

# Standard Fire Precautions for Contractors

*Engaged on Crown Works*

Applicable to Contractors engaged on Works for Crown Civil and Defence Estates

**1995 EDITION**

ISSUED BY THE STANDING COMMITTEE ON FIRE PRECAUTIONS

Departments represented:

Department of the Environment

Ministry of Defence

Home Office

London: HMSO

© Crown Copyright 1995

*Applications for reproduction should be made to HMSO's Copyright Unit  
First published 1995*

ISBN 0 11 753094 8

*Enquiries on works for*

**Civil Estate Contact:**

**DOE Fire Branch  
Room P1/021  
2 Marsham Street  
London  
SW1P 3EB**

**Ministry of Defence Contact:**

**Senior Fire Prevention Officer  
Defence Works Services  
P O Box 1734  
Rectory Road  
Sutton Coldfield  
B75 7QB**

# Explanatory Notes for Contractors

## Instructions for contractors engaged on building and engineering works and maintenance in all Crown premises both civil and military.

The Contractor is required to comply with the following instructions in addition to any other conditions of contract relating to fire precautions and shall ensure compliance by his sub-contractors.

The issue of these instructions does not relieve the Contractor of any responsibility for taking all other reasonable precautions as provided in the General Conditions of Government Contracts for Building and Civil Engineering Work or Joint Contracts Tribunal Contracts, as applicable.

These precautions are additional to any for which the Contractor may be responsible by statute. Contractors should be aware of their responsibilities under current legislation relating to the Work Places.

The specified precautions may be varied only on the written authority of the Project Manager or Property Manager after consultation with the departmental/project fire adviser.

### Fire hazards during building operations

- (1) Buildings in course of erection, alteration, repair or maintenance are particularly vulnerable to fire and the spread of fire because:
  - (a) Structural fire and smoke stops such as walls, doors, floors, ceilings or other fire protection measures may be incomplete.
  - (b) Combustible building materials may be stored or used.
  - (c) Techniques employed may involve flame/spark producing apparatus, flammable liquids, flammable adhesives, flammable gases or other potentially dangerous substances or processes.
  - (d) Fire protection equipment designed for the permanent protection of the building and its contents may not be in position, or operational.
- (2) A fire originating on the contractors site may put at risk personnel and property within or adjacent to the boundaries of the site works.
- (3) Similarly, in occupied buildings, staff and visitors in another part of the same building could be in danger from a fire originating within the contractors area of control.
- (4) Buildings of historic and architectural value are virtually irreplaceable and call for the greatest care especially as they do not conform to present day fire standards.
- (5) Other buildings may contain valuable installations or be used for hazardous operations which require special considerations.

- (6) The Contractor should be aware that he may be obliged to obtain fire certificates for the buildings in his charge, from the Health and Safety Executive under the 'Fire Certificates' (Special Premises) Regulations 1976'.

**Visits by Department Fire Staff/Advisers**

- (7) The project or departmental fire adviser, as applicable, should visit building works to check on fire precautions. Their services are available to give on the spot advice through the Project Manager or the Property Manager.

**Co-operation with fire services**

- (8) Facilities are to be granted for the MOD or Local Authority Fire Services to make themselves familiar with buildings in the course of erection or alteration. The Contractor may be required to provide information about potential fire hazards and fire fighting facilities.
- (9) Any suggestions from fire services for additional fire precautions are to be forwarded to the Project Manager.

# Contents

## Explanatory Notes for Contractors

<b>Standard fire precautions</b>	1.01	General site precautions	
	1.02	Refuse disposal	2
	1.03	Segregation and temporary protective coverings	2
	1.04	Highly flammable liquids	3
	1.05	Flammable liquids	3
	1.06	Spraying of highly flammable liquids	4
	1.07	Flammable adhesives and timber preservatives	5
	1.08	Paint stripping	5
	1.09	Explosives	5
	1.10	Compressed gas cylinders	5
	1.11	Hot work	6
	1.12	Asphalt and bitumen boilers	7
	1.13	Machinery	7
	1.14	Temporary electricity supply	7
	1.15	Temporary heating arrangements and drying out	8
	1.16	Redundant petroleum and oil storage tanks	8
	1.17	Underground or windowless accommodation	8
	1.18	High buildings	9
	1.19	Work on existing premises	9
	1.20	Smoking	9
	1.21	Fire patrols	9
	1.22	Fire extinguishers	10
	1.23	In case of fire	10
	1.24	Reporting on fires	10
<b>Annex</b>		Explanatory notes	11
<b>Annex A</b>		Hot work permit – Crown buildings	13
<b>Annex B</b>		Hot work permit – MOD buildings	15

# Standard fire precautions

## 1.01 General site precautions

- 1 Means of escape is a safe route within the structure provided for persons to travel from any point in a building to a place of safety without outside assistance. Contractors are to ensure that adequate means of escape for their staff are provided during the construction stage of all new buildings and that all means of escape in existing buildings undergoing refurbishment or modernisation are kept unobstructed and available. Where this is not practicable alternative routes must be agreed with the occupier. Routes should be properly signed.
- 2 The contractor is to provide a plan of the proposed layout of the temporary buildings, works and services to the project/property manager who will advise as necessary. The plan should show:
  - (a) layout of contractors and sub contractors buildings;
  - (b) arrangements for storage including flammable liquids and compressed gasses.
- 3 The contractor is to ensure that the temporary buildings are at least 6 metres apart and separated from the building under construction by at least 10 metres wherever possible.
- 4 Where the distance is less than 6 metres the temporary buildings must be constructed to a one hour standard of fire resistance, including windows and doors.
- 5 Should the contractor wish to construct temporary buildings within the building structure then prior permission must be obtained from the Department/Project Manager/Property Manager concerned. When permission is granted, additional fire precautions will be necessary including automatic fire detection throughout the site hut complex. This should be connected to a permanently manned station or a 24 hour monitoring facility. See 1 .17 and 1 .18.
- 6 Construction works should be sequenced to achieve the early installation and operation of:
  - (a) Compartment walls
  - (b) fire escape staircases
  - (c) dry risers operational to the floor below that floor currently under construction
  - (d) planned automatic sprinkler installations
  - (e) automatic fire detection system
- 7 In large projects or when specified by the contractor's insurers in their policy, a Site Fire Safety Co-ordinator must be appointed who will prepare a Site Fire Safety Plan and appoint Fire Marshalls and Deputy Fire Marshalls to assist in implementing the plan.
- 8 The Contractor is to provide the Project Manager and Property Manager with details of any proposed changes of lay-out and additions to accommodate sub-contractors.

- 9 Access to the site is to be at least 3.1 m wide and 4 m high and kept clear for use by fire service vehicles and capable of taking a minimum carrying capacity of 12.5 Tons.
- 10 Fire hydrants are to be kept clear and readily accessible. Hydrant indicator posts and plates, and hydrant pit covers are not to be removed or obscured.
- 11 Grass and undergrowth is to be kept short within 6 m around buildings and stores. Only a safe non-combustible and non oxidising type of weed killer is to be used.

## 1.02 Refuse disposal

- 1 **Refuse should not be burned on site**
- 2 Combustible refuse, eg shavings, packing materials, etc., are to be collected at least once a day and removed to a safe place at least 10 m from all buildings, stacks of combustible material and storage of petrol, oil, etc. Efficient arrangements are to be made to contain the collected refuse and regularly remove it from the site. Any departure from the arrangement must be approved in writing with the departmental fire adviser.

## 1.03 Segregation and temporary protective coverings

- 1 The contractors working area should normally be separated from the occupied parts of any building under refurbishment/renovation/alteration or extension by construction providing a minimum ½ hr fire resistance.
- 2 Care should be taken to ensure that the means of escape in case of fire is maintained during these operations for both staff and contractors.
- 3 Where it is considered necessary on general areas and escape routes to provide temporary protection of vertical or horizontal finished surfaces including furnishings, during the building/alteration/refurbishment of premises, the protection provided should satisfy the non slip safety and fire retardency requirements as follows:-
  - (i) To comply with the Health & Safety Executive (HSE) safety guidelines the protective covering is to be non slip and the joints are to be taped to prevent a trip hazard. Heavy duty tape should be used for all joints in the horizontal and vertical planes.
  - (ii) Protective covering materials should be approved by the Loss Prevention Council (LPC) to Loss Prevention Standard LPS 1207 (Fire Requirements for Protective Covering Materials published by The Loss Prevention Council) and be listed in the LPC "List of Approved Products and Services".
 

Manufacturers claiming to have LPC approval must mark the material in the following manner:

    - a. The name or identification mark of the manufacturer.
    - b. A clear statement in a colour contrasting with the colour of the covering, having letters not less than 25 mm high; FLAME RETARDANT COVERING, MEETS LPS 1207, printed together with the LPC Product Approval Logo and Certificate No.
 

Note: Materials not printed and identified in this way have not been approved by the LPC and should not be used.
    - c. Where appropriate, the trade name of the protective covering.
- 4 Building materials which are combustible or are packed with easily ignitable material are to be kept in locked stores or rooms secure against intrusion.

- 5 Packed and dangerous substances should be stored in accordance with the segregation tables on page 4 of Health and Safety Executive Guidance Note HS(G)71; "STORAGE OF PACKED DANGEROUS SUBSTANCES".

**1.04 Highly flammable liquids** – flashpoint below 32°C

- 1 Any relevant requirements of the Highly Flammable Liquids and Liquefied Petroleum Gases Regulations 1972 are to be complied with, together with the Health Safety Guidance Note HS(G)51 and the Petroleum Consolidation Act 1928.
- 2 Highly flammable liquids are to be kept in strong screwcapped cans, steel barrels, drums or jerricans all capable of being securely closed. Petrol containers are to be marked "PETROLEUM SPIRIT - HIGHLY FLAMMABLE". Containers for other flammable liquids are to be appropriately and legibly marked.
- 3 The containers are to be kept in either
  - (a) a locked metal bin (maximum contents 270 litres (60 gallons)) and capable of containing a spillage equal to the largest container, provided by the contractor and kept outside the building or
  - (b) in a well ventilated locked hut having a concrete base, brick walls (or corrugated iron on a brick dwarf wall) and a non-combustible roof. The base to be surrounded by an imperforate, non-combustible sill 150 mm high.
- 4 Lockers and stores are to be marked to indicate the contents and to warn against smoking, eg "PETROLEUM-SPIRIT HIGHLY FLAMMABLE. NO SMOKING. NO NAKED LIGHTS".
- 5 Highly flammable liquids or gases are not to be exposed within 6 m of a naked flame, electrical apparatus capable of igniting vapour, or any other possible source of ignition.
- 6 Decanting of the liquids is to be carried out in the open air. Caps and stoppers are to be replaced securely on *all* containers when not in use.
- 7 Only sufficient quantities of the liquid for immediate requirements shall be taken from stores. Empty containers are to be securely capped and returned to store.
- 8 Tanks of petrol engines are not to be filled whilst the engines are running.
- 9 Flammable liquids are to be stored and used only in a manner agreed by the Project Manager and approved by him in writing.

NOTE: Further guidance on compressed gases is given in 1.10.

**1.05 Flammable liquids** – flashpoints between 32°C-66°C

- 1 Containers of paraffin oil or other flammable liquids are to be stored in:
  - (a) secure metal binsOR
  - (b) detached buildings of non-combustible constructionOR
  - (c) the open air well away from buildingsOR



- (d) a well ventilated room having a minimum fire resisting standard of one hour construction approved by the Project Manager or the Property Manager.

*Note: Flammable liquids stored by methods (a) and (d) are to be limited to 50 litres (11 gallons) in occupied buildings.*

- 2 Flammable paints in quantities over 50 litres are to be treated as flammable liquids.

- 3 Diesel Plant

- (a) Tanks should be appropriately designed for the storage of Petroleum products and contained within a purpose built bund capable of holding 110% of the total tank volume.
- (b) The fill point and dispense points shall be suitably banded to prevent spillage of product onto the ground.
- (c) There is not a hazardous area associated with diesel fuel, a class III product, however, tanks shall be suitably protected to prevent accidental damage from passing vehicles

## **1.06 Spraying of Highly Flammable Liquids**

- 1 Any relevant requirements of the High Flammable Liquids Liquefied Petroleum Gases Regulations 1972 are to be complied with. Guidance is given in Health and Safety Executive – Guidance Note EH9: “Spraying of Highly Flammable liquids”.
- 2 The Contractor is to provide adequate and safe means of escape in case of fire from all parts of the working area. He is to ensure that the process will not hazard means of escape from any other part of the premises.
- 3 Operators are to be made aware of the dangers of the process and instructed not to smoke, use matches or cigarette lighters or to operate electric switches or electrical appliances in places where vapour may be present, other than those designed for use in such environments.
- 4 Portable sources of ignition are to be removed from the working area. Permanent sources of ignition are to be made safe, sufficiently remote or not used.  
  
N.B. Electric switches or other apparatus sited within 1.2 m of floor level which are capable of producing sparks or high temperature are particularly likely to ignite heavy vapours.
- 5 “NO SMOKING” notices are to be displayed at the approaches to and within the working area.
- 6 Adequate ventilation is to be provided and maintained until the vapours have cleared. In most cases mechanical ventilation, complying with the requirements of the Highly Flammable Liquids and Liquefied Petroleum Gases Regulations 1972, will need to be provided.
- 7 Doors to other rooms and corridors are to be closed when not in use.
- 8 Only sufficient solution for the day’s work is to be taken to the working area and exposure of the liquid is to be kept to a minimum. Caps and lids are to be replaced securely on containers, including empties. All containers are to be returned to the main store at the end of the day’s work.

- 9 Rags or “masking” material, on which the highly flammable spray deposits may have accumulated, are to be collected and placed in a metal container with a close fitting metal lid and safely disposed of at the end of each working period.

### **1.07 Flammable adhesives and timber preservatives**

The precautions in 1.06 are to be observed as far as they apply eg when laying floors, applying insulation materials to ductwork, applying preservatives to structural timber and woodworm or beetle control.

### **1.08 Paint stripping**

- 1 In modern buildings and beyond 6 metres from combustible material in historic/listed buildings paint removal may be by means of
  - (a) Blowlamps or
  - (b) electric element paint strippersFor these operations a hot work permit is required (see 1 .11).
- 2 Within 6 metres of combustible material in any historic/listed building, paint/ varnish and polish removal, is only to be by means of liquids conforming to BS 3761 or by abrasion.
- 3 Electric element paint strippers are not to be left in contact with combustible material and the plug is to be removed from the socket during meal breaks whenever the equipment is left unattended and at the cessation of work for the day.
- 4 Deposits of all stripped materials are to be collected at the end of each day and disposed of safely.

### **1.09 Explosives**

Explosives, including cartridge operated fixing tools, are not to be used without the written permission of the Project Manager\Property Manager. Where permission is granted only cartridges for immediate use should be kept in the makers box with the tool. After use the contents should be checked and the box locked and returned to a secure non-combustible store.

All other requirements of Health and Safety Guidance Note PM14 and the Explosives Act 1875 are to be strictly adhered to.

### **1.10 Compressed gas**

- 1 Any relevant requirements of the Highly Flammable Liquids and Liquefied Petroleum Gases Regulations 1972 and Health and Safety Guidance Note CS6. “The storage and use of LPG on construction sites” are to be complied with.
- 2 All cylinders are to be kept away from sources of heat or potential fire risks regardless of whether or not the gas they contain is flammable.
- 3 Full and empty cylinders when not in use are to be kept in a safe position under cover in the open air or in an external store which the contractor is to provide. The store is to be constructed of non-combustible materials; well ventilated and free from risk of outbreaks of fire.
- 4 Cylinders containing flammable gases eg acetylene, propane, are to be stored separately from those which support combustion eg oxygen, compressed air or those with toxic contents eg chlorine. Empty cylinders are to be separated from full cylinders and are to be indicated by suitable notices.

- 5 When handling cylinders, care is to be taken not to damage valves.
- 6 Only the cylinders required for operating an appliance may be brought into a building or enclosed space. In the case of liquefied petroleum gas cylinders the capacity shall not be greater than 15 kg.

N.B. Unlike towns mains gas, liquefied petroleum gases eg butane and propane, are heavier than air and will accumulate at low level.

#### **'HOT WORK' IN SOME HISTORIC BUILDINGS MAY BE PROHIBITED**

### **1.11 Hot work**

- 1 "Hot work" processes such as welding, cutting, brazing, lead burning and the use of blowlamps, plumbers furnaces, asphalt and bitumen boilers and other flame or spark producing apparatus shall not be permitted within 6 metres of combustible material. Any person using such techniques, must first obtain permission in writing from the Project Manager or Property Manager. In addition, a Hot Work Permit is to be obtained before each and every occasion these techniques are used (see sub paragraph 2 below).
- 2 If a contractor is permitted by the Project Manager/Property Manager to carry out a "Hot Work" process as part of the contract he is to apply in advance for a Hot Work Permit (see Annex A or B\*). The officer issuing the Hot Work Permit will stipulate any additional precautions which he considers to be necessary.

\* The permit at Annex A is for non MOD projects and Annex B for MOD projects.

- 3 A competent person with a hose reel or an adequate number of suitable fire extinguishers is to stand by during the 'HOT WORK' and make regular inspections of the site area for 2 hours after the completion of the work to safeguard against the outbreak of fire.
- 4 All litter, rubbish and combustible material is to be removed from the vicinity of the work. Where combustible material is fixed and immovable (eg timber floors and skirting boards), it is to be protected with non-combustible material such as sheet metal or a fire blanket.
- 5 Special care is to be taken to prevent flame, sparks or molten metal reaching combustible material along or down ducts, channels, chases, or open-ended pipes, or through holes in walls and floors by stopping with an adequate thickness of fire resisting material.
- 6 The possibility of damage by heat which may be conducted by metal work, eg through partitions, is to be investigated and combustible material in contact with such metal is to be removed. The competent person (see paragraph 3 above) must check at regular intervals.
- 7 Flame or spark producing apparatus is not to be used on or near containers of flammable liquids or compressed gases, even if the containers are empty. (Refer to Section 1.16).
- 8 Apparatus is not to be left alight when unattended.
- 9 No "Hot Work" is to be commenced within two hours of work ceasing unless the Project Manager gives written permission.
- 10 A fire watch is to be maintained during rest periods and other temporary cessations of work.

- 11 Immediately after completion of work the "Danger Area" is to be examined closely by the person responsible for the work.

NB: The "Danger Area" may extend to cavities, voids, rooms, cupboards, ducts or other concealed spaces where despite precautions, flame, hot sparks or conducted heat may have penetrated.

- 12 On MOD sites the permit to allow work in Petroleum hazardous areas shall comply with JPS 317 and procedures for work in Petroleum Installations. Guidelines for hot work for example, welding and cutting, should be in accordance with the Health and Safety Precautions Guidance Note HS(G)5 Hot Work Welding and Cutting on Plant Containing Flammable Materials.

## **1.12 Asphalt and Bitumen Boilers**

- 1 Boilers for asphalt or other bituminous materials should stand on a firm level site in a safe place at least 6 metres clear of combustible material.
- 2 Gas cylinders should be set up at least 3 metres away, stored upright and the number of cylinders kept to the minimum necessary.
- 3 Boilers are not to be left unattended when alight unless they are sited in the open at ground level well clear of buildings, plant, etc.
- 4 The boiler is to be fitted with a thermostat control designed to cutout when contents reach the correct temperature.
- 5 Where the site of operation creates a risk to the buildings etc., the boiler is to be placed within a tray/bund, with sufficient capacity to hold the contents of the boiler.
- 6 The boiler is to be fitted with a lid.
- 7 The hose to the cylinders must not be damaged or perished and all connections must be correctly secured.
- 8 Fire fighting equipment must be available, approximately 2 metres from the boiler and inspected daily.
- 9 The following professional bodies set standards and keep members informed of any hazards or improvements to working practices.
  - (i) The National Federation of Roofing Contractors
  - (ii) The Flat Roof Contractors Advisory Board

## **1.13 Machinery – see also 1.04**

- 1 Internal combustion engines are to be sited only in well ventilated positions, with exhausts well clear of combustible materials.
- 2 Portable machinery likely to exude oil is to be so arranged as to avoid soaking any combustible material.

## **1.14 Temporary electrical supply**

Temporary electrical services are to comply with BSCP 1017 Distribution of Electricity on Construction and Building Sites. Cables are to be carefully routed and protected to avoid damage and be maintained in good condition. The Electricity at Work Regulations should also be referred to.

### **1.15 Temporary heating and cooking arrangements and drying out**

- 1 Slow combustion stoves are to be used only if they are installed in accordance with the Building Regulations applicable to new appliances.
- 2 The use of fireplaces is prohibited unless it is certain that there is no structural fault in flues or hearths, a fixed curb is provided, and the prior written consent of the project manager is obtained.
- 3 Temporary electric heating appliances are to be of the enclosed type, securely fixed above floor level and guarded. Where such heaters are used for drying out clothes they should be thermostatically controlled with adequate ventilation. Coat stands and drying racks must be firmly positioned at a safe distance from the heaters.
- 4 Electric kettles are to be of a type incorporating a safety cut-out which will operate if they boil dry. They are to stand on non-combustible bases when in use.
- 5 Cooking facilities should be by electrical or gas cookers (portable gas rings should not be used) properly installed with adequate ventilation.
- 6 Unflued paraffin heaters are to conform to BS 3300; portable oil burning fan assisted air heaters to BS 4256; and space heaters burning liquefied petroleum gases to BS 4096.
- 7 The precautions to be taken in the use of transportable industrial space heaters are to conform to BSCP 3008.
- 8 Paraffin oil is to be stored in accordance with Section 1.05. Heaters and lamps are to be extinguished before refuelling which is to be carried out in a safe place in the open air.
- 9 Open braziers are not to be used inside buildings.

### **1.16 Redundant petroleum and oil storage tanks and pipelines**

If redundant petroleum or oil storage tanks and pipelines are on site the Project Manager or the Property Manager is to be consulted prior to the commencement of any work as to whether they are to be left in position or removed. Specialist fire and safety advice is essential to comply with safety regulations prior to any cutting or hot work. Further guidance is given in Health and Safety Guidance Note HS(G) No 41 "Petrol Filling Stations: Construction and Operation" paragraphs 155-I 61 inclusive.

### **1.17 Underground or windowless accommodation**

Underground or windowless accommodation is not to be used for combustible storage or for housing temporary offices or huts or combustible construction before the installation and testing of:

- (a) permanent hose reels, hydrants, sprinklers or other major fire fighting equipment as specified, or temporary fire fighting arrangements of a similar nature  
and
- (b) a fire alarm  
and
- (c) two lighting circuits separately fused or supplied from MCB'S/ MCCBs or equivalent protection.

## 1.18 High buildings

- 1 The permanent fire fighting wet or dry rising mains are to be made available as work progresses above 18 m. Where the Fire Officer agrees this is not practical, the Contractor is to provide temporary pipework, tanks and pumps to secure adequate water for fire fighting at the higher levels. (The cost of extra work in providing these precautions will be met by the Contractor).
- 2 The workmen's hoist/lift is to be made available for use by the fire service at any time as work progresses above 18 m until at least one of the permanent lifts is available. The local fire service is to be advised of the arrangements for access and power.
- 3 Combustible materials and flammable liquids which need to be kept in readiness for use at or above 18 m are to be kept in a locked room.
- 4 Contractor's huts are not to be erected at levels above 18 m.

## 1.19 Work on existing premises

- 1 Where the Contractor will be operating within the boundaries of any occupied or partially occupied Government or MOD establishment or adjacent to a site boundary, or has access (eg during phased handover, alterations) to occupied buildings or extensions he is to consult the Project Manager and Property Manager regarding special precautions or procedures required by the occupiers, Local Authority or Departmental regulations.
- 2 The Contractor is to ensure, in conjunction with the Officer in charge of the establishment, that the means of escape in case of fire specified by the fire adviser remain available and that occupiers are aware of hazardous operations. The contractor should also be advised of all hazards within the building prior to the commencement of work.
- 3 Stores or workshops are not to be located inside buildings which are in use as living accommodation, or in which sleeping or detention accommodation is in use.

## 1.20 Smoking

- 1 Smoking should be prohibited on the site and "NO SMOKING" signs are to be displayed.
- 2 However, on some sites smoking may be permitted in certain designated places (eg. in mess huts) if the written permission of the Project Manager/ Property Manager has been obtained. In such places, "SMOKING PERMITTED WITHIN THIS ROOM" signs are to be displayed. In places where smoking is permitted the contractor is to provide receptacles for the safe disposal of smoking materials.

## 1.21 Fire patrols

- 1 Areas containing easily ignitable material and places where flame or spark producing apparatus have been used are to be inspected at meal breaks and at the cessation of work to ensure that no conditions exist which might lead to an outbreak of fire.
- 2 Where operations entail the sealing off of a portion of the building and the area in which work is to be carried out is not patrolled by the occupier, the Contractor is to arrange for a regular patrol of the working area at intervals during the night as required by the Project Manager/Property Manager.

## **1.22 Fire extinguishers**

- 1 Appropriate and sufficient fire fighting equipment is to be provided by the contractor and maintained readily available to the work in hand.
- 2 In existing buildings the Contractor is to co-operate with the Officer in charge of the building to ensure that appropriate fire fighting equipment is available.
- 3 Arrangements are to be made for maintaining such equipment in good condition, including recharging after discharge; also for ensuring that foremen, chargehands, watchmen and key workers are trained in the location and use of fire fighting equipment.

## **1.23 In case of fire**

- 1 Prominent notices are to be displayed detailing the arrangements for calling the fire service either direct or through the site office, or as directed by the Project Manager.
- 2 In all cases of fire the fire service is to be called immediately.

## **1.24 Reporting of fires**

- 1 All fires are to be reported immediately to the Project Manager/Property Manager or his representative whether or not damage has been caused. The Contractor is to follow this up with written details of the incident to the Project Manager.
- 2 Any possible evidence as to the cause of the fire is to be preserved. The affected area is to be left untouched until after a fire investigation has been carried out by the Departments Fire Adviser.
- 3 Where Departments do not have a fire adviser available for fire investigation the Project Manager/Property Manager is to obtain a copy of the fire report from the local Fire Authority Fire Brigade/Defence Fire Service and forward to DOE Fire Branch for the statistics required by the treasury.

## HOT WORK PERMIT

### EXPLANATORY NOTES

The Health and Safety at Work etc Act 1974 requires the provision of a safe system of work. Where an operation involves the use of Flame or Spark Producing Apparatus, the Hot Work Permit must be applied for, and issued, prior to any works being carried out.

The Permit is an operational document and must be prepared by a responsible person who is familiar with the work procedures, the hazards involved and the precautions to be taken.

Sufficient sockets should be provided on the 110 volt transformer units so that appliances do not need excessively long flexes, and there is no need for 'adaptors' allowing more than one appliance to be connected to a socket. Overloading of sockets is not permitted. The electricity supply should be disconnected to sections of the building which are not in use. (This of course, does not apply to fire detection or intruder alarm systems.) Combustible materials should be removed from the area.

### SMOKING

The existence and enforcement of no-smoking policies must be made known to all visitors, contractors and their employees and be included in contract documents. Carelessly discarded smoking materials are one of the main causes of fire, particularly in living accommodation. Whenever practicable, smoking should be banned and this fact should be made known to visitors. Consideration should be given to the need for "no smoking" signs and ashtrays at entrances to buildings. Where smoking is permitted, it should be restricted to a specific place and strictly controlled.

### CONTRACTORS

A stringent prohibition must be enforced in relation to any hot work, with 'permit' procedures stated clearly in writing. A named member of staff must enforce the permit system. The arrangements must include the provision of any additional fire-fighting equipment together with implementation of other necessary fire precautions. Competent monitoring of the possible spread of fire during the whole period such tools or equipment are in use, and for a period not less than two hours after cessation of such use is essential. Due regard must be paid to weather conditions, in particular wind speed and direction.

Examples of fires started by contractors include:

- . woodwork ignited by lighted blowlamp being used carelessly for removing paintwork
- . woodwork ignited by primus stove
- . woodwork surrounding fireplace ignited by burning rubbish
- . flammable vapours from adhesives ignited by pilot light
- . sparks from oxy-acetylene cutting equipment fell down shaft and ignited waste



- . faulty electric lead to lamp ignited roof timbers
- . workmen set light to roof timbers whilst carrying out hot work on lead roof/gutterings
- . woodwork ignited by electric paint stripper
- . ignition of flammable vapours from solvents in pesticides used as a spray treatment for insects or decay causing fire in timbers

*Occupiers must be fully aware of the risk of damage by fire to an historic building during the course of repair or conversion work and all possible precautions should be taken while the work is in progress.*

These precautions include:

- . Initial consultations with architect, surveyor, local planning authority and insurer. This should include clear allocation of responsibilities for issue and receipt of the hot work permits.
- . Non-flammable solvent-type paint stripper should be used wherever possible (in preference to the use of blowlamps or electric hot air blowers).
- . When work with a blowlamp is essential this work should cease at least two hours before the end of the working day. Thorough checks for smouldering fires should be made during the next two hours.
- . Regular checks of the work place by senior personnel.

**NOTE. IN SOME HISTORIC BUILDINGS HOT WORK WILL NOT BE PERMITTED.**

# Annex A to Standard Fire Precautions

PERMIT NUMBER \_\_\_\_\_

## HOT WORK PERMIT (TO BE COMPLETED IN DUPLICATE)

VALID FOR DAY AND PERIOD OF ISSUE ONLY. A PERMIT IS TO BE ISSUED FOR EACH AND EVERY OCCASION WHEN HOT WORK IS TO BE UNDERTAKEN

Permission is granted to

Company: \_\_\_\_\_

to use \_\_\_\_\_ in the \_\_\_\_\_ (exact location)

between \_\_\_\_\_ and \_\_\_\_\_ hrs on \_\_\_\_\_ Date

The main contractor is responsible for ensuring compliance by all sub contractors.

The above location has been inspected.

A competent person will be standing by with an extinguisher/hose reel while the operation is in progress, trained in the use of such equipment. The equipment to be checked and in good working order.

There are no combustible liquids, vapours, or gases within 15m.

The operatives have had the nearest fire alarm/telephone pointed out to them and have been told what to do in the event of a fire.

All solid combustible material within 6 metres has either been removed or suitably protected against heat and sparks.

Smoking is not permitted in any building, storage shed or workshop (except in designated areas)

Additional Restrictions:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature of Project Manager/  
Property Manager: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of person responsible for the work: \_\_\_\_\_  
(After signing the top copy of the permit is to be handed to the contractor and the duplicate retained by the issuing officer).

Work areas and all adjacent areas to which sparks and heat might have spread were thoroughly inspected on completion of the operation, and two hours after, no smouldering fires were discovered.

Signed: \_\_\_\_\_

**Applicable to all operations involving flame, hot air or arc welding and cutting equipment, this includes disc cutting, brazing and soldering equipment, blowlamps, bitumen boilers and other equipment producing heat or having naked flames.**

# Annex B to Standard Fire Precautions

PERMIT NUMBER \_\_\_\_\_

**MINISTRY OF DEFENCE  
HOT WORK PERMIT  
(TO BE COMPLETED IN DUPLICATE)**

VALID FOR DAY AND PERIOD OF ISSUE ONLY. A PERMIT IS TO BE ISSUED FOR EACH AND EVERY OCCASION WHEN HOT WORK IS TO BE UNDERTAKEN

Permission is granted to

Company: \_\_\_\_\_

to use \_\_\_\_\_ in the \_\_\_\_\_ (exact location)

between \_\_\_\_\_ and \_\_\_\_\_ hrs on \_\_\_\_\_ Date

The main contractor is responsible for ensuring compliance by all sub contractors.

The above location has been inspected.

A competent person will be standing by with an extinguisher/hose reel while the operation is in progress, trained in the use of such equipment. The equipment to be checked and in good working order.

There are no combustible liquids, vapours, or gases within 15m.

All solid combustible material within 6 metres has either been removed or suitably protected against heat and sparks.

The operatives have had the nearest fire alarm/telephone pointed out to them and have been told what to do in the event of a fire.

Smoking is not permitted in any building, storage shed or workshop (except in designated areas)

Additional Restrictions:

\_\_\_\_\_  
\_\_\_\_\_

The following have been isolated, as shown:

\_\_\_\_\_  
\_\_\_\_\_

Residual hazards are:

\_\_\_\_\_  
\_\_\_\_\_

Safety precautions/protective clothing required:

\_\_\_\_\_  
\_\_\_\_\_

Safety person, ..... has been detailed, given all necessary equipment and full instructions, including actions in an emergency.

DECLARATION 1: The above location has been inspected by me and all isolations and safety precautions are satisfactory for the work.

Name ..... Signature .....  
Status ..... Date/time ..... hrs / /

DECLARATION 2: I fully understand the work to be done, the safety precautions required and actions to be taken in an emergency.

Name ..... Signature .....  
Status ..... Date/time ..... hrs / /

(After signing, the top copy of the permit is to be handed to the contractor and the duplicate retained by the issuing officer.)

DECLARATION 3: The work required has been completed and the area left in a safe condition.

Name ..... Signature .....  
Status ..... Date/time ..... hrs / /

DECLARATION 4: I have inspected the work area and am satisfied that normal working can resume. This Permit is now cancelled.

Name ..... Signature .....  
Status ..... Date/time ..... hrs / /

Work areas and all adjacent areas to which sparks and heat might have spread were thoroughly inspected on completion of the operation, and two hours after, no smouldering fires were discovered.

DECLARATION 5: The work required has not been completed. The following is outstanding:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Name ..... Signature .....  
Status ..... Date/time ..... hrs / /

DECLARATION 6: I have inspected the work area. It is not safe for normal working to resume until further work has been done. This permit is cancelled.

Name ..... Signature .....  
Status ..... Date/time ..... hrs / /

**Applicable to all operations involving flame, hot air or arc welding and cutting equipment, this includes disc cutting, brazing and soldering equipment, blowlamps, bitumen boilers and other equipment producing heat or having naked flames.**