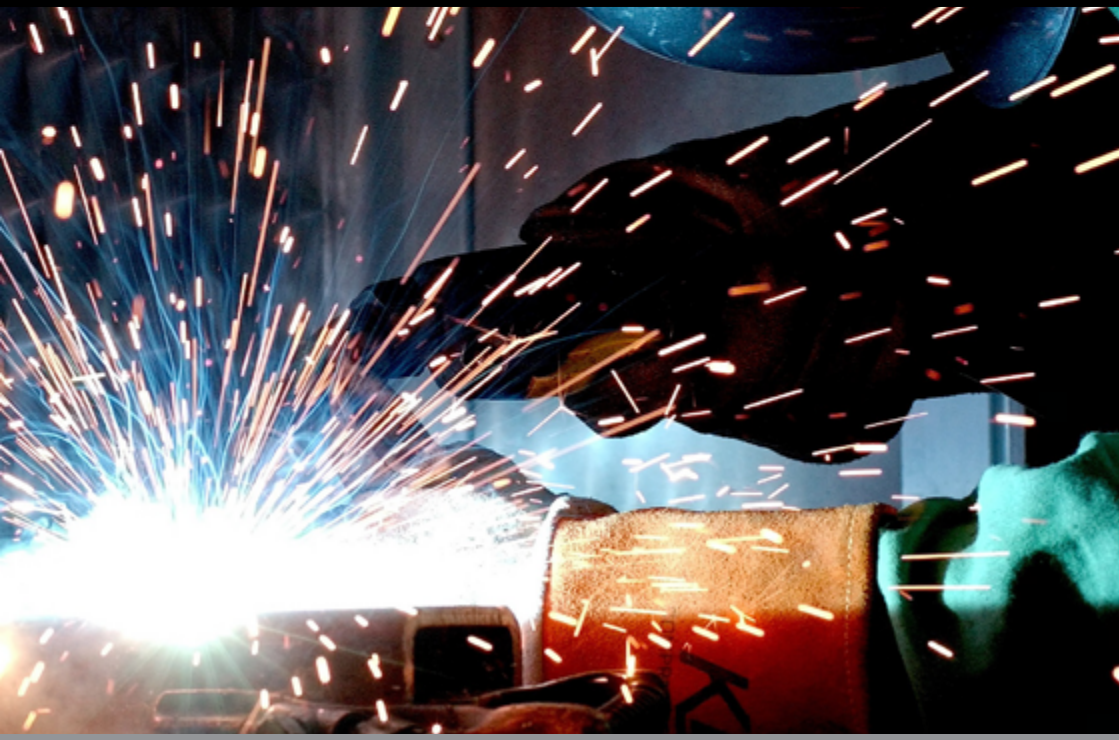
Derbyshire
Fire & Rescue Service
Making Derbyshire Safer Together

HOT WORKS

Fire Safety Advice



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Introduction

- This leaflet is designed to provide guidance for people who manage a public building or a business which is due to undertake any form of 'hot works'. It is also aimed to provide guidance for contractors who may be employed to carry out such works.

- The guidance in this leaflet is taken from the RISCAuthority RC7 - Recommendations for Hot Work Interactive PDF RC7 leaflet which is deemed to be recognised guidance from the government for hot works. Deviation from the guidance should be fully risk assessed according to your own premises and the works undertaken.

Examples of the types of hot work processes include, but are not limited to:

- **brazing;**
- **cutting;**
- **drilling;**
- **grinding;**
- **using hot air guns;**
- **using liquid petroleum gas;**
- **soldering;**
- **torch-applied roofing; and**
- **welding (including the use of acetylene)**

In addition, there are electrical hazards to consider.

Am I responsible?

If you own, manage or operate a business you need to comply with legislation through the Regulatory Reform (Fire Safety) Order 2005, or the FSO.

The FSO places a duty on any responsible person to carry out a Fire Risk Assessment and act upon their findings. The FSO applies to most buildings, structures and places which are not single private dwellings. It is your responsibility as a manager of such a place to ensure fire safety provisions meet an acceptable standard.

If you are a contractor then you have a responsibility to carry out your own fire risk assessment for the works to be done and to be aware of the general fire safety procedures and processes for the premises in which you are working. You should discuss the impact of your works with the Responsible Person for the premises and agree how you shall both minimise the risk of fire.

Why should I do this?

You have a legal and moral duty to ensure that your premises and any works carried out are as safe as practicable. Failure to meet fire safety standards can lead to;

- Serious injury or loss of life.
- Financial loss of business or premises.
- Legal action from the Fire Authority potentially leading to a fine or a prison sentence.
- Other businesses affected in your area by fire.
- High levels of, environmental, infrastructure and public amenities impacted.

What should I do?

Consider whether the works are necessary, is there another way to complete the project?

If the works are necessary carry out a Fire Risk Assessment identifying hazards specific to the project. Produce a permit of works which you and the contractor has agreed to. This should include a check list of procedures which you will carry out, before, during and after the works.

- **Do not sign off the permit of works until all of the procedures are complete.**
- **Ensure the contractor counter signs the permit at hand over.**
- **Consider how you raise the alarm in case of fire.**
- **You may need to establish a routine to check areas where the alarm is temporarily disabled.**

Before the Works

If the works are against or pass through a wall, check what is at the other side that could catch fire.

Check along any, pipes, ducting, and beams, for cracks or warping. Examine any fire resisting coatings or covering for integrity. Remember conducted heat can travel unseen along metals and cause flammable materials to combust without you knowing.

Consider housekeeping and remove items that can set fire from around the works, especially if flammable. Check the flooring, if it is combustible lay flame resisting sheets over the area.

Liase with anybody who shares the building who may be affected by the works. Discuss your plans with them and inform them of any fire safety procedures which may differ during the works.

Hot works should not start or continue any later than 60 minutes before the end of the working day.

Special areas to consider

Voids

Walls may have a void area behind them in which sparks and heat can travel. Consider insulating materials and utilities within voids.

Structural Insulated Panels and Composite Construction Panels

These are modern construction methods which can contain combustible materials. Fire can travel unseen very easily and produce rapid fire growth.

During the works

Have adequate extinguishing media within the vicinity of the area where the hot works will take place. At least one person should be trained and confident in the use of extinguishers.

Use of Equipment

Any equipment should be used in accordance with the manufacturer's instructions and checked for damage prior to use. It should be used for the minimum amount of time and not left unattended.

Blowtorches and blowlamps

- These should be extinguished and cooled off before changing a canister.
- Petrol and paraffin powered torches should only be refilled outdoors.

Electrical Welding and electrical equipment

- The power cable should be as short as possible, be able to carry the required load and not be frayed or damaged.
- Electrical connections should be made to prohibit sparking and overheating.

Gases

- Gas cylinders should be set up with appropriate safety devices, including regulators, and flash back arrestors.
- Canisters should be sited with adequate support Acetylene should be avoided where possible, if it is used extra precautions should be considered.
- There should be a minimum number of gas cylinders on site.

Tar and Bitumen Boilers

- Should be sited on a firm level surface.
- Boiling equipment should be supervised during use.
- Cylinders should be kept to a minimum amount and their hoses checked for damage.
- The burner should be off and cooled before removal.
- Bitumen and tar temperatures should be taken frequently.

Grinders

- Always use the correct type and grade of wheel or disc required.

After the Works

✓ Clear away any equipment used.

✓ Remove any stubs and discarded materials.

✓ Check the main works area is cooled, including smouldering fragments and burrs.

✓ There should be a minimum 60 minutes continuous fire watch on completion of the work.

Checklists

- A checklist should be completed by both the Responsible Person and contractor.

The check list should include details of precautions taken prior to works, activities carried out and completed during the work, and actions at the end of the works.

- The check list should include details of who has carried out fire watches and checks.
- The check list should form part of the hot works permit.

Works Permits

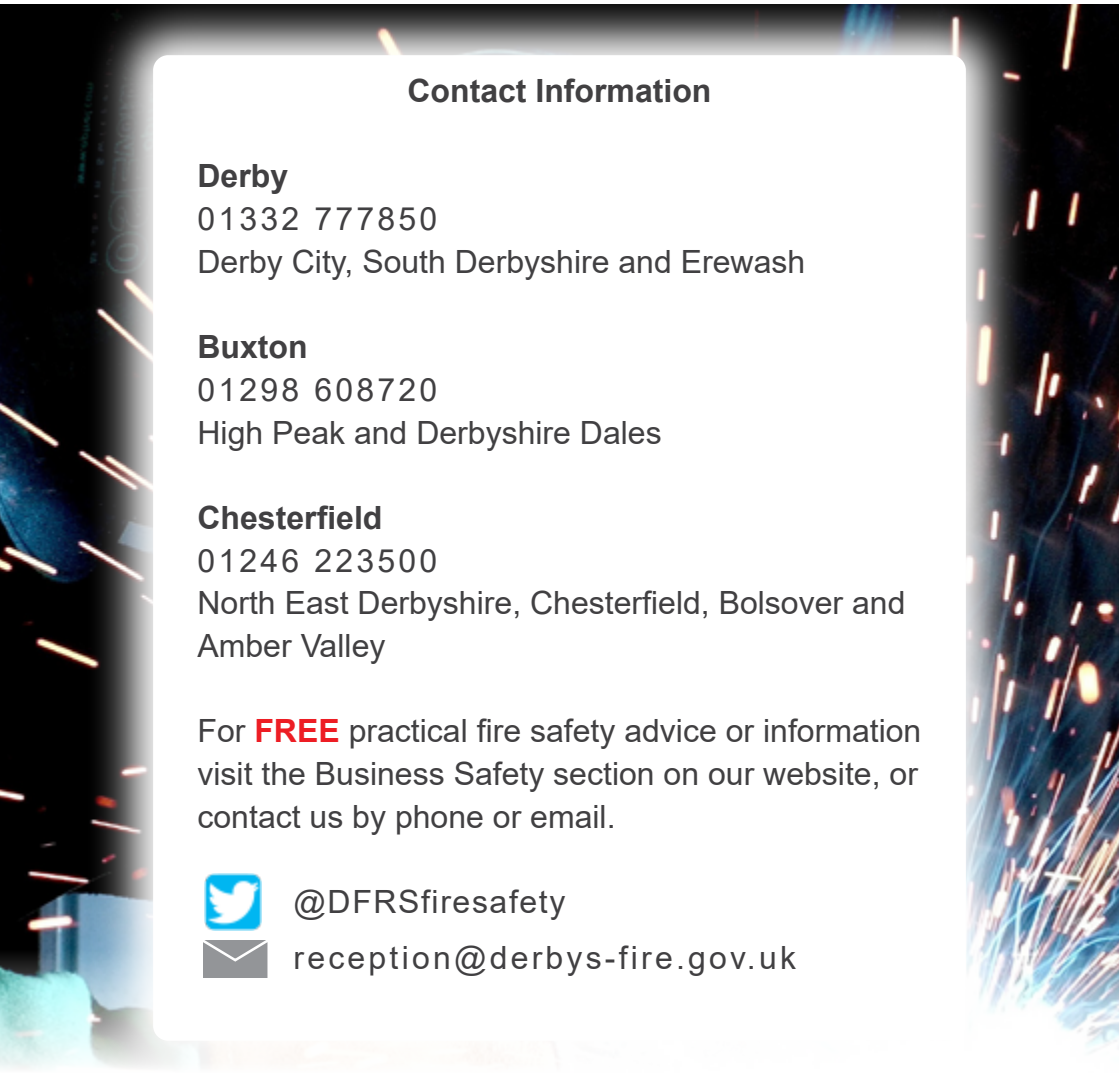
- A permit should be specific to the works.
- There should be two copies, which are both signed by the Responsible Person and Contractor.
- The Responsible Person should retain their copy.
- The permit should consider other permits for the premises.

Further Information

Further information can be found at:

https://www.riscauthority.co.uk/free-document-library/RISCAuthority-Library_detail.rc7-recommendations-for-hot-work-interactive-pdf.html

https://www.hse.gov.uk/comah/sragtech/techmeaspermit.htm



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