

# LONGLEY PARK SIXTH FORM COLLEGE

## HOT WORK PERMIT SYSTEM POLICY

Originator:	Rob Ellis, Estates & Operations Manager
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# HOT WORK PERMIT SYSTEM

## Introduction

This procedure establishes written instructions to prevent fires resulting from temporary activities that present an open flame or one that produces heat, sparks, or hot slag. This includes, but is not limited to brazing, cutting, grinding, soldering, thawing pipes, torch applied roofing and welding. This written program requires the issuance of a Hot Work Permit before any hot work takes place.

## Scope

This procedure applies to Longley Park Sixth Form College employees and contractors who perform or supervise hot work activities in the existing building, ceilings, offices or any classroom, the courtyard or any other external area within the footprint of the site boundary.

This procedure **does not** apply to areas that are specifically designed and equipped for such operations, e.g., designated welding areas such as within the technicians rooms or when activities such as batique ironing takes place in the textile area as these areas would in themselves have their own risk assessments detailing how these activities are to be controlled.

## Responsibilities

### Authorised staff

- Ensure that all employees and contractors are aware of this policy and the strict procedures/controls are in place before any work can take place.
- Ensure anyone requesting to carry out hot work, are **competent** to do so. An assessment of whether someone is deemed competent will be made by the person authorising the permit. Authorised personnel should make a judgement on whether someone is competent to carry out hot works or not based on evidence provided on their skill, knowledge, attitude to risk, training, experience, and having an understanding of their own limitations. Where staff feel they may be unqualified or not in a position to be able to make a judgement on whether they are competent to issue a permit or not, they should seek support from the Estates and Operations Manager before allowing work to start.
- Ensure that the persons likely to be responsible for carrying out the hot works are receptive to the enforcement actions placed upon them for carrying out this type of high risk activity. Where it is felt that co operation from any contractor to adhere to this policy may prove to be difficult to achieve- ie labour resources available, bring this to the attention of the Estates and Operations Manager before work is authorised.
- Ensure that all employees and contractors are aware that any breach of this policy, may result in disciplinary action being taken against them or in the case of contractors, **be asked to leave site immediately without further access being allowed**. Contractors must be made aware that where a breach occurs, then alternative manpower arrangements would be required by the contractor to complete the remaining part of the work or systems made safe at the contractors own expense. LPSFC would require adjustments to be made to any invoicing to reflect any extra costs incurred by the breach or delays in sourcing alternative resources to complete the works.
- Ensure that the activity will not in anyway present a risk of ignition to any other peripheral activity that may give rise to fire, explosion, deflagration or detonation. Consideration must be given to activities

such as dust clouds, pressurised gases and containment, volatile chemicals, liquids or other substances, and conduction or convection related situations.

- Ensure that all employees and contractors complete a risk assessment before work starts taking into account the likely situations that may occur. The risk assessment should detail the emergency arrangements and first aid cover whilst the duration of the works takes place. The risk assessment must be signed and dated and completed by a competent person.
- Ensure that a hot work permit is issued prior to the start of work and adequate arrangements are in place to close out the permit at the end of the shift or when the work is complete. Delegating duties to open or close permits to anyone who may not have adequate competencies to deal with such arrangements are to be avoided at all costs. Only authorised are permitted to open and close a permit and arrange for the works to be carried out by the competent person. The ownership/responsibility of the permit remains with the authorised person from the start of the activity until the end. **Ownership of permits are non transferable unless authorised by the Estates and Operations Manager.**
- Ensure that all cutting and welding equipment is in satisfactory condition and in good repair. Evidence must be obtained by the way of reviewing documentation of formal visual inspections to satisfy the College that the equipment is safe, is well maintained and complies with all current legislation before the permit can be issued.
- Evidence must be gained that operators are suitably trained and competent to carry out any hot work activity and that this is documented on the risk assessment form
- Ensure satisfactory insurance cover is in place with the contract arrangements. All contractors must hold a minimum of £10 million public and employee liability insurance.
- Ensure that contractors follow College procedures and any other operational control detailed in their own safe working arrangements. Where short cuts are taken or employees are seen to not be following their own safe method of working, then swift action is taken to deal with the matter. Where necessary, any non compliance should be brought to the attention of the supervisor or if necessary, to the contracts manager or head office of the organisation employing the contractor and the Estates and Operations Manager.
- Ensure all contractors tools and equipment are stored safely whenever they are not in use during out of hour's operation and that they are all removed from site at the end of the contract.

#### Competent staff

- Agree to a zero tolerance approach in that where any breach of this policy occurs, works are brought to a halt and staff asked to leave site at their Companies own expense. All contractors must follow and use hot work procedures provided.
- Ensure that the activity will not in anyway present a risk of ignition to any other peripheral activity that may give rise to fire, explosion, deflagration or detonation. Consideration must be given to activities such as dust clouds, pressurised gases and containment, volatile chemicals, liquids or other substances, or conduction or convection related situations. It is the contractors responsibility to ensure that all these issues are considered working with the College before works commence.

- Attend briefing session with LPC staff prior to work starting to identify possible risks and control mechanisms to be applied. Contribute to the process of developing a risk assessment to support the hot work permit process and the activities due to take place.
- Ensure that a hot work permit is received prior to the start of work and adequate arrangements are in place to notify the College when the permit is to be closed either at the end of the shift or when the work is complete. Contractors are not permitted to leave site or the area where the hot works took place without first closing the permit. Any non compliance of this procedure would be considered a breach of the policy and would seriously jeopardise the remaining part of the works from taking place. Financial penalties may be applied to the contractor if the College has to provide alternative resources to ensure the site is made safe.
- Ensure that all hot works will only be carried out at the times that are allowed. Any extension that may be required, ensure suitable notification is provided to allow the extension to be given. Where hot works finish earlier than anticipated, then it will be necessary to close out the hot works permit as soon as reasonably practicable without compromising any fire watch or other safety related issue. UNDER no circumstances should the fire watch be compromised unless authorised by the Estates and Operations Manager.
- Arrange for completion of a risk assessment before starting work taking into account the likely situations that may occur. The risk assessment should detail the emergency arrangements and first aid cover whilst the duration of the works takes place. The risk assessment must be signed and dated and completed by a competent person.
- Ensure that the documented safe systems of work are strictly applied, where variations to working arrangements may require changing, these will need to be formally agreed in advance and formally documenting on the permit.
- Ensure that all cutting and welding equipment is in satisfactory condition and in good repair. Provide evidence in the form of formal visual inspections that have previously taken place to allow the College to satisfy themselves that the equipment is safe, is well maintained and complies with all current legislation before the permit can be issued.
- Attend and actively participate in training sessions or other safety briefings that are made available.
- Protect nearby personnel and passers by or other plant or equipment against heat, sparks, etc when working in occupied buildings or other high risk areas. Where any hot works generate any fumes or gasses, suitable ventilation systems must be in place to ensure that smoke or other effluents do not present other risks such as inhalation to the operator or others or which may trigger detection systems from activating, i.e. fire. Protect other areas of plant or equipment from any radiant/conductive or convective heat that may be given off during any burning process.
- Ensure all tools are safe whenever they are not in use and that they are all safely removed from site at the end of the contract.

## **Procedures**

Hot work should not be performed if the work can be avoided or performed in a safe manner. Whenever possible, practical steps should be taken for objects to be welded, cut, or heated to be moved to a designated safe location, e.g. a designated welding or safe area.

1. A Hot Work Permit must be acquired before the hot work begins. A Hot Work Permit form can be obtained from authorised personnel only. The department who are authorised to issue permits are members of the Facilities team. No other staff or department are permitted to issue these permits. Any breach of this arrangement may result in disciplinary action being taken against an employee.
2. A competent person is the person deemed responsible to safely carry out the hot work activity.
3. Both sections of the hot permit forms must be filled out fully and all the precautions taken before the permit can be issued. The permit (both copies) must remain at the hot work location until the hot work is completed. Once the works are complete, the permit will then be filed away in the fire log book held by the Facilities Technician. A copy of the completed permit will be filed with the Estates and Operations Manager.
4. All personnel (employees, contractors, building occupants) must be suitably protected against hazards generated by the work, e.g. heat, sparks, fumes, welding rays, etc. This may include use of, but is not limited to, the use of personal protective equipment, shields, screens, and where necessary local exhaust ventilation fitted to where the activity takes place. A designated person should be tasked to watch for fires starting or other residual hazards through the course of the activity taking place. This person must not be engaged in any other operation.
5. Any requirement to disable any part of the fire alarm system must be detailed on the permit. The details required to be included on the permit will include times when zones need disabling and the relevant zone number. Security personnel must also be informed of any areas that are disabled. Detection must not be left isolated for any longer than it is necessary for the hot work to take place and must be reinstated as soon as possible after works are complete.
6. Following on from **any** type of hot work procedure, there must be a fire watch of no less than **60 minutes** from when the end of the activity takes place. The fire watch must include someone who is competent and who will be in attendance of where the activity took place so they are able to raise the alarm or extinguish the fire should a problem occur. The permit cannot be closed until the end of the 60 minute fire watch period.
7. Additional suitable fire protection must be made available in the location where hot works take place. The fire watch arrangements must also include specific fire extinguishing equipment made readily available sited next to where the hot works takes place or in the immediate vicinity. Relying on existing extinguishing arrangements fitted to the building is insufficient for the process.
8. Any fire related issue or activity resulting in any discharge of extinguishers must be reported to Estates and Operations Manager/Premises Staff as soon as reasonably practicable. Any accident or injury must also be reported to College so where necessary, they can be reported inline with RIDDOR regulations.

### **Prohibited Conditions**

A Hot Work Permit will not be issued if ANY of the following conditions exist:-

- Appropriate fire fighting equipment is not readily available
- Combustible or flammable material is within 35 feet and cannot be moved or protected.
- Where this is a risk of ignition to any other peripheral activity that may give rise to fire, explosion, deflagration or detonation.

- Where there is a risk to dust clouds, pressurised gases and containment, volatile chemicals, liquids or other substances, or conduction or convection related situations.
- Floor and wall openings cannot be covered.
- Suitable ventilation cannot be performed for operators or any other building occupant.
- Any other condition that could result in undue hazards by performing the work.

### **Fire Watch**

- Must not be actively engaged in any operation of work during Permit activity.
- Must observe the local area where the hot works took place for at least 60 minutes at the end of the hot work activity before the permit can be closed.
- Ensure proper fire fighting equipment is readily available (i.e. Appropriate extinguisher for type of operation and material)
- Locate the nearest fire alarm call point
- Inspect hot work area before any hot work is conducted
- Extinguish a fire ONLY when it is safe to do so and within trained capabilities.

**NOTE** – A Fire Watch is REQUIRED to remain in the area for 60 minutes after operations cease whenever protective measures are necessary for the following conditions:

- Considerable combustible material is within 35 feet of the point of operation
- Considerable combustibles more than 35 feet away may be easily ignited by sparks
- Wall or floor openings within 35 feet expose combustibles in adjacent areas including confined spaces
- Combustibles could be ignited by conduction or radiation through metal partitions, walls, ceilings or roofs.

<b>LONGLEY PARK SIXTH FORM COLLEGE</b> <b>HOT WORK PERMIT – to be issued for all temporary Hot Work inside buildings or outside adjacent to buildings or flammable storage</b>		
<b>Site:</b>	<b>Permit No:</b>	<b>Date:</b>
Applicable to all operations involving flame, hot air, arc welding, cutting equipment, brazing, soldering, blowlamps, bitumen boilers, grinding of metals or any other equipment producing heat or having a naked flame.		
Fire Precautions Required – Tick Where Appropriate		
<ul style="list-style-type: none"> <li><input type="checkbox"/> Area cleared of all loose combustible material. Remove or protect all flammable liquids or gases</li> <li><input type="checkbox"/> Other sides of walls or partitions checked to ensure combustible materials will not be ignited by conducted heat</li> <li><input type="checkbox"/> Exposed wooden flooring or other immovable combustible material covered with sand or other non-combustible material</li> <li><input type="checkbox"/> Welding, cutting or grinding work screened using non combustible material</li> <li><input type="checkbox"/> Smoking not allowed</li> <li><input type="checkbox"/> Ensure smoke and heat detectors are rendered inoperable by                         <ul style="list-style-type: none"> <li>a) disconnection</li> <li>b) enclosing with plastic cover</li> </ul>                         To be immediately after completion of work made operable                     </li> <li><input type="checkbox"/> Gas cylinder secured in vertical position</li> <li><input type="checkbox"/> Flash back arrestors fitted to gas cylinders</li> <li><input type="checkbox"/> ‘Tar’ boilers supervised by experienced persons (see note below) and never left unattended unless switched off</li> <li><input type="checkbox"/> Gas cylinders three meters from burners</li> <li><input type="checkbox"/> Appropriate extinguishers are located in the working area</li> <li><input type="checkbox"/> Competent persons standing by with extinguishing equipment while work is in progress</li> <li><input type="checkbox"/> Check area one hour after completion of work</li> <li><input type="checkbox"/> If operating adjacent to a gas supply, turn off gas or protect piping.</li> <li><input type="checkbox"/> Check other peripheral activity that may give rise to fire, explosion, deflagration or detonation. Consideration must be given to activities such as dust clouds, pressurised gases and containment, volatile chemicals, liquids or other substances, or conduction or convection related situations.</li> </ul> <p>Note – Tar boilers and similar equipment should only be taken on roofs when permitted by the building supervisor and a non combustible heat insulating base must be provided to prevent heat igniting the roof.</p> <p>Operators to be familiar with the following:</p> <ul style="list-style-type: none"> <li>a) what to do if they discover a fire</li> <li>b) how to raise the alarm</li> <li>c) evacuation procedure (see Blue Fire Notices).</li> </ul>		
Permit Issued to ..... of .....		
Permit issued by..... of .....		
Valid from .....hrs to ..... hrs on .....		
Signed/Time ..... Signed/Time .....		

Work Specification		
Work to be undertaken:		
Location of work:		
Work to commence	Date:	Time:
Work to cease	Date:	Time:
<b>NOTE – the duration of this permit must not exceed one working shift.</b>		
<p><u>Conditions of Operation</u></p> <ul style="list-style-type: none"> <li>• The area in which the Hot Work is to be undertaken has been inspected and all combustible materials, substances or gases removed, or protected against heat or sparks.</li> <li>• Appropriate fire extinguishers or appliances are available at the place of work.</li> <li>• Equipment used for Hot Work has been inspected, is in good repair, with gas cylinders properly secured. Pre flash back arrestors are fitted where appropriate.</li> <li>• A continuous fire check is to be undertaken in the vicinity of the work for a period of one hour after completion of the work.</li> </ul>		
<p><u>Special Precautions/Comments:</u></p>		
Agreement		
<p>I declare that the above information has been made known to the Competent Person in charge of the work and consider that the location is safe to commence the works specified.</p>		
<p><b>Signature of the Authorised Person</b></p>		
Date:	Time:	
<p>I acknowledge receipt of this permit and confirm that all work will be undertaken at the aforementioned location and in compliance with the Hot Work Policy at Longley Park Sixth Form College</p>		
<p><b>Signature of Competent Person:</b></p>		
Date:	Time:	
Completion		
<p>The work area and immediate vicinity potentially affected are free of fire following completion of the work.</p>		
Inspection Completed	Date:	Time: (Minimum 1 hour from completion of work)
<p>Competent person-The above work area has been checked 1 hour after completion of work                  Signed ..... Date ..... Time .....</p>		
<p>Authorised personnel- Confirmation of Return to Permit to close it out                  Signed ..... Date ..... Time .....</p>		

**PREVENT FIRES ADVICE SHEET**

- 1. All welding/cutting operations to be carried out in confined space shall be subject to special arrangements and should not be carried out in any circumstances without first seeking authority for the Estates and Operations Manager. Examples of what may be considered as a confined space include any space of any enclosed nature where there is a risk of death or serious injury. This may include storage tanks, silos, reaction vessels, enclosed drains, sewers, open top chambers, vats, ductwork, or underground storage vessels.
- 2. Flame or spark-producing equipment has been inspected and found in good repair.
- 3. No combustible fibres, dusts, vapours, or gases of liquids to be used in the area where hot work takes place.
- 4. Work will be confined to the area of equipment specified on this permit. Blanket permits may be issued for all-new construction or whole-building renovation. However, all the precautions listed on this permit must be reviewed prior to each hot work project.
- 5. Surrounding floors have been swept clean, and if combustible, wet down.
- 6. Ample portable extinguishing equipment, i.e. hand hose or extinguishers suitable for task have been provided.
- 7. All combustibles have been relocated 35 feet from the operation and remainder protected with metal guards or flame proof curtains or covers (not ordinary tarpaulins).
- 8. All floor and wall openings within 35 feet of operation have been tightly covered.
- 9. Responsible personnel assigned to watch for dangerous sparks in work area, as well as floors above and below where work takes place as required.
- 10. Arrangements made for patrol of area, including floors above and below, during lunch or rest period, and minimum of one patrol every half hour worked.