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**ECONOMIC COMMISSION FOR EUROPE**

EXECUTIVE BODY FOR THE CONVENTION ON  
LONG-RANGE TRANSBOUNDARY AIR POLLUTION

Sixteenth session  
(Geneva, 8-11 December 1998)  
Item 5 of the provisional agenda

**FIRST REPORT OF THE IMPLEMENTATION COMMITTEE**

Introduction

1. The following members, elected by the Executive Body at its fifteenth session (ECE/EB.AIR/53, para. 50 (f)), participated in the work of the Implementation Committee: Ms. Kirsten HILLMAN (Canada); Mr. Bohuslav BRIX (Czech Republic); Mr. Dieter JOST (Germany); Mr. Harald DOVLAND (Norway); Mr. Stanislaw WAJDA (Poland); Ms. Natalia KARPOVA (Russian Federation); Mr. Ramón GUARDANS (Spain); Mr. Patrick SZELL (United Kingdom); and Ms. Marina GONATAS (United States).

2. The Committee met twice in 1998. The first meeting was held in Geneva on 27-29 April 1998 and the second in Geneva on 14-15 September 1998. Mr. Bohuslav Brix did not participate in the first meeting and Mr. Harald Dovland, Mr. Stanislaw Wajda, and Ms. Natalia Karpova did not participate in the second.

3. The Committee was chaired by Ms. Kirsten Hillman.

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## **I. ORGANIZATION OF WORK OF THE IMPLEMENTATION COMMITTEE**

4. Based on Executive Body decision 1997/2 concerning the Implementation Committee, its structure and functions and procedures for review of compliance (ECE/EB.AIR/53, annex III) and on the item on compliance in the 1998 work-plan for the implementation of the Convention (ECE/EB.AIR/53, annex V, item 1.2), the Committee identified as its main tasks for 1998: the review of compliance with the reporting requirements of the protocols (para. 3 (a) in the annex to Executive Body decision 1997/2); the development of a draft work-plan for the Committee; and the review of the draft 1998 major review on strategies and policies before its submission to the Executive Body.

5. The Committee noted that there were three protocols in force in early 1998 that contained reporting obligations that could be subject to its review: the 1985 Helsinki Protocol on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at least 30 per cent; the 1988 Sofia Protocol on the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes; and the 1991 Geneva Protocol on the Control of Emissions of Volatile Organic Compounds or their Transboundary Fluxes.

6. The Implementation Committee decided that it would take all its decisions by consensus. In addition, it agreed that any recommendation or report regarding a specific Party would be shown to that Party, and, if necessary, discussed with it, before being presented to the Executive Body. The Committee saw no need for adopting any further rules of procedure at this stage.

## **II. REVIEW OF COMPLIANCE WITH REPORTING REQUIREMENTS**

### Introduction

7. Generally speaking, Parties are required to report two types of information; namely information on emissions and information on national strategies, policies and programmes. In reviewing past compliance with emission reporting obligations, the Committee considered the document entitled "Present state of emission data and emission database" (EB.AIR/GE.1/1997/3 and Add.1 and EB.AIR/GE.1/1998/4). In its review of past compliance with reporting obligations on policies, strategies and programmes, the Committee considered the 1994 Major Review (ECE/EB.AIR/44) and its updates for 1995 (ECE/EB.AIR/47 and EB.AIR/R.92/Add.1 and 2), 1996 (EB.AIR/R.98) and 1997 (EB.AIR/1997/1). It also received information on the submissions made by Parties prior to 14 September for the 1998 major review. In order to put the information reported on strategies and policies into context, the Committee also considered the annotated draft outline of a major review on strategies and policies for air pollution abatement in 1994 (EB.AIR/R.77) and the questionnaire for the 1998 Major Review.

8. Given that this was the first time that there had been a systematic review of the information reported under the Convention, the review revealed many ways in which reporting could be improved or streamlined. It would be unrealistic to expect past reporting to have been flawless. With this in mind, the Committee agreed that the aim of its first review was twofold: (i) to inform the Executive Body about the manner in which information had been reported in past years - timeliness, completeness etc.; and (ii) to advise on ways of improving future reporting.

9. The Committee recognized that it had the mandate under paragraph 3 (a) of the annex to Executive Body decision 1997/2 to draw conclusions regarding whether a Party is in compliance with its reporting obligations. It considered that it would not be appropriate to draw conclusions with respect to past non-compliance but it would do so in the future, starting with the 1998 Major Review.

10. In addition to its specific observations on the reports submitted by Parties, the Committee has two general observations regarding compliance with reporting requirements:

(a) Very few Parties have been respecting the reporting deadlines set by the Executive Body. This is illustrated in table 1 below, which identifies late reports. This lack of timeliness in reporting has made it difficult for the secretariat to plan the allocation of its resources. In addition, this lateness undermines the secretariat's ability to provide a complete report to the Executive Body at its annual sessions and precludes the Implementation Committee from undertaking a detailed review of the report prior to its submission to the Executive Body;

(b) The information on the methodologies used by Parties to calculate their emissions does not appear to have been systematically reported or recorded. In some of the tables showing the present state of emission data in document EB.AIR/GE.1/1998/4, there are footnotes which seem to indicate when a Party has departed from the emissions guidelines developed by EMEP. However, it is not clear whether such departures are always indicated. Parties may have provided more information on methodologies in their national reports than that which appears in the state of emission report. To perform its tasks the Committee will need to be satisfied with the quality of the emission data and will need to ascertain whether the data reported by Parties can be meaningfully compared. The Committee will seek further information and guidance from EMEP in this respect.

11. In examining compliance by the Parties with the protocols, the Committee considered:

(a) Whether each Party provided reports. Table 1 below shows an overview of the reporting on strategies and policies between 1994 and 1998 by all Parties to the Convention. It shows whether reports were received and whether they were received on time. The percentage of Parties to the Convention submitting reports on strategies and policies was approximately 70%, with a peak in 1998 (81%) and a low in 1997 (61%). The percentage of Parties reporting on time was very low: 11% in 1994, 15% in 1995 and 1997, 5% in 1996, and 19% in 1998;

(b) Whether a Party's report contained the required information. The Implementation Committee examined the reporting obligations of each of the three protocols individually as described below. Tables 2-4 cover specific protocol obligations.

A. 1985 Sulphur Protocol

12. The reporting obligations of the 1985 Sulphur Protocol are found in articles 4 and 6. They require information to be provided on sulphur emission data, on the basis upon which these data have been calculated, on national

programmes, policies and strategies and on progress in achieving the goal of the Protocol. Emission data have to be reported annually, but no periodicity is set for strategy and policy reporting.

13. The Committee was of the view that reported information on emission data was sufficient to demonstrate progress in achieving the Protocol's objective. Also, given the lack of precision for the strategy and policy reporting requirement and since the emission reduction objective had been met, it agreed that for this Protocol it would concentrate only on reviewing emission reporting. The Committee noted, however, that all Parties to the 1985 Sulphur Protocol had submitted at least one report on strategies and policies since the 1994 Major Review.

14. Table 2 below gives an overview of emission data reporting by the Parties to the 1985 Sulphur Protocol. It shows the date of entry into force of the Protocol for each Party, and it indicates whether, by 31 May 1998, data were reported for the base year and the years starting with the year of entry into force for that Party. 92% of the required annual total emission data have been reported, and 86% of the data were reported as final and covering all emission source categories.

#### B. 1988 NOx Protocol

15. The reporting obligations of the 1988 NOx Protocol, a number of which are quite detailed, are set out in article 8. They include reporting on emissions and on general programmes, policies and strategies.

16. Reporting on levels of national annual emissions is required under article 8 (1)(a). Table 3 below gives an overview of emission data reporting by the Parties to the 1988 NOx Protocol. It shows the date of entry into force of the Protocol for each Party, and it indicates whether, by 31 May 1998, data were reported for the base year and the years starting with the year of entry into force for that Party. 84% of the required annual total emission data have been reported, and 82% of the data were reported as final and covering all emission source categories.

17. The detailed reporting requirements are set out in article 8 (1)(b)-(f). In comparing these detailed requirements with the questionnaire for the 1998 Major Review, the Implementation Committee noted that some of the requirements were either not covered by the questionnaire or were not clearly spelled out by it. This may have resulted in some Parties not fully reporting the information required by the Protocol. The Committee concluded that to facilitate future reporting by the Parties and review by the Committee, the questionnaire should be linked more closely to the reporting obligations.

18. A summary of reporting on the detailed reporting requirements is set out in table 4. The list below indicates the sections in the reports on strategies and policies where the Committee sought information relevant to the detailed reporting obligations when compiling the information for table 4:

- 8 (1)(b): National emission standards required under article 2, paragraphs 2 (a) and 2 (b), and the national emission standards applied or to be applied, and the sources and/or source categories concerned: chapter III, sections A.4 and C.1-3, and table 13.2;

- 8 (1)(c): Information about progress in introducing pollution control measures: relevant information could be found throughout chapter III, especially in sections A and C;
- 8 (1)(d): Availability of unleaded fuel: chapter III, section C.4;
- 8 (1)(e): Measures to facilitate the exchange of technology: chapter IV, section B; and
- 8 (1)(f): Information about progress in establishing critical loads: chapter III, section D.2; and table 16, which shows which Parties participated in the mapping programme.

The Committee recognized that some Parties may not have fully reported the required information because the outline of the major review did not sufficiently elicit the information required under article 8 (1)(b)-(f).

19. Table 4 has to be considered in the light of the points raised above. Its main purpose is to illustrate the need for improvements to the questionnaire when it is used in the future. In most cases, it was not possible to draw any final conclusions on whether reporting obligations had been met, for the following reasons:

(a) At this stage, the Committee did not attempt to evaluate reporting under article 8 (1)(c); as it recognized that further work was necessary to define the information required to fulfil this obligation;

(b) With respect to emission standards (8 (1)(b)), it noted that it required expert advice on the kind of information Parties should report in order for it to be able to assess compliance. Table 4 indicates which Parties provided at least some information with relevance to NOx emission standards in the reviews. Further work is necessary to more clearly define the reporting requirements on emission standards;

(c) Concerning the availability of unleaded fuel, the Implementation Committee had to request the secretariat to consult the original Party submissions, as the information presented in the reports was not sufficient to draw conclusions about individual Parties. Nevertheless, the Committee noted that some Parties that were known to have introduced unleaded fuel a number of years ago, had not reported under this item;

(d) Regarding the reporting on measures to facilitate the exchange of technology, the Committee noted that often only one party in a bilateral or multilateral project had reported on that project. In such a case the table does not show the cooperating partners. For future reporting, all partners to a project dealing with the exchange of technology should report on their efforts, and this should be clearly requested in the questionnaire;

(e) With respect to reporting on the progress of establishing critical loads, the Committee noted that some Parties that had submitted critical load data under the auspices of the Task Force on Mapping or were participating in other relevant effect-oriented activities had not reported under the appropriate section in the questionnaire. For future reporting, such

activities should be presented in the reports submitted by Parties, so that they can be considered by the Committee.

C. The 1991 VOC Protocol

20. The reporting obligations of the 1991 VOC Protocol, a number of which are quite detailed, are set out in article 8. As in the 1988 NOx Protocol, these include reporting on emissions and on general programmes, policies and strategies.

21. The VOC Protocol entered into force on 29 September 1997. Therefore, the first obligatory reporting was in 1998 for the major review. The Implementation Committee agreed that it did not have the mandate to evaluate any information on VOCs that was provided prior to the entry into force of the VOC Protocol. However, to assist Parties in their reporting efforts in the future, the Committee agreed to present to the Executive Body its views on which questions in the 1998 major review it considered relevant for the purpose of the VOC Protocol.

22. Reporting of information on national emissions is required by article 8, paragraphs 1 (second sentence), 2 (a) and 3. In addition, article 8 sets out detailed reporting requirements with respect to strategies and policies. The requirements of article 8 and the sections in the questionnaire for the 1998 Major Review under which this information may be provided are set out below. The Committee will seek information on:

- 8 (1) (first sentence) and 8 (2)(a):  
General information on strategies and policies in the responses to questions Q1-Q4, Q11-15 and Q24;
- 8 (2)(b): The application of national or international emission standards and the control techniques required under article 2, paragraph 3, in responses to Q10 and table 9, as well as Q20-22;
- 8 (2)(c): Measures taken to facilitate the exchange of technology in responses to Q27.

**III. REVIEW OF THE 1998 MAJOR REVIEW**

A. Review of the questionnaire for the 1998 Major Review

23. The Implementation Committee noted that the questionnaire for the 1998 Major Review had been sent out prior to its first meeting, and that the Committee had not had an opportunity to comment on it before it was finalized. Therefore, the Committee decided to conduct a review of the questionnaire with a view to offering suggestions for its improvement when it is used in the future. The Committee may also need to review the outline of the Major Review.

24. The Committee held that the questionnaire needed to be revised to refer more clearly to the reporting obligations under the protocols. Many questions in the current version were not designed to target specific reporting obligations but rather to foster an exchange of information pursuant to

article 8 of the Convention. The result of this is that, at times, the questionnaire does not elicit the information required by the reporting obligations. The Implementation Committee was of the view that detailed recommendations for a revision of the structure and content of the questionnaire would be an important item for the work programme.

25. The Committee also recognized that there were obligations in the protocols that were not specifically covered by reporting requirements. These include provisions such as those dealing with research and monitoring (article 6 of the NOx Protocol and article 5 of the VOC Protocol) and obligations which do not require Parties to achieve particular ends or to report thereon to the Executive Body but simply require them to "facilitate" or "encourage" actions that are designed to achieve certain ends. The Committee concluded that it would be useful to examine possible means of gathering more comprehensive information with respect to the implementation of these obligations, including the possibility of making recommendations for revisions to the questionnaire.

26. Suggestions were also made to facilitate information gathering for reporting purposes. The Committee held that, rather than sending a blank questionnaire, the secretariat should send out the questionnaire pre-filled using the information submitted by a Party in the previous year, where available, and asking the Party to report on any changes. The report should be returned confirming the currency of the information and highlighting any changes or additions. This could facilitate the preparation of the report by the secretariat. It would also have the advantage of enabling the secretariat to compile a full report every year so that the Implementation Committee and the Parties would not have to go through several reports to get the full picture. The use of a database for the major review and provisions for electronic reporting by Parties, though costly at first, would rationalize the reporting system significantly. It would facilitate the efficient and timely submission of the major review report to the Implementation Committee and the Executive Body.

27. Finally, it was noted that under the NOx and VOC Protocols there was a requirement for Parties to report annually. At its fifteenth session, the Executive Body had adopted a biennial review schedule for strategies and policies, which the Committee considered to be fully compatible with the annual reporting requirements. Taking into account the wish of Parties to reduce the resources needed for the reporting of strategies and policies, a streamlined approach towards reporting in the alternate years under these protocols could be followed.

#### B. Review of the draft 1998 major review

28. The secretariat informed the Implementation Committee about the progress in finalizing the 1998 Major Review on Strategies and Policies. It presented a first draft of its chapter V, on the assessment of implementation.

29. Committee members complimented the secretariat on the excellent analysis carried out. The Committee recognized that the material provided a good basis for reviewing compliance. It noted that a clear division of tasks between the secretariat and the Implementation Committee would be necessary. The Committee recognized that it was neither its role nor did it have the resources to conduct an analysis similar to the one presented by the

secretariat, but rather the function of the Committee was to reach its conclusions on the basis of analyses carried out by the secretariat or experts. It therefore requested the secretariat to continue to make any information of relevance to its work available to it. The Committee would use any information presented to it by the secretariat to fulfil its functions.

30. The Implementation Committee agreed that it would undertake a full review of the information contained in the 1998 Major Review in 1999-2000.

#### **IV. DEVELOPMENT OF A WORK PROGRAMME**

31. In ECE/EB.AIR/53, the Executive Body instructed the Implementation Committee to develop a work-plan for its activities for the consideration and approval of the Executive Body.

32. The items listed in the draft work programme annexed to this report are organized according to the functions of the Committee set out in paragraph 3 of the annex to Executive Body decision 1997/2 .

33. No specific deadlines have been stipulated for these work-items. Rather they have been identified as either medium- or long-term objectives.

34. The Implementation Committee also discussed work-plan item 1.2 relating to the Implementation Committee as part of the draft work-plan for the Executive Body prepared by the secretariat (EB.AIR/1998/7). This work-plan item 1.2 was prepared on the basis of the work programme annexed to this report.

#### **V. IMPLEMENTATION COMMITTEE MEMBERS' COMPETENCE IN INDIVIDUAL CASES**

35. The Chairperson drew the attention of the Committee to the provision in Executive Body decision 1997/2 dealing with the competence of Committee members and quorum (para. 10 of the annex) and the provision on the functions of the Committee (para. 3 of the annex). As not all members of the Committee represented States Parties to all three protocols, the relationship between these two provisions required consideration.

36. Paragraph 10 of the annex provides that "only those Committee members that are Parties to the protocol in respect of which compliance procedures [...] are being undertaken may participate in those proceedings". The Committee was of the view that in the case of a submission or a referral under paragraph 3 (b) and related proceedings, where the compliance of a particular Party with its obligations under a protocol was specifically targeted, there might be sensitivities that warranted limiting participation in the proceedings to Parties to that protocol. However the Committee did not believe that the tasks it would undertake in 1998, including, in particular, the functions contemplated in paragraph 3 (a) of the annex to Executive Body decision 1997/2, raised such sensitivities and thus warranted such exclusion.

37. In addition, the Committee noted that paragraph 10 was amended in plenary by the Executive Body at its fifteenth session to add a requirement for a quorum - the effect of which, though appropriate for cases under paragraph 3 (b), and related proceedings was to place a serious impediment on the



Committee with respect to its main tasks for 1998, and in particular its review of reporting requirements under paragraph 3 (a). The Committee doubted that the Executive Body had intended to create such an impediment.

38. The Committee therefore agreed to work provisionally under paragraph 3 (a) of its mandate, while seeking guidance from the Executive Body at its sixteenth session. The Committee requests the Executive Body to:

Confirm that its intention was that paragraph 10 of the annex to Executive Body decision 1997/2 would not apply with respect to the function set out in paragraph 3 (a) or to the work foreseen under part III of the work programme annexed to this report.

The Committee will continue to seek guidance from the Executive Body in cases with the potential to raise sensitivities and warranting application of paragraph 10.

## **VI. TABLES**

### **A. Table 1. Reporting on strategies and policies by Parties to the Convention on Long-range Transboundary Air Pollution**

39. Table 1 shows an overview of the reporting on strategies and policies between 1994 and 1998 by all Parties to the Convention. It shows whether reports were received and whether they were received on time.

### **B. Table 2. National total annual emissions reported by Parties to the 1985 Sulphur Protocol**

40. Table 2 gives an overview of emission data reporting by the Parties to the 1985 Sulphur Protocol. It shows the date of entry into force of the Protocol for each Party and it indicates whether, by 31 May 1998, data were reported for the base year and the years starting with the year of entry into force for that Party.

### **C. Table 3. National total annual emissions reported by Parties to the 1988 NO<sub>x</sub> Protocol**

41. Table 3 gives an overview of emission data reporting by the Parties to the 1988 NO<sub>x</sub> Protocol. It shows the date of entry into force of the Protocol for each Party and it indicates whether, by 31 May 1998, data were reported for the base year and the years starting with the year of entry into force for that Party.

### **D. Table 4. Reporting on measures by Parties to the 1988 NO<sub>x</sub> Protocol**

42. A summary of reporting on the detailed reporting requirements in the 1988 NO<sub>x</sub> protocol is set out in table 4. Some Parties may not have fully reported the required information because the outline of the major review did not sufficiently elicit the information required under article 8 (1)(b) to (f). The main purpose of this table is to illustrate the need for improvements to the questionnaire when it is used in the future. The following points should be born in mind:

(a) With respect to emission standards (8 (1)(b)), expert advice on the kind of information Parties should report in order to assess compliance is required. Table 4 indicates which Parties provided at least some information with relevance to NOx emission standards in the reviews;

(b) Concerning the availability of unleaded fuel, the secretariat consulted the original Party submissions, as the information presented in the reports was not sufficient to draw conclusions about individual Parties. Some Parties that are known to have introduced unleaded fuel a number of years ago, have not reported under this item;

(c) Regarding the reporting on measures to facilitate the exchange of technology, often only one party in a bilateral or multilateral project had reported on that project. In such a case the table does not show the cooperating partners;

(d) With respect to reporting on the progress of establishing critical loads, some Parties that had submitted critical load data under the auspices of the Task Force on Mapping or were participating in other relevant effect-oriented activities had not reported under the appropriate section in the questionnaire.

**Table 1. Reporting on strategies and policies by Parties to the Convention on Long-range Transboundary Air Pollution**

|                        | 1979 Convention (a)<br>Entry into force | 1985 Sulphur Protocol (b)<br>Entry into force | 1988 NOx Protocol (c)<br>Entry into force | 1991 VOC Protocol (d)<br>Entry into force | 1994 report | 1995 report | 1996 report | 1997 report | 1998 report |
|------------------------|---|---|---|---|-------------|-------------|-------------|-------------|-------------|
| Armenia                | 22.05.97                                |   |   |   | n.a.        | n.a.        | n.a.        | -           | X           |
| Austria                | 16.03.83                                | 02.09.87                                      | 14.02.91                                  | 29.09.97                                  | O           | O           | O           | -           | O           |
| Belarus                | 16.03.83                                | 02.09.87                                      | 14.02.91                                  |   | O           | -           | X           | O           | X           |
| Belgium                | 16.03.83                                | 07.09.89                                      |   |   | O           | O           | O           | O           | O           |
| Bosnia and Herzegovina | 04.06.92                                |   |   |   | -           | -           | -           | -           | -           |
| Bulgaria               | 16.03.83                                | 02.09.87                                      | 14.02.91                                  | 28.05.98                                  | O           | O           | O           | O           | O           |
| Canada                 | 16.03.83                                | 02.09.87                                      | 25.04.91                                  |   | O           | O           | O           | O           | O           |
| Croatia                | 06.01.93                                |   |   |   | O           | O           | -           | -           | O           |
| Cyprus                 | 18.02.92                                |   |   |   | O           | O           | O           | X           | X           |
| Czech Republic         | 01.04.93                                | 01.04.93                                      | 01.04.93                                  | 29.09.97                                  | X           | X           | O           | X           | X           |
| Denmark                | 16.03.83                                | 02.09.87                                      | 30.05.93                                  | 29.09.97                                  | O           | O           | O           | O           | O           |
| Finland                | 16.03.83                                | 02.09.87                                      | 14.02.91                                  | 29.09.97                                  | O           | -           | O           | -           | O           |
| France                 | 16.03.83                                | 02.09.87                                      | 14.02.91                                  | 29.09.97                                  | -           | O           | O           | -           | X           |
| Germany                | 16.03.83                                | 02.09.87                                      | 14.02.91                                  | 29.09.97                                  | X           | O           | O           | X           | X           |
| Greece                 | 28.11.83                                |   | 28.07.98                                  |   | -           | O           | -           | -           | O           |
| Hungary                | 16.03.83                                | 02.09.87                                      | 10.02.92                                  | 29.09.97                                  | -           | X           | O           | O           | O           |
| Iceland                | 03.08.83                                |   |   |   | -           | X           | -           | -           | -           |
| Ireland                | 16.03.83                                |   | 15.01.95                                  |   | -           | O           | -           | O           | O           |
| Italy                  | 16.03.83                                | 06.05.90                                      | 17.08.92                                  | 29.09.97                                  | O           | -           | O           | X           | X           |
| Latvia                 | 13.10.94                                |   | 22.06.94                                  |   | n.a.        | -           | O           | X           | -           |
| Liechtenstein          |   |   |   |   | n.a.        | -           | -           | -           | -           |
| Lithuania              | 25.04.94                                |   |   | 29.09.97                                  | n.a.        | -           | -           | -           | O           |
| Luxembourg             | 16.03.83                                | 22.11.87                                      | 14.02.91                                  | 29.09.97                                  | -           | O           | -           | -           | -           |
| Malta                  | 12.06.97                                |   |   |   | n.a.        | n.a.        | n.a.        | n.a.        | -           |
| Netherlands            | 16.03.83                                | 02.09.87                                      | 14.02.91                                  | 29.09.97                                  | O           | O           | O           | O           | O           |
| Norway                 | 16.03.83                                | 02.09.87                                      | 14.02.91                                  | 29.09.97                                  | O           | O           | O           | O           | O           |
| Poland                 | 17.10.85                                |   |   |   | O           | X           | O           | O           | O           |
| Portugal               | 16.03.83                                |   |   |   | O           | O           | O           | -           | O           |
| Republic of Moldova    | 07.09.95                                |   |   |   | n.a.        | n.a.        | -           | -           | O           |
| Romania                | 28.05.91                                |   |   |   | -           | -           | O           | -           | O           |
| Russian Federation     | 16.03.83                                | 02.09.87                                      | 14.02.91                                  |   | X           | O           | O           | O           | O           |
| Slovakia               | 26.08.93                                | 26.08.93                                      | 26.08.93                                  |   | O           | O           | O           | O           | O           |
| Slovenia               | 04.10.92                                |   |   |   | O           | O           | O           | O           | O           |
| Spain                  | 16.03.83                                |   | 04.03.91                                  | 29.09.97                                  | O           | -           | O           | O           | O           |
| Sweden                 | 16.03.83                                | 02.09.87                                      | 14.02.91                                  | 29.09.97                                  | O           | O           | O           | O           | O           |
| Switzerland            | 04.08.83                                | 20.12.87                                      | 14.02.91                                  | 29.09.97                                  | O           | O           | O           | O           | O           |
| The FYR of Macedonia*  | 11.02.92                                |   |   |   | n.a.        | n.a.        | n.a.        | n.a.        | -           |
| Turkey                 | 17.07.83                                |   |   |   | -           | O           | O           | X           | O           |
| Ukraine                | 16.03.83                                | 02.09.87                                      | 14.02.91                                  |   | -           | X           | O           | O           | O           |
| United Kingdom         | 16.03.83                                |   | 14.02.91                                  | 29.09.97                                  | O           | -           | O           | O           | X           |
| United States          | 16.03.83                                |   | 14.02.91                                  |   | O           | O           | -           | -           | O           |
| Yugoslavia             | 16.06.87                                |   |   |   | X           | -           | -           | -           | X           |
| European Community     | 16.03.83                                |   | 17.03.94                                  |   | O           | O           | -           | O           | O           |
| Total:                 | 43 Parties                              | 21 Parties                                    | 26 Parties                                | 17 Parties                                | 26          | 29          | 28          | 25          | 35          |

Notes: X Submission on time O Late submission n.a. Not applicable (became a Party to the Convention after dispatch of the questionnaire).

(a) Convention on Long-range Transboundary Air Pollution, adopted 13.11.1979 in Geneva, entry into force 16.3.1983.

(b) Protocol to the 1979 Convention on Long-range Transboundary Air Pollution on the Reduction of Sulphur Emissions or their Transboundary Flows, adopted 8.7.1985 in Helsinki, entry into force 2.9.1987.

(c) Protocol to the 1979 Convention on Long-range Transboundary Air Pollution concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Flows, adopted 31.10.1988 in Sofia, entry into force 14.2.1991.

(d) Protocol to the 1979 Convention on Long-range Transboundary Air Pollution concerning the Control of Emissions of Volatile Organic Compounds or their Transboundary Flows, adopted 18.11.1991 in Geneva, entry into force 29.9.1997.

\* The former Yugoslav Republic of Macedonia.

**Table 2. National total annual emissions reported by Parties to the 1985 Sulphur Protocol (a)**

|                               | Entry into force | Emission data reported for: |      |      |      |      |      |      |      |      |      |      | Share of data available: |                     |
|-------------------------------|------------------|-----------------------------|------|------|------|------|------|------|------|------|------|------|--------------------------|---------------------|
|                               |                  | Base year, 1980             | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | all data                 | final complete data |
| Austria                       | 02.09.87         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | -    | 91%                      | 91%                 |
| Belarus                       | 02.09.87         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | -    | 91%                      | 91%                 |
| Belgium                       | 07.09.89         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | 100%                     | 100%                |
| Bulgaria                      | 02.09.87         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | 100%                     | 100%                |
| Canada                        | 02.09.87         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | -    | 82%                      | 82%                 |
| Czech Republic                | 01.04.93         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | 100%                     | 100%                |
| Denmark                       | 02.09.87         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | 100%                     | 100%                |
| Finland                       | 02.09.87         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | 100%                     | 91%                 |
| France                        | 02.09.87         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | P    | 100%                     | 82%                 |
| Germany                       | 02.09.87         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | 100%                     | 100%                |
| Hungary                       | 02.09.87         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | 100%                     | 100%                |
| Italy                         | 06.05.90         | P                           | X    | X    | X    | X    | X    | X    | X    | X    | P    | -    | 73%                      | 55%                 |
| Liechtenstein                 | 02.09.87         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | -    | 82%                      | 82%                 |
| Luxembourg                    | 22.11.87         | X                           | -    | -    | -    | X    | -    | -    | X    | X    | X    | -    | 45%                      | 45%                 |
| Netherlands                   | 02.09.87         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | 100%                     | 100%                |
| Norway                        | 02.09.87         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | 100%                     | 100%                |
| Russian Federation            | 02.09.87         | P                           | P    | P    | P    | P    | P    | P    | P    | P    | P    | P    | 100%                     | 9%                  |
| Slovakia                      | 26.08.93         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | 100%                     | 100%                |
| Sweden                        | 02.09.87         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | 100%                     | 100%                |
| Switzerland                   | 20.12.87         | X                           | -    | -    | -    | X    | X    | X    | X    | X    | X    | X    | 73%                      | 73%                 |
| Ukraine                       | 02.09.87         | X                           | X    | X    | X    | X    | X    | X    | X    | X    | X    | X    | 100%                     | 100%                |
| Total:                        | 21 Parties       | 21                          | 19   | 19   | 19   | 21   | 20   | 20   | 21   | 21   | 20   | 18   | 92%                      |                     |
| Total (final, complete data): |                  | 19                          | 18   | 18   | 18   | 20   | 19   | 19   | 19   | 19   | 19   | 16   |                          | 86%                 |

**Notes:**

Information based on EB.AIR/GE.1/1998/4 (reflecting data submitted by 31 May 1998).

X Final and complete data available for that year.

P Preliminary or partial data available for that year.

- No emission data available for that year.

(a) Protocol to the 1979 Convention on Long-range Transboundary Air Pollution on the Reduction of Sulphur Emissions or their Transboundary Fluxes by at least 30 per cent, adopted 8.7.1985 in Helsinki.

**Table 3. National total annual emissions reported by Parties to the 1988 NOx Protocol (a)**

|                             | Entry into force | Base year | Emission data reported for: |      |      |      |      |      | Share of data available: |                      |
|-----------------------------|------------------|-----------|-----------------------------|------|------|------|------|------|--------------------------|----------------------|
|                             |                  |           | 1991                        | 1992 | 1993 | 1994 | 1995 | 1996 | all data                 | final, complete data |
| Austria                     | 14.02.91         | X         | X                           | X    | X    | X    | -    | 86%  | 86%                      |                      |
| Belarus                     | 14.02.91         | X         | X                           | X    | X    | X    | -    | 86%  | 86%                      |                      |
| Bulgaria                    | 14.02.91         | X         | X                           | X    | X    | X    | X    | 100% | 100%                     |                      |
| Canada                      | 25.04.91         | X         | X                           | X    | X    | -    | -    | 71%  | 71%                      |                      |
| Czech Republic              | 01.04.93         | X         | X                           | X    | X    | X    | X    | 100% | 100%                     |                      |
| Denmark                     | 30.05.93         | X         | X                           | X    | X    | X    | X    | 100% | 100%                     |                      |
| Finland                     | 14.02.91         | X         | X                           | X    | X    | X    | P    | 100% | 86%                      |                      |
| France                      | 14.02.91         | X         | X                           | X    | X    | X    | X    | 100% | 100%                     |                      |
| Germany                     | 14.02.91         | X         | X                           | X    | X    | X    | X    | 100% | 100%                     |                      |
| Greece                      | 28.07.98         | -         | -                           | -    | -    | -    | -    | 0%   | 0%                       |                      |
| Hungary                     | 10.02.92         | X         | X                           | X    | X    | X    | X    | 100% | 100%                     |                      |
| Ireland                     | 15.01.95         | X         | X                           | X    | X    | X    | P    | 100% | 86%                      |                      |
| Italy                       | 17.08.92         | X         | X                           | X    | -    | -    | -    | 57%  | 43%                      |                      |
| Liechtenstein               | 22.06.94         | X         | X                           | X    | X    | X    | -    | 71%  | 71%                      |                      |
| Luxembourg                  | 14.02.91         | -         | -                           | X    | X    | X    | -    | 43%  | 43%                      |                      |
| Netherlands                 | 14.02.91         | X         | X                           | X    | X    | X    | X    | 100% | 100%                     |                      |
| Norway                      | 14.02.91         | X         | X                           | X    | X    | X    | X    | 100% | 100%                     |                      |
| Russian Federation          | 14.02.91         | X         | X                           | X    | X    | X    | X    | 100% | 100%                     |                      |
| Slovakia                    | 26.08.93         | X         | X                           | X    | X    | X    | X    | 100% | 100%                     |                      |
| Spain                       | 04.03.91         | X         | X                           | X    | -    | -    | -    | 57%  | 57%                      |                      |
| Sweden                      | 14.02.91         | X         | X                           | X    | X    | X    | X    | 100% | 100%                     |                      |
| Switzerland                 | 14.02.91         | X         | X                           | X    | X    | X    | X    | 100% | 100%                     |                      |
| Ukraine                     | 14.02.91         | X         | X                           | X    | X    | X    | X    | 100% | 100%                     |                      |
| United Kingdom              | 14.02.91         | X         | X                           | X    | X    | X    | X    | 100% | 100%                     |                      |
| United States               | 14.02.91         | X         | X                           | X    | X    | X    | X    | 100% | 100%                     |                      |
| European Community          | 17.03.94         | -         | -                           | -    | -    | -    | -    | 0%   | 0%                       |                      |
| Total:                      | 26 Parties       | 23        | 23                          | 23   | 24   | 22   | 20   | 17   | 84%                      |                      |
| Total (final and complete): |                  | 23        | 23                          | 23   | 23   | 22   | 20   | 15   | 82%                      |                      |

Notes:  
Information based on EB.AIR/GE.1/1998/4 (reflecting data submitted by 31 May 1998).

X Final and complete data available for that year.

P Preliminary or partial data available for that year.

- No emission data available for that year.

(a) Protocol to the 1979 Convention on Long-range Transboundary Air Pollution concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes, adopted 31.10.1988 in Sofia

**Table 4. Reporting on measures by Parties to the 1988 NOx Protocol (a)**

|                    | Entry into force  | para. 1(b), emission standards |           |           |          |  | para. 1(d), unleaded fuel |          |           |          |  | para. 1(e), exchange of technology |          |          |          |  | para. 1(f), critical loads |          |          |          |  |
|--------------------|-------------------|--------------------------------|-----------|-----------|----------|--|---------------------------|----------|-----------|----------|--|------------------------------------|----------|----------|----------|--|----------------------------|----------|----------|----------|--|
|                    |                   | 1994                           | 1995      | 1996      | 1997     |  | 1994                      | 1995     | 1996      | 1997     |  | 1994                               | 1995     | 1996     | 1997     |  | 1994                       | 1995     | 1996     | 1997     |  |
| Austria            | 14.02.91          | X                              | X         | -         | no       |  | X                         | -        | X         | no       |  | X                                  | X        | -        | no       |  | X                          | X        | -        | no       |  |
| Belarus            | 14.02.91          | X                              | no        | X         | -        |  | -                         | no       | -         | -        |  | -                                  | no       | -        | -        |  | -                          | no       | -        | -        |  |
| Bulgaria           | 14.02.91          | X                              | X         | X         | X        |  | X                         | -        | X         | -        |  | -                                  | X        | X        | X        |  | X                          | -        | X        | -        |  |
| Canada             | 25.04.91          | X                              | X         | X         | X        |  | X                         | X        | X         | X        |  | X                                  | X        | X        | X        |  | X                          | -        | -        | X        |  |
| Czech Republic     | 01.04.93          | X                              | X         | -         | X        |  | X                         | -        | -         | -        |  | X                                  | -        | -        | -        |  | X                          | X        | X        | X        |  |
| Denmark            | 30.05.93          | X                              | -         | X         | -        |  | X                         | -        | X         | no       |  | X                                  | no       | -        | no       |  | X                          | no       | -        | no       |  |
| Finland            | 14.02.91          | X                              | no        | -         | no       |  | X                         | no       | -         | no       |  | no                                 | -        | -        | no       |  | no                         | -        | -        | no       |  |
| France             | 14.02.91          | no                             | X         | -         | no       |  | no                        | -        | -         | -        |  | -                                  | -        | -        | -        |  | -                          | -        | -        | -        |  |
| Germany            | 14.02.91          | X                              | -         | -         | -        |  | X                         | -        | X         | -        |  | X                                  | -        | -        | -        |  | -                          | -        | -        | -        |  |
| Greece             | 28.07.98          | n.a.                           | n.a.      | n.a.      | n.a.     |  | n.a.                      | n.a.     | n.a.      | n.a.     |  | n.a.                               | n.a.     | n.a.     | n.a.     |  | n.a.                       | n.a.     | n.a.     | n.a.     |  |
| Hungary            | 10.02.92          | no                             | X         | X         | -        |  | no                        | -        | X         | X        |  | no                                 | X        | X        | -        |  | no                         | -        | -        | -        |  |
| Ireland            | 15.01.95          | n.a.                           | X         | no        | X        |  | n.a.                      | X        | no        | X        |  | n.a.                               | -        | no       | -        |  | n.a.                       | -        | no       | X        |  |
| Italy              | 17.08.92          | X                              | no        | X         | X        |  | X                         | no       | -         | -        |  | -                                  | no       | -        | -        |  | X                          | no       | X        | -        |  |
| Liechtenstein      | 22.06.94          | no                             | X         | no        | no       |  | no                        | -        | no        | no       |  | no                                 | -        | no       | no       |  | no                         | X        | no       | no       |  |
| Luxembourg         | 14.02.91          | no                             | X         | no        | no       |  | no                        | -        | no        | no       |  | no                                 | -        | -        | no       |  | no                         | -        | no       | no       |  |
| Netherlands        | 14.02.91          | X                              | X         | -         | X        |  | X                         | -        | -         | -        |  | X                                  | -        | -        | -        |  | X                          | X        | X        | -        |  |
| Norway             | 14.02.91          | X                              | X         | X         | -        |  | X                         | -        | X         | -        |  | X                                  | X        | -        | -        |  | X                          | -        | -        | -        |  |
| Russian Federation | 14.02.91          | X                              | -         | X         | X        |  | -                         | -        | -         | -        |  | X                                  | X        | -        | -        |  | X                          | -        | X        | -        |  |
| Slovakia           | 26.08.93          | X                              | X         | -         | -        |  | -                         | -        | -         | -        |  | -                                  | -        | -        | -        |  | -                          | -        | -        | -        |  |
| Spain              | 04.03.91          | X                              | no        | -         | -        |  | -                         | no       | -         | -        |  | -                                  | no       | -        | -        |  | X                          | no       | -        | -        |  |
| Sweden             | 14.02.91          | X                              | -         | -         | -        |  | X                         | -        | X         | X        |  | X                                  | -        | X        | -        |  | X                          | -        | -        | -        |  |
| Switzerland        | 14.02.91          | X                              | -         | X         | -        |  | X                         | -        | -         | -        |  | -                                  | -        | -        | -        |  | X                          | X        | X        | X        |  |
| Ukraine            | 14.02.91          | no                             | X         | X         | -        |  | no                        | -        | -         | -        |  | -                                  | -        | -        | -        |  | no                         | -        | -        | -        |  |
| United Kingdom     | 14.02.91          | X                              | no        | X         | X        |  | X                         | no       | X         | X        |  | X                                  | no       | -        | -        |  | X                          | no       | X        | X        |  |
| United States      | 14.02.91          | X                              | -         | no        | no       |  | -                         | -        | -         | no       |  | X                                  | X        | X        | no       |  | X                          | -        | -        | no       |  |
| European Community | 17.03.94          | n.a.                           | X         | no        | X        |  | n.a.                      | -        | no        | -        |  | n.a.                               | X        | X        | -        |  | n.a.                       | -        | no       | -        |  |
| <b>Total:</b>      | <b>26 Parties</b> | <b>18</b>                      | <b>14</b> | <b>11</b> | <b>9</b> |  | <b>12</b>                 | <b>2</b> | <b>10</b> | <b>6</b> |  | <b>12</b>                          | <b>7</b> | <b>4</b> | <b>2</b> |  | <b>15</b>                  | <b>5</b> | <b>8</b> | <b>6</b> |  |

Notes:

X Some information related to NOx reported.

- No information related to NOx reported

no No report submitted for that year.

n.a. Not applicable (became a Party to the Protocol after dispatch of the questionnaire for that year).

(a) Protocol to the 1979 Convention on Long-range Transboundary Air Pollution concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes, adopted 31.10.1988 in Sofia.

Annex

PROPOSED WORK PROGRAMME OF THE IMPLEMENTATION COMMITTEE

I. REVIEW OF COMPLIANCE BY PARTIES WITH REPORTING OBLIGATIONS

Medium-term

A. Revision of the questionnaire

Objective: To revise the questionnaire used for reporting for future reviews of strategies and policies, with a view to developing and highlighting questions that focus on the reporting obligations under the protocols.

Method of work: In conducting its initial review of compliance by Parties with their reporting obligations under the protocols, the Committee identified a number of areas where the questions in the questionnaire did not elicit the information required by the relevant reporting obligations or addressed matters not covered by the protocols' obligations. Drawing from this experience the Committee will consider the structure and content of the questionnaire that was prepared for the 1998 Major Review and, where needed, develop questions that highlight the reporting obligations under the protocols.

B. Detailed consideration of the 1998 Major Review

Objective: To review the information contained in the 1998 Major Review.

Method of work: During 1998, the Implementation Committee had the opportunity to review briefly chapter V of the 1998 Major Review. However, a more detailed consideration of the major review and of its implications for compliance with the Protocols will be necessary.

C. Transition from the 1985 Sulphur Protocol to the 1994 Sulphur Protocol

Objective: To consider how to undertake an effective compliance review of the obligations under the 1985 and 1994 Sulphur Protocols.

Method of work: Now that the 1994 Sulphur Protocol has entered into force, the Implementation Committee will assess whether compliance with the obligations in that Protocol constitute compliance with the 1985 Sulphur Protocol. The Committee will examine how to undertake a compliance review with respect to Parties that are Party to one or both of the Sulphur Protocols.

Long-term

D. Consideration of obligations not covered specifically by the reporting requirements.

Objective: To consider compliance issues related to obligations not subject to specific reporting requirements in the protocols.

Method of work: Under the protocols, Parties have certain obligations which do not require them to achieve particular ends or to report thereon to the Executive Body but simply require them to "facilitate" or "encourage" actions

that are designed to achieve certain ends. Parties also have to give high priority to certain obligations, such as research obligations, that are not explicitly included in the reporting obligations. The Implementation Committee will examine possible means of checking the information that has been received from Parties with respect to the implementation of these obligations and possible means of obtaining more comprehensive information on these matters. It will consider the role of this type of obligation in achieving the objective of the protocol in which it is contained.

## **II. CONSIDERATION OF SUBMISSIONS, REFERRALS OR EXECUTIVE BODY REQUESTS**

**NOTE:** If a submission, referral or request for a report is made under paragraph 3 (b) or (d) of the Committee's functions, this would become a priority and the Committee may have to adjust its work programme and meeting schedule accordingly.

## **III. QUALITY OF THE REPORTED DATA**

### Medium-term

#### **A. Emissions data and the basis for their calculation**

Objective: To receive guidance as to whether the emission data submitted with respect to sulphur, NOx and VOCs, and the basis for the calculation of those data, are satisfactory for the purposes of assessing compliance.

Method of work: Refer the issue to EMEP (look to the work-plan of the technical groups to see what work is being done on the evaluation of quality of data). Have EMEP consider the impact of the modification of the EMEP/CORINAIR methodology (increase in number of pollutants and potentially emitting activities) on compliance by Parties with the NOx Protocol.

#### **B. Information on emission standards and other technology-related obligations**

Objective: To receive guidance as to what information is required to assess compliance with technology-related obligations in the NOx and VOC Protocols, and whether the information reported provides a satisfactory basis for the purposes of assessing compliance.

Method of work: Refer the issue to the relevant expert groups, including the Task Force on Emission Inventories and the Working Group on Abatement Techniques and its relevant subsidiary bodies.