

Health and Safety

Bulletin

Hot Work Risks

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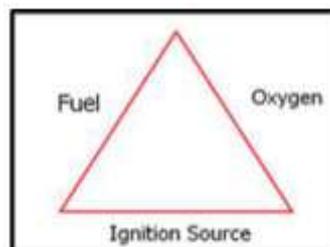
Permit-to-Work training is one of our most popular in-house courses – and normally the focus is on managing hot work risks. Most businesses have to manage hot work in their premises at one time or another – if you are an office based business this may involve controlling soldering on heating or water supply systems, or for manufacturers it will possibly include welding or grinding.

How should the risks of hot work be identified?

Unsurprisingly (since this is the answer to most health and safety risk management questions!), it should start with a risk assessment. Where hot work is involved, we have guidance in terms of the categories of hazards to be considered in terms of the fire triangle.

So for example:-

Fuels: may include lower risk combustibles (which require more energy to ignite such as furnishings, cardboard, paper, wood) and/or highly flammable materials such as natural gas, cleaning solvents and petrol. If you have a significant volume of highly flammable materials on site, there should be a specialist risk assessment available (required under the



Dangerous Substances Explosive Atmospheres Regulations (DSEAR)) and this should provide you with guidance on how fuel-related hot work risks should be controlled around these higher risk fuels.

Oxygen: it's obvious that the most common source of oxygen is the air, but if you have supplies of pure oxygen, such as gas cylinders or oxidising agents, these increase the risk of fuels igniting.

Ignition sources: most hot work permit procedures

on welding, grinding and cutting. However, even lower risk ignition sources may start a fire if the fuels and sources of oxygen increase the risk.

Managing hot work risks

Once the hazards have been identified, the significant risks should be managed – these measures are likely to take two forms, preventative and mitigation controls.

Prevention controls focus on reducing the risk of the fire starting. Common examples include clearing the area of fuels, ensuring the equipment being used for the hot work is in good condition and that the people using it are competent.

Mitigation controls provide for equipment and procedures to minimise the risk that, should a fire occur, it will cause serious harm. This may involve providing a fire watcher, who has a suitable fire extinguisher and means of raising the alarm close to hand, and also raising the awareness of others who are in the area so if they hear a fire alarm they react in a timely manner.

Conclusion

Most insurance companies focus on fire risks when they visit company premises – and this will go beyond reviewing the fire alarm system. Many fires occur during or following hot work, and controlling the hazards that might cause a fire, rather than just considering how fires are tackled once they have occurred, is the most effective way of minimising the moral, legal and financial consequences.

Do you carry out hot work? Are you confident that your systems and procedures for controlling hot work are adequate?

Do you store high risk fuels on your site? Have you considered whether you need to comply with DSEAR?

For further advice contact Clwyd Associates!

Recently issued health and safety information:

- National Counter Terrorism video on the steps to take in the rare event of a firearms or weapons attack – Run Hide Tell
<https://www.gov.uk/government/publications/stay-safe-film>
- IOSH guide to managing mobile workers' safety, health and security
<http://www.iosh.co.uk/en/News/New%20guide%20to%20managing%20mobile%20workers>
- HSE's assessment for pushing and pulling tasks - RAPP tool
<http://www.hse.gov.uk/pubns/indg478.pdf>
- EH60: Nickel and its inorganic compounds: Health hazards and precautionary measures
<http://www.hse.gov.uk/pubns/eh60.pdf>
- RPHS on health effects of commuting – Health in a Hurry
<https://www.rsph.org.uk/our-work/policy/championing-the-publics-health/health-in-a-hurry.html>

Automatic External Defibrillator Training mandatory

The Health and Safety Executive (HSE) has announced that from 31 December 2016, all first aid training providers will be required to train workplace first aiders in the use of an automated external defibrillator (AED) on all first aid at work courses.

The change is in response to updates to the resuscitation guidelines which place more emphasis on the role of an AED in treating a casualty who is unresponsive and not breathing.

Case Law update

This issue focuses on cases associated with the control of ignition sources near flammable substances

A company that cleans and refurbishes industrial-size refrigeration containers was prosecuted by the HSE following a fire at their site. A brazier was being used to burn rubbish in an area where thinners were being used to clean marks off the containers. The HSE stated the company had not assessed the risks involved in using and storing paint thinners, and had fallen far below the standard of risk control expected. They were found guilty under DSEAR and fined a total of **£22,500** and ordered to pay **£9,243** in costs

A worker was using an angle grinder to cut a hole in a fuel storage tank, when sparks ignited flammable vapours causing flames to erupt. In a panic, the worker inserted a high pressure water lance into a pipe opening to try to put out the fire but instead caused a blow-back

of flames to be ejected from the opening, engulfing his lower body. The worker suffered extensive burns and needed prolonged treatment and rehabilitation. In court, the HSE demonstrated that the contractors carrying out the cutting work had deviated from a safe system of work they had earlier agreed with the site's owners - instead of using cold-cutting equipment, they used a high-speed angle grinder, which produces heat and sparks. The contractor was fined **£10,000** and ordered to pay **£7,885** in full costs

A West Yorkshire firm was fined **£250,000** with **£124,896** costs after a gas explosion in an industrial bakery oven ripped through its factory - killing a father of two and badly injuring another worker. The oven had not been maintained and the worker made repeated attempts to light it with the gas supply on. When the gas finally ignited the oven door blew off and hit him

A worker was seriously burned after a foundry implemented an operation involving buckets of isopropanol. The solvent caught

fire and the court found that the company failed to provide adequate training, work equipment and personal protective equipment (PPE). The foundry was fined **£15,000** and ordered to pay costs of **£9,000**

A van driver was killed when an explosion occurred in a van travelling in County Durham. The initial investigation established that the incident was most likely to have been caused by an explosion of acetylene gas from oxy-acetylene cutting equipment being carried in the vehicle. HSE served a Prohibition Notice on the driver's employer, preventing the carriage of acetylene cylinders in closed vehicles until a number of specific precautions have been taken



HSE Inspection Plan

Occupational health is one of the major themes of the HSE's new five year strategy, and so it's unsurprising that the objective of inspections planned over 2016/17 is to focus on industries where substances that cause cancer, asthma and silicosis are regularly used.

From January 2017, the inspections will be targeting businesses that carry out metal fabrication (including those that carry out welding or use metal working fluid). The visits will focus on checking that the exposure controls are designed and maintained properly.

Clwyd Associates

We are a small management consultancy based in the Midlands. We only employ consultants and associates with at least 15 years practical experience backed up by recognised professional and academic qualifications - ensuring our clients receive first class service tailored to their needs.



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