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

2003/0164(COD) - 16/07/2003 - Legislative proposal

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.