

Housing Health and Safety Rating System Case Study – – Fire (Hazard no. 24)

Pre-1920 house – Vulnerable Group – All persons 60 years or over.

Photograph	Primary	Compounding/Ameliorating factors	Notes
	<p>Electrical installation throughout has not been upgraded, round pin sockets evident/exposed wires/loose cabling around cooker and other areas, lack of power sockets and generally unsafe.</p> <p>Kitchen layout is poor with cooker positioned close to kitchen entrance, old ascot heater positioned close to curtains.</p> <p>Open fires throughout property, which would be the principal means of heating the dwelling in the absence of any adequate space heating system</p>	<p>No fire detection, no fire doors/self closers. No fire fighting equipment and stairs not underdrawn.</p> <p>There is escape possible from all upstairs windows</p>	None.

The 'average' situation obtained from the Guidance

Average likelihood of an occurrence in next 12 months is 1: 4496

Converted to Representative Scale Point (RSP) this is 1:5600

Average range of harm outcomes is:

	Class 1	Class 2	Class 3	Class 4
Guidance	8.7	3.2	35.4	52.7
RSP	10.0	4.6	31.6	53.8

Average score and Band – 23 (band H)

IN THIS CASE

Likelihood converted to representative scale point is: 1:56

Justification for adjusting likelihood:

The unsafe condition of the electrical installation and positioning of both ascot water heater and gas cooker, coupled with the lack of any fire detection, smoke control or fire fighting measures are likely to increase the risk of fire occurring quite considerably. One of the main sources of ignition is electrical distribution equipment.

Range of harm outcomes is:

	Class 1	Class 2	Class 3	Class 4
RSP	21.5	10.0	31.6	36.9

Justification for adjusting range of harm outcomes:

The most vulnerable age group is all persons aged over 60. The severity of harm will be worse when the fire can spread undetected. In this case, the lack of fire doors and smoke detection enables the fire and smoke to spread quickly, without detection. The severity of harm suffered will depend on how quickly a fire can spread and how soon it is detected, and therefore there is some justification for increasing class 1 and class 2 harm outcomes.

Hazard score for this case:

Class of Harm	Weighting	Likelihood	Spread of Harm		
Class 1	10,000 X	1/ 56 x	21.50	=	3839.3
Class 2	1,000 X	1/ 56 x	10.00	=	178.6
Class 3	300 X	1/ 56 x	31.60	=	169.3
Class 4	10 X	1/ 56 x	36.90	=	6.6
			Total score	=	4193.7
			Band	=	A