

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

2003/0164(COD) - 15/12/2004 - Final act

**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.

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