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Welding – Changes to UK welding fumes control standards

We would like to draw your attention to a legal update below that will apply to your operations.

The [Health and Safety Executive](#) (HSE) has published a notification relating to new scientific evidence from the International Agency for Research On Cancer (IARC) confirming that exposure to mild steel welding fume and UV radiation can cause lung cancer and possibly kidney cancer in humans. Consequently, the Workplace Health Expert Committee has endorsed the reclassification of mild steel welding fume as a group 1 (highest risk level) human carcinogen.

There are 4 groups used to classify carcinogens, and Group 1 represents substances with the highest level of risk. This group contains just over 100 substances which are classed as 'carcinogenic to humans'.

The HSE has increased the control standards with **immediate effect** for welding operations - because general ventilation has been shown **not** to achieve the necessary control.

Regardless of duration, the HSE will no longer accept any welding undertaken without any suitable exposure control measures in place, as there is no known level of safe exposure.

What this means for your business:

You must introduce suitable engineering controls for all welding activities indoors e.g. Local Exhaust Ventilation (LEV) that sufficiently control the cancer risk. The extraction must also control exposure to manganese, which is present in mild steel welding fume, which can cause neurological effects similar to Parkinson's disease.

This must be verified by general air monitoring and personal dose monitoring by an Occupational Health Specialist.

Where LEV alone does not adequately control exposure, it will need to be supplemented by adequate and suitable Respiratory Protective Equipment (RPE) e.g. a respirator hood, to protect against the residual fume.

Appropriate RPE should be selected and provided for welding outdoors. You should ensure welders are suitably instructed and trained in the use of these controls.

You will need to review your risk assessments to reflect the change in the expected control measures.



Summary of actions required:

- Make sure exposure to any welding fume released is adequately controlled using engineering controls (typically LEV).
- Make sure suitable controls are provided for all welding activities, irrelevant of duration. This includes welding outdoors.
- Where engineering controls alone cannot control exposure, then adequate and suitable RPE should be provided to control risk from any residual fume.
- Make sure all engineering controls are correctly used, suitably maintained and are subject to thorough examination and test where required.
- Make sure any RPE is subject to an [RPE programme](#). An RPE programme encapsulates all the elements of RPE use you need to ensure that your RPE is effective in protecting the wearer.

Relevant legal documents:

- Health and Safety at Work etc. Act 1974
- Control of Substances Hazardous to Health Regulations 2002

HSE Reference material:

- [Controlling airborne contaminants at work: A guide to local exhaust ventilation \(LEV\) HSG258](#) 
- [HSE Local Exhaust Ventilation webpages](#)
- [Respiratory Protective Equipment: A practical guide HSG53](#) 
- [HSE Respiratory Protective Equipment webpages](#)

If you require any further assistance or clarification of this matter, please don't hesitate to contact Harrier on 01332 460703.