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P5_TA(2004)0295

Quality of ambient air ***I

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 (A5-0047/2004),

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.

⁽¹⁾ Not yet published in the OJ.

P5_TC1-COD(2003)0164

Position of the European Parliament adopted at first reading on 20 April 2004 with a view to the adoption of European Parliament and Council Directive 2004/.../EC relating to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof,

Having regard to the proposal from the Commission ⁽¹⁾,

Having regard to the opinion of the European Economic and Social **Committee** ⁽²⁾,

Acting in accordance with the procedure laid down in Article 251 of the Treaty ⁽³⁾,

Whereas:

- (1) On the basis of principles enshrined in Article 175(3) of the Treaty, the Sixth Community Environment Action Programme adopted by Decision No 1600/2002/EC of the European Parliament and of the Council ⁽⁴⁾ establishes the need to attain levels of pollution which minimise harmful effects on human health, **paying particular attention to sensitive populations**, and the environment **as a whole**, and to improve the monitoring and assessment of air quality including the deposition of pollutants, and to provide information to the public.

⁽¹⁾ OJ C ...

⁽²⁾ OJ C ...

⁽³⁾ *Position of the European Parliament of 20 April 2004.*

⁽⁴⁾ OJ L 242, 10.9.2002, p. 1.

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- (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.
- (3) Scientific evidence shows that arsenic, cadmium, nickel and some polycyclic aromatic hydrocarbons are human genotoxic carcinogens and that there is no identifiable threshold below which these substances do not pose a risk to human health. Impact on human health and the environment occurs via concentrations in ambient air, and via deposition. With a view to **economic feasibility**, ambient air concentrations of arsenic, cadmium, nickel and polycyclic aromatic hydrocarbons, which would not pose a significant risk to human health, cannot be achieved in specific areas.
- (4) **With the aim of minimising harmful effects on human health, paying particular attention to sensitive populations, and the environment as a whole, of airborne arsenic, cadmium and nickel and polycyclic aromatic hydrocarbons, target values shall be set, to be attained as far as possible.** Benzo(a)pyrene shall be used as a marker for the carcinogenic risk of polycyclic aromatic hydrocarbons in ambient **air**.
- (5) **The target values** would not require any measures entailing **disproportionate** costs. Regarding industrial installations they would not **involve measures** beyond the application of BAT as required by Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control ⁽²⁾ and in particular would not lead to the **closure of** installations. However, they would require Member States to take all cost-effective abatement measures in the relevant **sectors**.
- (6) **In particular, the target values of this Directive are not to be considered as environmental quality standards as defined in Article 2(7) of Directive 96/61/EC and which, according to Article 10 of that Directive, require stricter conditions than those achievable by the use of best available techniques.**
- (7) **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.
- (8) **Where concentrations exceed certain assessment thresholds monitoring of arsenic, cadmium, nickel and benzo(a)pyrene shall be mandatory. Supplementary means of assessment may reduce the required number of sampling points for fixed measurements. Further monitoring of background ambient air concentrations and deposition is foreseen.**
- (9) **Mercury is a very hazardous substance for human health and the environment. It is present throughout the environment and, in the form of methylmercury, has the capacity to accumulate in organisms, and in particular to concentrate in organisms higher up the food chain. Mercury released into the atmosphere is capable of being transported over long distances.**
- (10) **The Commission intends to come forward in 2004 with a coherent strategy containing measures to protect human health and the environment from the release of mercury, based on a life-cycle approach, and taking into account production, use, waste treatment and emissions. In this context, 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.**

⁽¹⁾ OJ L 296, 21.11.1996, p. 55. Directive as amended by Regulation (EC) No 1882/2003 of the European Parliament and of the Council (OJ L 284, 31.10.2003, p. 1).

⁽²⁾ OJ L 257, 10.10.1996, p. 26. Directive as last amended by Regulation (EC) No 1882/2003.

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- (11) *The effects of arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons on human health, including via the food chain, and the environment as a whole, occur through concentrations in ambient air and via deposition; the accumulation of these substances in soils and the protection of ground water have to be taken into account.* In order to facilitate review of this Directive in 2010, the Commission and the Member States should consider promoting research into the effects of arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons on human health and the environment, particularly via deposition.
- (12) 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. *Providing reference measurement methods is acknowledged to be an important issue. The Commission has already mandated work on the preparation of CEN standards for the measurement of those constituents in ambient air where target values are defined (arsenic, cadmium, nickel and benzo(a)pyrene) as well as for the deposition of heavy metals with a view to their early development and adoption. In the absence of CEN standard methods, international or national standard reference measurement methods can be used.*
- (13) Information on the concentrations and the deposition of the regulated pollutants should be forwarded to the Commission as a basis for regular reports.
- (14) Up-to-date information on ambient air concentrations and deposition of regulated pollutants should be readily available to the public.
- (15) The Member States should lay down rules on penalties applicable to infringements of the provisions of this Directive and ensure that they are implemented. Those penalties must be effective, proportionate and dissuasive.
- (16) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission.⁽¹⁾
- (17) 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 **values** either directly or indirectly,

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Objectives

This Directive:

- (a) establishes a target value for the concentration of **arsenic, cadmium, nickel and benzo(a)pyrene** in ambient air so as to avoid, prevent or reduce harmful effects of **arsenic, cadmium, nickel and polycyclic aromatic hydrocarbons** on human health *and the environment as a whole*;
- (b) ensures, *with respect to arsenic, cadmium, nickel and polycyclic aromatic hydrocarbons*, that ambient air quality is maintained where it is good and that it is improved in other *cases*;
- (c) determines common methods and criteria for the assessment of concentrations of arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air as well as of the deposition of arsenic, cadmium, **nickel**, mercury and polycyclic aromatic hydrocarbons;

⁽¹⁾ OJ L 184, 17.7.1999, p. 23.

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- (d) ensures that adequate information on concentrations of arsenic, cadmium, **nickel**, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air as well as on the deposition of arsenic, cadmium, mercury and polycyclic aromatic hydrocarbons is obtained and ensures that it is made available to the public.

Article 2

Definitions

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.

The following definitions shall also apply:

- (a) 'target value' means a concentration in the ambient air fixed with the aim of **avoiding, preventing or reducing** harmful effects on human health and the environment **as a whole, to be attained where possible over a given period**;
- (b) '**total or bulk deposition**' means the total mass of pollutants which is transferred from the atmosphere to surfaces (e.g. soil, vegetation, water, buildings, etc.) onto a given area within a given time;
- (c) '**upper assessment threshold**' means a level specified in **Annex II below which a combination of measurements and modelling techniques may be used to assess ambient air quality**, in accordance with **Article 6(3) of Directive 96/62/EC**;
- (d) '**lower assessment threshold**' means a level specified in **Annex II below which the sole use of modelling or objective estimation techniques may be used to assess ambient air quality, in accordance with Article 6(4) of Directive 96/62/EC**;
- (e) 'fixed measurements' means measurements taken at fixed sites either continuously or by random sampling, **in accordance with Article 6(5) of Directive 96/62/EC**;
- (f) 'arsenic', 'cadmium', 'nickel' and 'benzo(a)pyrene' mean the total content of these elements **and compounds** in the PM₁₀ fraction;
- (g) 'PM₁₀' means particulate matter which passes through a size-selective inlet as defined in **EN 12341** with a 50 % efficiency cut-off at 10 µm aerodynamic diameter;
- (h) 'polycyclic aromatic hydrocarbons' means those organic compounds, composed of at least two fused aromatic rings made entirely from carbon and hydrogen;
- (i) 'total gaseous mercury' means elemental mercury vapour (Hg⁰) and reactive gaseous mercury, i.e. water-soluble mercury species with sufficiently high vapour pressure to exist in the gas phase.

Article 3

Target values

1. Member States shall take all necessary measures not entailing **disproportionate** costs to ensure that, **as from 31 December 2012**, concentrations of **arsenic, cadmium, nickel and benzo(a)pyrene, used as a marker for the carcinogenic risk of polycyclic aromatic hydrocarbons**, in ambient air, as assessed in accordance with Article 4, do not exceed **the target values laid down in Annex I**.

2. Member States shall draw up a list of zones and agglomerations in which the levels of **arsenic, cadmium, nickel and benzo(a)pyrene** are below the **respective target values**. Member States shall maintain the levels of **these pollutants** in these zones and agglomerations below the **respective target values** and shall endeavour to preserve the best ambient air quality, compatible with sustainable development.

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3. Member States shall draw up a list of the zones and agglomerations where the target **values** laid down in **Annex I** are 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 **disproportionate** costs, **directed** in particular at the predominant emission sources, **in order to attain the target values. In the case of industrial installations covered by Directive 96/61/EC this means** the application of best available techniques as defined by Article 2(11) of **that Directive**.

Article 4

Assessment of ambient air concentrations and deposition rates

1. Ambient air quality of arsenic, cadmium, nickel **and benzo(a)pyrene shall** be assessed throughout the territory of the Member **States**.

2. **In accordance with the criteria referred to in paragraph 7, measurement is mandatory in the following zones:**

- **zones and agglomerations in which levels are between the upper and the lower assessment threshold, and**
- **other zones and agglomerations where levels exceed the upper assessment threshold.**

The measurements provided for may be supplemented by modelling techniques to provide an adequate level of information on ambient air quality.

3. **A combination of measurements, including indicative measurements as laid down in Annex IV, Section I, and modelling techniques may be used to assess ambient air quality in zones and agglomerations where the levels over a representative period are between the upper and lower assessment thresholds, to be determined in accordance with the provisions referred to in Annex II, Section II.**

4. **In zones and agglomerations where the levels are below the lower assessment level, to be determined in accordance with the provisions referred to in Annex II, Section II, the sole use of modelling or objective estimation techniques for assessing levels shall be possible.**

5. **Where pollutants have to be measured, the measurements shall be taken at fixed sites either continuously or by random sampling; the number of measurements shall be sufficiently large to enable the levels to be determined.**

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

7. **The criteria for determining the location of sampling points for the measurement of arsenic, cadmium, nickel and benzo(a)pyrene in ambient air in order to assess compliance with the target values shall be those listed in Sections I and II of Annex III. The minimum number of sampling points for fixed measurements of concentrations of each pollutant shall be as laid down in Section IV of Annex III, 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.**

8. **To assess the contribution of benzo(a)pyrene in ambient air each Member State shall monitor other relevant polycyclic aromatic hydrocarbons at a limited number of measurement sites. These compounds shall include at least: benzo(a)anthracene, benzo(b)fluoranthene, benzo(j)fluoranthene, benzo(k)fluoranthene, indeno(1,2,3-cd)pyrene, and dibenz(a,h)anthracene. Monitoring sites for these**

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polycyclic aromatic hydrocarbons shall be co-located with sampling sites for benzo(a)pyrene and must be selected in such a way that geographical variation and long-term trends can be identified. Sections I, II and III of Annex III shall apply.

9. Irrespective of concentration levels one **background** sampling point **shall** be installed every **100 000 km²** for the indicative measurement, **in ambient air**, of arsenic, cadmium, **nickel**, total gaseous mercury, **benzo(a)pyrene** and **the other** polycyclic aromatic hydrocarbon compounds referred to in paragraph 8 and of the total deposition of arsenic, cadmium, **nickel**, mercury, **benzo(a)pyrene** and **the other** polycyclic aromatic hydrocarbons referred to in paragraph 8. Each Member State shall set up at least one measuring station; **however, Member States may, by agreement, and in accordance with guidelines to be drawn up under the procedure laid down in Article 6, set up one or several common measuring stations, covering neighbouring zones in adjoining Member States, to achieve the necessary spatial resolution. Measurement of particulate and gaseous divalent mercury is also recommended.** Where appropriate, monitoring should be co-ordinated with the EMEP monitoring strategy and measurement programme. **The sampling sites for these pollutants should be selected in such a way that geographical variation and long-term trends can be identified. Sections I, II and III of Annex III shall apply.**

10. **The use of bio indicators** may be considered where regional patterns of the impact on ecosystems shall be assessed.

11. **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 III and Section I of Annex IV.**

12. **Data** quality objectives **are** laid down in Section I of Annex IV. Where air quality models are used for assessment, Section II of Annex IV shall apply.

13. The reference methods for the sampling and analysis of arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons **in ambient air** shall be as laid down in **Sections I, II and III of Annex V. Section IV of Annex V will set out reference techniques for measuring the total deposition of arsenic, cadmium, nickel, mercury and the polycyclic aromatic hydrocarbons and Section V of Annex V refers to reference air quality modelling techniques when such techniques are available.**

14. The date by which Member States shall inform the Commission of the methods used for the preliminary assessment of air quality under point (d) of Article 11(1) of Directive 96/62/EC shall be the date set out in Article 10 of this Directive.

15. Any amendments necessary to adapt the provisions of **this Article and** of Section II of **Annex II** and of **Annexes III to V** 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 target values.**

Article 5

Transmission of information and reporting

1. With regard to the zones and agglomerations where any of the **target values** 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 **such exceedance.**

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Member States shall also report all data assessed in accordance with Article 4, ***unless already reported under Council Decision 97/101/EC of 27 January 1997 establishing a reciprocal exchange of information and data from networks and original stations measuring ambient air pollution within the Member States***⁽¹⁾.

The information shall be transmitted for each calendar year, no later than 30 September of the following year, and for the first time ***for the calendar year following the date referred to in Article 10.***

2. In addition to the requirements laid down in paragraph 1 Member States shall ***also report*** any measures taken pursuant to **Article 3**.

3. The Commission shall ensure that all information submitted pursuant to paragraph 1 is promptly made available to the public by appropriate means, ***such as Internet, press and other easily accessible media.***

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 provided under paragraph 1 of this Article.

Article 6

Committee

1. The Commission shall be assisted by the committee established by Article 12(2) of Directive **96/62/EC**.

2. Where reference is made to this paragraph, Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

3. The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at three months.

Article 7

Public information

1. Member States shall ensure that clear and comprehensible information is accessible and is routinely made available to the public as well as to appropriate organisations, such as environmental organisations, consumer organisations, organisations representing the interests of sensitive populations and other relevant health-care bodies, on ambient air concentrations of arsenic, cadmium, ***nickel***, mercury and ***benzo(a)pyrene and the other*** polycyclic aromatic hydrocarbons ***referred to in Article 4(8)*** as well as on deposition rates of arsenic, cadmium, ***nickel***, mercury and ***benzo(a)pyrene and the other*** polycyclic aromatic hydrocarbons ***referred to in Article 4(8)***.

2. The information shall also indicate any annual exceedance of the target ***values*** for ***arsenic, cadmium, nickel and benzo(a)pyrene*** laid down in **Annex I**. 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 ***and impact on the environment.***

Information on any measures taken pursuant to **Article 3** shall be made available to the organisations referred to in paragraph 1 of this Article.

3. The information shall be made available by means of, for example, ***Internet, press, and other easily accessible media.***

⁽¹⁾ ***OJ L 35, 5.2.1997, p. 14. Decision as amended by Commission Decision 2001/752/EC (OJ L 282, 26.10.2001, p. 69).***

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Article 8

Report and Review

1. The Commission shall, by **31 December 2010** at the latest, submit to the European Parliament and the Council a report based on the experience acquired in the application of this Directive and, in particular, on the results of the most recent scientific research concerning the effects on human health, paying particular attention to sensitive populations, **and on the environment as a whole**, of exposure to arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons, and on technological developments including the progress achieved in methods of measuring and otherwise assessing concentrations of these pollutants in ambient air as well as their deposition.

2. The report referred to in paragraph 1 shall take into **account**:

- (a) current air quality, trends and projections up to and beyond 2015;
- (b) the scope for making further reductions in polluting emissions from all relevant sources, **and the possible merit in introducing limit values aimed at reducing the risk to human health, for the pollutants listed in Annex I**, taking account of technical feasibility and cost-effectiveness **and any significant additional health and environmental protection that this would provide**;
- (c) the relationships between pollutants and opportunities for combined strategies for improving Community air quality and related objectives;
- (d) current and future requirements for informing the public and for the exchange of information between Member States and Commission;
- (e) the experience acquired in the application of this Directive in Member States, and in particular the conditions under which measurement has been carried out as laid down in Annex III;
- (f) **secondary economic benefits for the environment and health in reducing the emissions of arsenic, cadmium, nickel, mercury and polycyclic aromatic hydrocarbons to the extent that these can be assessed**;
- (g) **the adequacy of the particle size fraction used for sampling in view of general particulate matter measurement requirements**;
- (h) **the suitability of benzo(a)pyrene as a marker for the total carcinogenic activity of polycyclic aromatic hydrocarbons, having regard to predominantly gaseous forms of polycyclic aromatic hydrocarbons such as fluoranthene**.

In the light of the latest scientific and technological developments the Commission shall also examine the effect of arsenic, cadmium and nickel on human health with a view to quantifying their genotoxic carcinogenicity. Taking account of measures adopted pursuant to the mercury strategy the Commission shall also consider whether there would be merit in taking further action in relation to mercury, taking account of technical feasibility and cost-effectiveness and any significant additional health and environmental protection that this would provide.

3. With a view to achieving levels of ambient air concentrations that would **further reduce** harmful effects on human health and would **lead to a high level of** protection of the environment **as a whole**, taking into account the economic and technical feasibility of further action, the report referred to in paragraph 1 may be accompanied, if appropriate, by proposals for amendments to this Directive, **particularly taking into account the results obtained in accordance with paragraph 2**. In addition the Commission shall consider regulating the deposition of **arsenic**, cadmium, **nickel**, mercury and specific polycyclic aromatic hydrocarbons.

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Article 9

Penalties

Member States shall determine the penalties applicable to infringements of the national provisions adopted pursuant to this Directive and shall take all the measures necessary to ensure that they are implemented. The penalties provided for must be effective, proportionate and dissuasive.

Article 10

Implementation

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by [...] at the latest. They shall forthwith inform the Commission thereof.

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

2. The Member States shall communicate to the Commission the texts of the main provisions of national law, which they adopt in the field covered by this Directive.

Article 11

Entry into force

This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European **Union**.

Article 12

Addressees

This Directive is addressed to the Member States.

Done at ..., on ...

For the European Parliament
The President

For the Council
The President

(⁽¹⁾) 24 months after the entry into force of this Directive.

ANNEX I

TARGET VALUES FOR ARSENIC, CADMIUM, NICKEL AND BENZO(A)PYRENE

Pollutant	Target value (⁽¹⁾)
Arsenic	6 ng/m ³
Cadmium	5 ng/m ³
Nickel	20 ng/m ³
Benzo(a)pyrene	1 ng/m ³

(⁽¹⁾) For the total content in the PM₁₀ fraction averaged over a calendar **year**.