

Technical bulletin



Welding fume safety alert

Change in enforcement for mild steel welding fume

The UK's Health and Safety Executive (HSE) strengthens their enforcement expectation for all welding fume with immediate effect.

Following new scientific evidence regarding the effects of welding fume on human health (controlled under the UK Control of Substances Hazardous to Health Regulations (COSHH) Regulations 2002), the HSE have strengthened their enforcement expectation for all welding fume with immediate effect. This follows new evidence from the International Agency for Research on Cancer which has found that exposure to mild steel welding fume can cause lung cancer, and possibly kidney cancer, in humans.

The UK's Workplace Health Expert Committee has endorsed the reclassification of mild steel welding fume as a 'human carcinogen'. In light of this evidence, the HSE have issued safety alert STSU1 - 2019⁽¹⁾, which advises that there will be a change of enforcement expectations where exposure to welding fumes can occur due to lack of control.

The following actions should be considered where manufacturing/servicing processes include welding activities:

- Ensure exposure to any welding fume released is adequately controlled using engineering controls (typically, local exhaust ventilation (LEV)).
- Ensure suitable controls are provided for all welding activities, irrelevant of duration. This also includes welding outdoors.
- Where engineering controls alone cannot control exposure, adequate and suitable respiratory protective equipment (RPE) should be provided to control risk from any residual fume.

- Ensure all engineering controls are correctly used, suitably maintained and are subject to thorough examination (by a 'Competent Person') and test where required.
- Appropriate RPE should be provided for welding outdoors. All welders should be suitably instructed and trained in the use of these controls.
- Process risk assessments should be suitably updated to reflect any changes in new or existing control measures.

Regardless of welding 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.

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⁽¹⁾ Health and Safety Executive: Safety Alert - Change in Enforcement Expectations for Mild Steel Welding Fume.