

Health and Safety

Bulletin

Welding

Articles in this newsletter:

- Welding
- Results of Fire and Rescue audit
- Case Law update – welding and soldering
- HSE inspection initiatives

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The HSE recently announced that it would be carrying out an inspection programme on sites involved with metal fabrication in January - March 2020. The focus of these inspections are health related – specifically exposure to welding fume and metalworking fluids. Their attention to welding fumes follows publication of scientific evidence from the International Agency for Research on Cancer (IARC) that exposure to mild steel welding fume can cause lung and possibly kidney cancer and the HSE's Workplace Health Expert Committee endorsing the reclassification of mild steel welding fume as a carcinogen.

What are the safety and health risks associated with welding?

Most people involved with metal working are aware of the safety hazards associated with welding, such as;

- fire and explosion - either caused by the ignition of extraneous materials in the area where welding is taking place or due to the nature of the gases commonly used in welding – such as acetylene
- electrical hazards – associated with need to use a live electrical circuit to complete the welding task which can result in electric shock or serious burns
- exposure to direct and reflected ultraviolet (UV) light and infrared rays which can cause arc eye

Health risks can also be severe, as the IARC has identified. Consequences of exposure to welding fumes can include;

- respiratory affects that occur immediately after exposure such as irritation to the throat and airways (resulting in coughing or tightness of the chest), metal fume fever (creating flu-like symptoms) and pneumonia (thought to kill about 2 welders per year)
- illnesses that occur after long-term or repeated exposure, such as lung cancer, welder's lung (caused by deposits of metal particles accumulating in the lungs) and occupational asthma (which results in the airways becoming inflamed whenever the person breathes in an irritant)

The HSE's focus on the health issues associated with welding reflects the major theme of their current five-year improvement objectives "health."

What risk controls will the HSE expect to see for health hazards?

If you are one of the organisations that receives a visit, the HSE will be reviewing the controls against the guidance issued in WL3 Welding fume control (<https://www.hse.gov.uk/pubns/guidance/wl3.pdf>). These include providing local exhaust ventilation (LEV), ensuring the LEV is maintained and tested to statutory standards and the use of suitable respiratory protective equipment (RPE).

The HSE has also produced a video demonstrating how poor use of this equipment can result in exposure (available at https://www.youtube.com/watch?v=So_2mc06jXQ&t=127s) to ensure users understand the importance of good set-up.

Conclusion

With their current resources, the HSE focus their inspection programmes on health and safety issues with significant risks, and following the reclassification of welding fumes as a carcinogen, it's not surprising that welding has fallen into this category. HSE has publicized the reclassification of the fume as a carcinogen and their enforcement policy widely, so it is likely they will take action where they find non-compliance.

Recently issued/revised health and safety information:

- Guidance from the HSE on how /when to report a concern related to stress <https://www.hse.gov.uk/stress/reporting-concern.htm>
- HSE workplace stress posters <https://books.hse.gov.uk/Posters/?DI=650804>
- HSE safe handling of chemicals poster <https://books.hse.gov.uk/Posters/?DI=650804>
- HSG143 (rev4): Manual handling at work - A brief guide <https://www.hse.gov.uk/pubns/indg143.pdf>
- INDG171 (rev3) Managing upper limb disorders in the workplace - A brief guide <https://www.hse.gov.uk/pubns/indg171.pdf>
- ACAS guidance on reasonable adjustments in the workplace <https://archive.acas.org.uk/index.aspx?articleid=6074>

Construction Client Buddy Scheme

The Construction Clients' Leadership Group (CCLG) is offering free access to the Construction Client Buddy Scheme – with the aim of helping small construction clients find guidance material that will equip them in preparing a brief, engaging designers and procuring construction work.

The principal behind the scheme is that if clients understand their responsibilities under the Construction (Design

and Management) Regulations 2015 better, they are more likely to achieve the best possible outcome from their construction project.

The scheme also allows clients to request a 5-10-minute call with a volunteer "buddy" (who has experience of being a client), who can assist further, if the guidance material does not provide them with the information they need.

Access to the Client Buddy

Scheme is available though <https://www.cclg.co.uk/clientbuddy>.

Apart from allowing clients to request a call back from a buddy, this webpage also outlines the responsibilities that clients have during construction as well as providing links to client guidance, information about common pitfalls in construction health and safety, and best practice examples.

Case Law update

This issue focuses on cases associated with welding and soldering

A design and manufacturing company has been fined **£12,000** and ordered to pay costs of **£6385** after an employee carrying out soldering works developed occupational asthma. When the employee joined the company in 1975 there was no extraction system in place. About 15-20 years later the company introduced a small bench top air displacement box (ADB) as a fume extractor – however this was inadequate because it acted like a disperser rather than an extractor. Employees were therefore exposed to harmful fumes from rosin-based solder flux which led to the employee

developing of occupational asthma

W S Barrett & Son Limited was fined **£12,000** and ordered to pay costs of **£1,740** after it failed to comply with three improvement notices relating to testing wood dust and powder coating local exhaust ventilation (LEV), and providing LEV for welding fume extraction. The company was first advised of the problem in February 2018 but did not act following receipt of a Notification of Contravention (NoC) letter. A further visit by HSE in December 2018 found the company had still not made the necessary improvements and the prosecution followed a subsequent visit in April 2019 showed they still had not

done the work to meet the improvement notices.

Keylighting Ltd was prosecuted after an HSE Inspector visited their premises as a result of a number of complaints about the working conditions at the site. Part of the investigation by an occupational hygiene expert found temperatures in various parts of the building ranged from just four degrees centigrade in the toilets to ten degrees in the stores and welding areas. Additionally, in the welding area, there was no ventilation to remove fumes and the protective equipment for the workers was ineffective. The company was fined **£8,000** with **£20,000** in costs.

About Clwyd Associates...

We are a management consultancy, focusing on health and safety, and SAP based in the Midlands.

We employ consultants with at least 15 years practical experience backed up by recognised professional and academic qualifications - ensuring our clients receive first class service.

UK's widening 'enforcement gap'

A flagship campaign to reverse funding cuts to enforcement agencies has been launched, arguing that local and national safety enforcement teams have been "slowly eroded".

The campaign, led by Unchecked.uk and co-ordinated by the Ecology Trust, looks at the UK's enforcement record in six areas of public protection: food, environmental, workers' rights, consumer safety, local spaces, and health and safety. Unchecked.uk calculated there was a 53% cut in funding for the

HSE between 2009-10 and 2016-17. Over the same period, the number of prosecutions brought by the regulator in England and Wales fell by 25%. Additionally, unannounced inspections were down by 40% between 2010-11 and 2016-17.

Unchecked.uk pointed out that investment in a strong, effective HSE was of fundamental importance to UK growth and competitiveness, yet the agency's budget has been slashed over the past ten years.



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