

Housing Health and Safety Rating System Case Study – Hazard 24 : Fire in an HMO

A five storey, brick-built, mid-terrace house occupied as a bedsit HMO

Age of property = pre-1920

Vulnerable group = all persons 60 yrs or over

Assessment of top floor bedsit – (Fire Matrix Level 1)

The subject dwelling is located within a modern conversion, which met all relevant standards at the time of these conversion works.

The ground floor comprises an entrance hallway from the street from which there are doors leading to 2 bedsitting rooms and shared bathroom in rear addition.

The first, second, third and fourth floors each comprise 3 bedsitting rooms. All rooms are singly occupied. All bedsitting rooms are provided with cooking facilities

All partitions and ceilings are of plasterboard on studwork/joists with plaster skim coat and are considered to provide at least 30 minutes fire resistance within/between bedsits and between bedsits and the escape route.

Bedsit entrance doors are purpose-made fire doors, fitted with intumescent strips incorporating cold smoke seals.

There is a mains-linked automatic detection and warning system, with detectors in each bedsit and kitchen and within the common parts

There are water type fire extinguishers on each landing.

The whole HMO is provided with a central heating system serviced and in good condition.

There are two, double, wall mounted electric sockets in each living room and bedroom and two doubles in the kitchen in addition to a cooker point – the installation is recent and in good condition. Ovens are electric and hobs are gas.

Primary	Compounding factors	Ameliorating Factors
<p>There is no FFE within the rooms.</p> <p>There is a significantly high fire loading</p> <p>There is a significantly long distance of travel</p>		<p>There is AFD to all bedsits and common parts</p> <p>There is FFE on each landing</p>

The 'average' situation obtained from the Guidance

Average likelihood of an occurrence in next 12 months is 1: 1681
Converted to Representative Scale Point (RSP) this is 1: 1800

Average range of harm outcomes is:

	Class 1	Class 2	Class 3	Class 4
Guidance	5.6%	0.0%	27.7%	66.7%
RSP	4.6%	0.0%	31.6%	63.8%

This gives a score of 39, which is band H

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IN THIS CASE

Likelihood converted to representative scale point is: 1: 560

Justification for adjusting likelihood:

Although the bedsits do not have FFE, all bedsits have a high level of structural fire precautions and are protected by AFD. This means that, overall, the likelihood of an occurrence in this case is considered to be less than the average.

There is a significantly increased loading compared with a 2 storey bedsit HMO

Range of harm outcomes is:

	Class 1	Class 2	Class 3	Class 4
RSP	10.0%	0.5%	31.6%	57.9%

Justification for adjusting range of harm outcomes:

Although the building and rooms are afforded good structural fire protection and have some AFD protection it is still likely, given the height of the building, that a harm outcome that affected any occupants of the subject flat are likely to be more serious than average.

Hazard score for this case:

Class of harm	Weighting		Likelihood		Spread of Harm		
Class 1	10,000	X	1/560	x	10.0	=	178.6
Class 2	1,000	X	1/560	x	0.5	=	0.9
Class 3	300	X	1/560	x	31.6	=	16.9
Class 4	10	X	1/560	x	57.9	=	1.0
					Total score & Band	=	197.4 (F)