



COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels, 08.07.1998  
COM(1998) 386 final

97/0266 (SYN)

Amended proposal for a  
COUNCIL DIRECTIVE  
relating to limit values for sulphur dioxide,  
oxides of nitrogen, particulate matter and lead

(presented by the Commission pursuant to Article 189 a (2)  
of the EC-Treaty)

## EXPLANATORY MEMORANDUM

- 1) On 8 October 1997 the Commission adopted a proposal for daughter legislation under Directive 96/62/EC on ambient air quality assessment and management. This Proposal for a Directive will set limit values for SO<sub>2</sub>, NO<sub>x</sub> (oxides of nitrogen) particulate matter and lead, based on new World Health Organisation air quality guidelines. These were adopted by WHO in 1996 following a co-operative programme of work with the Commission. The new limit values will replace existing limit values under Directives 80/779/EEC, 82/884/EEC and 85/203/EEC.

The proposed limit values for SO<sub>2</sub> and lead to protect human health are to be met by 2005. The proposed limit values for NO<sub>2</sub> (nitrogen dioxide only) to protect human health are to be met by 2010. For particulate matter there are two sets of proposed limit values for PM<sub>10</sub> (particulate matter less than 10 microns in diameter), both to protect human health. A first set is to be met in 2005 and a second more stringent set is to be met in 2010.

The Proposal also sets annual and winter limit values for SO<sub>2</sub> designed to protect ecosystems, and an annual limit value for oxides of nitrogen (NO<sub>x</sub>) designed to protect both natural vegetation and crops. The attainment dates for these limit values are 2 years after entry into force of the proposed legislation.

The Proposal sets an alert threshold for SO<sub>2</sub> only. Member States must take active steps to inform the public if it is exceeded. They should also take any short-term measures which would reduce risk to public health and/or the duration of an episode. A key part of the Proposal for a Directive is a set of provisions requiring that the public have easy access to up-to-date information about concentrations of pollution, even if particular thresholds are not exceeded. The Proposal for a Directive includes a set of "public information thresholds", related to limit values, for all the pollutants with which it deals. Although Member States are not required to issue special warnings if they are exceeded, routine public information should show if this happens.

The Proposal for a Directive also sets out basic requirements for air quality monitoring and for the use of other methods of air quality assessment, including modelling.

Finally, the Commission will report on implementation, and in particular such matters as developments in knowledge of particulate matter by the end of 2003. The Explanatory Memorandum accompanying the Proposal for a Directive makes it clear that the Commission will if necessary bring forward further proposals at the same time.

- 2) The Economic and Social Committee adopted its opinion on 29 April 1998. The Economic and Social Committee was broadly supportive of the Commission proposal.
- 3) At its plenary session on 13 May 1998, the European Parliament approved the proposal from the Commission with a total of 28 amendments.

Of the 28 amendments approved by the Parliament, the Commission can accept 13 in their entirety (nos. 3, 4, 5, 6, 12, 17, 18, 19, 23, 24, 25, 26, 32), 2 partially {nos. 10 (second part of paragraph 1) and 16 (first part)} and 4 in principle (nos. 1, 2, 14 and 22). The present modified proposal therefore contains amendments to Articles 3, 4, 5, 8, and 10; Annexes I, II, VI, VII, IX, and new recitals 6a and 8a. They will result in the addition of an alert threshold for NO<sub>2</sub>, based on a threshold for effects in sensitive subjects; clarification of important provisions requiring up-to-date information to be easily available to the public; clarification as to where

ecosystem and vegetation limit values will apply; simplification and strengthening of requirements relating to the measurement of pollution; adaptation of measurement requirements to the situation of small islands, particularly those whose populations fluctuate because of tourism; a clear statement of the Commission's intention to submit revised proposals if necessary when it reports to the European Parliament and Council in 2003 on implementation of this Proposal for a Directive; and a statement of the importance of research on air pollution as a basis for any such revised proposals.

- 4) 9 complete amendments have not been accepted (7, 8, 9, 11, 13, 15, 20, 21 and 27). Amendment 10 as it relates to the first part of paragraph 1 and paragraph 2, and the second part of amendment 16 have also not been accepted.

The Commission considers that it is not possible to define an alert threshold for PM<sub>10</sub>, since no thresholds can be defined below which no effects are expected or above which new significant effects appear. Rather there is a continuum of effects, with more people affected as concentrations increase. Amendments 7, 20 and 21 are therefore not acceptable.

The limit value proposed by the Commission is the new WHO Guideline for lead of 0.5 µg/m<sup>3</sup>. The Commission is of the view that it should be met in every place where the population is likely to be exposed by 2005. It has not therefore accepted amendment 8, providing a time-limited derogation for specified areas.

The Commission considers that the remit of the Advisory Committee set up under Article 12 of Directive 96/62/EC is sufficiently constrained by that Article, which states that any proposals adopted by the Committee "must not have the effect of modifying the limit values of the alert thresholds either directly or indirectly." Accordingly the Commission has not accepted amendment 9.

Provision of up-to-date information to the public is a key part of the Commission's proposal and the Commission considers it important that NGOs should have easy access to the information as part of this. However, its view is that the first part of Amendment 10 specifying methods by which information should be sent to NGOs is over-prescriptive. It also does not agree with the deletion of public information indicators. The first part of amendment 10, and amendments 11 and 27 have therefore not been accepted.

Amendment 13 would add a new Article requiring the Commission and Member States to encourage and support research into air pollution. Whilst the Commission agrees that such research is vital, and that the list of topics identified by Parliament is relevant and comprehensive it considers that these are matters properly dealt with in other instruments, notably the Fifth Framework Programme on Research.

The Commission considers that its proposed hourly limit value for SO<sub>2</sub> will provide good protection against exceedances of the WHO 10 minute guideline for this pollutant in most circumstances. It considers that amendment 15 would not significantly increase this protection but could add considerably to the difficulty of meeting the limit value in some parts of the European Union. Its proposal requires Member States to provide data which will enable the effectiveness of the limit value to be reviewed when the Commission reports on implementation in 2003.

The Commission is also unable to accept the second part of amendment 16 which would tighten substantially the limit value for SO<sub>2</sub> which is aimed at protection of ecosystems. The

Commission's proposed limit value will protect the majority of species. It is of the view that a limit value which would protect even the most sensitive species is not at present achievable across the Union as a whole. The Commission will review the potential for going further when it reports on implementation in 2003.

**Amended proposal for a Council Directive**  
**relating to limit values for sulphur dioxide, oxides of nitrogen, particulate matter and lead**  
**in ambient air**

Original proposal<sup>(1)</sup>

Amended proposal

Recital 8a

Whereas account should be taken of the need to assess air quality in tourist areas during the peak season;

Recital 6a

Whereas in order to facilitate the review stage of the Directive in 2003 the Commission and Member States should consider encouraging research into the effects of the pollutants referred to herein, namely sulphur dioxide, oxides of nitrogen, particulate matter and lead under the remit of the Fifth Framework Research Programme and other research programmes;

Article 3 (1)

Member States shall take the necessary measures to ensure that concentrations of sulphur dioxide in ambient air, as assessed in accordance with Article 7, do not exceed the limit values set out in Section I of Annex I as from the dates specified therein.

The margins of tolerance set out in Section I of Annex I shall apply in accordance with Article 8 of Directive 96/62/EC.

Member States shall take the necessary measures to ensure that concentrations of sulphur dioxide in ambient air, as assessed in accordance with Article 7, do not exceed the limit values set out in Section I of Annex 1, as soon as possible and in any event no later than the dates specified therein;

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(1) OJ C 009, 14.01.1998, p 6

### Article 3 (3)

Member States shall record data on concentrations of sulphur dioxide averaged over ten minutes from measuring stations at which hourly concentrations are measured. Member States shall report to the Commission the 98th and 99th percentile of 10-minute concentrations measured within the calendar year at the same time as data are supplied on hourly concentrations;

Member States shall, until 31 December 2003, record data on concentrations of sulphur dioxide averaged over ten minutes from measuring stations selected by Member States to be representative of air quality within inhabited areas close to sources. Member States shall report to the Commission the number of 10-minute concentrations which exceed 500 µg/m<sup>3</sup> within the calendar year, the number of days within the calendar year on which this occurred and the maximum concentration recorded at the same time as data are supplied on hourly concentrations;

### Article 4

Member States shall take the necessary measures to ensure that concentrations of nitrogen dioxide, and where applicable of nitrogen dioxide plus nitric oxide, in ambient air, as assessed in accordance with Article 7, do not exceed the limit values set out in Section I of Annex II as from the dates specified therein;

The margins of tolerance set out in Section I of Annex II shall apply in accordance with Article 8 of Directive 96/62/EC.

1. Member States shall take the necessary measures to ensure that concentrations of nitrogen dioxide, and where applicable of nitrogen dioxide plus nitric oxide, in ambient air, as assessed in accordance with Article 7, do not exceed the limit values set out in Section I of Annex II as soon as possible and in any event no later than the dates specified therein.

The margins of tolerance set out in Section I of Annex II shall apply in accordance with Article 8 of Directive 96/62/EC.

2. The alert threshold for concentrations of nitrogen dioxide in ambient air is set out in Section II of Annex II. Details to be supplied to the public in accordance with Article 10 of Directive 96/62/EC shall include as a minimum the items listed in Section III of Annex I.

### Article 5 (1)

Member States shall take the necessary measures to ensure that concentrations of PM<sub>10</sub> in ambient air, as assessed in accordance with Article 7, do not exceed the limit values set out in Section I of Annex III as from the dates specified therein.

Member States shall take the necessary measures to ensure that concentrations of PM<sub>10</sub> in ambient air, as assessed in accordance with Article 7, do not exceed the limit values set out in Section I of Annex III as soon as possible and in any event no later than the dates specified therein.

#### Article 8 (1)

Member States shall take appropriate steps to disseminate up-to-date information on ambient concentrations of sulphur dioxide, oxides of nitrogen, particulate matter and lead to the public by means, for example, of broadcast media, press, information screens or computer network services and by notification of appropriate organizations such as environmental organizations, consumer organizations, organizations representing the interests of sensitive populations and other pertinent health care bodies. A list of the organizations notified shall be sent to the Commission at the same time as information transmitted under Article 11 of Directive 96/62/EC.

Member States shall take appropriate steps to disseminate up-to-date information on ambient concentrations of sulphur dioxide, oxides of nitrogen, particulate matter and lead to the public by means, for example, of broadcast media, press, information screens or computer network services and by notification of appropriate organizations such as environmental organizations, consumer organizations, organizations representing the interests of sensitive populations and other pertinent health care bodies. Information on ambient concentrations of sulphur dioxide, oxides of nitrogen and particulate matter shall be updated on an hourly basis. Information on ambient concentrations of lead shall be updated on a three monthly basis. A list of the organizations notified shall be sent to the Commission at the same time as information transmitted under Article 11 of Directive 96/62/EC.

#### Article 8 (3) a (new)

All information supplied to the public and all organisations listed in Article 8(1) and Article 8(3) pursuant to Article 8 of this Directive and information supplied to the public pursuant to Article 10 of Directive 96/62/EC shall be clear, comprehensible and accessible for their stated purpose.

## Article 10

The Commission shall submit to the European Parliament and the Council not later than 31 December 2003 a report based on experience of the application of this Directive, and in particular on the results of the most recent scientific research concerning the effects on human health of exposure to sulphur dioxide, to different fractions of particulate matter and to lead, and on progress achieved in methods of measuring and otherwise assessing concentrations of particulate matter in ambient air and the deposition of lead on surfaces.

The Commission shall submit to the European Parliament and the Council not later than 31 December 2003 a report based on experience of the application of this Directive. This report will include a review of the provisions of this Directive in the light of the results of the most recent scientific research concerning in particular the effects on human health of exposure to sulphur dioxide, to different fractions of particulate matter and to lead, and of technological developments including progress achieved in measuring and otherwise assessing concentrations of particulate matter in ambient air and the deposition of lead on surfaces. The report will if appropriate be accompanied by proposals amending the provisions of this Directive.

### Annex I, Section I, point 3

**3. Limit value for the protection of ecosystems, to apply away from the immediate vicinity of sources.**

**3. Limit value for the protection of ecosystems.**

### Annex II, Section I, point 3

**3. Annual limit value for the protection of vegetation to apply away from the immediate vicinity of sources.**

**3. Annual limit value for the protection of vegetation.**

### Annex II Section Ia (new)

#### **Alert threshold for nitrogen dioxide**

**400 µg/m<sup>3</sup> measured over three successive hours at locations representative of air quality across an entire zone or agglomeration.**



## Annex II Section Ib (new)

### Minimum details to be supplied to the public when the alert threshold for nitrogen dioxide is exceeded

Details to be supplied to the public should include as a minimum:

- date, hour and place of occurrence
- forecasts:
  - change in concentrations (improvement, stabilisation or deterioration)
  - geographical area concerned
  - duration
- type of population potentially sensitive to the occurrence
- precautions to be taken by the sensitive population concerned.

## Annex VI, Section Ia paragraph 3

Sampling points may be representative of similar locations not in their immediate vicinity.

Sampling points should, where possible, also be representative of similar locations not in their immediate vicinity

## Annex VI, Section Ia paragraph 4 (new)

Sampling points should also be located on smaller islands or islands forming part of an archipelago.

## Annex VI, Section Ib paragraph 1 and 2 (new)

Sampling points targeted at the protection of ecosystems or other vegetation should be sited to be representative of air quality away from the immediate vicinity of sources such as agglomerations and other built-up areas, industrial installations and roads. As a guideline a sampling point should be sited to be representative of air quality in a surrounding area of at least 1000 km<sup>2</sup>

Sampling points directed at the protection of ecosystems and other vegetation should be sited beyond 20 km from agglomerations or 5 km from another built-up area or industrial installation or major road.

In zones on its territory which the Member State concerned considers should be afforded special protection, sampling points should be sited with the aim of achieving this special protection.

Annex VI, Section Ib paragraph 3 (new)

Sampling points should also be located on smaller islands or islands forming part of an archipelago.

Annex VI, Section II, paragraph 1, indents 5 - 7

- traffic-orientated samplers should be at least 25 metres from major junctions and should be no less than 4 m from the centre of the nearest traffic lane;
- traffic-orientated samplers for the measurement of NO<sub>2</sub> should be sited less than 5 metres from the kerb side;
- in built-up areas, traffic-orientated samplers for the measurement of particulate matter or lead should be sited to be representative of air quality close to the building line.
- traffic-orientated samplers should be at least 25 metres from major junctions and between 2 and 5 metres from the nearest part of the vehicular carriageway, or at the building line if closer, unless there is a point at which the population may be directly or indirectly exposed to a higher concentration for a period which is significant in relation to the averaging period of the limit values.

Annex VII, Section Ia., before the first line, new line

- I. Minimum number of sampling points for continuous measurement to assess compliance with limit values for the protection of human health and alert thresholds in zones and agglomerations where continuous measurement is the sole source of information

Population of agglomeration or zone	If concentrations exceed the upper assessment threshold	If maximum concentrations are between the upper and lower assessment thresholds	For SO <sub>2</sub> , in agglomerations where maximum concentrations are below the lower assessment threshold
<u>&lt; = 250.000</u>	<u>2</u>	<u>1</u>	<u>Not applicable</u>

Annex IX, Section III

III. Sampling method and reference method of analysing the concentration of lead in air.

[Annex of Council Directive 82/884/EEC of 3 December 1982 on lead in ambient air]

III. Sampling method and reference method of analysing the concentration of lead in air.

The reference method for sampling shall be the method for PM<sub>10</sub> described in draft European standard prEN 12341. The reference method of analysing the concentration of lead in air is described in the annex of Council Directive 82/884/EEC of 3 December 1982 on lead in ambient air.

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