



EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR EMPLOYMENT, SOCIAL AFFAIRS AND INCLUSION
Working Conditions and Social Dialogue
Health and Safety at Work Unit, EU-OSHA

The Advisory Committee on Safety and Health at Work

Opinion

**Opinion on an EU Binding Occupational Exposure Limit Value (BOEL) for
Polycyclic aromatic hydrocarbons (PAHs)
under the Directive on the protection of workers from the risks related to
exposure to carcinogens, mutagens or reprotoxic substances at work
(2004/37/EC)**

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Polycyclic aromatic hydrocarbons (PAHs)

This Opinion is one of a series of chemical specific Opinions adopted by the ACSH in support of the forthcoming Commission proposal on amending the Directive on the protection of workers from the risks related to exposure to carcinogens, mutagens or reprotoxic substances at work (2004/37/EC).

In the meetings of the Working Party of Chemicals on 11th - 12th May and 05th - 06th September, in three technical meetings with the consultant and in two technical exchange meeting on 20th July and 30th August 2023, the need to establish the limit value of Polycyclic aromatic hydrocarbons (PAHs) in the scope of the CMRD was discussed. At this moment, despite the existing entry in Annex I and the skin notation in Annex III, there are no binding occupational exposure limit values (BOELs) at EU level.

The three Interest Groups recognise that the exposure of workers to Polycyclic aromatic hydrocarbons (PAHs) in the European Union is of concern. They agree that this problem should be tackled at the EU level.

The three Interests Groups agreed the following points concerning limit values and notations for Polycyclic aromatic hydrocarbons (PAHs) :

There is consensual agreement on the following:

- Benzo[a]pyrene (BaP) is a relevant marker substance for PAHs and OEL-setting. RAC derived an ERR and considered a STEL not to be relevant. The three interest groups agree on the need to establish a time weighted average OEL and no STEL.
- RAC recommended to set a BLV based on the OEL. The three interest groups recognise the usefulness of a BLV but also know that practices differ in the Member States and therefore recommend that this is taken into consideration in the forthcoming EU-OSHA guidance on the practical use of biomonitoring. There is a need that the guidance contains biomonitoring recommendations specific for firefighters or workers exposed to PAHs during accidents. The ACSH strongly recommends the WPC to be involved in the development of the guidance.
- Taking into consideration the usefulness of further improving measurement methods and data collection for biomonitoring processes, the ACSH recommends having PAHs, especially benzo[a]pyrene (BaP), in the priority list of chemical agents to be followed by the European Partnership for the Assessment of Risk from Chemicals (PARC).

In case workers are exposed to PAHs under the scope of the CMRD that do not contain BaP, all provisions of the CMRD will have to be complied with.

- The existing entry in Annex III should be updated to take into account the extension of the scope of the Directive to substances toxic to reproduction and the fact that benzo[a]pyrene is classified as Mutagen 1B. Also, skin notation should be maintained.
- All interest groups agree that the option of an OEL of 70 ng/m³ should apply.

The following sectors or processes might have difficulties in complying with the OEL and might therefore need more time to comply with 70 ng/m³.

- steel and iron foundries, which includes ferroalloy manufacturers;
- aluminium manufacturers;
- carbon and graphite electrode manufacturers;
- coking plants;
- coal tar distillation;
- manufacture of refractory products;
- welding of train tracks.

For these sectors the following transition periods are recommended:

- 2 years after entry into force of the directive, a BOEL of 140 ng/m³
- 6 years after entry into force of the directive, a BOEL of 70 ng/m³

The interest groups acknowledge that the residual risk associated with 70 ng/m³ is 4 in 10:000 and at that level the OEL also protects workers against reprotoxic effects.

The ACSH strongly recommends the Commission to adopt as soon as possible the below new BOEL, for this group of chemicals under Directive 2004/37/EC. The ACSH strongly believes that the benefits associated with the below limit value(s) justify their costs.

Annex:

EC No	CAS No	NAME OF THE CHEMICAL AGENT	LIMIT VALUES				Notation	Transitional measures
			8 hours		Short-term			
			mg /m ³	ppm	mg /m ³	ppm		
-	-	Polycyclic aromatic hydrocarbons mixtures, particularly those containing benzo[a]pyrene, which are carcinogens, mutagens or reprotoxic within the meaning of this Directive	ng/m ³ 70(*)				skin ⁽¹⁰⁾	Limit Value 140 ng/m ³ for the following sectors: •steel and iron foundries, which includes ferroalloy manufacturers; • aluminium manufacturers; • carbon and graphite electrode manufacturers; • coking plants; • coal tar distillation; • manufacture of refractory products; • welding of train tracks. until 6 years after entry into force of the directive

⁽¹⁰⁾ Substantial contribution to the total body burden via dermal exposure possible.

(*) measured as benzo[a]pyrene