

Combustible/ Flammable Isolation

Combustibles should be isolated from hot work area before the work is conducted. On the other hand, safety tape can be used to indicate hot work area as well as limit entry of unauthorized people.



Hot Work Precaution

Hot work activities should not be permitted in case potential fire hazards present such as impaired sprinklers, combustible walls or ceiling containing combustible insulation, explosive atmosphere, accumulation of combustible dust, etc.

Manual Firefighting Equipment

The nearest fire hose at hot work area should be on standby. Fire extinguishers must be presented within the isolated area for hot work. The safety officer must have knowledge of suitable extinguishing method for hot work and be able to operate the equipment in case of emergency.

Training

All personnel should be fully trained in safety control permit form.



HOW DOES THIS AFFECT YOUR COMPANY?

Hot work is associated with a variety of industries and operations, including machining, facility maintenance and construction. Hot work may produce radiant energy, fumes and sparks. As a result, there are potential fire and safety hazards associated with hot works.

Hot work is classified to be a leading cause of industrial fires, consistently in the top five across all industries, and it has been responsible for many of industry's most severe fire losses. Most hot work fires occur during lunch, breaks and shift changes. 76% of hot work fires are attributed to being too close to combustibles such as wood, paper, cloth, plastic, etc.

WHAT SHOULD YOUR COMPANY DO?

Hot Work Definition

The decision of hot work should be considered through various check points:

- Is hot work necessary? Any safer alternative?



Permit Form

Apply **Hot Work Permit*** or an adequate permit and limit permit validity to one working day. This should apply to site employees as well as contractors. There should be dedicated staffs with the authority and knowledge to issue hot work permits.

HOT WORK CONTROL

WHAT IS HOT WORK?

Hot work is classified as any temporary act that produces open flames, sparks or heat.

Hot work activities include:

- Welding or cutting using gas or electric
- Grinding and cutting using disc grinds
- Brazing and soldering
- Blowlamps
- Use of bitumen/tar boiler



Even though hot work is classified as one of the most common causes of industrial catastrophes, most facilities are not equipped with Hot Work Permit system as well as not familiar with hazards caused by hot work. However, having the system does not mean that the facility is fully protected. The system should be continuously improved by certified individuals and strictly applicable to all

Further Information:

Hanoi 6F, Sun Red River Bldg., 23 Phan Chu Trinh St., Hoan

HOT WORK PERMIT CHECKLIST

(The person carrying out this check should tick the appropriate boxes)

Fire Protection	
A	B
<input type="checkbox"/>	<input type="checkbox"/> (1) Where sprinklers are installed they are operative.
<input type="checkbox"/>	<input type="checkbox"/> (2) A trained person not directly involved with the hot work will provide a continuous fire watch during the period of hot work and for at least one hour after it ceases, in the work area and those adjoining areas to which sparks and heat may spread.
<input type="checkbox"/>	<input type="checkbox"/> (3) At least two suitable extinguishers or a hose reel are immediately available. Both the personnel undertaking the work and providing the fire watch are trained in their use.
<input type="checkbox"/>	<input type="checkbox"/> (4) Personnel involved with the work and providing the fire watch are familiar with the means of escape and method of raising the alarm/calling the fire brigade.
Precautions within 10 meters (minimum) of the work	
<input type="checkbox"/>	<input type="checkbox"/> (5) Combustible materials have been cleared from the area. Where materials cannot be removed, protection has been provided by non combustible or purpose made blankets, drapes or screens.
<input type="checkbox"/>	<input type="checkbox"/> (6) Flammable liquids have been removed from the area.
<input type="checkbox"/>	<input type="checkbox"/> (7) Floors have been swept clean.
<input type="checkbox"/>	<input type="checkbox"/> (8) Combustible floors have been covered with overlapping sheets of non-combustible material or wetted and liberally covered with sand. All openings and gaps (combustible floors or otherwise) are adequately covered.
	(9) Protection (non combustible or purpose made blankets, drapes or screens) has been provided for:
<input type="checkbox"/>	<input type="checkbox"/> • Walls, partitions, and ceilings of combustible construction or surface finish.
<input type="checkbox"/>	<input type="checkbox"/> • All holes and other openings in walls, partitions and ceilings through which sparks could pass.
<input type="checkbox"/>	<input type="checkbox"/> (10) Combustible materials have been moved away from the far side of walls or partitions where heat could be conducted, especially where these incorporate metal.
<input type="checkbox"/>	<input type="checkbox"/> (11) Enclosed equipment (tanks, containers, dust collectors etc) has been emptied and tested, or is known to be free of flammable concentrations of vapour or dust.
Equipment	
<input type="checkbox"/>	<input type="checkbox"/> (12) Equipment for hot work has been checked and found in good repair.
<input type="checkbox"/>	<input type="checkbox"/> (13) Gas cylinders have been properly secured.
A: In-house inspector	SIGNED: _____ NAME: _____ POSITION: _____
B: Inspector from contractor	SIGNED: _____ NAME: _____ POSITION: _____

HOT WORK PERMIT Application

ISSUING COMPANY _____ PERMIT NO. : _____

A PROPOSAL *(To be completed by the person responsible for carrying out the work)*

BUILDING: _____
 EXACT LOCATION OF PROPOSED WORK: _____
 NATURE OF HOT WORK TO BE UNDERTAKEN: _____

The above location has been examined and the precautions listed on the reserve side of this form have been complied with as indicated.

SIGNED: _____ NAME: _____
 DATE: _____ POSITION: _____
 CONTRACTOR (WHERE APPLICABLE): _____

B AGREEMENT *(To be completed by the company's Fire Officer or other nominated person)*

This Hot Work Permit is issued subject to the following conditions:

TIME OF ISSUE OF PERMIT: _____ EXPIRY TIME OF PERMIT: _____
 A FINAL FIRE CHECK OF THE WORK AREA SHALL BE MADE NOT BEFORE: _____
 ADDITIONAL CONDITIONS REQUIRED: _____

SIGNED: _____ NAME: _____
 DATE: _____ POSITION: _____

C FIRE WATCH *(To be completed by member of staff or contractor responsible for the work before returning this permit to the issuer)*

The work area and all adjacent areas to which sparks and heat might have spread (such as floors below and above, and areas on other sides of walls) have been inspected and found to be free of fire following completion of the work.

TIME INSPECTION COMPLETED: _____ (This must be at least 1 hour after work was completed)
 SIGNED: _____ NAME: _____
 DATE: _____ POSITION: _____
 CONTRACTOR (WHERE APPLICABLE): _____

TIME INSPECTION COMPLETED: _____ (This shall be conducted 3 to 4 hours after work was completed)
 SIGNED: _____ NAME: _____
 DATE: _____ POSITION: _____
 CONTRACTOR (WHERE APPLICABLE): _____

** It is not desirable to issue permits for protracted periods. Fresh permits should be issued, for example where work extends from morning to afternoon.*

** Where work is being carried out by a contractor, the issuer of the permit should ensure that the contractor has complied with the requirements prior to work being carried out, and should be satisfied that the area is free of fire when work is completed.*