



WELDING FUMES GUIDANCE





WELDING FUMES - ARE YOU IN CONTROL?

According to research findings by The International Agency for Research on Cancer (IARC), there is scientific evidence that exposure to mild steel welding fume can cause lung cancer and that there is no known safe limit. The IARC has raised its classification of welding fume from 2B ('possibly carcinogenic to humans') to Class 1 ('carcinogenic to humans'). The study also suggests welding fume can cause kidney cancer.

It should also be noted that the IARC also considers UV radiation from welding to be carcinogenic.

As a result of the findings, the HSE are strengthening their enforcement for all welding fumes, including mild steel welding. Enforcement will not just focus on the welders themselves, but others in the area who could be affected by welding fumes e.g. in engineering workshops, on construction sites etc.

What does that mean for you as an employer, and your obligations under Health and Safety legislation and specifically COSHH regulations?

You have a legal duty to safeguard your employees' health so under the new enforcement guidance you will need to put new, or review existing, safety measures in place for all welding activities.

A local exhaust ventilation (LEV) system must be installed to carry the fumes safely away from the operative and the general workplace. To ensure the LEV is providing adequate control, it should be examined and tested by a competent person every 14 months.

The regulations require that where engineering controls are not adequate to control all fume exposure, or are impractical, then suitable respiratory protective equipment (RPE) is required, even for exposure of short duration.

It is important that employers give information, instruction, and training to their employees on the health risks from exposure to welding fume, and particularly when and how to use the control measures.

You may already have controls in place such as LEV systems and an RPE programme – but are they working properly? Workplace exposure monitoring can help you to understand if your control measures are effective, and if your risk assessment is adequate. The more harmful the substance, such as carcinogens, the more exposure monitoring may be required to ensure your controls are adequate.



As welding fume is considered to be a class 1 carcinogen, the HSE will be expecting organisations to review risk assessments and to monitor exposure, not just for the welder but those risking secondary exposures in the work area.

The frequency of exposure monitoring will depend upon several factors including the risk assessment, the substance used or generated, and the amount, as well as changes to work practices, and control measures. The COSHH regulations state 'regular intervals' to provide evidence of compliance with regulations and that the health and wellbeing of employees is considered.

The HSE expects employers to comply with the COSHH regulations by:

- Ensuring risk assessments are up to date, and consider all potentially exposed, which will require exposure to be regularly monitored.
- Ensuring that engineering controls are in place, tested, maintained and staff given adequate information, instruction and training in their use, including for outdoor welding.
- Where engineering controls are not available, then adequate and suitable RPE is issued, again with information, instruction and training, and a testing regime in place.

AEC can help

We can support you with a range of services to help you protect the long-term health of your workers

- The Control of Substances Hazardous to Health (COSHH) assessment and review
- Occupational exposure monitoring
- Local Exhaust Ventilation (LEV) examination and testing

Contact our occupational hygiene team today **Manchester 0161 872 7111 London 0203 384 6175** aec@aec.uk.net