perform the aviation activities covered by the report;
(e) in paragraphs 8 and 9 the references to sources of emissions in the installation shall be read as if they were a reference to the aircraft for which the aircraft operator is responsible; and
(f) in paragraphs 10 and 12 the references to operator shall be read as if they were a reference to an aircraft operator."
Additional provisions for the verification of aviation emission reports

14. The verifier shall in particular ascertain that:

(a) all flights falling within an aviation activity listed in Annex I have been taken into account. In this task the verifier shall be assisted by timetable data and other data on the aircraft operator’s traffic including data from Eurocontrol requested by that operator;
(b) there is overall consistency between aggregated fuel consumption data and data on fuel purchased or otherwise supplied to the aircraft performing the aviation activity.

Additional provisions for the verification of tonne-kilometre data submitted for the purposes of Articles 3e and 3f

15. The general principles and methodology for verifying emissions reports under Article 14(3) as set out in this Annex shall, where applicable, also apply correspondingly to the verification of aviation tonne-kilometre data.

16. The verifier shall in particular ascertain that only flights actually performed and falling within an aviation activity listed in Annex I for which the aircraft operator is responsible have been taken into account in that operator's application under Articles 3e(1) and 3f(2). In this task the verifier shall be assisted by data on the aircraft operator 's traffic including data from Eurocontrol requested by that operator. In addition, the verifier shall ascertain that the payload reported by the aircraft operator corresponds to records on payloads kept by that operator for safety purposes.”
PRINCIPLES FOR MONITORING AND REPORTING REFERRED TO IN ARTICLE 14(1)

PART A – Monitoring and reporting of emissions from stationary installations

Monitoring of carbon dioxide emissions

Emissions shall be monitored either by calculation or on the basis of measurement.

Calculation

Calculations of emissions shall be performed using the formula:

\[ \text{Activity data} \times \text{Emission factor} \times \text{Oxidation factor} \]

Activity data (fuel used, production rate etc.) shall be monitored on the basis of supply data or measurement.

Accepted emission factors shall be used. Activity-specific emission factors are acceptable for all fuels. Default factors are acceptable for all fuels except non-commercial ones (waste fuels such as tyres and industrial process gases). Seam-specific defaults for coal, and EU-specific or producer country-specific defaults for natural gas shall be further elaborated. IPCC default values are acceptable for refinery products. The emission factor for biomass shall be zero.

If the emission factor does not take account of the fact that some of the carbon is not oxidised, then an additional oxidation factor shall be used. If activity-specific emission factors have been calculated and already take oxidation into account, then an oxidation factor need not be applied.

Default oxidation factors developed pursuant to Directive 96/61/EC shall be used, unless the operator can demonstrate that activity-specific factors are more accurate.

A separate calculation shall be made for each activity, installation and for each fuel.

Measurement

Measurement of emissions shall use standardised or accepted methods, and shall be corroborated by a supporting calculation of emissions.

Monitoring of emissions of other greenhouse gases

Standardised or accepted methods shall be used, developed by the Commission in collaboration with all relevant stakeholders and adopted in accordance with the procedure referred to in Article 23(2).

Reporting of emissions

Each operator shall include the following information in the report for an installation:

A. Data identifying the installation, including:
— Name of the installation;
— Its address, including postcode and country;
— Type and number of Annex I activities carried out in the installation;
— Address, telephone, fax and email details for a contact person; and
— Name of the owner of the installation, and of any parent company.
B. For each Annex I activity carried out on the site for which emissions are calculated:
— Activity data;
— Emission factors;
— Oxidation factors;
— Total emissions; and
— Uncertainty.
C. For each Annex I activity carried out on the site for which emissions are measured:
— Total emissions;
— Information on the reliability of measurement methods; and
— Uncertainty.
D. For emissions from combustion, the report shall also include the oxidation factor, unless oxidation
has already been taken into account in the development of an activity-specific emission factor.

Member States shall take measures to coordinate reporting requirements with any existing reporting
requirements in order to minimise the reporting burden on businesses.

"PART B – Monitoring and reporting of emissions from aviation activities"

Monitoring of carbon dioxide emissions

Emissions shall be monitored by calculation. Emissions shall be calculated using the formula:

Fuel consumption x emission factor

Fuel consumption shall include fuel consumed by the auxiliary power unit. Actual fuel consumption for each flight
shall be used wherever possible and shall be calculated using the formula:

Amount of fuel contained in aircraft tanks once fuel uplift for the flight is complete – amount of fuel contained in
aircraft tanks once fuel uplift for subsequent flight is complete + fuel uplift for that subsequent flight.

If actual fuel consumption data are not available, a standardised tiered method shall be used to estimate fuel
consumption data based on best available information.

Default IPCC emission factors, taken from the 2006 IPCC Inventory Guidelines or subsequent updates of these
Guidelines, shall be used unless activity-specific emission factors identified by independent accredited
laboratories using accepted analytical methods are more accurate. The emission factor for biomass shall be zero.

A separate calculation shall be made for each flight and for each fuel.

Reporting of emissions

Each aircraft operator shall include the following information in its report under Article 14(3):

A. Data identifying the aircraft operator, including:
– name of the aircraft operator,
– its administering Member State,
– its address, including postcode and country and, where different, its contact address in the administering Member State,
– the aircraft registration numbers and types of aircraft used in the period covered by the report to perform the aviation activities listed in Annex I for which it is the aircraft operator,
– the number and issuing authority of the air operator certificate and operating licence under which the aviation activities listed in Annex I for which it is the aircraft operator were performed,
– address, telephone, fax and email details for a contact person, and
– name of the aircraft owner.

B. For each type of fuel for which emissions are calculated:
– fuel consumption,
– emission factor,
– total aggregated emissions from all flights performed during the period covered by the report which fall within the aviation activities listed in Annex I for which it is the aircraft operator,
– aggregated emissions from:
  ▪ all flights performed during the period covered by the report which fall within the aviation activities listed in Annex I for which it is the aircraft operator and which departed from an aerodrome situated in the territory of a Member State and arrived at an aerodrome situated in the territory of the same Member State,
  ▪ all other flights performed during the period covered by the report which fall within the aviation activities listed in Annex I for which it is the aircraft operator,
– aggregated emissions from all flights performed during the period covered by the report which fall within the aviation activities listed in Annex I for which it is the aircraft operator and which:
  ▪ departed from each Member State, and
  ▪ arrived in each Member State from a third country,
– uncertainty.

**Monitoring of tonne-kilometre data for the purpose of Articles 3e and 3f**

For the purpose of applying for an allocation of allowances in accordance with Article 3e(1) or Article 3f(2), the amount of aviation activity shall be calculated in tonne-kilometres using the following formula:

\[
\text{tonne kilometres} = \text{distance} \times \text{payload}
\]

where:

"distance" means the great circle distance between the aerodrome of departure and the aerodrome of arrival plus an additional fixed factor of 95 km; and

"payload" means the total mass of freight, mail and passengers carried.

For the purposes of calculating the payload:

– the number of passengers shall be the number of persons on-board excluding crew members,
– an aircraft operator may choose to apply either the actual or standard mass for passengers and checked baggage contained in its mass and balance documentation for the relevant flights or a default value of 100 kg for each passenger and his checked baggage.
**Reporting of tonne-kilometre data for the purpose of Articles 3e and 3f**

Each aircraft operator shall include the following information in its application under Article 3e(1) or Article 3f(2):

**A. Data identifying the aircraft operator, including:**

- name of the aircraft operator,
- its administering Member State,
- its address, including postcode and country and, where different, its contact address in the administering Member State,
- the aircraft registration numbers and types of aircraft used during the year covered by the application to perform the aviation activities listed in Annex I for which it is the aircraft operator,
- the number and issuing authority of the air operator certificate and operating licence under which the aviation activities listed in Annex I for which it is the aircraft operator were performed,
- address, telephone, fax and email details for a contact person, and
- name of the aircraft owner.

**B. Tonne-kilometre data:**

- number of flights by aerodrome pair,
- number of passenger-kilometres by aerodrome pair,
- number of tonne-kilometres by aerodrome pair,
- chosen method for calculation of mass for passengers and checked baggage,
- total number of tonne-kilometres for all flights performed during the year to which the report relates falling within the aviation activities listed in Annex I for which it is the aircraft operator."