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AIR POLLUTION STUDIES No. 15

Emission Reporting Guidelines



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AIR POLLUTION STUDIES No. 15
**Guidelines for Estimating and Reporting
Emission Data under the Convention on Long-range
Transboundary Air Pollution**

Prepared by the Convention's Task Force on Emission Inventories and
Projections and the secretariat



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INTRODUCTION

This fifteenth volume of the series of Air Pollution Studies, published under the auspices of the Executive Body for the Convention on Long-range Transboundary Air Pollution, contains the Guidelines for Estimating and Reporting Emission Data. The Guidelines were prepared by the Convention's Task Force on Emission Inventories and Projections, adopted by the Steering Body to the Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe (EMEP) at its twenty-sixth session (2-4 September 2002) and approved by the Executive Body at its twentieth session (10-13 December 2002).

The objectives of developing the Guidelines were to assist Parties in meeting their emission reporting obligations under the Convention and its protocols; to facilitate the consideration of Parties' reports, including their technical analysis and compilation; and to facilitate the evaluation of data quality by the Convention's Implementation Committee.

The Guidelines aim to achieve greater *transparency, consistency, comparability, completeness* and *accuracy* in reported emission data. Moreover, they aim to harmonize reporting procedures under the Convention with those used elsewhere, including under the United Nations Framework Convention on Climate Change, in particular with regard to source sectors for allocating emissions and projections.

While the Guidelines offer voluntary guidance, their legal basis is established through Executive Body decision 2002/10 on emission data reporting under the Convention and the protocols in force (ECE/EB.AIR/77/Add.1), adopted at its twentieth session.

The present Guidelines are subject to review and revision by 2007 at the latest. The Task Force on Emission Inventories and Projections will, in the meantime, continue to assess their usefulness, and raise any problems or discrepancies met by emissions experts in reporting data with the EMEP Steering Body.

For further information regarding the Guidelines, please contact the secretariat:

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I. OBJECTIVES

1. The objectives of the present emission reporting guidelines under the Convention on Long-range Transboundary Air Pollution are as follows:

(a) To assist Parties through a common approach in meeting their obligations under:

(i) The 1979 Geneva Convention on Long-range Transboundary Air Pollution, article 8, in particular paragraph (a);

(ii) The 1985 Helsinki Protocol on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at least 30%, article 4;

(iii) The 1988 Sofia Protocol concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes, article 8;

(iv) The 1991 Geneva Protocol on the Control of Emissions of Volatile Organic Compounds or their Transboundary Fluxes, article 8;

(v) The 1994 Oslo Protocol on Further Reduction of Sulphur Emissions, article 5;

(vi) The 1998 Aarhus Protocol on Heavy Metals, article 3, paragraph 5, and article 7;

(vii) The 1998 Aarhus Protocol on Persistent Organic Pollutants, article 3, paragraph 8, and article 9;

(viii) The 1999 Gothenburg Protocol to Abate Acidification, Eutrophication and Ground-level Ozone, article 7, paragraph 1;

(b) To facilitate the process of considering Parties' reports on emission inventories and projections, including their technical analysis and compilation; and

(c) To facilitate the process of verification and technical assessment, including expert review, of the emission reports and the evaluation of data quality for the purpose of the functions of the Implementation Committee (Executive Body Decision 1997/2, annex, para. 3 (c)).

II. PRINCIPLES

2. The term "Parties" in the present guidelines refers to the Parties to the Convention, unless otherwise specified. The term may also refer specifically to the Parties to one or more of the Protocols to the Convention that are in force. The present guidelines should not be

understood as implying that a specific Protocol applies to a Party to the Convention which is not a Party to that Protocol.

3. National emission inventories, projected activity data and projected emissions should be transparent, consistent, comparable, complete and accurate.

4. Emission estimates should be prepared using the applicable methodologies agreed upon by the Executive Body to the Convention and referred to in paragraph 11 below.

5. In the context of the present emission reporting guidelines:

(a) *Transparency* means that the assumptions and methodologies used for emission estimation should be clearly explained to facilitate replication and assessment of the data by users of the reported information. The transparency of emission reporting is fundamental to the success of the process for the communication and consideration of information;

(b) *Consistency* means that emission data should be internally consistent in all their elements with data from other years. Emission data are consistent if the same methodologies are used for all years and if consistent data sets are used to estimate emissions. Under certain circumstances, referred to in paragraphs 15 and 16 below, emission data using different methodologies for different years can be considered to be consistent if they have been recalculated in a transparent manner, taking into account guidance provided in the EMEP/CORINAIR Atmospheric Emission Inventory Guidebook;¹

(c) *Comparability* means that estimates of emissions reported by Parties should be comparable among Parties. For this purpose, Parties should use the applicable methodologies and formats agreed upon by the Executive Body. The allocation of different source categories should follow the split set out in annex III below;

(d) *Completeness* means that a national emission report covers, in accordance with a Party's obligation, at least all sources, as well as all compounds, included in the EMEP/CORINAIR Guidebook, as well as other existing relevant source categories that are specific to individual Parties and, therefore, may not be included in the Guidebook. Completeness also means full geographic coverage of a Party's sources;²

(e) *Accuracy* is a relative measure of the exactness of an emission estimate. Estimates should be accurate in the sense that they are systematically neither over nor under true emissions, as far as can be judged, and that uncertainties are reduced as far as practicable, taking into account appropriate methodologies included in the EMEP/CORINAIR Guidebook.

¹ Hereinafter referred to as the EMEP/CORINAIR Guidebook.

² In accordance with the instrument of ratification, acceptance, approval or accession of the Convention and/or Protocol by a given Party.

III. SCOPE

A. General

6. The present guidelines offer voluntary guidance. The Executive Body or EMEP³ Steering Body may, however, refer to one or more provision(s) of the guidelines in implementing specific authorities delegated to them under the Convention and its Protocols and thereby render such provision(s) legally binding for the Parties to the instrument in question. Minimum reporting, as set out below, should be understood as a legal obligation for the respective Parties, in line with the relevant reporting provisions in the Convention and its Protocols, which include, inter alia:

(a) Each Party to the Convention shall, in accordance with article 8, paragraph (a), exchange available information on emissions of agreed air pollutants at periods to be agreed upon;

(b) Each Party to the 1985 Helsinki Protocol on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at least 30% shall, in accordance with article 4, provide annually its level of national annual sulphur emissions, and the basis upon which it has been calculated;

(c) Each Party to the 1988 Sofia Protocol concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes shall, in accordance with article 8, provide its level of national annual emissions of nitrogen oxides and the basis upon which it has been calculated;

(d) Each Party to the 1991 Geneva Protocol on the Control of Emissions of Volatile Organic Compounds or their Transboundary Fluxes shall, in accordance with article 8, report on the level of emissions of VOCs in its territory and in any tropospheric ozone management area (TOMA) in its territory, by total and, to the extent feasible, by sector of origin and by individual VOC, according and on the basis upon which these levels have been calculated and, in addition, if it is a Party within the geographical scope of EMEP, report information on VOC emissions by sector of origin in the spatial resolution specified in accordance with the Protocol;

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