



Craven Safety Services - January 2020 Newsletter

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Welding Fumes

Guest article by Craig Batty of [Workplace Exposure](#)

Change in Enforcement Expectations for Welding Fumes

In February this year, the Health & Safety Executive (HSE) announced a significant “change in enforcement expectations” regarding welding fumes.

It comes as a result of new scientific evidence which has emerged that shows, that exposure to all welding fumes can cause lung cancer.

The latest change in regulation means that all industries must adequately control exposure to welding fumes, no matter the duration or location of the work.

What are the Latest Scientific Findings?

Findings from the [International Agency for Research on Cancer](#) have shown, that exposure to mild steel welding fumes can cause lung cancer, and possibly kidney cancer. The findings have led to the reclassification of mild steel welding fumes as a human carcinogen.

What does this Mean for the Welding Industry?

Most significantly the findings have led to the conclusion that, there is no safe level of exposure to any form of welding fumes. This means that general

ventilation alone will no longer be considered to be an adequate control measure unless undertaking sporadic or occasional low-intensity TIG or resistance spot welding. A combination of good general ventilation and suitable RPE is permissible if undertaking other types of welding sporadically or occasionally where LEV is not practicable.

Suitable engineering controls such as [Local Exhaust Ventilation \(LEV\)](#) machinery, will need to be in place for regular high-intensity indoor welding activities. Such control measures will have the additional benefit of controlling human exposure to manganese. Manganese is present in mild steel welding fumes; inhaling these fumes can lead to long term neurological damage, with symptoms comparable to those of Parkinson's Disease.

However, it is essential to ensure your chosen control method adequately reduces human exposure to fumes.

[A full length article is available on the Craven Safety Services website.](#)

HSE inspections

HSE inspections January to March 2020

HSE will be inspecting sites that carry out metal fabrication in January to March 2020 to check compliance with the law.

The focus will be on control of exposure to welding fume and metalworking fluids.

All welding fumes (including mild steel) are now classed as carcinogens. Metalworking fluids can cause occupational asthma, occupational hypersensitivity pneumonitis and dermatitis.

There is revised guidance available so you can protect your workers from these serious health hazards. Please see the below links to view:

Welding

[Welding COSHH essentials sheets](#)

[Welding webpages](#)

Metalworking fluids

[Metalworking fluids COSHH essentials sheets](#)

[UKLA Good practice guide for safe handling and disposal of MWF](#)

Carbon Monoxide

What is carbon monoxide?

Carbon monoxide (CO) is a colourless, odourless, tasteless, poisonous gas produced by incomplete burning of carbon-based fuels, including gas, oil, wood and coal. Carbon-based fuels are safe to use. It is only when the fuel does not burn properly that excess CO is produced, which is poisonous. When CO enters the body, it prevents the blood from bringing oxygen to cells, tissues, and organs.

CO cannot be sensed using human senses of smell, taste, sight or touch and less than 2% of CO in the air can kill in between one and three minutes.

According to the HSE, 7 people die every year from CO poisoning caused by gas appliances and flues that haven't been properly installed, maintained or that are properly ventilated. Even levels not high enough to kill can cause serious harm to health if breathed in over a long period. In extreme cases paralysis and brain damage can be caused as a result of prolonged exposure to CO.

What are the symptoms of carbon monoxide poisoning?

A lot of the time the early symptoms of carbon monoxide poisoning can be confused with food poisoning, viral infections, flu or simple tiredness. The symptoms to look out for are:

- headaches or dizziness
- breathlessness
- nausea
- loss of consciousness
- tiredness
- pains in the chest or stomach
- erratic behaviour
- visual problems

How to prevent carbon monoxide poisoning

- Make sure all appliances are properly installed by competent people according to the manufacturer's instructions. This means a Gas Safe Registered engineer who has the right qualifications to work on the particular appliance.
- Appliances must be maintained regularly by a competent person (Gas Safe Registered engineer).

- Make sure chimneys and flues are swept and checked by a sweep belonging to a recognised trade association. Appliances that don't have flues can be extremely dangerous.
- Use a CO alarm/detector