

WLO

COSHH essentials for welding, hot work and allied processes



This information will help managers of welders, solderers and other hot metal workers comply with the Control of Substances

Hazardous to Health Regulations 2002 (COSHH), as amended.

It is also useful for trade union safety representatives.

Hot work is any process that generates flames, sparks or heat.

This series includes guidance for welding, soldering, cutting and surface preparation.

This sheet describes good practice for managing controls for exposure to welding and cutting fume, etc.

Advice for managers

Introduction

Welding fume (which includes irritating gases such as oxides of nitrogen and ozone) can cause irritation and 'metal fume fever'. In the longer term, it can lead to lung diseases, and increase the risk of occupational asthma and cancer. Fume and dust from allied processes can cause lung disease and occupational asthma. Abrasive blasting produces a great deal of dust that includes metals, metal oxides and may contain respirable crystalline silica. There is an increased risk of lung disease.

Each situation is different. The risk depends on the process, the metal, the rod and flux, surface contaminants, and where the task is done.

Can you use alternative joining, cutting or surface preparation methods that produce less fume or dust? Get safety data sheets - can you select safer consumables?

Action

By getting the advice, you have assessed the health risk. But before acting, make sure the advice really fits your situation. Following all the advice means that you will normally comply with Workplace Exposure Limits. Read the advice in each of the sheets you downloaded. Compare it with what you do now.

You may already have the right controls in place, but are they all working properly? When were they last checked? Are they always used when needed?

You need to keep all controls in good working order. This means mechanical (eg extraction, respirator), administrative (eg supervision, health surveillance) and operator (following instructions). Look at all aspects of the advice. Don't pick and choose - the points work together to provide 'adequate control'. See sheet G406 for advice on engineering controls.

Show that control is being sustained – keep good records. You need to carry out health monitoring (see sheet G401 or for rosin-cored solders, G402).

If you are in doubt, seek expert help. Remember, just because the advice means that you have to change old working practices or spend

money on new controls, that doesn't make it unsuitable! Decide how best to make any changes required 'across the board'.

If you do need expert help, please don't give up. Ask your trade association, trade union, or log onto www.bohs.org.

Facilities

Provide clean facilities; a washroom, showers, storage for clean and contaminated work clothing, and a refreshment area. Provide coveralls that do not retain dust.

Information, training and supervision

Tell workers that fume and dust from welding and allied processes can cause lung disease, which leads to disablement and early death. There are also risks of asthma and cancer.

Train and supervise workers - you need to make sure they are doing the job in the right way, and using controls properly to reduce their exposure as low as possible. Include supervisors and managers in health and safety training.

Training should include:

- how to use the controls and how to check that they are working;
- how to maintain and clean equipment safely;
- how to use and look after personal protective equipment (PPE); and
- what to do if something goes wrong.

Remind workers to check any respiratory protective equipment (RPE) every time they put it on.

Supervision means checking workers:

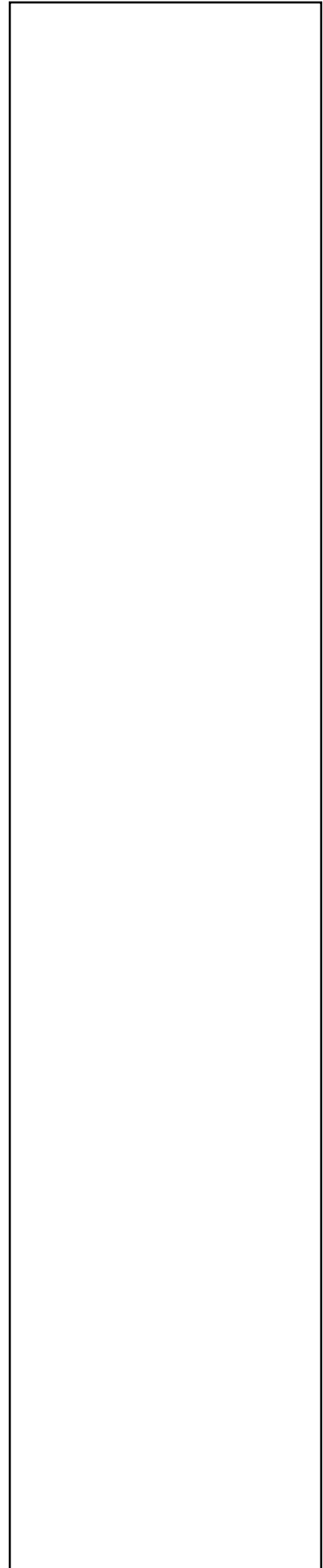
- use the controls provided;
- follow the correct work method;
- turn up for health monitoring; and
- are following the rules on personal hygiene.

Contractors also need supervision. Find out if they are bringing hazardous substances on site, and how they will protect your workers from them.

Environmental guidelines

Releases may be regulated within the Pollution Prevention and Control (PPC) framework. Your local authority or the Environment Agency will advise you if PPC applies to your company, and about air cleaning and discharging emissions.

In Scotland, consult the Scottish Environment Protection Agency (SEPA). For more information, see www.netregs.gov.uk/netregs.



COSHH essentials for welding, hot work and allied processes: Advice sheets

Generic sheets

WL1	Workshop ventilation
WL2	Forced ventilation
WL3	Fixed extraction: Welding booth or downdraught bench
WL4	Moveable extraction: Fume hood on a flexible arm
WL5	Respiratory protective equipment (RPE)
WL6	RPE used with forced ventilation
WL7	RPE used with engineering controls
WL22	Expert advice

Specific task sheets

WL8	Oxy-gas welding and brazing
WL9	Manual metal arc (MMA) or stick welding
WL10	Metal inert gas (MIG) and metal active gas (MAG) welding
WL11	Tungsten inert gas (TIG) welding
WL12	Flux-cored arc (FCA) and metal-cored arc (MCA) welding
WL13	Resistance (spot) welding: Fixed equipment
WL14	Gas and oxy-gas cutting
WL15	Arc-plasma cutting: Fixed equipment
WL16	Arc-air gouging (air-carbon arc gouging)

Allied processes

WL17	Soldering: Hand-held with lead-based, rosin-cored solders
WL18	Surface preparation: Pressure blasting (small items)
WL19	Surface preparation: Pressure blasting (medium-sized items)
WL20	Surface preparation: Pressure blasting (large items)
WL21	Weld cleaning with pickling paste

Other hazards in this industry

Hot work

Heat stress

Flash-back

Sparks

Gas leaks (fuel gas, inert gas, oxygen)

Noise

Electrical hazards

UV radiation (eyes and exposed skin)

Manual handling

Work near chlorinated degreasing tanks

Work at height

Work in confined spaces

Slips and trips

This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance as illustrating good practice.