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REPORT

on the proposal for a European Parliament and Council directive on arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air (COM(2003) 423 – C5-0331/2003 – 2003/0164(COD))

Committee on the Environment, Public Health and Consumer Policy

Rapporteur: Hans Kronberger

Symbols for procedures

*	Consultation procedure *majority of the votes cast*
**I	Cooperation procedure (first reading) *majority of the votes cast*
**II	Cooperation procedure (second reading) *majority of the votes cast, to approve the common position* *majority of Parliament's component Members, to reject or amend the common position*
***	Assent procedure *majority of Parliament's component Members except in cases covered by Articles 105, 107, 161 and 300 of the EC Treaty and Article 7 of the EU Treaty*
***I	Codecision procedure (first reading) *majority of the votes cast*
***II	Codecision procedure (second reading) *majority of the votes cast, to approve the common position* *majority of Parliament's component Members, to reject or amend the common position*
***III	Codecision procedure (third reading) *majority of the votes cast, to approve the joint text*

(The type of procedure depends on the legal basis proposed by the Commission)

Amendments to a legislative text

In amendments by Parliament, amended text is highlighted in ***bold italics***. Highlighting in *normal italics* is an indication for the relevant departments showing parts of the legislative text for which a correction is proposed, to assist preparation of the final text (for instance, obvious errors or omissions in a given language version). These suggested corrections are subject to the agreement of the departments concerned.

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PROCEDURAL PAGE

By letter of 17 July 2003 the Commission submitted to Parliament, pursuant to Articles 251(2) and Article 175(1) of the EC Treaty, the proposal for a European Parliament and Council directive on arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air (COM(2003) 423 – 2003/0164(COD)).

At the sitting of 1 September 2003 the President of Parliament announced that he had referred the proposal to the Committee on the Environment, Public Health and Consumer Policy as the committee responsible (C5-0331/2003).

The Committee on the Environment, Public Health and Consumer Policy appointed Hans Kronberger rapporteur at its meeting of 9 September 2003.

The committee considered the Commission proposal and draft report at its meetings of 26 November 2003 and 21 January 2004 .

At the last meeting it adopted the draft legislative resolution by 26 votes to 24, with 2 abstentions.

The following were present for the vote: Caroline F. Jackson; chairwoman, Hans Kronberger; rapporteur, María del Pilar Ayuso González, María Luisa Bergaz Conesa, Hans Blokland, David Robert Bowe, John Bowis, Raquel Cardoso, Dorette Corbey, Chris Davies, Alexander de Roo, Säid El Khadraoui, Jillian Evans (for Hiltrud Breyer), Pernille Frahm, Cristina García-Orcoyen Tormo, Georges Garot (for Anne Ferreira), Robert Goodwill, Françoise Grossetête, Cristina Gutiérrez Cortines, Jutta D. Haug (for Torben Lund), Marie Anne Isler Béguin, Hedwig Keppelhoff-Wiechert (for Martin Callanan), Christa Klaß, Bernd Lange, Giorgio Lisi (for Paolo Costa), Jules Maaten, Minerva Melpomeni Malliori, Patricia McKenna, Rosemarie Müller, Riitta Myller, Mauro Nobilia, Ria G.H.C. Oomen-Ruijten, Marit Paulsen, Frédérique Ries, Dagmar Roth-Behrendt, Guido Sacconi, Yvonne Sandberg-Fries, Karin Scheele, Ursula Schleicher (for Avril Doyle), Horst Schnellhardt, Esko Olavi Seppänen (for Mihail Papayannakis), Jonas Sjöstedt, María Sornosa Martínez, Catherine Stihler, Robert William Sturdy (for Marialiese Flemming), Nicole Thomas-Mauro, Astrid Thors, Marianne L.P. Thyssen (for Karl-Heinz Florenz), Antonios Trakatellis, Ian Twinn (for Martin Kastler), Peder Wachtmeister and Phillip Whitehead.

The report was tabled on 3 February 2004.

DRAFT EUROPEAN PARLIAMENT LEGISLATIVE RESOLUTION

on the proposal for a European Parliament and Council directive on arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air (COM(2003) 423 – C5-0331/2003 – 2003/0164(COD))

(Codecision procedure: first reading)

The European Parliament,

– having regard to the Commission proposal to the European Parliament and the Council (COM(2003) 423)[1],

– having regard to Articles 251(2) and Article 175(1) of the EC Treaty, pursuant to which the Commission submitted the proposal to Parliament (C5-0331/2003),

– having regard to Rule 67 of its Rules of Procedure,

– having regard to the report of the Committee on the Environment, Public Health and Consumer Policy (A5-0047/2003),

1. Approves the Commission proposal as amended;

2. Calls on the Commission to refer the matter to Parliament again if it intends to amend the proposal substantially or replace it with another text;

3. Instructs its President to forward its position to the Council and Commission.

Text proposed by the Commission	Amendments by Parliament
	Amendment 1 Recital 1a (new)
	(1a) Article 1 of Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management defines as an objective the establishment of objectives for air quality designed to avoid, prevent or reduce harmful effects on human health and the environment as a whole.

[1] Not yet published in OJ.

Justification

To clarify the main objective of the framework directive on air quality.

Amendment 2
Recital 1 b (new)

(1 b) Experience with target or guide values shows that most Member States do not consider them to be particularly important.

Justification

The Commission itself says so in its explanatory memorandum to the framework directive on air quality.

Amendment 3
Recital 2

(2) Article 4(1) of Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management[1], foresees that the Commission would submit proposals for ***regulating*** the pollutants listed in Annex I to that Directive taking into account the provisions laid down in paragraphs 3 and 4 of that Article.	(2) Article 4(1) of Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management[2], foresees that the Commission would submit proposals for ***introducing limit values for*** the pollutants listed in Annex I to that Directive taking into account the provisions laid down in paragraphs 3 and 4 of that Article.

Justification

The amendment is a more precise statement of the content of Article 4, paragraph 1 of Directive 96/92/EC.

[1] OJ L 296, 21.11.1996, p. 55.
[2] OJ L 296, 21.11.1996, p. 55.

Amendment 4
Recital 2 a (new)

(2 a) The three other daughter directives already in force have set limit values for all regulated pollutants, with the exception only of ozone, as expressly provided for in the framework directive.

Justification

The comment clarifies the fact that limit values have been set in the existing daughter directives for all pollutants referred to in the framework directive except where no provision was made therefor.

Amendment 5
Recital 2b (new)

(2b) Directive 96/62/EC stipulates that limit values must be based on the findings of work carried out by international scientific groups active in the field.

Justification

The basis for setting limit values must be respected scientific studies.

Amendment 6
Recital 2c (new)

(2c) Directive 96/62/EC stipulates that for zones in which the levels of one or more pollutants are higher than the limit value plus the margin of tolerance, plans or programmes must be prepared for attaining the limit value within the specific time limit.

Justification

The new recital refers to a provision of the framework directive on air quality which requires plans or programmes to be drawn up in certain circumstances in order to comply with the specified limit values.

Amendment 7
Recital 2d (new)

	(2d) if it is difficult to comply with a limit value in the immediate vicinity of industrial installations, an extension of the deadline for compliance may be granted.

Justification

The amendment follows from the introduction of limit values for arsenic, cadmium, nickel and benzo(a)pyrene. In difficult circumstances it should be possible to extend the deadline for compliance.

Amendment 8
Recital 4

(4) Benzo(a)pyrene shall be used as a marker for the carcinogenic risk of polycyclic aromatic hydrocarbons in ambient air ***and a target value shall be set, to be attained as far as possible***.	(4) Benzo(a)pyrene shall be used as a marker for the carcinogenic risk of polycyclic aromatic hydrocarbons in ambient air.

Justification

The amendment follows from the introduction of limit values for benzo(a)pyrene.

Amendment 9
Recital 4a (new)

(4a) long-term objectives should be set for arsenic, cadmium, nickel and benzo(a)pyrene to achieve effective protection of human health and the environment.

Justification

The amendment follows from the introduction of long-term target values for arsenic, cadmium, nickel and benzo(a)pyrene.

Amendment 10
Recital 4a

(4a) The target value for benzo(a)pyrene would not require any measures entailing excessive costs. Regarding industrial installations it would not involve any measures beyond the application of BAT as required by Directive 96/61/EC and in particular would not lead to the closure of any installations. However it would require Member States to take all cost-effective abatement measures in the relevant sectors, e.g. domestic heating by solid fuels.	***Deleted.***

Justification

The deletion follows from the introduction of a limit value for benzo(a)pyrene.

Amendment 11
Recital 5

(5) Where concentrations exceed certain assessment thresholds monitoring of	***Deleted.***

arsenic, cadmium, nickel and benzo(a)pyrene shall be mandatory. Further monitoring of background ambient air concentrations and deposition is foreseen.

Justification

The deletion follows from the introduction of limit values for arsenic, cadmium, nickel and benzo(a)pyrene.

Amendment 12
Recital 6

(6) ***In accordance with Article 176 of the Treaty, Member States may maintain or introduce more stringent protective measures relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons*** provided that they are compatible with the Treaty and that they are notified to the Commission.	(6) ***The limit values laid down in this Directive for concentrations of arsenic, cadmium, nickel and benzo(a)pyrene in ambient air are minimum requirements.*** In accordance with Article 176 of the Treaty, Member States may ***introduce or maintain stricter limit values*** provided that they are compatible with the Treaty and that they are notified to the Commission.

Justification

The amendment follows from the introduction of limit values for arsenic, cadmium, nickel and benzo(a)pyrene.

Amendment 13
Recital 7

(7) ***Methylmercury is a possible human carcinogen, while elemental mercury is considered not to be classifiable in terms of carcinogenicity. The main exposure route to mercury is via ingestion; in Europe concentrations in ambient air are below a level where they have adverse effects on human health. As ambient air is the major transfer medium of mercury in the***	(7) ***Mercury is one of the most hazardous substances for human health and environment. Once released into the environment, it will disperse throughout the whole ecosystem leading to the contamination of drinking water resources and food. A working group under the Expert Advisory Forum on Priority Substances and Pollution Control of the***

environment, deposition of airborne mercury contributes to the accumulation of toxic methylmercury in water and soil. At present, not enough is known about the cycle of mercury in the environment, particularly transfer rates and exposure routes, so it is not appropriate to set target values at this stage.	***EU Water Framework Directive Implementation Strategy has concluded that atmospheric deposition is a major pathway for the contamination of the aquatic environment. Under the Directive 2000/60/EC (Water Framework Directive) measures have to be adopted aiming at the cessation of discharges, emissions and losses of mercury within 20 years with the aim to achieve background concentrations in the aquatic environment. Therefore this Directive shall lead to progressive reduction of mercury emissions to ambient air with the aim of achieving natural background concentrations.***

Amendment 14
Recital 7a (new)

	(7a) the Commission should consider all appropriate measures with a view to reducing the quantity of mercury in terrestrial and aquatic ecosystems, and thereby the ingestion of mercury via food, and avoiding mercury in certain products.

Justification

Oral ingestion via food, primarily fish, is the main problem relating to mercury in Europe. The Commission should, therefore, develop appropriate strategies to remedy the situation, as recommended in the position paper on mercury.

Amendment 15
Recital 8

(8) ***In order to facilitate review of this Directive in 2008, the Commission and the Member States should consider promoting research into*** the effects of arsenic, cadmium, mercury, nickel and polycyclic	(8) ***As*** the effects of arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons on human health and the environment ***occur via concentrations in ambient air and via deposition, the***

aromatic hydrocarbons on human health and the environment, ***particularly via deposition***.	***accumulation of these substances in soils and the protection of ground water have to be taken into account. The Commission should conduct research into the effects of deposition in view of proposing deposition limit values at the latest in the review of this directive.***

Justification

See justification for amendment to article 8 paragraph 3. The food chain is an important pathway for heavy metals that have negative impacts on human health. Therefore and in order to enhance consistency with Community policies in the field of water and soil protection, deposition limit values should be set as soon as possible.

Amendment 16
Recital 9

(9) Standardised accurate measurement techniques and common criteria for the location of measuring stations are important elements in assessing ambient air quality so that the information obtained is comparable throughout the Community.	(9) Standardised accurate measurement techniques and common criteria for the location of measuring stations are important elements in assessing ambient air quality so that the information obtained is comparable throughout the Community. ***Compliance with and review of ambient air quality objectives must be ensured by means of a non-bureaucratic, cost-effective measurement and reporting system.***

Justification

The proposed expenditure on measurement and reporting requirements is an unnecessary, bureaucratic additional cost in relation to compliance with and review of ambient air quality objectives. These objectives can be achieved more cost-effectively by means of existing data.

Amendment 17
Recital 9 a (new)

(9 a) The reference methods for the measurement of arsenic, cadmium, nickel and benzo(a)pyrene, and the total gaseous mercury concentration, in ambient air and the reference method for the sampling and analysis of deposited arsenic, cadmium, mercury and polycyclic aromatic hydrocarbons, should be defined and published to ensure correct implementation of the Directive. These reference methods should be the subject of European (CEN) standards;

Justification

i. In Article 1 of Council Directive 96/62/EC of September 27 1996 on ambient air quality assessment and management (the air quality "Framework Directive"), it is stated that the objectives of the Directive are to:

- assess the ambient air quality in Member States on the basis of common methods and criteria,

- obtain adequate information on ambient air quality and ensure that it is made available to the public, inter alia by means of alert thresholds.

ii. There are currently no European standard reference methods for measuring the concentrations in ambient air of the substances addressed in the Directive. There are also no European standard reference methods for the sampling and analysis of deposited arsenic, cadmium, mercury and polycyclic aromatic hydrocarbons.

iii. Without standardised reference methods, it is to be expected that Member State Authorities will obtain significantly different results where there are, in fact, no real differences. Standardised methods are therefore essential to ensure consistent results of monitoring across all Member States.

Amendment 18
Recital 14

(14) The amendments necessary for adaptation to scientific and technical progress should relate solely to criteria and	(14) The amendments necessary for adaptation to scientific and technical progress should relate solely to criteria and

techniques for the assessment of concentrations and deposition of regulated pollutants or detailed arrangements for forwarding information to the Commission. They should not have the effect of modifying the ***target value or the assessment thresholds*** either directly or indirectly.	techniques for the assessment of concentrations and deposition of regulated pollutants or detailed arrangements for forwarding information to the Commission. They should not have the effect of modifying the ***limit values*** either directly or indirectly.

Justification

The amendment follows from the introduction of limit values for arsenic, cadmium, nickel and benzo(a)pyrene.

Amendment 19
Article 1(a)

(a) establishes ***a target value*** for the concentration of benzo(a)pyrene in ambient air so as to avoid, prevent or reduce harmful effects of ***polycyclic aromatic hydrocarbons*** on human health;	(a) establishes ***limit values and long-term objectives*** for the concentration of ***arsenic, cadmium, nickel and*** benzo(a)pyrene in ambient air so as to avoid, prevent or reduce harmful effects on human health ***and the environment as a whole***;

Justification

The amendment follows from the introduction of limit values and long-term objectives for arsenic, cadmium, nickel and benzo(a)pyrene.

Amendment 20
Article 1(b)

(b) ensures that ambient air quality is maintained where it is good and that it is improved in other cases with respect to polycyclic aromatic hydrocarbons;	(b) ensures that ambient air quality is maintained where it is good and that it is improved in other cases with respect to ***arsenic, cadmium, nickel and*** polycyclic aromatic hydrocarbons;

Justification

The amendment follows from the introduction of limit values for arsenic, cadmium, nickel and benzo(a)pyrene.

Amendment 21
Article 1(c)

Does not affect the English version.

Amendment 22
Article 2, paragraph 1

For the purposes of this Directive the definitions in Article 2 of Directive 96/62/EC***, with the exception of the definition of "target value",*** shall apply.	For the purposes of this Directive the definitions in Article 2 of Directive 96/62/EC shall apply.

Justification

The deletion follows from the introduction of limit values for arsenic, cadmium, nickel and benzo(a)pyrene. Article 2 of Directive 96/62/EC contains a number of definitions which are also valid for this Directive.

Amendment 23
Article 2, paragraph 2(a)

(a) "target value" means a concentration in the ambient air ***fixed with the aim of minimising harmful effects on human health and the environment;***	***(a) "long-term objective" means*** a concentration in the ambient air ***below which, according to current scientific knowledge, harmful effects on human health and/or the environment as a whole are reduced to a minimum. This objective is to be attained in the long term, save where not achievable through proportionate measures, with the aim of providing effective protection of human health and the environment;***

Justification

The new definition of "long-term objective" follows from the introduction of long-term target values for arsenic, cadmium, nickel and benzo(a)pyrene.

Amendment 24
Article 2, paragraph 2(b)

(b) "assessment threshold" means ***a*** level specified in Annex I, requiring ***the monitoring of air quality when exceeded, in accordance with Article 4 of this Directive***;	(b***)*** "***upper*** assessment threshold" means ***the*** level specified in Annex I, ***below which a combination of measurements and modelling techniques may be used to assess ambient air quality in accordance with Article 6, paragraph 3, of Directive 96/62/EC.***

Justification

The definition of "upper assessment threshold" derives from Article 6, paragraph 3 of Directive 96/62/EC.

Amendment 25
Article 2, paragraph 2(ba)(new)

	(ba) "lower assessment threshold" means the level specified in Annex I, below which modelling or objective estimation techniques alone must be used to assess ambient-air quality in accordance with Article 6, paragraph 4 of Directive 96/62/EC.

Justification

The definition of "lower assessment threshold" derives from Article 6, paragraph 4 of Directive 96/62/EC.

Amendment 26
Article 2, paragraph 2(c)

(c) "fixed measurements" means measurements ***taken at fixed sites either continuously or by random sampling***;	(c)"fixed measurements" means measurements ***in accordance with Article 6, paragraph 5 of Directive 96/62/EC***;

Justification

Fixed measurements within the meaning of the Directive must be in accordance with Article 6, paragraph 5 of Directive 96/62/EC.

Amendment 27
Article 2a (new)

Article 2a

Arsenic

1. Member States shall take the measures necessary to ensure that the concentration of arsenic in ambient air, as assessed in accordance with Article 4, does not exceed the limit value laid down in Annex - I according to the dates mentioned therein.

2. The margin of tolerance laid down in Annex - I shall apply in accordance with Article 8 of Directive 96/62/EC.

3. Where, in the immediate vicinity of certain industrial installations, the limit value laid down in Annex - I is not achieved according to the dates mentioned therein, a Member State may ask the Commission for one time-limited extension. The Commission, acting in accordance with the procedure laid down in Article 6, paragraph 2, may, at the request of a Member State, grant one extension for a period of up to five years if the Member State concerned provides the necessary justification for such an extension. The justification to be provided by the Member State shall contain at

least:

- a precise description of the immediate vicinity of the industrial installations in which the limit value is exceeded;

- the concentration of arsenic in ambient air established in accordance with Article 4;

- all the reasons, in particular all direct and indirect sources of emissions, resulting in non-compliance with the limit value;

- the exact number of the population continuously or intermittently exposed to the higher concentration of arsenic in ambient air in excess of the limit value;

- proof that all reasonable measures have been taken to lower the concentration of arsenic in ambient air to the limit value laid down in Annex - I, having particular regard to the "best available techniques" in accordance with Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control [(1)];

4. The long-term objective for the concentration of arsenic in ambient air is set out in Annex - I. Member States shall draw up a list of the zones and agglomerations in which the concentration of arsenic in ambient air, as assessed in accordance with Article 4, is equal to or higher than the long-term objective laid down in Annex - I but not higher than the limit value laid down in Annex - I. For such zones and agglomerations, Member States shall prepare and implement cost-effective measures with the aim of achieving the long-term objective.

[(1)] OJ L 257, 10.10.1996, p. 26

Justification

Provision for a mandatory limit value for arsenic is necessary from the human and ecotoxicological points of view in order to minimise the harmful effects on human health and to protect humans and the environment effectively in accordance with the precautionary principle. In its position paper, on which the proposal for a directive is based, the scientific working group on heavy metals came out clearly in favour of introducing a limit value for arsenic. In the immediate vicinity of certain industrial installations, it may prove difficult, under certain circumstances, to comply with the limit value by 2010. To avoid such cases, therefore, the Commission may authorise an extension to the deadline for achieving the limit value, provided, however, that the Member State concerned demonstrates that all reasonable measures have been taken to comply with the limit value, having particular regard to the use of the best available techniques in accordance with Directive 96/61/EC. In addition to the limit value, an ambitious long-term target value for arsenic is proposed, which should be achieved as far as possible. Setting a margin of tolerance derives from Article 4, paragraph 4 of Directive 96/62/EC. Under Article 8 of Directive 96/62/EC, plans must be drawn up for zones and agglomerations in which the levels of one or more pollutants are higher than the limit value plus the margin of tolerance, in order to attain the limit value within the deadline.

Amendment 28
Article 2b (new)

Article 2b

Cadmium

1. Member States shall take the measures necessary to ensure that the concentration of cadmium in ambient air, as assessed in accordance with Article 4, does not exceed the limit value laid down in Annex - Ia according to the dates mentioned therein.

2. The margin of tolerance laid down in Annex - Ia shall apply in accordance with Article 8 of Directive 96/62/EC.

3. Where, in the immediate vicinity of certain industrial installations, the limit value laid down in Annex - Ia is not achieved according to the dates mentioned therein, a Member State may ask the Commission for one time-limited extension. The Commission, acting in accordance with the procedure laid down

in Article 6, paragraph 2, may, at the request of a Member State, grant one extension if the Member State concerned provides the necessary justification for such an extension. The justification to be provided by the Member State shall contain at least:

- a precise description of the immediate vicinity of the industrial installations in which the limit value is exceeded;

- the concentration of cadmium in ambient air established in accordance with Article 4;

- the exact number of the population continuously or intermittently exposed to the higher concentration of cadmium in ambient air in excess of the limit value;

- all the reasons, in particular all sources of emissions, resulting in non-compliance with the limit value;

- proof that all reasonable measures have been taken to lower the concentration of cadmium in ambient air to the limit value laid down in Annex - Ia, having particular regard to the "best available techniques" in accordance with Directive 96/61/EC;

4. The long-term objective for the concentration of cadmium in ambient air is set out in Annex - Ia. Member States shall draw up a list of the zones and agglomerations in which the concentration of cadmium in ambient air, as assessed in accordance with Article 4, is equal to or higher than the long-term objective laid down in Annex - Ia but not higher than the limit value laid down in Annex - Ia. For such zones and agglomerations, Member States shall prepare and implement cost-effective measures with the aim of achieving the long-term objective.

Justification

Provision for a mandatory limit value for cadmium is necessary from the human and ecotoxicological points of view in order to minimise the harmful effects on human health and to protect humans and the environment effectively in accordance with the precautionary principle. In its position paper, on which the proposal for a directive is based, the scientific working group on heavy metals came out clearly in favour of introducing a limit value for cadmium. In the immediate vicinity of certain industrial installations, it may prove difficult, under certain circumstances, to comply with the limit value by 2010. To avoid such cases, therefore, the Commission may authorise an extension to the deadline for achieving the limit value, provided, however, that the Member State concerned demonstrates that all reasonable measures have been taken to comply with the limit value, having particular regard to the use of the best available techniques in accordance with Directive 96/61/EC. In addition to the limit value, an ambitious long-term target value for cadmium is proposed, which should be achieved as far as possible. Setting a margin of tolerance derives from Article 4, paragraph 4 of Directive 96/62/EC. Under Article 8 of Directive 96/62/EC, plans must be drawn up for zones and agglomerations in which the levels of one or more pollutants are higher than the limit value plus the margin of tolerance, in order to attain the limit value within the deadline.

Amendment 29
Article 2c (new)

Article 2c

Mercury

1. The Member States shall ensure that in the absence of EU measures for the cessation of airborne deposition of mercury, national action plans are developed with the aim to cease deposition of mercury within 20 years after the date referred to in article 11.

2. The Member States shall ensure that measurement stations are set up and operated, in accordance with Article 4, to investigate and assess the concentrations of emissions of total gaseous mercury in ambient air and mercury deposition.

3. Monitoring of particulate and gaseous divalent mercury is also recommended.

Justification

As the scientific working group on mercury established in its position paper, oral ingestion of mercury via food, primarily fish, is the main problem relating to mercury in Europe. In addition, the data on mercury is relatively thin and there are no standardised methods for assessing mercury in ambient air or in deposition. The report therefore follows the conclusions of the working group which proposes no limit value for mercury but recommends targeted strategies to reduce mercury in fish and certain other products and a standard monitoring system.

Amendment 30
Article 2d (new)

Article 2d

Nickel

1. Member States shall take the measures necessary to ensure that the concentration of nickel in ambient air, as assessed in accordance with Article 4, does not exceed the limit value laid down in Annex - Ib according to the dates mentioned therein.

2. The margin of tolerance laid down in Annex - Ib shall apply in accordance with Article 8 of Directive 96/62/EC.

3. Where, in the immediate vicinity of certain industrial installations, the limit value laid down in Annex - Ib is not achieved according to the dates mentioned therein, a Member State may ask the Commission for one time-limited extension. The Commission, acting in accordance with the procedure laid down in Article 6, paragraph 2, may, at the request of a Member State, grant one extension if the Member State concerned provides the necessary justification for such an extension. The justification to be provided by the Member State shall contain at least:

- a precise description of the immediate vicinity of the industrial installations in which the limit value is exceeded;

- the concentration of nickel in ambient air established in accordance with Article 4;

- the exact number of the population continuously or intermittently exposed to the higher concentration of nickel in ambient air in excess of the limit value;

- all the reasons, in particular all sources of emissions, resulting in non-compliance with the limit value;

- proof that all reasonable measures have been taken to lower the concentration of nickel in ambient air to the limit value laid down in Annex - Ib, having particular regard to the "best available techniques" in accordance with Directive 96/61/EC;

4. The long-term objective for the concentration of nickel in ambient air is set out in Annex - Ib. Member States shall draw up a list of the zones and agglomerations in which the concentration of nickel in ambient air, as assessed in accordance with Article 4, is equal to or higher than the long-term objective laid down in Annex - Ib but not higher than the limit value laid down in Annex - Ib. For such zones and agglomerations, Member States shall prepare and implement cost-effective measures with the aim of achieving the long-term objective.

Justification

Provision for a mandatory limit value for nickel is necessary from the human and ecotoxicological points of view in order to minimise the harmful effects on human health and to protect humans and the environment effectively in accordance with the precautionary principle. In its position paper, on which the proposal for a directive is based, the scientific working group on heavy metals came out clearly in favour of introducing a limit value for nickel. In the immediate vicinity of certain industrial installations, it may prove difficult, under certain circumstances, to comply with the limit value by 2010. To avoid such cases, therefore, the Commission may authorise an extension to the deadline for achieving the limit value, provided, however, that the Member State concerned demonstrates that all reasonable

measures have been taken to comply with the limit value, having particular regard to the use of the best available techniques in accordance with Directive 96/61/EC. In addition to the limit value, an ambitious long-term target value for nickel is proposed, which should be achieved as far as possible. Setting a margin of tolerance derives from Article 4, paragraph 4 of Directive 96/62/EC. Under Article 8 of Directive 96/62/EC, plans must be drawn up for zones and agglomerations in which the levels of one or more pollutants are higher than the limit value plus the margin of tolerance, in order to attain the limit value within the deadline.

Amendment 31
Article 3, paragraph 2

2. Member States shall take all necessary measures ***not entailing excessive costs*** to ensure that ***concentrations*** of benzo(a)pyrene in ambient air, as assessed in accordance with Article 4, ***do*** not exceed ***a target value of 1 ng/m³ applying to the benzo(a)pyrene content in the PM 10 fraction averaged over a calendar year.***	2. Member States shall take all necessary measures to ensure that ***the concentration*** of benzo(a)pyrene in ambient air, as assessed in accordance with Article 4, ***does*** not exceed ***the limit value laid down in Annex - Ic according to the dates mentioned therein.***

Justification

Provision for a mandatory limit value for benzo(a)pyrene is necessary from the human and ecotoxicological points of view in order to minimise the harmful effects on human health and to protect humans and the environment effectively in accordance with the precautionary principle. In its position paper, on which the proposal for a directive is based, the scientific working group on heavy metals came out clearly in favour of introducing a limit value for benzo(a)pyrene.

Amendment 32
Article 3, paragraph 3

3. Member States shall draw up a list of zones and agglomerations in which the levels of benzo(a)pyrene are below the target value. Member States shall maintain the levels of benzo(a)pyrene in these zones and agglomerations below the target value and shall endeavour to preserve the best ambient air quality, compatible with sustainable development.	***3. The margin of tolerance laid down in Annex - Ic shall apply in accordance with Article 8 of Directive 96/62/EC.***

Justification

Setting a margin of tolerance derives from Article 4, paragraph 4 of Directive 96/62/EC. Under Article 8 of Directive 96/62/EC, plans must be drawn up for zones and agglomerations in which the levels of one or more pollutants are higher than the limit value plus the margin of tolerance, in order to attain the limit value within the deadline.

Amendment 33
Article 3, paragraph 4 and 4a (new)

4. Member States shall draw up a list of the zones and agglomerations where the target value laid down in Article 3 (2) is exceeded. ***For such zones and agglomerations, Member States shall specify the areas of exceedance and the sources contributing to this exceedance. In the areas concerned Member States must demonstrate the application of all necessary measures not entailing excessive costs, targeted in particular at the predominant emission sources, and including the application of best available techniques as defined by Article 2 (11) of Directive 96/61/EC to all industrial installations contributing to the exceedance.***	***4. 3. Where, in the immediate vicinity of certain industrial installations, the limit value laid down in Annex - Ic is not achieved according to the dates mentioned therein, a Member State may ask the Commission for one time-limited extension. The Commission, acting in accordance with the procedure laid down in Article 6, paragraph 2, may, at the request of a Member State, grant one extension if the Member State concerned provides the necessary justification for such an extension. The justification to be provided by the Member State shall contain at least:***
	- a precise description of the immediate vicinity of the industrial installations in which the limit value is exceeded;
	- the concentration of benzo(a)pyrene in ambient air established in accordance with Article 4;
	- the exact number of the population continuously or intermittently exposed to the higher concentration of benzo(a)pyrene in ambient air in excess of the limit value;
	- all the reasons, in particular all sources of emissions, resulting in non-compliance with the limit value;

- proof that all reasonable measures have been taken to lower the concentration of benzo(a)pyrene in ambient air to the limit value laid down in Annex - Ic, having particular regard to the "best available techniques" in accordance with Directive 96/61/EC;

4a. The long-term objective for the concentration of benzo(a)pyrene in ambient air is set out in Annex - Ic. Member States shall draw up a list of the zones and agglomerations in which the concentration of benzo(a)pyrene in ambient air, as assessed in accordance with Article 4, is equal to or higher than the long-term objective laid down in Annex - Ic but not higher than the limit value laid down in Annex - Ic. For such zones and agglomerations, Member States shall prepare and implement cost-effective measures with the aim of achieving the long-term objective.

Justification

In the immediate vicinity of certain industrial installations, it may prove difficult, under certain circumstances, to comply with the limit value by 2010. To avoid such cases, therefore, the Commission may authorise an extension to the deadline for achieving the limit value, provided, however, that the Member State concerned demonstrates that all reasonable measures have been taken to comply with the limit value, having particular regard to the use of the best available techniques in accordance with Directive 96/61/EC. In addition to the limit value, an ambitious long-term target value for benzo(a)pyrene is proposed, which should be achieved as far as possible.

Amendment 34
Article 4, paragraph 1, subparagraphs 2a and 2b (new)

The upper and lower assessment thresholds for arsenic, cadmium, nickel and benzo(a)pyrene shall be those laid down in Section I of Annex I.

	The classification of each zone or agglomeration for the purposes of Article 6 of Directive 96/62/EEC shall be reviewed at least every five years in accordance with the procedure laid down in Section II of Annex I to this Directive. Classification shall be reviewed earlier in the event of significant change in activities relevant to ambient concentrations of arsenic, cadmium, nickel and benzo(a)pyrene.

Justification

The amendment follows from setting assessment thresholds.

Amendment 35
Article 4, paragraph 1, subparagraph 3

Accompanying monitoring of particulate and gaseous divalent mercury is recommended.	***Deleted.***

Justification

This provision is contained in Article 2c (new) (see amendment 29).

Amendment 36
Article 4, paragraph 2

2. The assessment thresholds for arsenic, cadmium, nickel and benzo(a)pyrene and the methods for determining their exceedance are those laid down in Annex I. In zones and agglomerations where the assessment thresholds are exceeded fixed measurement of ambient air concentrations is mandatory. To assess the contribution from channelled	***Deleted.***

emissions air quality modelling may be used.

Where the levels are below the assessment threshold indicative monitoring may be used to assess air quality in a zone or agglomeration, with the exemption of benzo(a)pyrene for which fixed measurement shall be mandatory in all agglomerations.

Justification

The deletion follows from the introduction of limit values for arsenic, cadmium, nickel and benzo(a)pyrene. With their introduction, under Article 6, paragraphs 2 and 5, of Directive 96/62/EC, fixed measurements in agglomerations and zones in which levels are between the limit values and margin of tolerance and in other zones where levels exceed the limit values are mandatory.

Amendment 37
Article 4, paragraph 3

	3. ***The criteria for determining the location of sampling points for the measurement of arsenic, cadmium, nickel and benzo(a)pyrene in ambient air shall be as laid down in Sections I and II of Annex II.***
3. The minimum number of sampling points for fixed measurements of concentrations shall be as laid down in Section IV of Annex II, and they shall be installed in each zone or agglomeration within which measurement is required.	The minimum number of sampling points for fixed measurements of concentrations shall be as laid down in Section IV of Annex II, and they shall be installed in each zone or agglomeration within which measurement is required ***if fixed measurement is the sole source of data on concentrations within it.***
	3. For zones and agglomerations within which information from fixed measurement stations is supplemented by information from other sources, such as emission inventories, indicative measurement methods and air quality modelling, the number of fixed measuring stations to be installed and the spatial

	resolution of other techniques shall be sufficient for the concentrations of air pollutants to be established in accordance with Section I of Annex II, and Section I of Annex III.

Justification

The amendment takes account of the requirements for the assessment of air quality laid down in Directive 96/62/EC.

Amendment 38
Article 4, paragraph 4

4. Irrespective of concentration levels one sampling point should be installed every 50000 km² for the indicative measurement of arsenic, cadmium, total gaseous mercury, nickel, benzo(a)pyrene and polycyclic aromatic hydrocarbons other than benzo(a)pyrene, and of the total deposition of arsenic, cadmium, mercury and polycyclic aromatic hydrocarbons. Each Member State shall at least set up one measuring station. Where appropriate monitoring should be co-ordinated with the EMEP monitoring strategy and measurement programme.	***Deleted.***

Justification

The amendment takes account of the requirements for the assessment of air quality laid down in Directive 96/62/EC.

Amendment 39
Article 4, paragraph 5, subparagraph 1

5. The criteria for determining the location of sampling points for the measurement of arsenic, cadmium, nickel and benzo(a)pyrene in ambient air shall be those listed in Annex II.	***Deleted.***

Justification

The provisions of the first subparagraph are now contained in Article 4, paragraph 3 (see amendment 34).

Amendment 40
Article 4, paragraph 5, subparagraph 2

The sampling sites for monitoring total gaseous mercury and polycyclic aromatic hydrocarbons other than benzo(a)pyrene must be selected in such a way that geographical variation and long-term trends can be identified. Monitoring sites for polycyclic aromatic hydrocarbons shall be co-located with sampling sites for benzo(a)pyrene. Section II and III of Annex II shall apply.	The sampling sites for monitoring total gaseous mercury and polycyclic aromatic hydrocarbons other than benzo(a)pyrene must be selected in such a way that geographical variation and long-term trends can be identified. Monitoring sites for polycyclic aromatic hydrocarbons shall be co-located with sampling sites for benzo(a)pyrene. ***The sampling sites for mercury should be set up as laid down in Section IV of Annex II.*** Section II and III of Annex II shall apply.

Justification

Clarification that Section IV of Annex II applies to sampling sites for mercury.

Amendment 41
Article 4, paragraph 9

9. Any amendments necessary to adapt the provisions ***of paragraphs 1 to 6, of Section II*** of Annex I ***and of Annexes II*** to IV to scientific and technical progress shall be adopted in accordance with the procedure referred to in Article ***6(2)*** but may not result in any direct or indirect changes to the ***target value or the assessment thresholds***.	9. Any amendments necessary to adapt the provisions of Annex I to ***Annex*** IV to scientific and technical progress shall be adopted in accordance with the procedure referred to in Article ***12 of Directive 96/62/EC*** but may not result in any direct or indirect changes to the ***limit values***.

Justification

Formal change of references and target value to limit values.

Amendment 42
Article 5

Article 5 ***Transmission of information and reporting*** ***1. With regard to the zones and agglomerations where any of the assessment thresholds laid down in Annex I is exceeded Member States shall forward the following information to the Commission:*** ***(a) the lists of the zones and agglomerations concerned,*** ***(b) the areas of exceedance,*** ***(c) the concentration values assessed,*** ***(d) the reasons for exceedance, and in particular any sources contributing to it,*** ***(e) the population exposed to concentrations above the assessment threshold.*** ***Member States shall also report all data assessed in accordance with Article 4. The information shall be transmitted for each calendar year, no later than 30 September of the following year, and for the first time no later than […*].*** ***2. In addition to the requirements laid down in paragraph 1 Member States shall forward any measures taken pursuant to Article 3 (2).*** ***3. The Commission shall ensure that all information submitted pursuant to paragraph 1 is promptly made available to the public by appropriate means.*** ***4. The Commission shall adopt, in accordance with the procedure referred to in Article 6(2), any detailed arrangements for forwarding the information to be***	***Deleted.***

* The year following the date given in Article 15

provided under paragraph 1 of this Article.

Justification

The deletion follows from the introduction of limit values for arsenic, cadmium, nickel and benzo(a)pyrene and the fact that the originally proposed assessment thresholds no longer apply. The requirement concerning the transmission of information and reporting, therefore, automatically applies in accordance with Directive 96/62/EC.

Amendment 43
Article 7, paragraph 2

2. The information shall also indicate any annual exceedance of the ***target value*** for benzo(a)pyrene laid down in ***Article 3(2)***. The information shall give the reasons for the exceedance and the area to which it applies. It shall also provide a short assessment in relation to the ***target*** value and appropriate information regarding effects on health.	2. The information shall also indicate any annual exceedance of the ***limit values*** for ***arsenic, cadmium, nickel and*** benzo(a)pyrene laid down in ***Annex - I to Annex - Ic***. The information shall give the reasons for the exceedance and the area to which it applies. It shall also provide a short assessment in relation to the ***limit*** value and appropriate information regarding effects on health ***and damage to the environment***.
Information on any measures taken pursuant to ***Article 3 (2)*** shall be made available to the organisations referred to in paragraph 1 of this Article.	Information on any measures taken pursuant to ***Articles 2a, 2b, 2d and*** 3 shall be made available to the organisations referred to in paragraph 1 of this Article.
	When making plans or programmes available to the public under Article 8(3) of Directive 96/62/EC, Member States shall also make them available to the organisations referred to in paragraph 1 of this Article. This also includes the documentation required by Section IIa of Annex III of this Directive.

Justification

The amendment follows from the introduction of limit values for arsenic, cadmium, nickel and benzo(a)pyrene. In addition to the effects on health, the assessment should also take account of damage to the environment. Plans or programmes under Article 8 of Directive 96/62/EC should also be made available to the organisations referred to in paragraph 1.

Amendment 44
Article 7 Paragraph 3

3. The information shall be made available by means of for example ***press, computer-network services, or teletext***.	3. The information shall be made available by means of for example ***the Internet, press and other easily accessible media.***

Justification

Emphasises the Internet as a key medium.

Amendment 45
Article 8, paragraph 2, point (aa) (new)

	(aa) new scientific knowledge concerning the human and ecotoxicological effects of arsenic, cadmium, nickel, mercury and polycyclic aromatic hydrocarbons on human health and the environment as a whole.

Justification

The report should also contain the latest knowledge about the human and ecotoxicological effects of arsenic, cadmium, nickel, mercury and polycyclic aromatic hydrocarbons if this means that proposals to amend the Directive can then be submitted.

Amendment 46
Article 8, paragraph 3

3. With a view to achieving levels of ambient air concentrations that ***would not give rise to*** harmful effects on human health and ***would ensure a reasonable protection of the environment, taking into account the economic and technical feasibility of further action***, the report referred to in paragraph 1 may be	3. With a view to achieving levels of ambient air concentrations that ***do not have*** harmful effects on human health and ***attaining a high level of protection for the environment as a whole***, the report referred to in paragraph 1 may be accompanied, if appropriate, by proposals for amendments to this Directive. In the

accompanied, if appropriate, by proposals for amendments to this Directive. In the light of the latest scientific and technological developments the Commission shall in particular examine the effect of arsenic, cadmium and nickel on human health with a view to quantifying their genotoxic carcinogenicity and the suitability of benzo(a)pyrene as a marker for the total carcinogenic activity of polycyclic aromatic hydrocarbons. ***In addition the Commission shall consider*** regulating the deposition of cadmium, mercury and specific polycyclic aromatic hydrocarbons.	light of the latest scientific and technological developments the Commission shall in particular examine the effect of arsenic, cadmium and nickel on human health with a view to quantifying their genotoxic carcinogenicity and the suitability of benzo(a)pyrene as a marker for the total carcinogenic activity of polycyclic aromatic hydrocarbons. ***The Commission shall, at the latest by the time referred to in paragraph 1, make proposals for*** regulating the deposition of cadmium, mercury and specific polycyclic aromatic hydrocarbons.

Justification

There should be greater emphasis on environmental protection in the Directive.

Amendment 47
Annex - I (new)

ANNEX - I

LIMIT VALUE AND LONG-TERM OBJECTIVE FOR ARSENIC

Notification period	***Limit value (1)***	***Long-term objective***	***Margin of tolerance***	***Deadline for achieving limit value***
Calendar year	***6 ng/m³***	***0.6 ng/m³***	***3 ng/m³ (50%) on *, reduction on 1 January 2005 and every 12 months thereafter by 0.5 ng/m³ to 0% in January 2010***	***1. January 2010 (2)***

(1) In relation to the total content of arsenic in the PM_{10} fraction.

(2) Except for Article 2a paragraph 3.

**** The date of entry into force of this Directive.***

Justification

The values laid down in this Annex for arsenic reflect the findings of the scientific working group on heavy metals.

Amendment 48
Annex - I a (new)

ANNEX - I a

LIMIT VALUE AND LONG-TERM OBJECTIVE FOR CADMIUM

Notification period	***Limit value (1)***	***Long-term objective***	***Margin of tolerance***	***Deadline for achieving limit value***
Calendar year	***5 ng/m^3***	***2,5 ng/m3***	***2,5 ng/m^3 (50%) on *, reduction on 1. January 2006 and every 12 months thereafter by 0.5 ng/m^3 to 0% in January 2010***	***1. January 2010 (2)***

(1) In relation to the total content of cadmium in the PM_{10} fraction.

(2) Except for Article 2b paragraph 3.

**** The date of entry into force of this Directive.***

Justification

The values laid down in this Annex for cadmium reflect the findings of the scientific working group on heavy metals.

Amendment 49
Annex - I b (new)

ANNEX - I b

LIMIT VALUE AND LONG-TERM OBJECTIVE FOR NICKEL

Notification period	***Limit value (1)***	***Long-term objective***	***Margin of tolerance***	***Deadline for achieving limit value***
Calendar year	***20 ng/m3***	***10 ng/m3***	***10 ng/m^3 (50%) on *, reduction on 1. January 2005 and every 12 months thereafter by 2 ng/m^3 to 0% in January 2010***	***1. January 2010 (2)***

(1) In relation to the total content of nickel in the PM_{10} fraction.

(2) Except for Article 2d paragraph 3.

**** The date of entry into force of this Directive.***

Justification

The values laid down in this Annex for nickel reflect the findings of the scientific working group on heavy metals.

Amendment 50
Annex - I c (new)

ANNEX - I c

LIMIT VALUE AND LONG-TERM OBJECTIVE FOR BENZO(A)PYREN

Notification period	***Limit value (1)***	***Long-term objective***	***Margin of tolerance***	***Deadline for achieving limit value***
Calendar year	***1 ng/m^3***	***0,1 ng/m3***	***0,5 ng/m^3 (50%) on **, reduction on 1 January 2005 and every 12 months thereafter by 0.1 ng/m^3 to 0% in January 2010***	***1 January 2010 (2)***

(1) In relation to the total content of benzo(a)pyrene in the PM_{10} fraction.

(2) Except for Article 3 paragraph 4.

**** The date of entry into force of this Directive.***

Justification

The values laid down in this Annex for benzo(a)pyrene reflect the findings of the scientific working group on polycyclic aromatic hydrocarbons.

Amendment 51
Annex I Section I

Commission proposal

DETERMINATION OF REQUIREMENTS FOR ASSESSMENT OF CONCENTRATIONS OF ARSENIC, CADMIUM, NICKEL AND BENZO(A)PYRENE IN AMBIENT AIR WITHIN A ZONE OR AGGLOMERATION

I. ASSESSMENT THRESHOLDS

Pollutant	***Assessment Threshold(1)***
Arsenic	***6 ng/m³***
Cadmium	***5 ng/m³***
Nickel	***20 ng/m³***
Benzo(a)pyrene	***1 ng/m³***

(1) For the total content in the PM 10 fraction averaged over a calendar year

Amendment by Parliament

ANNEX I

DETERMINATION OF REQUIREMENTS FOR ASSESSMENT OF CONCENTRATIONS OF ARSENIC, CADMIUM, NICKEL AND BENZO(A)PYRENE IN AMBIENT AIR WITHIN A ZONE OR AGGLOMERATION

I. ***UPPER AND LOWER* ASSESSMENT THRESHOLDS**

THE FOLLOWING UPPER AND LOWER ASSESSMENT THRESHOLDS SHALL APPLY:

	Arsenic	***Cadmium***	***Nickel***	***BaP***
Upper assessment threshold as percentage of limit value	***60 % (3.6 ng/m³)***	***60 % (3 ng/m³)***	***70 % (14 ng/m³)***	***50 % (0.5 ng/m³)***
Lower assessment threshold as percentage of limit value	***40 % (2.4 ng/m³)***	***40 % (2 ng/m³)***	***50 % (10 ng/m³)***	***25 % (0.25 ng/m³)***

Justification

The amendment to the Annex follows from the introduction of limit values for arsenic, cadmium, nickel and benzo(a)pyrene and the setting of assessment thresholds.

Amendment 52
Annex - I , Section II

***II. DETERMINATION OF* EXCEEDANCES OF ASSESSMENT THRESHOLDS**	**II. EXCEEDANCES OF UPPER AND LOWER ASSESSMENT THRESHOLDS**
Exceedances of assessment thresholds must be determined on the basis of concentrations during the previous five years where sufficient data are available. An assessment threshold will be deemed to have been exceeded if it has been exceeded during at least three out of those five years.	Exceedances of ***upper and lower*** assessment thresholds must be determined on the basis of concentrations during the previous five years where sufficient data are available. An assessment threshold will be deemed to have been exceeded if it has been exceeded during at least three out of those five years.
In areas where sufficient data during the previous five years are not available ***but there is reason to believe that exceedances could be expected***, Member States may combine measurement campaigns of short duration during the period of the year and at locations likely to be typical of the highest pollution levels with results obtained from information from emission inventories and modelling to determine exceedances of the assessment thresholds.	In areas where sufficient data during the previous five years are not available, Member States may combine measurement campaigns of short duration during the period of the year and at locations likely to be typical of the highest pollution levels with results obtained from information from emission inventories and modelling to determine exceedances of the assessment thresholds.

Justification

The amendment to the Annex follows from the introduction of limit values for arsenic, cadmium, nickel and benzo(a)pyrene and the setting of assessment thresholds.

Amendment 53
Annex II, Section IV

Commission proposal

IV. MINIMUM NUMBER OF SAMPLING POINTS TO MONITOR DIFFUSE SOURCES

Population of agglomeration or zone (thousands)	*Minimum number of sampling points in zones and agglomerations.* (1)
0 – 249	*1*
250– 749	*2*
750 – 999	*3*
1 000 – 1 999	*4*
2 000 – 3 749	*5*
3 750 – 4 749	*6*
4 750 – 5 999	*7*
≥ 6 000	*8*

(1) ***To include one traffic-oriented station, provided this does not increase the number of sampling points***.

Amendment by Parliament

IV. ***CRITERIA FOR DETERMINING THE NUMBER OF SAMPLING POINTS FOR FIXED MEASUREMENTS OF ARSENIC, CADMIUM, MERCURY, NICKEL AND BENZO(A)PYRENE IN AMBIENT AIR AND DEPOSITION OF MERCURY***

Minimum number of sampling points for fixed measurement to assess compliance with limit values in zones and agglomerations where fixed measurement is the sole source of information.

(a) Diffuse sources

Population of agglomeration or zone	*Where the concentrations exceed the upper assessment threshold (1)*		*Where the maximum concentrations are between the upper and lower assessment thresholds*	
(Thousand)	*As, Cd, Ni*	*BaP*	*As, Cd, Ni*	*BaP*
0 – 249	*1*	*1*	*1*	*1*
250 – 499	*1*	*2*	*1*	*1*
500 – 749	*2*	*2*	*1*	*1*
750 – 999	*2*	*3*	*1*	*1*
1 000 – 1 499	*3*	*4*	*1*	*1*
1 500 – 1 999	*3*	*4*	*1*	*1*
2 000 – 2 749	*4*	*5*	*2*	*2*

2 750 – 3 749	***5***	***5***	***2***	***2***
3 750 – 4 749	***6***	***6***	***3***	***2***
4 750 – 5 999	***7***	***7***	***3***	***2***
≥ 6 000	***8***	***8***	***4***	***2***

(1) At least one measurement station for typical urban background values should be included together with a traffic-oriented station, provided this does not increase the number of sampling points.

(b) Point sources

For the assessment of pollution in the vicinity of point sources, the number of sampling points for fixed measurement should be calculated taking into account emission densities, the likely distribution patterns of ambient-air pollution and the potential exposure of the population. The location of the sampling points should be such as to facilitate verification of the application of Article 10 of Directive 96/61/EC.

(c) Rural locations

At least one sampling point for each zone of 100 000 km^2 should be installed to monitor rural background concentrations. In addition to arsenic, cadmium, nickel and benzo(a)pyrene, these stations should also measure the concentrations of mercury and mercury deposition.

Justification

The amendment takes account of the requirements for the assessment of air quality laid down in Directive 96/62/EC.

Amendment 54
Annex III , Section I, paragraph 1, Table

Commission proposal

	Benzo(a)pyrene	Arsenic, cadmium and nickel	Polycyclic aromatic hydrocarbons other than benzo(a)pyrene, total gaseous mercury, and total deposition
– Uncertainty	50 %	40 %	50 %
– Minimum data capture	90 %	90 %	90 %
– Minimum time coverage:			
Fixed Measurements	33%	50%	-
Indicative measurements	14%	14%	14%

Amendment by Parliament

	Benzo(a)pyrene	Arsenic, cadmium and nickel	Polycyclic aromatic hydrocarbons other than benzo(a)pyrene, total gaseous mercury, and total deposition
– Uncertainty	50 %	40 %	50 %
– Minimum data capture	90 %	90 %	90 %
– Minimum time coverage:			
Fixed Measurements	33%	50%	***33 %***
Indicative measurements	14%	14%	14%

Justification

The amendment takes account of the requirements for the assessment of air quality laid down in Directive 96/62/EC.

Amendment 55
Annex III Section I paragraph 2

The uncertainty (expressed at a 95% confidence level) of the methods used for the assessment of ambient air concentrations will be evaluated in accordance with the principles of the CEN Guide to the Expression of Uncertainty in Measurement (EN 13005-1999), the methodology of ISO 5725:1994, and the guidance provided in the CEN/TC 264 Report N422. The uncertainties given apply to individual measurements, which are averaged over typical sampling times. The uncertainty of the measurements should be interpreted as being applicable in the region of the appropriate ***assessment threshold***. Until such time as CEN standards with detailed test protocols are fully adopted, the Commission will issue, before the adoption of this Directive, the guidelines for use developed by CEN.	The uncertainty (expressed at a 95% confidence level) of the methods used for the assessment of ambient air concentrations will be evaluated in accordance with the principles of the CEN Guide to the Expression of Uncertainty in Measurement (EN 13005-1999), the methodology of ISO 5725:1994, and the guidance provided in the CEN/TC 264 Report N422. The uncertainties given apply to individual measurements, which are averaged over typical sampling times. The uncertainty of the measurements should be interpreted as being applicable in the region of the appropriate ***limit value***. Until such time as CEN standards with detailed test protocols are fully adopted, the Commission will issue, before the adoption of this Directive, the guidelines for use developed by CEN.

Justification

The amendment follows from the introduction of limit values arsenic, cadmium, nickel and benzo(a)pyrene.

Amendment 56
Annex III, Section II a (new)

IIA. RESULTS OF AIR QUALITY ASSESSMENT

The following information should be compiled for zones or agglomerations within which sources other than measurement are employed to supplement information from measurement for air quality assessment:

- a description of the assessment activities carried out,

- specific methods used, with references to descriptions of the method;

- sources of data and information;

- a description of results, including uncertainties and, in particular, the extent of any area or, if relevant, the length of road within the zone or agglomeration over which concentrations exceed limit value(s) or, as may be, limit value(s) plus applicable margin(s) of tolerance and of any area within which concentrations exceed the upper assessment threshold or the lower assessment threshold;

- for limit values the object of which is the protection of human health, the population potentially exposed to concentrations in excess of the limit value

Where possible, Member States should compile maps showing concentration

	distributions within each zone and agglomeration.

Justification

The amendment takes account of the requirements for the assessment of air quality laid down in Directive 96/62/EC.

Amendment 57
Annex IV, Section I

The reference method for the measurement of arsenic, cadmium and nickel concentrations in ambient air ***is currently being standardised by CEN and*** shall be based on manual PM10 sampling equivalent to EN 12341, followed by digestion of the samples and analysis by Atomic Adsorption Spectrometry or ICP Mass Spectrometry. ***In the absence of a CEN standard method, Member States are allowed to use national standard methods or ISO standard methods.***	The ***standardised (CEN)*** reference method for the measurement of arsenic, cadmium and nickel concentrations in ambient air shall be based on manual PM10 sampling equivalent to EN 12341, followed by digestion of the samples and analysis by Atomic Adsorption Spectrometry or ICP Mass Spectrometry. ***Member States shall use the standardised reference method for the sampling and analysis of arsenic, cadmium and nickel concentrations in ambient air.***

Justification

i. In Article 1 of Council Directive 96/62/EC of September 27 1996 on ambient air quality assessment and management (the air quality "Framework Directive"), it is stated that the objectives of the Directive are to:

- assess the ambient air quality in Member States on the basis of common methods and criteria,

- obtain adequate information on ambient air quality and ensure that it is made available to the public, inter alia by means of alert thresholds.

ii. There are currently no European standard reference methods for measuring the concentrations of arsenic, cadmium and nickel in ambient air.

iii. Without standardised reference methods, it is to be expected that Member State Authorities will obtain significantly different results where there are, in fact, no real differences. Standardised methods are therefore essential to ensure consistent results of monitoring across all Member States.

Amendment 58
Annex IV, Section II

The reference method for the measurement of benzo(a)pyrene concentrations in ambient air ***is currently being standardised by CEN and*** shall be based on manual PM10 sampling equivalent to EN 12341. ***In the absence of a CEN standard method, for benzo(a)pyrene or*** the other polycyclic aromatic hydrocarbons referred to in Article 3(1), the Member States are allowed to use national standard methods or ISO methods such as ISO standard 12884.	The ***standardised (CEN)*** reference method for the measurement of benzo(a)pyrene concentrations in ambient air shall be based on manual PM10 sampling equivalent to EN 12341. ***Member States shall use the standardised reference method for the sampling and analysis of benzo(a)pyrene concentrations in ambient air. For*** the other polycyclic aromatic hydrocarbons referred to in Article 3(1), the Member States are allowed to use national standard methods or ISO methods such as ISO standard 12884.

Justification

i. In Article 1 of Council Directive 96/62/EC of September 27 1996 on ambient air quality assessment and management (the air quality "Framework Directive"), it is stated that the objectives of the Directive are to:

- assess the ambient air quality in Member States on the basis of common methods and criteria,

- obtain adequate information on ambient air quality and ensure that it is made available to the public, inter alia by means of alert thresholds.

ii. There are currently no European standard reference methods for measuring the concentrations of polycyclic aromatic hydrocarbons in ambient air.

iii. Without standardised reference methods, it is to be expected that Member State Authorities will obtain significantly different results where there are, in fact, no real differences. Standardised methods are therefore essential to ensure consistent results of monitoring across all Member States.

Amendment 59
Annex IV, Section III

The reference method for the measurement of total gaseous mercury concentrations in ambient air shall be an automated method based on Atomic Absorption Spectrometry	The ***standardised (CEN)*** reference method for the measurement of total gaseous mercury concentrations in ambient air shall be an automated method based on Atomic

or Atomic Fluorescence Spectrometry. The reference method for the measurement of deposition of mercury shall be a bulk sampling method using a funnel system. ***In the absence of a CEN standardised method, the Member States are allowed to use national standard methods or ISO standard methods.***	Absorption Spectrometry or Atomic Fluorescence Spectrometry. The reference method for the measurement of deposition of mercury shall be a bulk sampling method using a funnel system. ***Member States shall use the standardised reference method for the sampling and analysis of mercury concentrations in ambient air.***

Justification

i. In Article 1 of Council Directive 96/62/EC of September 27 1996 on ambient air quality assessment and management (the air quality "Framework Directive"), it is stated that the objectives of the Directive are to:

- assess the ambient air quality in Member States on the basis of common methods and criteria,

- obtain adequate information on ambient air quality and ensure that it is made available to the public, inter alia by means of alert thresholds.

ii. There are currently no European standard reference methods for measuring the concentrations of mercury in ambient air.

iii. Without standardised reference methods, it is to be expected that Member State Authorities will obtain significantly different results where there are, in fact, no real differences. Standardised methods are therefore essential to ensure consistent results of monitoring across all Member States.

Amendment 60
Annex IV, Section IV

The reference method for the sampling of deposited arsenic, cadmium, mercury and polycyclic aromatic hydrocarbons shall be based on the exposition of cylindrical deposit gauges with standardised dimensions. ***In the absence of a CEN standardised method, the Member States are allowed to use national standard methods.***	The ***standardised (CEN)*** reference method for the sampling of deposited arsenic, cadmium, mercury and polycyclic aromatic hydrocarbons shall be based on the exposition of cylindrical deposit gauges with standardised dimensions. ***Member States shall use the standardised reference method for the sampling and analysis of the deposition of arsenic, cadmium, mercury and polycyclic aromatic hydrocarbons.***

Justification

i. In Article 1 of Council Directive 96/62/EC of September 27 1996 on ambient air quality assessment and management (the air quality "Framework Directive"), it is stated that the objectives of the Directive are to:

- assess the ambient air quality in Member States on the basis of common methods and criteria,

- obtain adequate information on ambient air quality and ensure that it is made available to the public, inter alia by means of alert thresholds.

ii. There are currently no European standardised reference methods for the sampling and analysis of deposited arsenic, cadmium, mercury and polycyclic aromatic hydrocarbons.

iii. Without standardised reference methods, it is to be expected that Member State Authorities will obtain significantly different results where there are, in fact, no real differences. Standardised methods are therefore essential to ensure consistent results of monitoring across all Member States.

EXPLANATORY STATEMENT

Background:

Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management (the Air Quality Framework Directive) provides the framework for future EC legislation on air quality. Article 1 of the Directive, therefore, defines the following objectives:

- define and establish objectives for ambient air quality in the Community designed to avoid, prevent and reduce harmful effects on human health and the environment as a whole;

- assess ambient air quality in Member States on the basis of common methods and criteria;

- obtain adequate information on ambient air quality and ensure that it is made available to the public inter alia by means of alert thresholds;

- maintain ambient air quality where it is good, and improve it where it is not.

Annex I of the Framework Directive lists all air pollutants for which the Commission, in accordance with Article 4, must lay down limit values, target values and, as appropriate, alert thresholds. On the basis of this requirement, three daughter directives on air quality have already entered into force, these being Directive 1999/30/EC relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead, Directive 2000/69/EC relating to limit values for benzene and carbon monoxide and Directive 2002/3/EC relating to ozone in ambient air.

This Directive constitutes the last and fourth daughter directive governing air quality in regard to polycyclic aromatic hydrocarbons (PAH), cadmium, arsenic, nickel and mercury. Under the provisions of the Air Quality Framework Directive, the proposal for a directive should have been submitted by 31 December 1999.

The proposal for a directive:

The proposal is part of an integrated package of measures designed to combat air pollution in the EU. Taking the objectives of the Community's fifth and sixth environmental action programmes as a basis, this package comprises the daughter directives concerning the assessment and control of air quality together with various provisions relating to the actual reduction of emissions in particular areas.

The proposal for the fourth daughter directive differs considerably from the first three air quality directives not only in structure and form but also in substance. Firstly, it does not lay down any limit values for the heavy metals cadmium, arsenic, nickel and mercury. Secondly, in the case of PAH, the proposal confines itself to a target value for benzo(a)pyrene (BaP) to serve as a marker for the carcinogenic risk of PAH in ambient air. By and large, the main object of the proposal is the assessment of emission concentrations and deposition rates.

The Commission's proposals include the following:

- a target value of 1 ng/m3 for benzo(a)pyrene, in relation to the BaP content in the PM10 fraction averaged over a calendar year, with which the Member States are to comply by means of practicable measures without incurring excessive costs. The measurement and monitoring of PAH in ambient air is mandatory;

- assessment of the emission concentrations of arsenic, cadmium, nickel, BaP and gaseous mercury throughout the Member States;

- monitoring the total deposition of arsenic, cadmium, mercury and PAH;

- assessment thresholds for arsenic, cadmium, nickel and BaP; if these are exceeded, fixed measurement of emission concentrations is mandatory;

- forwarding information to the Commission when threshold values are exceeded.

Rapporteur's comments

With its proposal for the fourth and fifth daughter directives, the Commission has ignored the objectives set out in the Air Quality Framework Directive, and embodied in the first three daughter directives, to attain effective air quality targets in the Community. The proposal sets no limit values and only a target value for benzo(a)pyrene. The focus - wrongly in your rapporteur's view - is on the monitoring of air quality and deposition.

Clear mandate in the Air Quality Framework Directive

Article 4 of the Air Quality Framework Directive (96/62/EC) expressly requires the Commission to propose limit values for certain pollutants, including arsenic, cadmium, nickel, mercury and polycyclic aromatic hydrocarbons. With the current proposal, which contains only a target value for benzo(a)pyrene and assessment criteria for the other heavy metals, the Commission has failed to comply with the unequivocal requirement laid down by the Air Quality Framework Directive. The proposal is also, therefore, not in accord with the other three daughter directives.

Protection of humans and the environment

Arsenic, cadmium, nickel and some polycyclic aromatic hydrocarbons are genotoxic human carcinogens for which no limit value can be set below which these substances constitute no risk to human health. This is scientifically proved. Exposure to these pollutants should therefore be as low as realistically feasible, as the Commission itself states. These substances can cause lung and skin cancer and harm kidney function, the central nervous system, the respiratory tract or the immune system. Effective protection of human health and the environment - in accordance with the Air Quality Framework Directive - is therefore achievable only by means of standard and generally binding limit values. Monitoring alone will not improve air quality.

Recommendations of respected scientists and experts

The Commission set up technical working groups consisting of appropriate experts from the Member States, industry, NGOs, the European Environment Agency, the WHO and other scientists to draw up position papers on the individual pollutants, based on current knowledge, to be used as a basis for the proposal for a directive. The Scientific Committee on Toxicity, Ecotoxicity and the Environment was also consulted on the findings of the working groups. The members of the working group on arsenic, cadmium and nickel, and of the working group on polycyclic aromatic hydrocarbons recommended in their position papers that limit values be set for the pollutants concerned. In addition, on the basis of a broad, international scientific consensus, specific limit values were proposed for the individual pollutants. The working group on mercury did not propose any limit values in its position paper.

Secondary benefits for health and the environment ignored

Although the working groups' experts have taken up unequivocal positions, the Commission justifies its reluctance to set limit values by reference to a mere two cost-benefit analyses, which assess the level of costs for certain industries and the health benefits ensuing from the introduction of a standard limit value and compare the two. Both studies arrive at the conclusion that the costs would clearly outweigh the health benefits and that, therefore, there are no cost-effective measures to achieve the concentrations proposed in the position papers. It should be noted that neither study's calculations take account of the overall economic benefit of standard limit values and the resultant improvement in air quality. The focus is almost exclusively on reducing the incidence of cancer. Other effects on health are mostly ignored and the secondary environmental benefits (e.g. for crops, soil etc.) are totally overlooked, despite the fact that limit values would help to avoid, prevent and reduce harmful effects on human health and the environment as a whole. The studies themselves concede that, if these secondary benefits had been taken into account, the cost-benefit ratio would have turned out different. In general, caution should be exercised in evaluating cost-benefit analyses, as the tendency is to overestimate the costs in advance, as demonstrated by some specific examples in the past.

Existing emission reduction provisions are not enough

The current provisions designed to reduce emissions (e.g. the IPPC Directive, the Large Combustion Plant Directive etc.) are indeed necessary but they are not sufficient in themselves to achieve good air quality in Europe. They focus only on certain sources and do not adequately cover all possible sources of emissions (e.g. diffuse sources). As regards the implementation of the IPPC Directive, there are shortcomings in the uniform application of best available techniques and in monitoring. The experts on the working group on heavy metals, therefore, expressly recommended in their position paper the introduction of emission limit values in addition to existing emission reduction measures.

The rapporteur therefore proposes the following:

- the introduction of limit values for arsenic, cadmium, nickel and benzo(a)pyrene on the basis of the recommendations of the scientific working groups on heavy metals and PAH;

- assessment and measurement criteria for mercury on the basis of the recommendations of the scientific working group on mercury;

- special arrangements for certain difficult circumstances where the limit values cannot be achieved within the stipulated period;

- long-term, environmentally ambitious target values for arsenic, cadmium, nickel and benzo(a)pyrene.