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ECONOMIC COMMISSION FOR EUROPE

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

Twentieth session  
(Geneva, 10–13 December 2002)  
Item 4 of the provisional agenda

**THE FIFTH REPORT OF THE IMPLEMENTATION COMMITTEE**

**Introduction**

1. At its eighteenth and nineteenth sessions the Executive Body elected the following members to the Implementation Committee: Ms. Sue BINIAZ (United States); Mr. Volkert KEIZER (Netherlands); Ms. Tine KJAERULFF (Denmark); Mr. Tuomas KUOKKANEN (Finland); Mr. Lars LINDAU (Sweden); Mr. Stephan MICHEL (Switzerland); Mr. Ivan MOJÍK (Slovakia); Mr. Cristiano PIACENTE (Italy) and Mr. Patrick SZÉLL (United Kingdom). Mr. Széll was elected Chairman of the Committee (ECE/EB.AIR/71, para. 27 (f) and ECE/EB.AIR/75, para. 48 (l) and (m)).

2. In February 2002, Denmark announced the resignation of Ms. Kjaerulff from the Committee, as it was no longer able to provide a member to the Committee due to substantial budget cuts. Ms. Kjaerulff did not participate in the further work of the Committee.

3. The Implementation Committee held two meetings in 2002. Its ninth meeting was held in Stockholm on 6-8 May and its tenth meeting in Geneva on 11-13 September. Mr. Mojík did not participate in the tenth meeting. Mr. Lindau did not attend part of the tenth meeting. Mr. Henning Wuester participated in both meetings on behalf of the secretariat.

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## **I. SUBMISSIONS AND REFERRALS CONCERNING COMPLIANCE BY PARTIES WITH THE PROTOCOL OBLIGATIONS**

### **A. Follow-up to Executive Body decisions 2001/1, 2 and 3**

4. Based on recommendations made by the Implementation Committee in its fourth report (EB.AIR/2001/3), the Executive Body at its nineteenth session adopted decisions concerning compliance by Norway, Finland, and Italy. As requested, the secretariat sent letters to the Ministers of Foreign Affairs of these Parties, informing them about the decisions.

#### **1. Follow-up to decision 2001/1 on compliance by Norway with the 1991 VOC Protocol (ref. 1/01)**

##### **Background**

5. Norway submitted information in response to Executive Body decision 2001/1 on 2 July 2002. It provided detailed volatile organic compound (VOC) emission data and data on economic activity in its main VOC-emitting sector for 2000, as well as preliminary estimates for 2001 and emission projections for the years from 2004 to 2010. It explained the background that had led to its non-compliance and the measures that it had taken or envisaged in the main relevant sectors. It highlighted the importance of the loading and storing of crude oil offshore that, in 2001, was responsible for 62% of Norway's emissions of VOC. It concluded that, as a consequence of projected activity levels in different economic sectors and current regulations, the total Norwegian emissions of VOCs were expected to be below the level required under the 1991 VOC Protocol by 2005, while emissions from the Norwegian TOMA were expected to be in compliance with the Protocol's requirements by 2006. Additional measures might make it possible to speed up the process. Norway offered to keep the Implementation Committee informed about progress.

6. The Committee thanked Norway for its helpful submission containing the data that the Executive Body had invited it to present.

##### **Consideration**

7. The Committee carefully considered the information provided by Norway. It noted that Norway remained in non-compliance with the requirements of paragraph 2 (b) of article 2 of the VOC Protocol. It was worrying that in 2000 Norway's national annual VOC emissions were more than 45% above the required level and, furthermore, it expected to reach compliance only by 2006. Regrettably, Norway had not demonstrated that it had taken significant concrete steps since the date of decision 2001/1 to shorten the long time before it would meet its obligations under the VOC Protocol. It would have assisted the Committee if Norway had further substantiated its projection that there would be a very large emission reduction between 2001 and 2004.

##### **Recommendation to the Executive Body**

8. Based on the above consideration, the Implementation Committee recommends to the Executive Body that it adopt the following decision:

The Executive Body,

Acting under paragraph 11 of the structure and functions of the Implementation Committee (Executive Body decision 1997/2, annex, as amended in 2001, ECE/EB.AIR/75, annex V),

(a) Recalls its decision 2001/1, in which it inter alia: welcomed the submission by Norway to the Implementation Committee concerning its compliance with the 1991 Geneva Protocol on the Control of Emissions of Volatile Organic Compounds or their Transboundary Fluxes; noted the Implementation Committee's report and its conclusion regarding Norway's non-compliance with the emission reduction obligation of the Protocol (EB.AIR/2001/3, paras. 3-9); expressed its concern at Norway's failure to fulfil its obligation; noted that Norway expected that the measures adopted would bring it into compliance not later than 2005 or 2006; noted with concern that, on this basis, Norway would be in non-compliance for seven years; urged Norway to fulfil its obligation under the VOC Protocol as soon as possible; invited it to report to the Implementation Committee by 30 April 2002 on the progress made; and requested the Implementation Committee to review the progress and report to it thereon at its twentieth session;

(b) Notes the report provided by the Implementation Committee on Norway's progress, based on the information it received from Norway on 2 July 2002 (EB.AIR/2002/2, paras. 5-7), and in particular its conclusion that Norway remained in non-compliance with the emission reduction obligation of the VOC Protocol;

(c) Remains concerned about the continuing failure by Norway to fulfil its obligations to take effective measures to reduce its annual emissions within the TOMA specified under annex I by at least 30% using 1989 as its base year, and to ensure that its total national annual emissions do not exceed its 1988 levels, as required by paragraph 2 (b) of article 2 of the VOC Protocol;

(d) Expresses disappointment that Norway has not demonstrated that it will be able to shorten the period of seven years that it previously anticipated it would remain in non-compliance;

(e) Urges Norway to fulfil its obligations under the VOC Protocol as soon as possible;

(f) Calls on Norway to provide to the Implementation Committee through the secretariat by 31 March 2003 a report describing the progress it has made towards compliance and setting out a timetable that specifies the year by which Norway expects to be in compliance, lists the specific measures taken or scheduled to fulfil its emission reduction obligations under the VOC Protocol and sets out the projected effects of each of these measures on its VOC emissions up to and including the year of compliance; and

(g) Requests the Implementation Committee to review Norway's progress and timetable, and report to it thereon at its twenty-first session.

## **2. Follow-up to decision 2001/2 on compliance by Finland with the 1991 VOC Protocol (ref. 2/01)**

### **Background**

9. On 30 April 2002, Finland submitted information in response to Executive Body decision 2001/2. On 30 August, it submitted further detailed data on its VOC emissions. It provided information on the legislative and administrative steps that it had taken to reduce emissions in specific sectors. It also reported on further emission reductions between 1999 and 2000 and presented some data about economic activities until 2001. Recent calculations suggested that while its emissions had been 26.2% below the 1988 (base year) emissions in 1999, they had been reduced by 28.3% by the year 2000. Based on the revised data and on the most recent developments, it revised its projection of the expected date of compliance. It now anticipated achieving compliance with its obligation under the VOC Protocol by no later than 2002.

10. The Committee thanked Finland for its helpful submission containing the data that the Executive Body had invited it to present and for having submitted the information by 30 April, as requested in Executive Body decision 2001/2.

### **Consideration**

11. The Committee carefully considered the information provided by Finland. It noted that Finland remained in non-compliance with the requirements of paragraph 2 (a) of article 2 of the VOC Protocol. It recognized the progress made by Finland to further reduce its VOC emissions, and welcomed the information that Finland expected to be moving more speedily towards compliance than originally anticipated, namely in 2002 rather than in 2004 or 2005.

### **Recommendation to the Executive Body**

12. Based on the above consideration, the Implementation Committee recommends to the Executive Body that it adopt the following decision:

The Executive Body,

Acting under paragraph 11 of the structure and functions of the Implementation Committee (Executive Body decision 1997/2, annex, as amended in 2001, ECE/EB.AIR/75, annex V),

(a) Recalls its decision 2001/2, in which it inter alia: welcomed the submission by Finland to the Implementation Committee concerning its compliance with the 1991 Geneva Protocol on the Control of Emissions of Volatile Organic Compounds or their Transboundary Fluxes; noted the Implementation Committee's report and its conclusion regarding Finland's non-compliance with the emission reduction obligation of the Protocol (EB.AIR/2001/3, paras.11-18); expressed its concern at Finland's failure to fulfil its obligation; noted that Finland expected that the measures adopted would bring it into compliance not later than 2004 or 2005; noted with

concern that Finland might be in non-compliance for six years; urged Finland to fulfil its obligation under the VOC Protocol as soon as possible; invited it to report to the Implementation Committee by 30 April 2002 on the progress made; and requested the Implementation Committee to review the progress and report to it thereon at its twentieth session;

(b) Notes the report provided by the Implementation Committee on Finland's progress, based on the information that it received from Finland on 30 April and 30 August 2002 (EB.AIR/2002/2, paras. 9-11), and in particular its conclusion that Finland remained in non-compliance with the emission reduction obligation of the VOC Protocol;

(c) Remains concerned about the continuing failure by Finland to fulfil its obligation to take effective measures to reduce its national annual emissions by at least 30% using 1988 as its base year, as required by paragraph 2 (a) of article 2 of the VOC Protocol;

(d) Welcomes Finland's announcement that it expects to shorten the period of its non-compliance previously anticipated and thus to achieve compliance by no later than 2002;

(e) Urges Finland to fulfil its obligations under the VOC Protocol as soon as possible;

(f) Calls on Finland to provide to the Implementation Committee through the secretariat by 31 March 2003 a report describing the progress made towards compliance and setting out a timetable that specifies the year by which Finland expects to be in compliance, lists the specific measures taken or scheduled to fulfil its emission reduction obligations under the VOC Protocol and sets out the projected effects of each of these measures on its VOC emissions up to and including the year of compliance; and

(g) Requests the Implementation Committee to review Finland's progress and timetable, and report to it thereon at its twenty-first session.

### **3. Follow-up to decision 2001/3 on compliance by Italy with the 1991 VOC Protocol (ref 3/01)**

#### **Background**

13. On 6 May 2002, Italy submitted information in response to Executive Body decision 2001/3. On 10 September it submitted further detailed data on its VOC emissions, including emission data for 2000. Recent calculations suggested that, while its emissions had been 18% below the 1990 (base year) emissions in 1999, they had been reduced by 26% by 2000. It provided a list of measures taken over past years and reiterated its expectation that it would achieve compliance with its emission reduction obligation of the VOC Protocol by 2002.

14. The Committee thanked Italy for its submissions.

#### **Consideration**

15. The Committee carefully considered the information provided by Italy. It noted that Italy remained in non-compliance with the requirements of paragraph 2 (a) of article 2 of the VOC

Protocol. It recognized the progress made by Italy to further reduce its VOC emissions. Some issues remained, however, unanswered. In particular, Italy had not yet provided data on its projected emissions in the relevant sectors and on the impacts of its measures for the years 2001 to 2003. It expressed its worry that Italy might not achieve compliance as rapidly as anticipated.

### **Recommendation to the Executive Body**

16. Based on the above consideration, the Implementation Committee recommends to the Executive Body that it adopt the following decision:

The Executive Body,

Acting under paragraph 11 of the structure and functions of the Implementation Committee (Executive Body decision 1997/2, annex, as amended in 2001, ECE/EB.AIR/75, annex V),

(a) Recalls its decision 2001/3, in which it inter alia: welcomed the submission by Italy to the Implementation Committee concerning its compliance with the 1991 Geneva Protocol on the Control of Emissions of Volatile Organic Compounds or their Transboundary Fluxes; noted the Implementation Committee's report and its conclusion regarding Italy's non-compliance with the emission reduction obligation of the Protocol (EB.AIR/2001/3, paras. 20-26); expressed its concern at Italy's failure to fulfil its obligation; noted that Italy expected that the measures adopted would bring it into compliance not later than 2001 or 2002; urged Italy to fulfil its obligation under the VOC Protocol as soon as possible; invited Italy to report to the Implementation Committee by 30 April 2002 on the progress made; and requested the Implementation Committee to review the progress and report to it thereon at its twentieth session;

(b) Notes the report provided by the Implementation Committee on Italy's progress, based on the information that it received from Italy on 6 May and on 10 September 2002 (EB.AIR/2002/2, paras. 13-15), and in particular its conclusion that Italy remained in non-compliance with the emission reduction obligation of the VOC Protocol;

(c) Remains concerned about the continuing failure by Italy to fulfil its obligation to take effective measures to reduce its national annual emissions by at least 30% using 1988 as its base year, as required by paragraph 2 (a) of article 2 of the VOC Protocol;

(d) Urges Italy to fulfil its obligations under the VOC Protocol as soon as possible;

(e) Calls on Italy to provide to the Implementation Committee through the secretariat by 31 March 2003 a report describing the progress made towards compliance and setting out a timetable that specifies the year by which Italy expects to be in compliance, lists the specific measures taken or scheduled to fulfil its emission reduction obligations under the VOC Protocol and sets out the projected effects of each of these measures on its VOC emissions up to and including the year of compliance; and

(f) Requests the Implementation Committee to review Italy's progress and timetable, and report to it thereon at its twenty-first session.

**B. Submission by Sweden concerning its compliance with the VOC Protocol (ref. 1/02)**

**1. Background**

17. Mr. Lindau presented Sweden's submission concerning its inability to fully comply with the VOC Protocol. He informed the Committee that Sweden had revised its VOC emission data and submitted new emission data to the secretariat, but it was still in the process of further reviewing the data in view of significant uncertainties in the calculations. According to the latest data, Sweden's emissions in the base year (1988) were 555 kilotonnes (kt). By 1999, they had been reduced to 431 kt (22% reduction) and by 2000 to 417 kt (25% reduction). A further reduction of about 30 kt was still needed to achieve compliance.

18. A significant contribution to VOC emissions in Sweden came from wood combustion in small residential stoves. An emission standard had now been introduced requiring the use of modern, low-emission appliances. Road transport emissions had substantially decreased, but 20% of the car fleet was still not equipped with catalytic converters and there was hence potential for further decrease. A large increase in emissions had been calculated for off-road transport sources. As there remained a large uncertainty about the data, a thorough review was currently being conducted. The results of this review would be available at the latest by the end of 2002. In view of these uncertainties, Sweden was not in a position to specify the date by which it expected to be fully in compliance.

**2. Consideration**

19. The Implementation Committee considered carefully the submission and the information provided by Sweden, as well as the pertinent provisions of the Protocol. It identified that the relevant legal obligation was article 2, paragraph 2 (a), according to which Sweden had an obligation to reduce its annual national emissions by at least 30% by 1999 using 1988 (chosen as a base year upon signature) as its base year. The Committee concluded that there was no reason to doubt that Sweden was in non-compliance, given present knowledge from the emission inventories.

20. The Committee recognized that the emission trend suggested that Sweden was moving towards compliance and that it seemed to have taken action to out measures in place to that effect. It would be useful to have more information about precise measures to reduce emissions, in particular those in the mobile source (especially non-road) and wood combustion sectors. Unfortunately, there remained uncertainty about the precise levels of emission and the expected date by which Sweden would achieve compliance.

**3. Recommendation to the Executive Body**

21. Based on the above consideration, the Implementation Committee recommends to the Executive Body that it adopt the following decision:

The Executive Body,

Acting under paragraph 11 of the structure and functions of the Implementation Committee (Executive Body decision 1997/2, annex, as amended in 2001, ECE/EB.AIR/75, annex V),

(a) Welcomes the submission by Sweden to the Implementation Committee concerning its compliance with the requirements of paragraph 2 (a) of article 2 of the 1991 Geneva Protocol on the Control of Emissions of Volatile Organic Compounds or their Transboundary Fluxes;

(b) Notes the report provided by the Implementation Committee on this matter (EB.AIR/2002/2, paras. 17-20) and in particular its conclusion regarding Sweden's non-compliance with the emission reduction obligation of the VOC Protocol;

(c) Expresses concern at the failure by Sweden to fulfil its obligation to take effective measures to reduce its national annual emissions by at least 30% using 1988 as its base year, as required by paragraph 2 (a) of article 2 of the VOC Protocol;

(d) Notes that Sweden has not yet indicated when the measures that it has adopted to implement the provisions of paragraph 2 (a) of article 2 would bring it into compliance;

(e) Urges Sweden to fulfil its obligation under the VOC Protocol as soon as possible;

(f) Calls on Sweden to provide to the Implementation Committee through the secretariat by 31 March 2003 a report describing the progress made towards compliance and setting out a timetable that specifies the year by which Sweden expects to be in compliance, lists the specific measures taken or scheduled (giving particular attention to the mobile source and wood combustion sectors) to fulfil its emission reduction obligations under the VOC Protocol and sets out the projected effects of each of these measures on its VOC emissions up to and including the year of compliance; and

(g) Requests the Implementation Committee to review Sweden's progress and timetable, and report to it thereon at its twenty-first session.

**C. Referral by the secretariat concerning Greece's compliance with the 1988 NOx Protocol (ref. 2/02)**

**1. Background**

22. Acting under paragraph 5 of the structure and functions of the Implementation Committee (Executive Body decision 1997/2, annex, as amended in 2001, ECE/EB.AIR/75, annex V), the secretariat made a referral to the Implementation Committee concerning Greece's compliance with paragraph 1 of article 2 of the 1988 Nitrogen Oxides (NOx) Protocol. The Protocol entered

into force for Greece on 28 July 1998. According to the latest submission of emission data that the secretariat received from Greece on 22 May 2002, NO<sub>x</sub> emissions in Greece in 2000 were 320 kt, i.e. above the 285 kt reported as its emissions for the base year, 1987. Reported emission levels for 1998 and 1999 were also above the 1987 level. The reported NO<sub>x</sub> emissions (thousand of tonnes NO<sub>2</sub> per year) for 1987 and for the period 1998 to 2000 were as follows:

1987	1998	1999	2000
285	334	326	320

23. The secretariat informed Greece on 19 November 2001 about its intention to refer the issue to the Implementation Committee unless it could provide information to resolve the issue by showing that it was in fact in compliance with the 1988 NO<sub>x</sub> Protocol. The secretariat did not receive any response by 20 March 2002 and hence referred the matter to the Implementation Committee.

24. On 22 May and 11 September 2002, Greece sent letters to the secretariat, which were presented to the Implementation Committee. One of the letters confirmed that Greece's NO<sub>x</sub> emissions between 1995 and 2000 had been above their 1987 levels, but stressed that they had started to decline after the year 1998. It listed the most important measures taken or planned to reduce NO<sub>x</sub> emissions and provided an estimate of the emission reduction impact of some of these measures. Greece concluded that the measures, following a conservative forecast, would bring emissions down to 300 kt by 2005 and to 295 kt by 2010. It pointed out that such levels would be in line with its NO<sub>x</sub> emission ceiling under the 1999 Gothenburg Protocol.

## **2. Consideration**

25. The Committee considered carefully the secretariat's referral and the information provided by Greece. It looked closely at the pertinent provisions of the NO<sub>x</sub> Protocol. The wording of article 2, paragraph 1, was clear in stating that effective measures had to be taken in order to reduce emissions to the 1987 level. Moreover, the Committee noted that there was nothing in the Protocol that cast doubt on the non-compliance by Greece in 1998, 1999 and 2000 with its obligation under article 2, paragraph 1, of the 1988 NO<sub>x</sub> Protocol.

26. The Committee recognized that Greece's NO<sub>x</sub> emission ceiling under the Gothenburg Protocol of 344 kt was less stringent than its reduction obligation stemming from the 1988 NO<sub>x</sub> Protocol. The explanation may be that the data for Greece's emissions in the base year of the 1988 NO<sub>x</sub> Protocol had not been forthcoming until 2001. The Committee noted, however, that there was no legal relationship between the two instruments, and that the provisions of the more recent legal text did not modify the obligation in the older Protocol. It agreed that these issues were not relevant to the referral before it and would not affect the Committee's conclusion.

27. The Committee noted that Greece had not indicated a year by which it would achieve compliance with the Protocol. In fact, since the Protocol had entered into force for it, Greece had

at no time been in compliance. The Committee was very concerned to see that, even by 2010, Greece did not expect to have reduced its emissions below the required level. It was very important that Greece developed a clear and realistic timetable listing the measures that would be taken to bring it into compliance. In this regard, Greece might consider seeking assistance from experts from other Parties represented in the Executive Body in preparing such a timetable.

### **3. Recommendation to the Executive Body**

28. Based on the above consideration, the Implementation Committee recommends to the Executive Body that it adopt the following decision:

The Executive Body,

Acting under paragraph 11 of the structure and functions of the Implementation Committee (Executive Body decision 1997/2, annex, as amended in 2001, ECE/EB.AIR/75, annex V),

(a) Notes the report provided by the Implementation Committee (EB.AIR/2002/2, para. 22-27) concerning Greece's compliance with the requirements of paragraph 1 of article 2 of the 1988 Sofia Protocol concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes following the referral by the secretariat pursuant to paragraph 5 of the structure and functions of the Implementation Committee, and in particular the Committee's conclusion regarding Greece's failure to comply with the emission reduction obligation of the Protocol;

(b) Expresses its concern at the failure by Greece to fulfil its obligation to take effective measures to control and/or reduce its national annual emissions so that these do not exceed emissions in 1987, as required by paragraph 1 of article 2 of the NOx Protocol;

(c) Notes with concern that Greece does not expect to achieve compliance even by 2010 (by which time it will have been in non-compliance for thirteen years), and that, moreover, Greece has not indicated a year by which it expects to achieve compliance;

(d) Urges Greece to fulfil its obligation under the NOx Protocol as soon as possible;

(e) Calls on Greece to provide to the Implementation Committee through the secretariat by 31 March 2003 a report describing the progress made towards compliance and setting out a timetable that specifies the year by which Greece expects to be in compliance, lists the specific measures taken or scheduled to fulfil its emission reduction obligations under the NOx Protocol and sets out the projected effects of each of these measures on its NOx emissions up to and including the year of compliance; and

(f) Requests the Implementation Committee to review Greece's progress and timetable, and report to it thereon at its twenty-first session.

**D. Referral by the secretariat concerning Ireland's compliance with the 1988 NOx Protocol (ref. 3/02)**

**1. Background**

29. Acting under paragraph 5 of the structure and functions of the Implementation Committee (Executive Body decision 1997/2, annex, as amended in 2001, ECE/EB.AIR/75, annex V), the secretariat made a referral to the Implementation Committee concerning Ireland's compliance with paragraph 1 of article 2 of the 1988 NOx Protocol. The Protocol entered into force for Ireland on 15 January 1995. According to the latest submission of emission data that the secretariat received from Ireland on 5 February 2002, its NOx emissions in 2000 were 125 kt. This was above the 115 kt reported as emissions for the base year, 1987. Reported emission levels for 1996, 1997, 1998 and 1999 were also above the 1987 level. The reported NOx emissions (thousand of tonnes NO<sub>2</sub> per year) for 1987 and for the period 1995 to 2000 were as follows:

1987	1995	1996	1997	1998	1999	2000
115	115	120	119	122	119	125

30. The secretariat informed Ireland on 19 November 2001 about its intention to refer the issue to the Implementation Committee unless it could provide information to resolve the issue by showing that it was in fact in compliance with the 1988 NOx Protocol. The secretariat did not receive any response by 20 March 2002 and hence referred the matter to the Implementation Committee.

31. On 27 March 2002, Ireland submitted to the secretariat a detailed report, which was presented to the Committee. Ireland expressed its readiness to assist the Committee in whatever manner it required as regards further clarifications or data needs. At the invitation of the Committee, Mr. D. Enright attended part of the Committee's tenth meeting to provide further information on behalf of Ireland and to respond to questions.

32. The report provided detailed information on Ireland's NOx emissions, on its economic developments relating to those emissions and on measures taken to reduce emissions in different sectors. The report explained that the increase in emissions had inter alia been due to Ireland's extraordinary economic growth in the 1990s. It also drew a comparison between its calculations relating to emissions from mobile sources for the base year (when, with much lower fuel tax in Northern Ireland than in the Republic, many drivers purchased petrol and diesel north of the border for use south of it) and for the year 2000 (when, with fuel taxes being higher in the north, "fuel tourism" worked the other way).

33. Ireland did not question that it was in non-compliance with its emission reduction obligation under the 1988 NOx Protocol but explained some of the main factors that had led to the situation. Its representative announced that he expected that Ireland would be in compliance no later than 2004. The measures that would bring Ireland there, reducing emissions by 10.2 kt,

included: the phasing-out of old peat power plants (3 kt reduction); the use of combined cycle gas turbines in the power sector (4 kt reduction); the increased use of renewable energy sources (2.2 kt reduction); and the introduction of a combined heat and power system for an aluminium plant (1 kt reduction). Further reductions were possible in the transport sector, but the economic development of that sector was too uncertain to allow any specific reduction to be offered.

34. The Committee acknowledged the usefulness of the report prepared by Ireland and thanked Mr. Enright for the further information that he had provided orally and the useful discussion.

## **2. Consideration**

35. The Committee considered carefully the secretariat's referral and the information from Ireland, as well as the pertinent provisions of the Protocol. It recognized that Ireland would be in non-compliance in 2000 even if it used an alternative methodology for estimating its NO<sub>x</sub> emissions. As for Ireland's exceptional economic growth in the 1990s, the Committee emphasized that this did not in any way affect the country's legal obligation and it noted that Ireland had not suggested the contrary.

36. The Committee noted that the same legal considerations that governed the referral concerning Greece (ref. 2/02) applied also to Ireland. There was no legal reason to doubt Ireland's failure to comply with its obligation under article 2, paragraph 1, of the 1988 NO<sub>x</sub> Protocol for each year between 1996 and 2000, given the emission data that it had submitted. In addition, the Committee noted that the trend in Ireland's emissions was not encouraging, in that it seemed to be moving Ireland further away from compliance. It recognized, however, that Ireland had indicated that emissions in 2000 had been exceptionally high and it noted the detailed list of measures presented to it that could bring emissions down by about 10 kt by 2004, and possibly further depending on developments in the transport sector that remained uncertain.

## **3. Recommendation to the Executive Body**

37. Based on the above consideration, the Implementation Committee recommends to the Executive Body that it adopt the following decision:

The Executive Body,

Acting under paragraph 11 of the structure and functions of the Implementation Committee (Executive Body decision 1997/2, annex, as amended in 2001, ECE/EB.AIR/75, annex V),

(a) Notes the report provided by the Implementation Committee (EB.AIR/2002/2, paras. 29-36) concerning Ireland's compliance with the requirements of paragraph 1 of article 2 of the 1988 Sofia Protocol concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes following the referral by the secretariat pursuant to paragraph 5 of the

structure and functions of the Implementation Committee, and in particular the Committee's conclusion regarding Ireland's failure to comply with the emission reduction obligation of the Protocol;

- (b) Expresses its concern at the failure by Ireland to fulfil its obligation to take effective measures to control and/or reduce its national annual emissions so that these do not exceed emissions in 1987, as required by paragraph 1 of article 2 of the NOx Protocol;
- (c) Notes that Ireland expects that the measures that it has adopted to implement the provisions of paragraph 1 of article 2 will bring it into compliance by no later than 2004;
- (d) Notes with concern that, if Ireland reaches the required emission reductions only by 2004, it will have been in non-compliance for nine years;
- (e) Urges Ireland to fulfil its obligation under the NOx Protocol as soon as possible;
- (f) Calls on Ireland to provide to the Implementation Committee through the secretariat by 31 March 2003 a report describing the progress made towards compliance and setting out a timetable that specifies the year by which Ireland expects to be in compliance, lists the specific measures taken or scheduled (giving particular attention to the transport sector) to fulfil its emission reduction obligations under the NOx Protocol and sets out the projected effects of each of these measures on its NOx emissions up to and including the year of compliance; and
- (g) Requests the Implementation Committee to review Ireland's progress and timetable, and report to it thereon at its twenty-first session.

**E. Referral by the secretariat concerning Spain's compliance with the 1988 NOx Protocol (ref. 4/02)**

**1. Background**

38. Acting under paragraph 5 of the structure and functions of the Implementation Committee (Executive Body decision 1997/2, annex, as amended in 2001, ECE/EB.AIR/75, annex V), the secretariat made a referral to the Implementation Committee concerning Spain's compliance with paragraph 1 of article 2 of the 1988 NOx Protocol. The Protocol entered into force for Spain on 4 March 1991. According to the latest submission of emission data that the secretariat received from Spain on 1 February 2002, its NOx emissions in 2000 were 1419 kt. This was above the 1121 kt reported as emissions for the year base, 1987. Reported emission levels for 1994, 1995, 1996, 1997, 1998 and 1999 were also above the 1987 level. The reported NOx emissions (thousand of tonnes NO<sub>2</sub> per year) for 1987 and for the period 1994 to 2000 were as follows:

1987	1994	1995	1996	1997	1998	1999	2000
1121	1344	1355	1298	1330	1325	1379	1419

39. The secretariat informed Spain on 19 November 2001 about its intention to refer the issue to the Implementation Committee unless Spain could provide the secretariat with information to resolve the issue by showing that it was in fact in compliance with the 1988 NOx Protocol. The secretariat did not receive any response by 20 March 2002 and hence referred the matter to the Implementation Committee.

40. On 22 April 2002, Spain submitted to the secretariat a note concerning its NOx emissions and measures taken to reduce its emissions. On 12 September, Spain submitted more material on measures to reduce its NOx emissions, in particular in the transport sector. The information was presented to the Committee. Some of the material submitted could not be fully examined because it was sent very late and because some of it was provided only in Spanish and could not be translated before the end of the meeting.

41. In its note, Spain drew attention to the impact that implementation of the relevant European Community legislation was having on NOx emissions and to measures in the transport sector. It explained that work was under way to prepare an emission reduction plan which would, inter alia, include a chapter on the NOx emission reduction targets of the 1988 NOx Protocol.

## **2. Consideration**

42. The Committee considered carefully the secretariat's referral and the letter from Spain, as well as the pertinent provisions of the Protocol. It noted that Spain did not question its non-compliance and concluded that the legal considerations that governed the referral concerning Greece (ref. 2/02) and Ireland (ref. 3/02) applied also to Spain. There was no legal reason to doubt Spain's failure to comply with its obligation under article 2, paragraph 1, of the 1988 NOx Protocol for each year from 1994 to 2000.

43. The Committee noted that Spain had not indicated a year by which it expected to achieve compliance. In addition, it noted with concern that the trend in Spain's emissions showed that Spain was moving further away from compliance over the years and that in 2000 its NOx emissions were more than 25% above its base year emissions.

## **3. Recommendation to the Executive Body**

44. Based on the above consideration, the Implementation Committee recommends to the Executive Body that it adopt the following decision:

The Executive Body,

Acting under paragraph 11 of the structure and functions of the Implementation Committee (Executive Body decision 1997/2, annex, as amended in 2001, ECE/EB.AIR/75, annex V),

(a) Notes the report provided by the Implementation Committee (EB.AIR/2002/2,

paras. 38-43) concerning Spain's compliance with the requirements of paragraph 1 of article 2 of the 1988 Sofia Protocol concerning the Control of Emissions of Nitrogen Oxides or their Transboundary Fluxes following the referral by the secretariat pursuant to paragraph 5 of the structure and functions of the Implementation Committee, and in particular the Committee's conclusion regarding Spain's failure to comply with the emission reduction obligation of the Protocol;

(b) Expresses its concern at the failure by Spain to fulfil its obligation to take effective measures to control and/or reduce its national annual emissions so that these do not exceed emissions in 1987, as required by paragraph 1 of article 2 of the NOx Protocol;

(c) Notes with concern that Spain has been moving further away from compliance in recent years and has not indicated when it will achieve compliance;

(d) Urges Spain to fulfil its obligation under the NOx Protocol as soon as possible;

(e) Calls on Spain to provide to the Implementation Committee through the secretariat by 31 March 2003 a report describing the progress made towards compliance and setting out a timetable that specifies the year by which Spain expects to be in compliance, lists the specific measures taken or scheduled to fulfil its emission reduction obligations under the NOx Protocol and sets out the projected effects of each of these measures on its NOx emissions up to and including the year of compliance; and

(f) Requests the Implementation Committee to review Spain's progress and timetable, and report to it thereon at its twenty-first session.

**F. Referral by the secretariat concerning Luxembourg's compliance with the 1991 VOC Protocol (ref. 5/02)**

45. On 7 August 2002, the secretariat made a referral to the Implementation Committee concerning Luxembourg's compliance with paragraph 2 (a) of article 2 of the 1991 VOC Protocol, which entered into force for Luxembourg on 29 September 1997. According to the latest submission of emission data received from Luxembourg on 21 February 2002, VOC emissions in Luxembourg in 2000, as in 1999, were 14.92 kt. This was only 21% below the 19 kt that were reported for 1990, the base year, as opposed to the 30% reduction required by the Protocol. These data seemed to suggest that Luxembourg was not in compliance with its obligation under article 2, paragraph 2 (a), of the 1991 VOC Protocol.

46. In a communication received on 10 September, Luxembourg informed the Committee that it was reviewing its VOC emission data for the period 1990 to 1999 and would present the revised data to it by the end of 2002.

47. The Committee took note of the referral. The matter had reached it too late to be

addressed adequately at its tenth meeting and, therefore, it agreed to postpone consideration till its next meeting.

**G. Referral by the secretariat concerning Spain's compliance with the 1991 VOC Protocol (ref. 6/02)**

48. On 7 August 2002, the secretariat also made a referral to the Implementation Committee concerning Spain's compliance with paragraph 2 (a) of article 2 of the 1991 VOC Protocol, which entered into force for Spain on 29 September 1997. According to the latest submission of emission data received from Spain on 1 February 2002 and an update received on 10 April 2002, VOC emissions for Spain in 2000 were 1537 kt. This was higher than the 1526 kt that were reported for 1988, the base year, and did not meet the 30% reduction obligation. VOC emission levels reported for 1999 were 1629 kt, i.e. also above the emission level in the base year. These data seemed to suggest that Spain was not in compliance with its obligation under article 2, paragraph 2 (a), of the 1991 VOC Protocol.

49. On 12 September, Spain submitted material on measures to reduce its VOC emissions, in particular in the transport sector. Some of the material was provided only in Spanish.

50. The Committee took note of the referral. The matter had reached it too late to be addressed adequately at its tenth meeting and, therefore, it agreed to postpone consideration till its next meeting.

Note:

Chapters II to VI are contained in EB.AIR/2002/Add.1.