

Procedure file

Basic information	
COD - Ordinary legislative procedure (ex-codecision procedure) Directive 2003/0164(COD)	Procedure completed
Air quality: arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air See also 2020/2091(INI)	
Subject 3.70.02 Atmospheric pollution, motor vehicle pollution	

Key players			
European Parliament	Committee responsible	Rapporteur	Appointed
	ENVI Environment, Public Health, Consumer Policy	NI KRONBERGER Hans	09/09/2003
Council of the European Union	Council configuration	Meeting	Date
	Education, Youth, Culture and Sport	2616	15/11/2004
European Commission	Commission DG Environment	Commissioner	

Key events			
16/07/2003	Legislative proposal published	COM(2003)0423	Summary
01/09/2003	Committee referral announced in Parliament, 1st reading		
21/01/2004	Vote in committee, 1st reading		Summary
21/01/2004	Committee report tabled for plenary, 1st reading	A5-0047/2004	
09/03/2004	Debate in Parliament		
20/04/2004	Decision by Parliament, 1st reading	T5-0295/2004	Summary
15/11/2004	Act adopted by Council after Parliament's 1st reading		
15/12/2004	Final act signed		
15/12/2004	End of procedure in Parliament		
26/01/2005	Final act published in Official Journal		

Technical information

Procedure reference	2003/0164(COD)
Procedure type	COD - Ordinary legislative procedure (ex-codecision procedure)
Procedure subtype	Legislation
Legislative instrument	Directive
	See also 2020/2091(INI)
Legal basis	EC Treaty (after Amsterdam) EC 175-p1
Stage reached in procedure	Procedure completed
Committee dossier	ENVI/5/19940

Documentation gateway

Legislative proposal	COM(2003)0423	16/07/2003	EC	Summary
Committee report tabled for plenary, 1st reading/single reading	A5-0047/2004	21/01/2004	EP	
Economic and Social Committee: opinion, report	CES0307/2004 OJ C 110 30.04.2004, p. 0016-0017	25/02/2004	ESC	
Text adopted by Parliament, 1st reading/single reading	T5-0295/2004 OJ C 104 30.04.2004, p. 0034-0204 E	20/04/2004	EP	Summary
Non-legislative basic document	COM(2005)0020	28/01/2005	EC	Summary
Document attached to the procedure	SEC(2005)0101	28/01/2005	EC	Summary
Follow-up document	SWD(2019)0427	28/11/2019	EC	
Follow-up document	SWD(2019)0428	28/11/2019	EC	

Additional information

European Commission	EUR-Lex
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Final act

Directive 2004/107 OJ L 023 26.01.2005, p. 0003-0016 Summary

Air quality: arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air

PURPOSE : to adopt measures to reduce air pollution by heavy metals. **CONTENT** : 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. The present proposal introduces Community legislation on arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons (PAHs) in fulfilment of obligations under Directive 96/62/EC. Prolonged inhalation of these pollutants can cause lung cancer and other adverse effects on human health. The proposed legislation will require air quality monitoring by Member States, which will provide the necessary information to take appropriate abatement measures and monitor their implementation. The objectives are fourfold: 1) establish 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; 2) ensure that ambient air quality is maintained where it is good and that it is improved in other cases with respect to polycyclic aromatic hydrocarbons; 3) determine 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, mercury and polycyclic aromatic hydrocarbons; 4) ensure that adequate information on concentrations of arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons is obtained and ensures that it is made available to the public. The proposed Directive relates to Annex I of the Air Quality Framework Directive, which lists atmospheric pollutants to be taken into consideration in the assessment and management of ambient air quality. 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 are already in force. In addition to this legislation, there is provision in Annex I of the Air Quality Framework for regulating ambient air quality of

arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons (PAH) by setting out criteria and techniques for assessing ambient air quality, and laying down provisions for forwarding information to the Commission and the public. Thereby the proposal incorporates the objectives of the Sixth Community Environment Action Programme. This proposal is the final step in implementing the Framework Directive by regulating pollutants in ambient air that pose risks to human health. In particular with a view to the risk to human health posed by PAH emissions from domestic heating and road traffic a target value of 1 ng BaP/m³ in ambient air is proposed, which must be attained as far as possible and without entailing excessive costs. This target value refers to an annual average of the PM₁₀ particle fraction in ambient air. Attainment of these concentrations would ensure a reasonable protection of the population from carcinogenic effects. To ensure the best protection of human health all proportionate abatement measures should be taken where the target value is exceeded. In this context the proposal complements the IPPC directive by raising awareness of any exceedance of the target value given above and by ensuring that achievements with regard to improvement of air quality are adequately monitored. The proposal foresees mandatory monitoring where concentration exceed the following assessment thresholds: - 6 ng arsenic/m³; - 5 ng cadmium/m³; - 20 ng nickel/m³; - 1 ng BaP/m³. As concentrations below these levels would minimise harmful effects on human health only indicative monitoring of concentrations of arsenic, cadmium, mercury, nickel and specific PAH at a limited number of sites is required where the assessment thresholds are not exceeded. The objective of this background monitoring would be to assess the impact on human health and the environment. For the same purpose the monitoring of total deposition of arsenic, cadmium, mercury and PAH is required. Within a few years of implementation, the proposed Directive will produce a much more complete picture of air quality regarding heavy metals and polycyclic aromatic hydrocarbons. This information will be complemented by investigating soil contamination and by the latest scientific evidence on the effects of the named pollutants on human health. Based on this, the Commission will in 2008 review the effectiveness of the new directive and adapt it if and where necessary. ?

Air quality: arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air

The committee adopted the report by Hans KRONBERGER (IND, A) amending the proposal under the 1st reading of the codecision procedure. In a tight vote, MEPs decided that limit values and long-term objectives, rather than just monitoring requirements, were needed to regulate arsenic, cadmium and nickel in ambient air. They also said that limit values and long-term objectives, rather than just target values as proposed, should be laid down for benzo(a)pyrene as a marker for the carcinogenic risk of polycyclic aromatic hydrocarbons in ambient air. In addition, the committee stipulated that the aim was to avoid, prevent or reduce harmful effects not only on human health but also on the environment as a whole, and introduced a number of amendments to ensure that greater emphasis was put on environmental protection in the directive. The limit values proposed in the report were based on the findings of the Commission's scientific working group on heavy metals. In principle, they would have to be met by 2010, although Member States were given the possibility of extending this deadline under certain conditions. The committee also adopted a number of technical amendments which took account of the requirements for the assessment of air quality laid down in Directive 96/62/EC on ambient air quality assessment and management. Lastly, it introduced a new article providing for targeted strategies to reduce mercury deposition and for a standard monitoring system.?

Air quality: arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air

The European Parliament adopted a compromise deal with the Council on this proposed directive. The rapporteur was Hans KRONBERGER (IND, A). In the Committee vote (please see the preceding summary) Members wanted to set limit values, rather than just monitoring requirements as proposed by the Commission, for air pollutants, including arsenic, cadmium and nickel and polycyclic aromatic hydrocarbons. The compromise adopted sets target values for these pollutants - neither just monitoring requirements nor binding limit values. "Target value" is defined as 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. The target values will have to be met, where possible, by 2012. The agreed date is a compromise between 2010 as proposed by the Environment Committee and 2014 proposed earlier by the Council Presidency. Furthermore, Parliament also obtained a clause which requires the Commission to consider the possible merit in introducing limit values in a report that is due in 2010. In addition, the Commission report must deal with the following: - the 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; - the adequacy of the particle size fraction used for sampling in view of general particulate matter measurement requirements; - 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 must 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. Finally, Parliament made amendments concerning the measurement of ambient air quality, and the geographical frequency of sampling sites.?

Air quality: arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air

PURPOSE: to adopt measures to reduce air pollution by heavy metals ? arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons.

ACT: Directive 2004/107/EC of the European Parliament and of the Council.

CONTENT: Article 4(1) of Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management requires the Commission to 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.

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 cost-effectiveness, 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.

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 should be set, to be attained as far as possible. Benzo(a)pyrene should be used as a marker for the carcinogenic risk of polycyclic aromatic hydrocarbons in ambient air.

The objectives of this Directive are therefore to:

- establish 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;
- ensure, 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;
- determine 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, mercury, nickel and polycyclic aromatic hydrocarbons;
- ensure that adequate information on concentrations of arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air as well as on the deposition of arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons is obtained and ensure that it is made available to the public.

With regard to the zones and agglomerations where any of the target values laid down in Annex I of the Directive is exceeded, Member States shall forward the following information to the Commission:

- the lists of the zones and agglomerations concerned,
- the areas of exceedance,
- the concentration values assessed,
- the reasons for exceedance, and in particular any sources contributing to it,
- the population exposed to such exceedance.

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 individual stations measuring ambient air pollution within the Member States. The information shall be transmitted for each calendar year, by no later than 30 September of the following year, and for the first time for the calendar year following 15 February 2007.

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 healthcare bodies, on ambient air concentrations of arsenic, cadmium, mercury, nickel and benzo(a)pyrene and the other polycyclic aromatic hydrocarbons referred to in Article 4(8) of the Directive as well as on deposition rates of arsenic, cadmium, mercury, nickel and benzo(a)pyrene and the other polycyclic aromatic hydrocarbons referred to in the same Article.

The Commission shall, by 31 December 2010 at the latest, submit to the European Parliament and the Council a report based on:

- a) the experience acquired in the application of this Directive,
- b) in particular, 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
- c) 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.

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.

ENTRY INTO FORCE: 15/02/2005.

DATE OF IMPLEMENTATION: 15/02/2007.