

Executive summary: Fire safety in London

Fire risks in London's tall and timber framed buildings

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<http://www.london.gov.uk/who-runs-london/the-london-assembly/publications/housing-planning/fire-safety-in-london>

Foreword



Nicky Gavron



Jenny Jones

This report sends a wake-up call to Government, the fire service, the construction industry and all public landlords in London.

Since 1666 it has been recognised that London presents some very specific challenges for building and fire regulation - and this remains true today. Two pressing challenges are the increasing concentration of high rise residential buildings in the capital, and the growing trend for timber frame construction.

As London's population continues to grow and we look to preserve London's green spaces we are going to see a lot more people living at heights - already more than half a million Londoners live in tall buildings. The drive to use more low carbon construction materials will also shape London's housing mix as it results almost inevitably in more timber framed buildings. As we build at higher densities and with more environmentally friendly materials it is vital to current and future residents that we get fire safety absolutely right.

Our report looks at ways to reduce the fire risks inherent in constructing timber framed buildings, and to improve fire safety for people living in high rise flats.

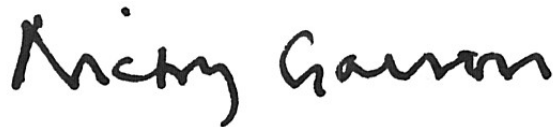
It is the task of all of those involved in the issue of fire safety to ensure that the regulations and practices that guide construction of residential properties in London are sufficiently robust and effectively enforced - no matter how the methods devised to build London's homes change.

While our report shows that timber construction can be safe and building at greater heights does not automatically equate to greater

danger, our investigation has uncovered a number of gaps in fire safety policy and practice. These must be addressed urgently to improve fire safety both while buildings are under construction, and once they are occupied.

People need to have confidence that their homes are being built strictly in accordance with the fire regulations. Those responsible for identifying the dangers must be competent to undertake the risk assessments. And finally, the residents themselves must have the information that these safety checks have been carried out and they know exactly what to do in the event of fire.

Our report makes a number of practical recommendations for change that we believe would see London's fire safety record to continue to improve, and ensure policy and practice meets our future housing and environmental challenges.



Nicky Gavron

Chair, Planning and Housing Committee



Jenny Jones

Deputy Chair, Planning and Housing Committee

Executive summary

The risk of death from fire in London's residential buildings is low. In 2008 there were 46 fire deaths, a figure lower than for those killed on motorbikes on London's roads.

In January 2010 the London Assembly called for an inquiry into the fire safety of London's tall and timber framed buildings. It was prompted by a series of fires that included the fatal Lakanal House blaze in July 2009 that cost six lives.

This inquiry was commissioned specifically to look into issues around fire safety in London's residential buildings, with a particular focus on timber frame structures and tall buildings, and to make recommendations to the Mayor of London and to Her Majesty's Government with regard to building regulations.

London's tall and timber framed residential buildings present very different issues in terms of fire safety and the potential impacts on lives and property but they are considered together in this report because these two types of buildings are set to increase in the capital.

Policy priorities demanding more new homes at higher densities and the use of sustainable materials are driving an increase in the number of tall and timber framed residential buildings in London, making improving fire safety in these types of buildings critical.

Tall residential buildings are the home for more than 527,000 Londoners. Fires at the highest levels are relatively rare but when fires occur in them they are very dangerous. The biggest risk in the event of fire is the inability for occupants to escape and evacuate the building. These risks increase significantly as buildings get higher.

The effects of fire on large timber frame construction sites are significantly greater due to the large amount of exposed wood, the rapid spread and the radiated heat that can impact on surrounding buildings. All this can affect the ability of fire fighters to tackle the blaze.

Over the last 40 years building standards and regulations have been reviewed and updated but retain a requirement for materials and construction methods to offer a minimum period of fire resistance. There is a view that the regulations have not kept pace with innovation in the construction industry and some within the design,

building and fire safety community believe that the regulations governing the way that timber framed construction have developed is flawed.

A fire test on a six storey timber framed building carried out in 1999 paved the way for greater use of this type of construction. Regulations and guidance that followed referred back to this test and rely heavily on the quality of workmanship and correct installation of various fire stopping measures to retain the integrity of the structure.

Questions have been asked as to whether the “laboratory” conditions of that test accurately reflect the reality of today’s construction sites, processes and workmanship and the performance of the material and the resilience of the system in the event of fire.

Timber frame is an approved method of construction under the Building Regulations and there is evidence that, once constructed and maintained correctly, they pose no significantly greater risk of fire than conventionally constructed buildings. Timber framed construction offers potential benefits to London but the Committee recommends that Government, in conjunction with industry partners, should take action to examine recent concerns over the safety of this building system. A review of the Building Regulations needs to focus on the relationship between current guidance and how it is being put into practice on site. There needs to be a prompt resolution to this debate to address the crisis in confidence developing in the industry.

Fire risks in timber framed buildings are greatest during the construction phase when the fire resistant elements such as internal fire separating walls, protective linings and claddings and fire stopping in cavities are incomplete. Only once the buildings are complete are all the necessary fire measures in place. The timber frame industry is working towards improving site safety, but to minimise the risk of fires spreading, the UK timber frame construction industry should actively promote to its members a variety of fire safety measures, including fire suppression systems and site security measures, that are designed to reduce the risk of fire on construction sites during non-working hours when the danger of arson or accidental fires is highest.

Because of the ferocity of fires on timber framed sites the Fire Brigade must know if it is being called to deal with this kind of fire. It should

be a requirement for all building inspectors to inform the emergency services when a timber frame building is being built.

It is vital that buildings using materials and methods of construction that have passed approval are constructed according to regulations. This is particularly true for timber frame buildings that rely on more complex fire stopping construction. The building control process should be strengthened to ensure a minimum number of visits are made during the construction process for timber framed buildings. The industry needs to identify the key and safety critical stages in the construction of timber framed buildings and ensure that inspections are made at these stages in construction.

Given the risks of fire during construction, and the likely spread and intensity of fires at that stage, timber frame buildings are not safe for occupation where there is still construction on site. Government should issue guidance to local authorities that, as a matter of strict safety policy, they do not permit the partial occupation of timber framed developments until the whole development is complete and signed off as complying with the approved building regulations.

The management of fire risk in occupied residential buildings is governed by the Regulatory Reform (Fire Safety) Order 2005 and the Housing Acts 1985 and 2004. Legislation now requires the owners of buildings or “the Responsible Person” to undertake regularly reviewed risk assessments of their buildings or to employ a competent person to do so.

The Committee has seen worrying evidence that many of these risk assessments fall below the standards required; that many staff are insufficiently trained to carry out risk assessments; and that the advice and guidance given to staff is too complex. It is unacceptable that one in five risk assessments in London are inadequate. There must be mandatory minimum standards of competence for training and accrediting fire risk assessors and this should be a legal requirement to comply with the relevant fire safety regulations.

While the conduct of risk assessments is a legal responsibility the Committee believes residents must be informed of the findings of the assessments and whatever remedial action plans are in place. By 2012 the Department for Communities and Local Government should require all social landlords to publish a full register of fire risk

assessments for the residential properties that they are responsible for. This register should be available online but also available to residents in their buildings for inspection and to tenant and residents representatives.

Over time, wear and tear and major building refurbishment, as well as professional and DIY alterations can increase the risk of fire spread in completed buildings, even if workmanship on the original construction was good. Buildings have collapsed because of uncontrolled modifications. Landlords must ensure that alterations carried out to their properties either by approved contractors or tenants do not compromise the fire safety of their buildings. The “responsible person” should work with the construction and installation trades to ensure works are carried out by appropriately certified professionals who are aware of the fire safety requirements.

Finally, one of the fundamental elements of the risk assessment process is to ensure that the people using the building understand what to do in case of a fire. All landlords should provide residents with the necessary information on what to do in the event of a fire. This advice must be tailored to the specific circumstances of each residential building, updated and communicated regularly in different languages where appropriate. It needs to form an essential part of the “key collecting” process for all new tenants and new tenants should confirm they have read and understood the information provided.

The Committee wishes to thank the following organisations and individuals that reviewed early drafts of this report for technical content and factual accuracy:

International Fire Consultants Ltd and the IFC Group

London Fire Brigade

Metropolitan Police Service

Robert S Lamb, ARIBA

UK Timber Frame Association

Recommendations

Recommendation 1

DCLG should act immediately to review Approved document B of the building regulations in relation to timber framed buildings particularly those parts which refer to BR454.

DCLG should not wait until the proposed review planned for 2012/13.

Recommendation 2

By the end of 2011 the UK timber frame construction industry should actively promote to its members a variety of fire safety measures, including fire suppression systems and site security measures, that are designed to reduce the risk of fire on construction sites during non-working hours when the danger of arson or accidental fires is highest. The HSE should then consider whether any of those fire safety measures should be promoted for use on construction sites

Recommendation 3

That the Association of Consultant Approved Inspectors (ACAI) makes it a requirement to inform the HSE and Fire Brigade that inspected buildings are being constructed using either timber frame or modern methods of construction. This should be mandatory across the building inspection industry by the end of 2011.

Recommendation 4

DCLG and the Health and Safety Executive should review the Construction (Design and Management) Regulations and the Building Regulations to ensure that the building control process is strengthened in relation to timber framed buildings. Following the review of the building regulations (set out in Recommendation 1), the industry must identify the safety critical stages of timber framed buildings (for example the installation of cavity barriers in buildings) and ensure a specified minimum number of visits are made by building inspectors during these stages.

Recommendation 5

DCLG should issue guidance to local authorities that, as a matter of strict safety policy, they do not permit the partial or full occupation of timber framed developments until the whole development is complete and signed off as complying with the approved building regulations.

Recommendation 6

By 2012, LFEPA should review whether more proactive enforcement activity is needed with managers of large scale tall residential buildings

who are not able to demonstrate a history of compliance with the Fire Safety Order.

Recommendation 7

By 2012, DCLG in association with relevant bodies such as the Local Authorities Co-ordinators of Regulatory Services (LACORS) and Chief Fire Officers Association should draw up national guidance to ensure mandatory minimum standards of competence for training and accrediting fire risk assessors.

Recommendation 8

By 2012 DCLG should require all social landlords to publish a full register of fire risk assessments for the residential properties that they are responsible for. This will enable all residents to be informed of the findings of the relevant risk assessments and whatever remedial action plans are in place. This register should be available online but also available to residents in their buildings for inspection and to tenant and residents representatives.

Recommendation 9

DCLG should write to public sector “responsible persons” as identified under the Fire Safety Order 2005 and Housing Acts 1985 and 2004 to remind them of the need to:

- Make tenants aware of the need to seek permission to undertake relevant modifications to their properties and ensure that the terms of the tenancy agreements are enforced should unauthorised actions be discovered.
- Ensure that contractors are appropriately certified professionals who are aware of the fire safety requirements.
- Ensure that inspecting for unauthorised or damaging works are part of routine estate inspections by housing staff.

Recommendation 10

DCLG should immediately write to all social landlords to advise them of their responsibility to ensure that they provide residents with the necessary information on what to do in the event of a fire. This advice must be tailored to the specific circumstances of each residential building, updated and communicated regularly in different languages where appropriate. It needs to form an essential part of the “key collecting” process for all new tenants and new tenants should confirm they have read and understood the information provided.

Social landlords should be asked to report these actions to the Homes and Communities Agency (when it takes over responsibility from the Tenant Services Authority) to ensure this takes place.

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