

A low-angle, upward-looking photograph of a timber frame construction site. The image shows a complex network of light-colored wooden beams and trusses against a clear blue sky. The perspective creates a sense of height and structural complexity. The beams are interconnected with metal brackets and bolts, forming a sturdy framework. The lighting is bright, suggesting a sunny day.

# Fire Safety on Timber Frame Construction Sites

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# Timber Frame Construction

Fires on construction sites are unfortunately all too common. About 4,000 construction site fires occur annually in the UK\*.

These fires put workers lives at risk and often result in significant material and financial loss, frequently accompanied by severe disruption to project schedules with completion dates not being met.

## New Concerns

The incidence of fires on construction sites has significantly increased over the last few years. One of the main causes has been the increased use of timber and other flammable materials within construction projects.

Advances in the field of building design have meant that multi-storey high value structures are now being erected framed entirely in timber. Timber framed construction (TFC) is being encouraged due to its green credentials and is now often seen in public use buildings such as universities and in multi-storied social housing apartment blocks.

However, it should not be a surprise that a return to TFC brings with it an enhanced risk of fire. Compared to brick and concrete, timber ignites easily and burns with great intensity often resulting in a 100% loss of the structure present at the time of the incident. Furthermore, given unfavourable prevailing wind conditions and close proximity to other structures, fire spread by air borne embers and even heat transfer are worryingly common.

## The Challenge

Most fires could have been prevented had more attention been paid to planning and adoption of safe and secure working practices.

# Minimum Site Standards for Timber Framed Construction

Under the headings detailed below the Joint Code of Practice on Protection from Fire of Construction Sites and Buildings Undergoing Renovation (JCOP) sets out the specific measures that should be followed in order to aim to prevent fires on construction sites.

- 1** Site fire safety plan
- 2** Liaison with emergency services
- 3** Emergency procedures
- 4** Fire protection
- 5** Temporary covering materials
- 6** Portable fire extinguishers
- 7** Site security against arson
- 8** Temporary buildings and temporary accommodation
- 9** Site storage of flammable liquids and LPG
- 10** Acetylene
- 11** Hot work
- 12** Electricity and gas
- 13** Waste materials
- 14** Plant and vehicles
- 15** Stored materials
- 16** Smoking

Additionally Annex A to the JCOP 7th Edition gives some best practice advice regarding large timber frame building sites.

It is strongly recommended that all contractors and employers are intimately familiar with and operate in accordance with the guidance provided in the JCOP.

For those parties who are members of the UK Timber Frame Association, further guidance can be obtained from your association contact or website.

# Do's & Don'ts on Site for all Operatives

Complementary to the JCOP standards the following should apply to all employees, subcontractors & visitors to site:

## Do's on Site

- ✓ Ensure all parties on site
  - are aware of the site fire safety plan
  - receive a site induction
  - are trained in fire safety
- ✓ Ensure an adequate number of appropriate fire extinguishers & fire points are present
- ✓ Ensure use of hot works permits
- ✓ Ensure the safe and secure storage of flammable liquids, fuels & gases
- ✓ Ensure the safe operation, refuelling and parking of plant & vehicles
- ✓ Install all electrical & gas supplies to latest standards
- ✓ Fully hoard the site
- ✓ Secure the site outside of normal working hours.

## Don'ts on Site

- ✗ No smoking unless in designated area
- ✗ No burning of waste on site
- ✗ No storage of combustible materials within the works
- ✗ No accumulation of combustible waste
- ✗ No flammable temporary coverings
- ✗ No temporary buildings within 10m of construction
- ✗ No use of acetylene unless unavoidable
- ✗ No heating, drying or dehumidifying of works outside working hours
- ✗ No cooking unless in suitable canteen facility
- ✗ No careless drying of clothes.

Most Construction policies require that the insured party (or parties) fully comply with the Joint Code of Practice on the Protection from Fire of Construction Sites and Buildings Undergoing Renovation (JCOP). The measures detailed if adopted, will assist in ensuring that adequate fire detection and prevention systems are incorporated during building design and planning stages and that work on a site is undertaken to the highest standard of fire safety.



This leaflet has been produced to provide an overview of fire safety on timber frame construction sites. The information contained within this leaflet is of a general nature only and individuals or organisations should not assume the information contained within will meet with their obligations either at law or under the terms of any insurance policy. If you are in any doubt as to your obligations, reference should be made to independent legal advice or to your insurance broker. Allianz accepts no legal responsibility for any error or omission or misleading statement in this leaflet.

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