

## Control of Hot Work

Hot Work (welding, flame cutting, brazing, grinding and other open flame or spark producing activities) continues to be a major cause of loss in industrial, commercial, and residential premises. Fires can be avoided with proper control and management of the hot work and its surrounding area.



### Are you confident that Hot Work is being controlled properly in your organisation?

The use of a 'Hot Work Permit' is effective for controlling the hazards of hot work. However, management of hot work starts with commitment from Senior Management. This commitment should be documented in your company procedures. This achieves several things:

- It defines the approved way of operating for those who do hot work on your premises. Have the procedure signed by a senior manager such as your Health and Safety Officer, Engineering Director, Operations Director etc. This shows that it has been endorsed at the highest level and that there will be consequences for not following it.
- It takes away the reliance on an individual within the company to ensure things are done properly. If that person is off sick, on holiday or leaves the company, their diligence can be lost. A documented procedure creates a robust system, retaining the experience and knowledge within your company.
- You have something formal to audit against. If you know how something should be done, you can check how well it is being done. Having 'no fires' is not a good measure on its own.

### What should your company 'hot work control' procedure contain?

- **A Definition of Hot Work** - what constitutes hot work
- **Scope and application of the procedure** - where and to whom it applies
- **A clear directive to choose less hazardous alternatives** - do it a safer way or in a safer place
- **A dedicated 'Hot Work' permit for the control of hot work activities** - includes instructions on how to use it
- **Training requirements for hot work permit issuers** - including refresher training timescales
- **A list of employees and roles who are trained and authorised to issue hot work permits**
- **Requirements for periodic auditing of the Hot Work Control Procedure** including live and completed hot work permits.

QBE's Risk Surveyor would be happy to review your 'Control of Hot Work' procedure if you would like a second opinion.

## The Hot Work Permit

The QBE Hot Work Permit is a proven and effective tool. You can use it unchanged or modify it to suit your specific needs.

The use of a dedicated permit to control hot work activities forms part of the Hot Work Control Procedure. However, the permit isn't the thing that is going to stop the fire. That comes down to diligently following the controls and precautions that the permit lists. Many losses have occurred where 'Hot Work Permits' have been issued but only partially completed, or the precautions identified have not been properly implemented, or those issuing the permit do not recognise all the potential hazards.

When completing a permit, all the precautions listed should be assessed and verified. If they are not applicable then the permit should show this, no precautions should be left blank. Some of the controls and precautions are mandatory. If these mandatory items can't be complied with the permit should not be issued and the work not undertaken.

A copy of the issued permit should be available at the place where the work is being carried out. This allows the person carrying out the work to demonstrate that they have the appropriate permission. The permit also acts as a checklist to allow review of the conditions under which it was issued. Should any of these conditions change then work should stop and only restart when approved by an authorised permit issuer.

## Golden Rules

There are three golden rules when issuing a permit:

- **One Job:** Permits should be issued for a specific task in a specific location only after inspection of that location by the permit issuer. They aren't portable or transferrable around your site or premises. The same hot work in a different area or another piece of equipment can present totally different hazards and risks.
- **One Person:** Permits should be issued to a named individual and only for that individual to carry out the hot work. They should not be issued to a company or shared or transferred amongst a team.
- **One Shift:** Permits should not be issued for more than a standard 8 or 12-hour shift. The conditions that exist when the permit is issued may be substantially different later in the day. Those changes may require additional precautions or could make continuing the work unsafe. Extensions to permits are acceptable provided all necessary precautions are re-checked and the extension is formally documented.

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## Fire Watch

- The person carrying out the hot work should focus on the task at hand, they should not be attempting to be their own fire watch
- As a minimum, one person should be posted to perform fire watch duties during the job with a fire extinguisher or hose. It could require more people if the work is being done close to pits, trenches, or cable trays, near penetrations through walls or floors or ceilings, or on tall or combustible structures
- The fire watch should be maintained during breaks in the work and for a pre-agreed period after the job is completed
- As a minimum, post-work fire watch should be continuous for 30 minutes followed by a periodic inspection every 10-15 minutes for at least another 30 minutes. In areas with greater fire hazards due to significant presence of combustible materials or combustible construction, the periodic inspections should be extended to 2 hours or more after the work is finished
- The fire watch zone should include the place where the job is done, the surrounding areas including other sides of nearby walls, and floors above and below where the floor or ceiling is penetrated.

## Guidance and useful information

- QBE Hot Work Permit
- Factory Mutual Data Sheet FMDS 10-3 Hot Work Management.

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