STRATEGIC POLICY & RESOURCES COMMITTEE

Belfast City Council

Subject:	Grenfell Tower Fire – Update on actions of Belfast City Council
Date:	15 December 2017
Reporting Officer:	John Walsh, City Solicitor, Ext. 6042
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Is this report restricted?	**Yes**		**No**	X
Is the decision eligible for Call-in?	**Yes**		**No**	X

1.0	**Purpose of Report**
1.1	Arising from the Notice of Motion; 'Cladding on flats and high rise buildings' which was considered at the SP&R meeting of 18 August this report is to inform Members of the actions that have been undertaken in the wake of the tragedy.
2.0	**Recommendations**
2.1	Members are asked to note the contents of the report.
3.0	**Main report**
	Background
3.1	It has been nearly six months since the fire at Grenfell tower where many residents lost their lives. The inquiry into the fire has now opened, with its chairman promising it will provide answers to how the disaster could have happened in the 21st century.
3.2	The fire started in a Hotpoint fridge freezer on the fourth floor and spread to the external cladding system. The London fire brigade were faced with an unprecedented level of rapid fire spread through the tower with 40 fire engines and more than 200 firefighters tackling the blaze.
3.3	The fire affected most of the floors of the building and destroyed 151 homes, both in the tower and surrounding areas. It has recently been confirmed that 71 lives have been lost as a result of the fire.
3.4	The cladding system installed at Grenfell is the main focus in relation to the rapid fire spread over the envelope of the building. The external cladding panel was a polyethylene (PE) filled aluminum panel (ACM). The insulation installed on the tower as part of the cladding system was a polyisocyanurate (PIR) insulation material.

3.5	On 6 July an Independent Expert Advisory Panel recommended a series of large scale fire tests to establish the performance of a range of ACM panels in conjunction with a range of insulation materials in order to help building owners make decisions on any further measures that may need to be put in place.
3.6	The testing was carried out by the Building Research Establishment (BRE) and involved large scale fire tests to BS 8414 which is currently one of the methods of determining compliance with national Building Regulations across the UK.
3.7	The type of ACM and insulation material employed on Grenfell was tested and failed to meet the performance criteria contained in BRE135 - Fire Performance of External Thermal Insulation for Walls of Multi-Storey Buildings.
3.8	The Building Regulations guidance in England, which is similar to that in Northern Ireland, has been called into question and is certainly unclear with regard to ACM panels. Many industry experts hold the view that the guidance as it stands does not prevent the use of PE filled ACM's and that this must be reviewed.
3.9	On 28th July 2017 the Department for Communities and Local Government announced an independent review of building regulations and fire safety in England. This independent review will be led by Dame Judith Hackitt, Chair of EEF, the Manufacturers' Organisation, and will look at current Building Regulations and fire safety with a particular focus on high rise residential buildings.
3.10	The outcome, including any subsequent change to both regulations and guidance in England, will greatly influence any change to the Building Regulations in Northern Ireland which has closely followed the requirements in England since implementation.
	<u>Actions of Belfast City Council in relation to NIHE high rise residential blocks</u>
3.11	Since the fire at Grenfell tower the Building Control Service have been providing advice to the NIHE in relation to the external cladding systems employed on 4 of their 32 high rise residential blocks in N. Ireland.
3.12	Specifically we have carried out site inspections of the 4 blocks, all of which are in Belfast. Two of these blocks, Eithne House and Cuchulain House in the New Lodge are in the North of the city and two are in the East, Carnet House, Upper Newtownards Road and Whincroft House in the Braniel estate**.**
3.13	These inspections involved removing cladding panels to check the materials and products used and also checking fire separation measures around windows and at compartment floors and walls.
3.14	We have also reviewed the suitability of the two different cladding systems used on these blocks, both of which have undergone large scale fire testing to BS8414, and both were found to be in compliance with Building Regulations.
3.15	It should be emphasised that none of the Housing Executive tower blocks have Aluminium Composite Material, rainscreen cladding similar to that used in Grenfell tower block.
3.16	The Service have also provided advice on other aspects of fire safety in the 4 high rise blocks including methods of staircase and landing lobby smoke ventilation.
	One of our Assistant Building Control Managers, Alan Mayrs, has been nominated onto an

3.17	independent review group set up by the NIHE and chaired by Professor Alastair Adair of Ulster University. The group will assess all aspects of fire safety in relation to NIHE properties but has a central focus on high rise properties. There have been 6 meetings of the group and its findings are contained in a report which was taken to the NIHE Board on 29th November 2017.
3.18	It is important to note that once a building has been completed for the purposes of Building Regulations the Council has no power of continuing control as to how that building is maintained or operated. Nor is it the case that we can retrospectively apply the Regulations to existing buildings although improvements to fire safety may be enforced by other legislation such as the Fire Services Order if appropriate.
	<u>Evacuation procedures from high rise residential blocks</u>
3.19	Queries have been raised about the concept of the Building Regulations design guidance which advocates a 'stay put' strategy in the event of fire in a high rise apartment block.
3.20	This is a concept that only the flat on fire needs to evacuate and that all residents in all the other flats will be safe to remain in their flat unless evacuation beyond the flat of origin becomes necessary due to a growing fire. Any such evacuation would be a controlled evacuation with the Fire Brigade removing those at greatest risk first.
3.21	The reason that this concept is considered safe is that each flat is designed and constructed as a self-contained fire compartment with each flat separated from the other flats adjacent, above and below by walls and floors which are of fire resisting construction. The amount of fire resistance required is specified in periods of time and can range from 30 minutes to 120 minutes depending on the size of the development.
3.22	The flats are also separated from the common corridor or lobby area by fire resisting walls and smoke ventilation may also be required to corridors or lobbies leading to the stairs depending on factors such as travel distance, number of stairs and height of the building.
3.23	The staircase enclosures will also be of fire resisting construction and will be required to have smoke ventilation installed.
3.24	Nationally the design of residential blocks of flats under Building Regulations and the associated British Standards are based on this 'stay put' concept. To move away from this would mean a complete shift by Government from established fire safety design principles.
3.25	However following a fire in Kensington and Chelsea and in Lakanal House in Southwark in 2009 it is clear this can sometimes go wrong. We won't have any recommendations from the investigation into Grenfell for some time but there seems a strong link to the work carried out to provide an external thermally insulated over cladding system to the building. We know from the investigations at Lakanal house that the serious fire spread that occurred was strongly influenced by building works carried out to the building over many years that compromised the original fire safety features of Lakanal House. While these works were not the sole reason the fire got so out of control they were a very relevant factor.
	<u>Local experience of fire in high rise accommodation</u>
3.26	Members will be aware that a fire recently broke out in NIHE high rise accommodation at Coolmoyne House in Dunmurry. Thankfully, no-one was seriously injured and everyone was successfully evacuated from the building but there was some concern from residents that there had been no general fire alarm sounded.

3.27	However, the NIFRS confirmed that the fire alarm system had worked as intended in that the alarm in the flat where the fire occurred operated and automatic smoke vents linked to the detection system in the common areas also successfully operated in the communal hallway.
3.28	Each flat has self-contained smoke alarms, the flat in question had three smoke detectors and they worked, and other residents' alarms should not go off unless they detected smoke. It is not the case that there would be sounders in the common hallway as these are not necessary (nor advisable) for flats built in accordance with the codes.
3.29	In relation to evacuation procedures the NIFRS have issued fire safety advice for residents of high rise accommodation which can be accessed online at: - https://www.nifrs.org/fire-safety-advice-residents-high-rise-accommodation/
3.30	In addition the NIHE have also issued advice for housing executive tenants which can be accessed online at:- https://www.nihe.gov.uk/index/advice/advice_for_housing_executive_tenants/advice safety/fire_safety/highrise_buildings.htm
	Other actions of Belfast City Council
3.31	The Service have carried out a review of the building regulations requirements and guidance across the UK in relation to external fire spread over the surface of a building to inform the NIHE independent review group and to establish how our own legislation in NI compares with legislation in GB.
3.32	The Building Standards Branch (BSB) of the Department of Finance is responsible for the Building Regulations (NI) Order 1979 and for updating all fire safety requirements and guidance issued under the Regulations (Part E: Fire Safety). Since the fire we have, along with Building Control colleagues in the rest of N.Ireland, been working with BSB to review the methods of compliance and standards incorporated into fire safety guidance relevant to external fire spread and also on the issue of automatic fire suppression.
3.33	Based on these discussions an informative was issued by BSB in relation to the use of BRE 135 and large scale fire testing as a method of Building Regulations compliance in N. Ireland.
3.34	Within Building Control all our surveyors have been fully updated on the requirements and guidance in relation to external fire spread contained in Building Regulations and we have asked them all to review records over the last 2 years to ensure there are no issues in relation to external cladding assemblies in high rise buildings. To date we have not identified any buildings where the cladding has been cause for concern.
3.35	In response to a letter to the Chief Executive from the Head of the NI Civil Service requiring all public authorities to check for ACM type cladding systems (see table below for relevant premises) our colleagues in Property & Projects have reviewed all relevant Council buildings and found we have no buildings that fall within the parameters outlined.

	Trigger heights for investigation of ACM Cladding Systems

Building Use	Overnight accommodation	Trigger Height/storey*	Test?
Schools	Yes	Any height	Yes
	No	18 metres or more	Yes
Health care facilities (including Hospitals)	Yes	2 storeys or more	Yes
	No	18 metres or more	Yes
All other buildings	Yes	18 metres or more	Yes

** Height is measured from ground level at its lowest point to the upper surface of the top storey (excluding plant rooms)*

3.36	This letter was also sent to Departmental Permanent Secretaries and responses sought from them in relation health care and school buildings. Those buildings where any testing or follow up action is required will be the responsibility of the relevant government Department to address.
4.0	**Appendices**
4.1	Appendix 1 – Additional information about Building Regulations and also the role of NIFRS.

Appendix1

The current requirements under Building Regulations

The current Building Regulations are mostly non-prescriptive performance based requirements. The functional requirements of the Building Regulations mean there are many different ways of meeting the requirements using a combination of materials and techniques.

Fire safety regulations contained in the Building Regulations are a complex subject and require detailed knowledge to understand the requirements.

In the case of flats, all elements of structure including floors and stair cores are constructed to have a minimum period of fire resistance. The period of fire resistance would vary with the height of the building. Each flat is also constructed with a minimum period of fire resistance depending on the height of the building to prevent fire spread between flats.

To prevent the building from premature collapse the structural elements are protected to withstand the fire and heat for a specified period of time.

There are also provisions to prevent fire and smoke spreading unseen in cavities and concealed areas.

External walls are constructed such that the risk of ignition from an external source, the spread of flame over an external surface and the spread of fire from one building to another are restricted. In addition roofs are constructed in order to restrict the spread of flame and the potential for fire penetration from an external source. The requirements are determined by the proximity of other buildings and the boundaries.

Building Regulations cannot be retrospectively applied to existing buildings although improvements to fire safety may be enforced by other legislation such as the Fire Services Order if appropriate.

Role of the NIFRS

In high rise apartments the Fire and Rescue Service are the enforcing authority for facilities provided for the protection of firefighters, such as dry or wet risers, firefighting shafts, firefighting lifts and smoke extraction systems.

As flats are domestic premises they do not have any enforcement role as they do not fall within the remit of the Fire Services Order.

Recent advice published on the NIFRS website following the Grenfell disaster states:

“In light of this unprecedented incident, we wish to reassure people living in high rise accommodation in Northern Ireland that fires of this scale are extremely rare however we are providing fire safety advice for anyone concerned and living in a high rise building.

We carry out regular visits to high-rise buildings across Northern Ireland and our Firefighters are routinely involved in training exercises to respond to incidents in these types of buildings”.

Advice for people living in high-rise accommodation

Check if your building has a fire policy which will advise you on a specific fire safety plan for that building in the event of a fire – this will determine your emergency plan. High-rise buildings are designed to resist fire, stop the spread of smoke and provide a safe means of escape. Your

building's fire policy may dictate that you remain in your flat during an incident unless you are directly affected by the fire.

For more information visit https://www.nifrs.org/fire-safety/community-information-bulletins

If you are concerned about your fire safety or the fire safety of a family member or friend contact NIFRS Prevention and Protection Department on 028 92664221.