
EXTERNAL FAÇADE REVIEW, EMPIRE SQUARE

FirstPort

Carried out by

TRI FIRE



CONSULTANTS - FIRE ENGINEERS - SURVEYORS

OCTOBER 12, 2020

Issue - Version 1.0

Review carried out by Tri Fire Ltd

7 Bell Yard
London
WC2A 2JR

Telephone: 0203 4885 063

Email: info@trifire.co.uk

Website: www.trifire.co.uk

Quality Control	
Date checked	Office Manager – Signed
12.10.20	<i>E. Thomas</i>
	Consultant – Signed
	A.Kiziak

Contents

1	Summary	3
2	Action Required	3
3	Interim Measures.....	4
4	Standards and Legislation	5
4.1	Regulatory Reform (Fire Safety) Order 2005	5
4.2	Fire Safety in Purpose Built Blocks of Flats Guidance	5
4.3	Building Regulations & Approved Document B	6
4.4	MHCLG Consolidated Guidance	7
4.5	RICS EWS1 Form.....	9
5	Supporting Documents	10
6	Extent of Report.....	10

1 Summary

Tri Fire Ltd was commissioned by FirstPort to review intrusive surveys undertaken by FRC in relation to the external façades at Empire Square.

The intrusive survey has identified the following external façade materials which are of concern:

1. Extruded polystyrene render systems (combustible)

Our overall view is that the collective effect of the fire safety measures on the site considered holistically, as opposed to each measure in isolation, is that the external wall systems that are present have a detrimental impact on the overall fire safety of the building. The exterior of the development at this time does not comply with the consolidated guidance 'Advice for Building Owners of Multi-storey, Multi-occupied Residential Buildings' issued by Ministry of Housing, Communities and Local Government (MHCLG) in January 2020. Remedial works are required.

Our current RICS EWS1 form rating is B2, meaning:

B2 - I have concluded that an adequate standard of safety is not achieved, and I have identified to the client organisation the remedial and interim measures required

Option B is for buildings where combustible materials are present in the external wall

We recommend that an annual fire risk assessment is undertaken for the properties, in accordance with the Regulatory Reform (Fire Safety) Order 2005, by a third party accredited fire risk assessor, registered on schemes such as the IFE Fire Risk Assessor Register.

2 Action Required

In order to bring the properties to a B1 EWS1 rating the following actions are required:

1. Removal of the existing extruded polystyrene render systems, and replacement with a system achieving Euroclas A2 or better. This is likely to be a system that has a non-combustible mineral wool insulation in place of the extruded polystyrene.

3 Interim Measures

This report has confirmed a number of remedial actions that are to be undertaken relating to the external fabric of the property. An action plan should be developed for the remedial works, and these actions should be undertaken in a timely manner. However, our view is that the risk is such that there is no requirement for any interim measures, such as a waking watch, to be implemented. We have undertaken a holistic review of the property, in line with the NFCC guidance on implementing a simultaneous evacuation procedure. We are satisfied that the risk is sufficiently low that a change of evacuation procedure is not necessary. The means of escape from the building are seen to be adequate and sufficient, and the other fire safety system provided are appropriate.

4 Standards and Legislation

4.1 Regulatory Reform (Fire Safety) Order 2005

The Regulatory Reform (Fire Safety) Order 2005 is the applicable legislation relating to fire safety in non-domestic premises. Under the Fire Safety Order the 'responsible person' is required to undertake a fire risk assessment of their premises, and to ensure appropriate fire safety provisions are in place. Whilst the legislation is not applicable to domestic premises, the common areas of blocks of flats does fall within the scope of the Fire Safety Order. On 19th March 2020 the Government introduced a proposed Fire Safety Bill, which will amend the Fire Safety Order to clarify that the responsible person for multi-occupied, residential buildings must manage and reduce the risk of fire for the structure and external walls of the building, including cladding, balconies and windows.

The Fire Safety Order does not make reference to British Standards although following the recommendations given in a British Standard may be one way of demonstrating compliance with the Fire Safety Order.

4.2 Fire Safety in Purpose Built Blocks of Flats Guidance

This guide is intended to meet the needs of housing providers and enforcing authorities for guidance tailored to purpose-built blocks of flats. The document is a guide to ensuring adequate fire safety in purpose-built blocks of flats, regardless of age. Practical advice is offered on how to assess the risk from fire and how to manage fire safety in such buildings. The document also includes case studies based on the commonly found issues in blocks of flats, with suggested fire safety solutions.

The guide does not introduce new standards or regulations, but builds on existing good practice and guidance currently in place. In particular, it will help landlords, managing agents, enforcing officers and those undertaking fire risk assessments to understand the legislative requirements relating to blocks of flats and to apply them in a consistent and reasonable manner. The document does not set prescriptive standards. Its aim is to provide guidance and recommendations for use when assessing the adequacy of existing fire safety provisions in purpose-built blocks of flats.

It is intended for buildings which have been constructed as purpose-built blocks of flats. It applies to existing blocks only. Fire safety design in new blocks of flats is governed by the Building Regulations 2010 but, once a block is occupied, this guide is applicable.

As the fire risk assessment is concerned with fire safety within the common parts, the flats themselves are outside the scope of the FSO. Accordingly, the scope of the fire risk assessment required by the FSO does not include measures to protect residents from a fire in their own flat.

With regards to compartmentation, the guidance states the following:

External Façade Review, Empire Square

The external façades of blocks of flats should not provide potential for extensive firespread. When assessing existing blocks of flats, particular attention should be given to any rainscreen or other external cladding system that has been applied and to façades that have been replaced.

The use of combustible cladding materials and extensive cavities can present a risk, particularly in high-rise blocks. Restrictions are normally applied to the nature of such materials and in particular their surface spread of flame characteristics. Cavity barriers are also required in some circumstances. Assistance from specialists may be required to determine if the external surfaces of walls are satisfactory and whether there is adequate provision of cavity barriers.

4.3 Building Regulations & Approved Document B

The Building Regulation relevant to external facades is B4(1).

'the external walls of a building shall adequately resist the spread of the fire over the walls and from one building to another having regard to the height, use and position of the building.'

Approved Document B is one of a series of documents that give practical guidance about how to meet the requirements of the Building Regulations 2010 for England. These approved documents give guidance on each of the technical parts of the regulations. The approved documents provide guidance for common building situations. Document B relates to fire safety.

Approved Document B Volume 1, 2019 edition, states the following in relation to external fire spread:

The external envelope of a building should not contribute to undue fire spread from one part of a building to another part. This intention can be met by constructing external walls so that both of the following are satisfied.

a. The risk of ignition by an external source to the outside surface of the building and spread of fire over the outside surface is restricted.

b. The materials used to construct external walls, and attachments to them, and how they are assembled do not contribute to the rate of fire spread up the outside of the building.

The extent to which this is necessary depends on the height and use of the building.

4.4 MHCLG Consolidated Guidance

In January 2020 the Government's expert advisory panel issued consolidated guidance 'Advice for Building Owners of Multi-storey, Multi-occupied Residential Buildings'. In support of the Building Safety Programme, the Independent Expert Advisory Panel has issued advice on the measures building owners should take to review ACM and other cladding systems to assess and assure their fire safety, and the potential risks to residents of external fire spread.

The advice represents the Expert Panel's position on the action that building owners should be taking immediately to address the risk of fire spread from unsafe external wall systems, and also covers other issues that have been previously the subject of Advice Notes.

External walls of residential buildings should not assist the spread of fire, irrespective of height. It is important therefore to understand both the materials used in the external wall construction and whether the entire system has been designed, installed, and, maintained appropriately.

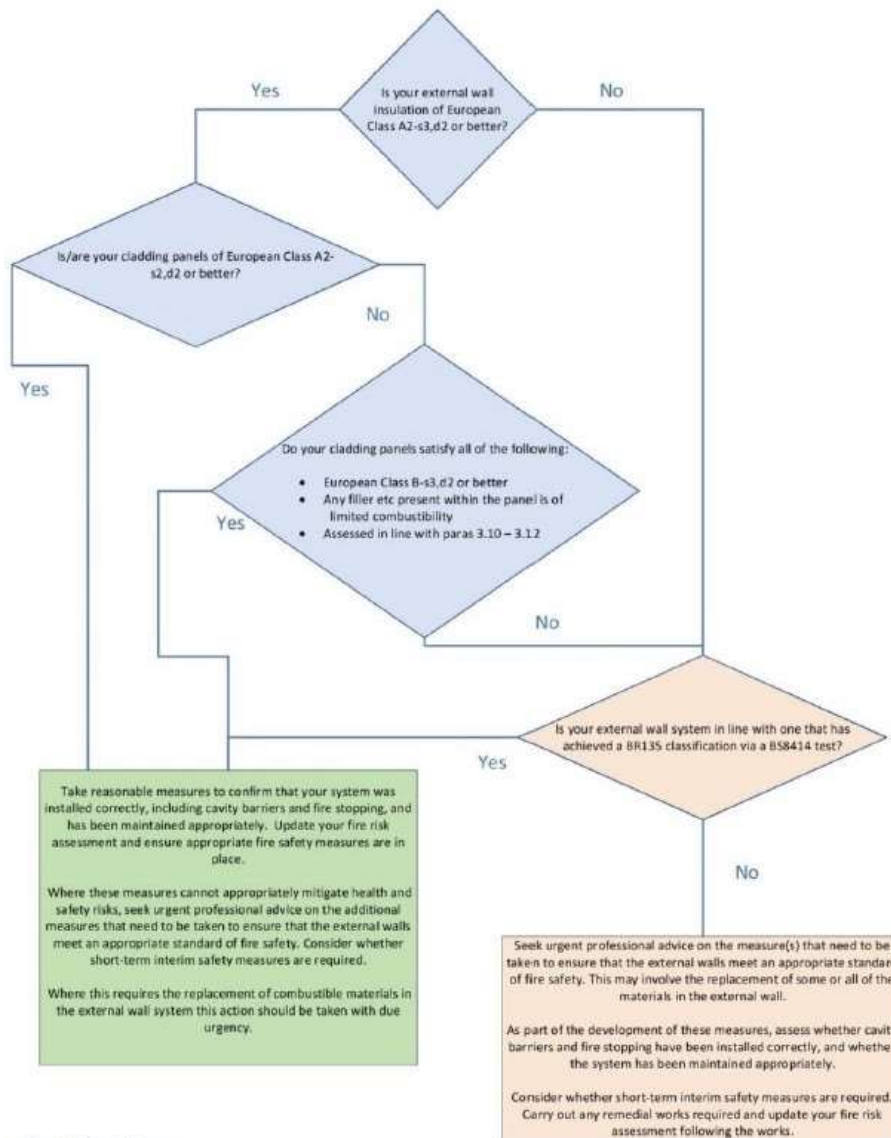
The advice is intended to assist building owners in assessing the safety of residential buildings. This advice does not replace or supersede requirements under the Building Act 1984, Housing Act 2004 or Regulatory Reform (Fire Safety) Order 2005.

When considering the risks building owners should consider the full range of risk factors. The Expert Panel's view is that the vulnerability of occupants is a significant factor in assessing this risk and, in some instances, may be more significant than building height.

For new residential buildings of 18 metres or more (or where building work is carried out on existing residential buildings of 18 metres or more), the government has introduced an effective ban, through an amendment to Regulation 7 of the Building Regulations 2010, on the use of combustible materials in external walls and specified attachments (including balconies, etc.). The ban limits the use of materials in the external wall and specified attachments to products achieving a classification of Class A1 or A2-s1,d0, subject to a number of specific exceptions.

External Façade Review, Empire Square

Diagram 1 – Process chart for assessing external wall systems



Key to Box Colour

Can be carried out by a Building Surveyor with suitable experience of fire safety in high-rise residential buildings

Can be carried out by a Fire Safety Professional with suitable experience of the fire safety of high-rise residential buildings

Requires a Chartered Engineer with suitable experience of fire safety in high-rise residential buildings

4.5 RICS EWS1 Form

The Royal Institution of Chartered Surveyors (RICS), The Building Societies Association (BSA), and UK Finance have agreed a new industry-wide valuation process which will help people buy and sell homes and re-mortgage in buildings above 18 metres (six storeys).

RICS have been led a cross-industry working group to consider best practice in the reporting and valuation of tall buildings within the secured lending arena, to agree a new standardised process. This is to be used by valuers, lenders, building owners and fire safety experts in the valuation of high-rise properties, with actual or potential combustible materials to external wall systems and balconies. This is endorsed by RICS, UK Finance, Buildings Societies Association, IRPM and ARMA. MHCLG are supportive of the approach.

The External Wall Fire Review process will require a fire safety assessment to be conducted by a suitably qualified and competent professional, delivering assurance for lenders, valuers, residents, buyers and sellers. Only one assessment will be needed for each building and this will be valid for five years.

The assessment of fire risk as described above includes that insofar as is necessary to ensure a reasonable standard of health and safety of those in and around the building, all external wall constructions and any external attachments (e.g. balconies) of the building:

Resist spread of fire and smoke so far as is reasonably necessary to inhibit the spread of fire within the building, and

Are constructed so that the unseen spread of fire and smoke within concealed spaces is inhibited, and

Adequately resist the spread of fire over the walls, having regard to the height, use and position of the building.

The assessment takes account of regulations and published design guidance as were current at the time of construction as well as those which are current at the time of this assessment. It cannot be guaranteed that it would address guidance and regulations which may be introduced in the future.

5 Supporting Documents

Supporting

- Advice for building owners of multi-storey, multi-occupied residential buildings. January 2020 by MHCLG.
- Building Regulations 2010
- Approved Document B
- Fire Safety in Purpose Built Blocks of Flats Guidance
- BS 9991:2015 - Fire safety in the design, management and use of residential buildings - Code of practice

6 Extent of Report

The report is limited to the information that has been provided.

Statements regarding the fire resistance of the external façade have been based on information provided, and typical expected resistances of materials and construction. They comprise a visual inspection of accessible areas only. No testing, measurements or calculations were carried out as part of this inspection.

The supporting evidence provided in this report has been selected to substantiate the statements made within its content. Additional photographs are available upon request.

It was not possible to verify that the observed conditions were applicable in all similar locations within the façade and therefore it cannot be assumed that are representative of the entire building envelope.

Where structure and façade elements were hidden by cladding and other coverings, the assessment was based on experience of similar buildings and construction. Where necessary, we may recommend further investigation for such items. If significant issues with the façade design beyond the scope of work have been identified, then the analysis of these defects will fall outside the scope of this commission, we will however provide comments based on our visual assessment of the issues.