FIRE EXTINGUISHERS

At least two dry powder fire extinguishers should be located adjacent to the remelting equipment at all times which should be regularly checked and replaced after use. They should be rechecked and dated at least every six months by a competent extinguisher agent.

Operators should be trained and certificated in the use of these fire extinguishers.

PROTECTIVE CLOTHING

Hot mastic asphalt and gas burners can cause severe burns. Operatives should be instructed in their correct use and protective clothing, including gloves and footwear should be worn.

FIRST AID EQUIPMENT

Suitable equipment should always be available on all roofing sites.

Bitumen

REMELTING

Bitumen bonding compound is melted down from a solid block to a liquid state by heating in a bitumen boiler. This is done on site.

Prolonged high temperatures can change the physical characteristics of bitumen although such changes will not significantly affect its suitability for use as an adhesive in the application of built-up felt vapour control layers, or when bedding thermal insulation boards. Excessive high temperatures will increase the risk of fire.

Oxidized bonding bitumen should not be heated above 260˚C or above flash point less 15˚C, whichever is the lower. It is generally at the correct viscosity for roofing application at a temperature of approximately 240˚C. The temperature of bitumen in the boiler will normally exceed the application temperature by some 20˚C depending on air temperature and distance of carry.

EQUIPMENT

The use of a thermostatically controlled boiler is recommended but manual temperature control may be adopted using standard calibrated thermometers. Except when placed at ground level, boilers should be stood in trays to contain their content in case of spillage.

When it is necessary to place a bitumen boiler on the roof, it should be centred over a main beam that will carry the load. The boiler should be set in a tray with a greater capacity than the contents of the boiler.

The bitumen boiler performance when lit should be monitored at all times by a responsible person.

Bitumen pourers used for transporting and pouring hot bitumen should be fitted with lids as a means of maintaining the temperature of the bitumen and as an aid to safety.

FUEL

Bottled liquid gas is generally used for heating the bitumen. Bottled gas is potentially dangerous and it should always be handled with care. The specific safety regulations which apply to the storage, handling and use of bottled gas should be observed (see section on liquid petroleum gases).

FIRE EXTINGUISHERS

Fire extinguishing equipment, suitable for use on bitumen fires, should always be provided. See also 'Bitumen boilers in construction - Fire hazards ¬published by The Health & Safety Executive'.

PROTECTIVE CLOTHING

Hot bitumen and gas burners can cause severe burns. Operatives should be instructed in their correct use and protective clothing, including gloves and footwear should be used.

FIRST AID EQUIPMENT

Suitable first aid equipment should always be available on all roofing sites.

Liquid Petroleum Gases

- Operatives should be trained and certificated in the use of diesel and propane burners.
- Cylinders not in use should be stored in a lockable compound at least 6m from equipment.
- Cylinders should be set up at least 3m away from flame or heat. Do not use more cylinders than necessary.
- Gas cylinders should never be stored on their sides.
- Only armoured hose, properly connected with appropriate jubilee clips or similar, as supplied by manufacturers, should be used on all equipment.
- Pressure regulators should be fitted to all gas bottles.
- Leads, hoses and jets should be regularly checked and maintenance completed in order to ensure correct functioning.
- Clips and union joints should be tightened by the use of the correct tools.