

RiskTopics

Control of Contractors – Hot Works July 2016

Are hot works making you hot under the collar?

Introduction

After months of planning, wranglings over design and budget, liaison with neighbours and planning departments and tendering for works you finally appoint your contractor. Building works starts and you take a breather looking forward to moving in to your new or refurbished property, then the unthinkable happens... A fire caused by a negligent contractor razes your property to the ground.

Awkward questions start to get asked and you start to feel hot under the collar.

The purpose of this document is to highlight the potential consequences of a contractors activities on site and to assist our customers with the process of appointing contractors to work on their premises, whether those works be large or small, new build or just repairing a leaky flat roof.

The following discussion case highlights how a small and seemingly innocuous maintenance contract can have devastating consequences.

Discussion

As part of planned on-going maintenance works, a leisure centre entered into a repair and refurbishment contract for the replacement of flat roof coverings.

At around 09.30hrs smoke and flames were seen coming from the walls and roof where said contractors were working. Fire fighting measures were attempted but failed and the emergency services were summoned. The fire quickly spread across the timber constructed roof deck and felt covering before spreading throughout the upper floor.

Fire crews arrived from the nearby fire station and quickly deployed in view of the possibility of spread to nearby buildings. At the height of the fire, eight tenders and an aerial platform were in attendance with a total of fifty fire fighters attending the site.

The Brigade were unable to deploy fire fighters within the leisure centre and concentrated their efforts on nearby adjoining buildings. These actions were successful with the fire finally being fully extinguished by 12.30hrs.

Access to the leisure centre remained severely hampered for some time due to possible asbestos contamination issues and the need to stabilise such contamination. Other concerns were raised in respect of possible building collapse.

Not to mention how the leisure centre was to cope with the public relations, social media fallout and the demands of their paying members.

Forensic evidence suggested that the contractor did not comply with the requirements of the hot works permit or the contract itself - the area where hot works were going on was not cleared of combustible materials and the contractors did not maintain a fire watch for the requisite time period following completion of their works.

HM Government statistics show that in 2014/15 there were 237 accidental fires caused by blowlamps, welding and cutting equipment* that's a fire every one and half days. Being aware of the risks and taking simple control measures can reduce stop your works becoming one of these statistics.

Guidance

Contract terms can have a major influence over who is responsible for the cost of rectifying any damage that may be occasioned by the contractor to the existing buildings. The contract may require the employer to take out a Joint names policy, or waive rights of subrogation.

Joint Names – a policy of insurance which includes both the Employer and the Contractor (and their sub-contractors) as the insured i.e. both parties are considered one and the same

Subrogation – Right to pursue recovery against a negligent third party

In the loss example above the contract between the Governors of the school and the contractor was via a contract that required the Governors (as the employer) to take out **Joint Names** insurance cover for the existing structures, contents and the Works.

In the loss example the school's insurance policy paid the claim, a claim that will remain on their claims experience and therefore may affect their future insurance cover and insurance premiums. Potentially they could be footing the bill twice for a fire that wasn't even their fault.

The naming of a contractor as a joint insured (**joint named**) affects the insurer's right of recovery (subrogation) against a negligent contractor if that contractor or their sub-contractor has caused property damage. For this reason we would strongly recommend that such obligations are avoided wherever possible.

A joint named policy does provide the contractor with significant protection in the event that they cause damage to the property which they are working on. which is why such contracts are used. The key message here is that **it is important to be aware of the contract implications**. If the contract you select or are offered includes a **Joint Names** requirement then legal advice should be sought and consideration given as to whether the contract should be amended to mirror the level of insurance cover being offered and what the implications relating to rights of subrogation are.

Selecting the right contractor with the best skills, knowledge, and expertise and who demonstrates the right attitude to risk and risk management is also important.

The Regulatory Reform (Fire Safety) Order 2005 sets out the law on construction site general fire safety, including means of escape. In addition with any construction or building work, you have duties under the **Construction (Design and Management) Regulations 2015** and both you and your appointed contractor have responsibilities under **health and safety law**. Everyone needs to take the right precautions to reduce the risks of workplace dangers to employees, the public and your building.

You will need to satisfy yourself that the contractor you choose can do the job safely and without risks to health and property. This means making enquiries about the competence of the contractor. The degree of competence required will depend on the work. Similarly, the level of enquiries you make should be determined by the level of risks and the complexity of the job.

Examples of questions you could ask potential contractors include:

- What arrangements will you have for managing the work? For example, who will be responsible, how will the work be supervised, what checks do you make on equipment, working practices and materials etc?
- Will you be using **subcontractors** and if so how will you supervise and manage their workforce?
- Can you provide your existing risk assessments for similar jobs?
- What health and safety information and fire risk awareness training do you provide for your workers and **subcontractors**?

These questions will help you find out whether the contractor is complying with their duties under health and safety law. You can then decide how much evidence is needed to support what you have been told.

Selecting the right contractor is paramount to ensuring everyone's safety and protecting your property asset. Use the Contractor Check List in the appendices to aid in the selection of your contractor, manage their activities and inform your insurer of the contract details, if required.

One of the biggest fire risks associated with construction work is '**hot works**'. Hot work is one of many methods available to assemble or disassemble materials or machines needed for construction. Welding and torch cutting are familiar examples of hot work. Additional examples include grinding and heat applied directly, usually from a naked flame, to roof coverings particularly in relation to replacement of felt coverings on **flat roofs**.

Fire can be a particular hazard in construction work when there can be a lot of timber and other flammable materials such as adhesives, insulating materials and soft furnishings present.

Hot works can be the source of ignition for such materials.

- Hot work is not routine work
- Hot work equipment is portable and can appear anywhere
- Hot work is often needed in areas not intended for such work

It is these characteristics that drive the need to carefully assess, control, and manage all hot work.

A simple control method is the use of **hot work permits** an example of which is shown opposite.

Use the hot work permit program to manage each hot work activity conducted in non-designated areas. The permit process should incorporate elements including:

- Review of less hazardous work methods
- Project specific work method statements
- Worker qualifications
- Work area risk assessment
- Authorization to perform hot work
- Worker acknowledgement
- Periodic work areas inspections
- Final work area inspection
- Permit close out

Conclusion

Developing and implementing a written hot work permit program is an essential component of facility risk management.

A program for the control of contractors and **sub-contractors** should include measures to require permission to bring hot work equipment onto the facility premises, and full compliance with the hot work permit program when hot work is to be performed.

Management should periodically verify that the hot work program is in use for employees, contractors and **sub-contractors**.

How can we help?

To discuss any aspect of this risk insight and how we can help you with your risk management, contact us on 0800 302 9052

Acknowledgements

*Source Department for Communities and Local government Fire Statistics: Great Britain April 2013 to March 2014

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References

A copy of the Construction (Design and Management) Regulations 2015 can be found at www.legislation.gov.uk

Appendices

Appendix A – Zurich Hot Work Permit

Appendix B - Contractor Checklist for use by Colleges, Universities, Health, Public Services customers

Appendix C - Contractor checklist for use by Charity and & Social Organisations, Police, Academies, Independent Schools, Schools, Specialist Public Organisations



Contractor Checklist for use by Colleges, Universities, Healthcare and, Public Sector bodies
 Please use this checklist when appointing contractors for any building or repair/maintenance works on your premises.

This checklist should be read in conjunction with Zurich's Risk Topic Control of Contractors – Hot Works. Both documents have been designed to assist in managing the risk associated with works being conducted to your premises and will highlight where notification to Zurich is required.

Should notification to Zurich be required please submit this form to your usual Zurich contact, it should in most cases contain all pertinent information.

Employer Name _____

Location of Work _____

Is this location a Listed building and/or in a Conservation area? Yes/No (delete as appropriate)

If you have answered yes, please provide details e.g. Grade II Listed _____

Period of Work: From _____ to _____

Name of Contractor _____

Contractors Public Liability Insurance Limit £ _____

Consider if this is sufficient in comparison to the value of the property being worked upon? _____

Contract Price: £ _____

(if in excess of £500,000 please notify Zurich)

Does the contract require the employer to arrange insurance of the existing building in the joint names of the contractor? Yes/No (delete as appropriate)

Description of works being undertaken:

Are Hot Works included?

Yes/No (delete as appropriate)

(Hot Works can be operations involving flame, hot-air or arc-welding and cutting equipment, brazing and soldering equipment, blowlamps, bitumen boilers and other equipment producing heat or having naked flames and can arise when replacing flat felt roofs or copper pipework as two examples.)

If Hot Works are included please:

	Check Box
Notify Zurich	
Establish whether your contractors Public Liability Insurance contains any conditions regarding working practices, specifically those practices involving the use of heat. If conditions do apply these should be understood and checks made to ensure they are complied with.	
Ensure that a Hot Works Permit system is in operation and will be used for ALL heat work – regardless of size (note this is also likely to be a requirement of the contractors liability insurers)	
Establish a programme of periodic spot checks to ensure that the controls laid out under the Hot work Permit system are being adhered to at all times. This is even more important if any sub-contractors have been appointed	
Provide full details of hot works that are to be conducted:	

In the event that any works being undertaken involves the application of heat by means of electric oxyacetylene or other welding or cutting equipment or angle grinders, blow lamps, blow torches, hot air guns or hot air strippers 'Hot Works' then you should instruct your contractor (and/or their sub-contractors) to abide with the following precautions.

If you become aware that these precautions are not being adhered to you must instruct your contractor to cease work until they are put in place

- i) The area in the immediate vicinity of the hot work (in the case of work carried out on one side of a wall or partition including the opposite side of the wall or partition) must be cleared of all loose combustible material and all other combustible material must be covered by sand or overlapping sheets or screens of non-combustible material.*
- ii) At least 2 adequate and appropriate portable fire extinguishers in proper working order must be kept in the immediate area of the work being undertaken and used immediately smoke or smouldering or flames are detected.*
- iii) A fire safety check of the working area must be made approximately 60 minutes after the completion of each period of work and immediate steps taken to extinguish any smouldering or flames discovered.*
- iv) Blow lamps and blow torches must be filled in the open and must not be lit until immediately before use and must be extinguished immediately after use.*
- v) A person must be appointed to act as an observer to watch for signs of smoke or smouldering or flames (not applicable to the application of heat by means of blow lamps, blow torches, hot air guns or hot air strippers)*
- vi) Heating by use of asphalt, bitumen, tar, pitch or lead heaters must be carried out in the open in a vessel designed for the purpose and if carried out on a roof the vessel must be placed on a non-combustible heat insulating base.*



WARNING
HOT WORK IN PROGRESS
WATCH FOR FIRE!

In case of emergency, take these actions:

Note 1: Fire protection impairments

- Only fire alarm system smoke detectors in the immediate vicinity should be isolated to avoid unwanted alarms.
- Hot work should not be permitted in any area equipped with automatic sprinklers while sprinklers are impaired.
- Where hot work cannot be avoided during a sprinkler impairment, consult with Zurich before any hot work proceeds.

Note 2: Fire watch

- Maintain an uninterrupted fire watch throughout the work area and adjacent areas.
- This includes during lunch, breaks, and shift changes.
- After work is completed, maintain the fire watch for the timeframe indicated in Part 1 of this permit.

Hot work permit



Company name:	Permit Number:
Location:	

Authorizer name (print) _____	Date: _____
Authorizer signature: _____	Position: _____

Part 1 -- Risk assessment and authorization

Work method assessment: Have less hazardous methods been considered? Yes No
 Why are less hazardous methods not being applied? _____

Project specific work method statement:
 Will a project specific work method statement be used and copy attached? Yes No

Work by: In-house staff Contractor - name: _____
 Supervisor and Worker qualifications verified? Yes No

Work area risk assessment

Completed by: _____ Position: _____

- a. Work area is not a "hot work prohibited" area? Yes No
- b. Automatic sprinkler fully operational (see note 1 on back)? N/A Yes No
- c. Hot work equipment is functional, secure and in good repair? Yes No
- d. Within 10 m (35 ft) of the work area:
 - 1. Flammable liquids removed? Yes No
 - 2. Combustible materials removed or covered with fire resisting materials? Yes No
 - 3. Floors swept and overhead structure clean from dust, lint, and debris? Yes No
 - 4. Floor and wall openings protected against spread of sparks or embers? Yes No
- e. Does work involve enclosed equipment? (If yes, complete items 1 to 4) Yes No
 - 1. Adequate ventilation provided? Yes No
 - 2. Thoroughly cleaned to remove all flammables and combustibles? Yes No
 - 3. Flammable vapors purged? Yes No
 - 4. Purging and ventilation verified with gas detector? Yes No
- f. Fire watch (provided during and after hot work)
 - 1. Number of personnel required? _____
 - 2. Location of fire watch personnel: _____
 - 3. First aid firefighting equipment to be provided: _____
 - 4. Fire watch duration (minutes) after work complete: 30 60 >60 minutes _____

Note: 60 minute minimum for torch applied roofing
- g. Additional precaution required for this job: _____

Authorization: Work method assessment approved Work area risk assessment approved

- 1) Work location: _____
- 2) Work description: _____

Permit valid for work on: Date: _____ Times - From: _____ To: _____

Specify frequency of inspections made by the Supervisor during the hot work and the fire watch:

Frequency: Continuous 15 minutes 30 minutes 60 minutes Other _____

Part 2 -- Worker acknowledgement (completed by worker before work begins)

Worker and Fire Watch been briefed on precautions and emergency procedures? Yes No

Worker name (print): _____ Date: _____
 Worker signature: _____ Position: _____

Part 3 -- Periodic work area inspections (completed by supervisor during hot work and post-work fire watch period)

- Inspection time: ____ : ____ am / pm Work in compliance Yes No Initials: _____
- Inspection time: ____ : ____ am / pm Work in compliance Yes No Initials: _____
- Inspection time: ____ : ____ am / pm Work in compliance Yes No Initials: _____
- Inspection time: ____ : ____ am / pm Work in compliance Yes No Initials: _____
- Inspection time: ____ : ____ am / pm Work in compliance Yes No Initials: _____
- Inspection time: ____ : ____ am / pm Work in compliance Yes No Initials: _____

Description of any non-compliance and actions taken: _____

Part 4 -- Final work area inspection (completed by supervisor at end of fire watch)

Time hot work ended: ____ : ____ am / pm

- All areas where sparks or heat might have spread have been inspected with no sign of fire.
- All fire alarm detectors isolated during the work have been reinstated.
- Work completed in accordance with this permit.

Supervisor name (print) _____ Date: _____ Time: _____
 Supervisor signature: _____ Position: _____

Part 5 -- Permit close out (completed by authorizer at end of fire watch)

Permit closed based upon (check one):

- Permit and work completed in satisfactory manner
- Permit withdrawn due to: _____

Authorizer name (print) _____ Date: _____ Time: _____
 Authorizer signature: _____ Position: _____