FIRE (common parts of high rise residential buildings)

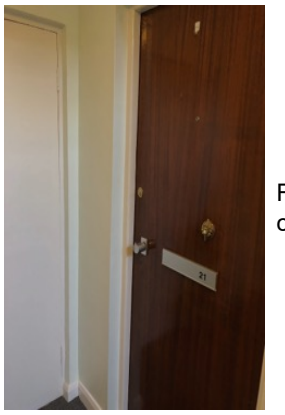
MHCLG WE 1_2018

Vulnerable age	All persons aged 60 years or over	**Multiple location**	**Yes**	No
Related Hazards	Domestic hygiene, pests etc	**Secondary hazards**	**Yes**	No

Exterior of block

Refuse outside bin store

Refuse storage at the bottom of chute



Flat entrance door with door to refuse chute lobby adjacent

Dwelling/Residential Premises:

The building is a 16 storey block built in 1975 that has been re-clad externally in 2009 - with four flats to each floor

DESCRIPTION OF HAZARD

The block had improvement works carried out in 2009 although the windows had been replaced some time earlier. The improvements included external cladding with ACM including insulation core to the whole block. There is controlled access to the building via an entry-phone system but no concierge. There is a single staircase to the block (1.2m wide clear of the handrail) and two lifts one of which is designated as a "fire lift". There are no obvious services in the stairway. There is a fire door with glazed panels on each landing between the corridor and staircase, the glazing to these is Georgian wired. These doors are marked "fire-door keep shut" and all appear in fair condition but not all close properly onto the door stops**.** There is no sprinkler system nor communal alarm system in the common parts. It is recorded in the Fire Risk Assessment (FRA) that all flats are fitted with mains operated automatic smoke detection and alarm system. Many of the entrance doors are those from when the block was built originally although some have been replaced and there is no indication from the inspection that all door-sets are fully FD30S (with cold smoke seals). It is also apparent that many of the original doors retain letter-boxes although these are redundant as mail is now delivered to lockable mail boxes in the entrance lobby of the block. The FRA (Type 1 - common parts and non-destructive only) carried out seven months prior to the inspection was seen at the time of inspection and there did not appear to be any outstanding action points, although reference was made to some of the doors. There was no signage in the common parts on what to do in the event of fire apart from not using the lifts. The wet riser test records indicate that the system is in good condition and fully charged. Each landing and the stairway have emergency light fittings and all appeared to be in working order. There is an internal refuse chute on the landing of each floor within a lobby and all appeared in working order but the doors to the refuse chute lobbies were not marked as fire doors. The refuse store on the ground floor was open and insecure and there was a spillage of refuse in the store and not all the bins had the lids in place and there was waste outside the store. There is external lighting to the site including street lights.

LIST OF RELEVANT MATTERS

LIKELIHOOD

a	Presence of cladding	**3**
b	Lack of FRA (Type 2 or 4)	**2**
c	Outstanding points from FRA	-
d	Lack/non-functioning AFD	**3**
e	Disrepair to outer surfaces	**-**
f	Disrepair to compartmentation	**2**
g	Inadequate testing of riser	**-**
h	Ducting affecting compartmentation	**-**
i	Services not in fire resistant enclosure	**-**
j	Non-functioning smoke vents	**-**
k	Non-fire resistant waste hoppers	**-**
l	Disrepair refuse chute hopper	**-**
m	External sources of fuel etc	**1**
n	Inadequate waste storage	**3**
o	Opportunity for external arson	**3**
p	External unintentional fire	**2**
q	Lack of controlled access/security	**-**

OUTCOMES

a	Presence of combustible cladding	**3**
b	Non-fire-resistant doors	**3**
c	No or non functioning AFD	**3**
d	No -fire resistant fabric	**-**
e	Disrepair to doors	**-**
f	Single route of escape	**3**
g	Width of escape route	**-**
h	Test certificate for fire-lift	**-**
i	Obstructions in escape route	**-**
j	Absence/disrepair emergency lighting	**-**
k	Dry/wet riser testing	**-**
l	Access for fire fighters	**-**
m	Fire suppressant/sprinkler system	**3**
n	Smoke vents	-
o	Refuse chute hopper(location)	**2**
p	Refuse chute hopper (condition)	**-**
q	External lighting	**-**
r	Signage	**3**
s	Distance between building & safety	**-**

Key

3 Seriously defective
2 Defective
1 Not satisfactory
- Satisfactory

HEALTH AND SAFETY RATING SYSTEM SCORES

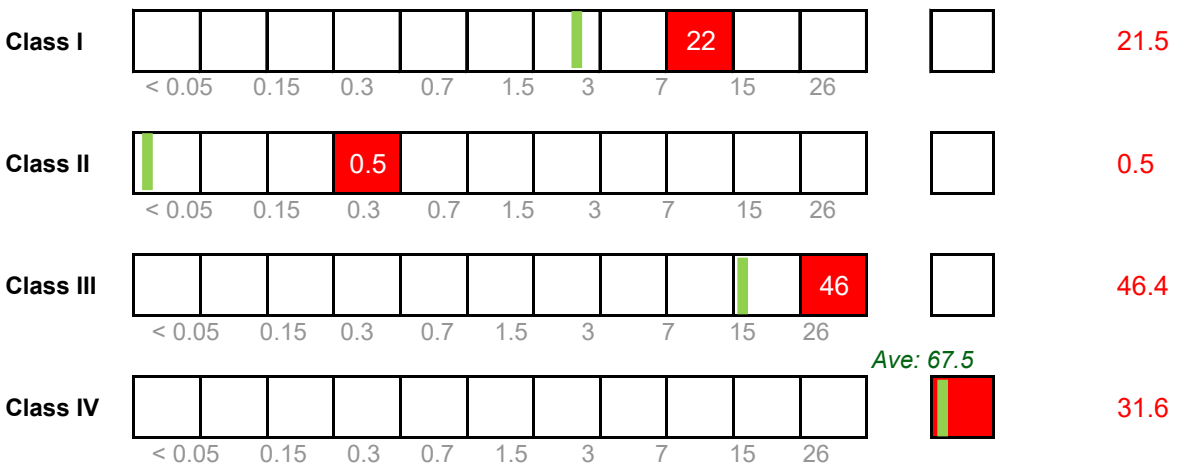
LIKELIHOOD Low → High

Average: 1 in 2,729

1 in 180

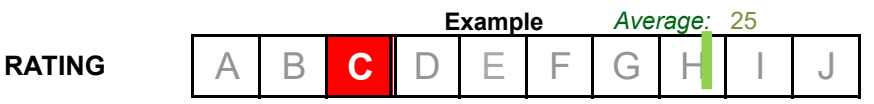
Justification

The only FRA is a type 1 which involves no invasive testing or verification of compartmentation, continuing fire resistance for the communal areas or prove the ACM has been fitted according to Building Regs with required cavity breaks and fire stops. There is no verification that the ACM is suitable for use on a building of this height and size. Consequently, the likelihood of a fire that could cause harm has been increased substantially. Concerns exist about the bin storage and the lack of security and risk of arson. The internal doors to the refuse chute within the building appear not to be fire doors. Internally, its unclear whether adequate compartmentation and fire resistance still exists - a lot of the flat doors are original with letter boxes compromising fire resistance of the doors. Overall, the block appears not to have adequate fire protection and resistance to the communal areas and the fire risk assessment doesn't give any reassurances that the fire resistance is adequate. These factors justify increasing the likelihood substantially.



Justification

The presence of ACM cladding with insulation of unknown combustibility suggests that a fire reaching the cladding is likely to spread, and, with the lack of fire doors leading on to common parts there is the potential for a member of the vulnerable age group (those 60 years old and above) to be trapped at higher levels with exposure to toxic smoke justifying an increase in Class 1 harms. The additional mental health and wellbeing harms highlighted by Grenfell and the increased potential for none fatal injuries and exposure to fumes, similarly justify increases in Class 2 and 3 harms. The distance to a final exit, the lack of an early warning alarm for the block, the presence of non-fire doors with compartmentation compromised and the lack of any secondary escape route compound the potential severity of the harm outcomes, and these could be catastrophic if the envelope of cladding becomes involved. ACM, (Category 3) with inadequate filling or core will allow a fire to spread rapidly, and the lack of adequate signage in the communal areas increase the likely harm outcomes because it will be difficult for the vulnerable age grouop to know what to do in case of fire.



Score: 1276

RATING SCORES AFTER IMPROVEMENT

IMPROVE **Likelihood to** 1 in 3,200 **Outcomes to** 4.6 | 0.0 | 31.6 | 63.6 | %

Justification

A Type 4 (or at least Type 2) FRA should be undertaken along with an analysis of the ACM cladding to determine combustibility. The stripping and safe refurbishment of cladding plus rectification of all noted defects should reduce the rating closer to historic averages. When all actions resulting from the FRA are completed including remedying any defects on the compartmentation, plus ensuring all doors to refuse chute lobbies are FD30S fire doors with improved security of bin store and waste management; the installation of a sprinkler system; and improved signage in the communal areas with the fire plan communicated to all residents and tested on a regular basis, the hazard rating will be at least as good as the average.

Score: 18

Ave No.s	*Average likelihood and health outcomes for all persons aged 60 or over 1997-99*