

## **HOT WORK**

### **1.0 HOT WORKING**

- 1.1 Where the works require operations involving flame, cutting equipment, brazing and soldering equipment, blow lamps and other equipment producing heat or having naked flames, all work must be carried out strictly in accordance with this Specification and the instructions given on the Hot Work Permit issued by the CA.
- 1.2 Where possible prefabrication and hot work are to be carried out a minimum distance of 6m outside the building, on the ground and with no combustible materials within 6m of the Hot Work operation.
- 1.3 Where it is considered that there is no practical alternative to the use of heat-emitting apparatus then a Hot Work permit is to be completed. Each section must be filled out and the permit submitted to the CA when finished.
- 1.4 Fire extinguishers and appropriate fire-fighting equipment must be to hand during the whole of the attendance time.
- 1.5 The employer is to be notified when and where Hot Work is carried out.

### **2.0 INSPECTION**

The person inspecting the work shall consider the following:

- i) The location of the proposed Hot Work in relation to surrounding combustible materials both fixed and movable, with particular reference to substrates, the likelihood of concealed timbers, inaccessible voids, hidden cables or pipes and materials with rapid ignition such as roofing felt, or with a high degree of heat transference such as steel.

Consideration must also be given to the material and space behind the proposed Hot Work, e.g. the inner face such as wallpaper, wall hangings, panelling, and furniture placed against or near to the wall which could ignite by heat transference through the wall.

A non-exhaustive list of items that may need consideration when repairing existing roof leadwork could include:

- the presence of flammable materials such as wood shavings, birds' nests, etc.

- In valleys and parapet gutters, remove adjacent tiles or slates to expose any underlays or felt coverings that might be present.
  - Do not attempt to burn lead that has been covered with bitumen. A small flack of bitumen not cleared off will prevent a watertight joint and can be a fire hazard.
  - Check lead for underside corrosion. Where lead has thinned excessively, there is a danger of heat penetration.
  - No attempt should be made to lead burn directly the interfaces of a split. Use a patch of equivalent lead that extends a minimum of 75mm beyond the split or hole being repaired.
  - Clean both the edges of the new lead and the area of existing lead around the patch. A shave hook can be employed for cleaning.
  - The heat required for burning can only be provided by Oxy Acetylene. Weld sufficiently quickly to prevent a build up of heat in one spot.
- ii) What further investigation is necessary in order to determine the risks involved either by direct or conducted heat, such as: -
- Opening up a void.
- Stripping off roof covering.
- iii) What action to be taken to minimise and, if possible, to eliminate the fire risks, such as: -
- Removal of combustible materials.
- Clean the area to remove dust and rubbish.
- Ventilation of enclosed spaces.
- Prior saturation with water of combustible materials that cannot be removed.
- Temporary covering of immovable combustible surfaces with a 50 – 75mm thickness of damp sand.
- Removal of containers of inflammable gases or compressed gases.

The use of butane and not paraffin lamps.

Confining the Hot Work to mornings only.

- iv) What fire-fighting facilities are required, such as: -

The number and type of portable extinguishers, buckets of water and/or sand to be immediately to hand.

Fire hoses to hand.

Adequacy of water supply, and water pressure.

Nearest fire alarm.

Builder's tools for opening up roofs walls, floors, etc.

Alerting the fire brigade of the time and location of the Hot Work, and in extremely hazardous situations requesting a fire tender to be in attendance.

- v) What operatives will be permitted to carry out the hot Work: -

Suitably qualified and experienced.

Numbers to be involved never to be less than 3 (i.e. 2 in addition to the experienced operative for standby surveillance as required in (iv) and (vi).

NOTE: The accompanying person is to be present during the Hot Work operation and carry out the checks after the work has been completed.

- (vi) The "watching" and "follow up" procedure: -

During the Hot Work process the standby operatives will be in attendance with fire-fighting equipment ready for use.

Following Hot Work the person inspecting the work shall for at least 1 hour after completion of the task (except any essential minimum break, in which event alternative cover must be provided), make regular inspections of the work with particular reference to the surrounding area to ascertain that there is no ignition.

A further inspection shall be made at the end of the working day by the person inspecting in conjunction with one of the standby operatives.

- vii) A record shall be made of the Hot Work on the approved "Hot Work Permit" form and shall be returned to the Architect.

NOTE: It may be prudent to advise Insurers in advance of the Hot Work operation so that they can inspect and, if necessary, approve procedures to be adopted.