



Housing Health and Safety Rating System (HHSRS)

Case Studies

Group B
Physiological
Requirements

Hazard B11
Damp and
Mould Growth

Example B11.2
1946–79
Three-bedroom Maisonette
(Non-HMO)

Vulnerable Group
Persons aged
14 years and under

Multiple Locations
Yes

Related Hazard B9
Excess Cold



Dwelling

Description of Dwelling

The four-storey block is constructed of concrete Crosswall and exposed concrete floor slab, built in the early 1960s. Space heating to each maisonette is by means of electric storage heaters, and the flats have double glazing. Both of these modernisations were carried out in the 1990s. The three-bedroomed maisonette being assessed is located on the second and top floor of the block. There is an extractor fan in the kitchen, venting through the window. The two main bedrooms are free of mould. The electrical installation condition report is satisfactory, but no EPC is available. The flat is occupied by a family of two adults and two children.



1

Front exterior of block for flats

Deficiencies

Description of Deficiencies

Bathroom

The front wall of the bathroom and adjacent ceiling and internal walls are affected by severe and extensive mould growth, caused mainly by condensation as a result of cold bridging. There is an opening window but the extractor fan doesn't work. There is a wall-mounted electric fan heater. The storage heaters do not have time clocks or thermostats.

Small rear bedroom

There is damp plaster and mould growth to the main walls of this bedroom.

There are no external facilities for clothes drying, nor is there a dedicated space to install a drier. The walls are not insulated.



2
Electric storage heater in living room with mould growth to wall



3
Mould growth to the bathroom



4
Mould growth to the small rear bedroom

Relevant Baseline Indicators (BI)

0

Satisfactory
or N/A

1

Not
Satisfactory

2

Defective

3

Seriously
Defective

Subject		Score				Baseline Indicator	
2	Drainage	0	1	2	3	2.1	Every drainage fixture, stack, vent, water, waste and sewer pipe shall be properly installed, maintained in a safe and functional order, and kept free from obstructions, leaks and defects. The drainage system must have suitable rodding or access points to allow clearance of blockages.
		0	1	2	3	2.3	There shall be adequate provision for surface- and foul-water drainage for the size and maximum occupancy of the dwelling. All drains and gullies shall be covered by a suitable grille or cover to prevent the build-up of debris restricting the natural operation of the system.
		0	1	2	3	2.4	All rainwater pipes shall discharge properly into the drainage system or soakaway. Rodding or access points shall be available to allow the clearance of any blockage.
4	Sanitary Facilities: Bathroom	0	1	2	3	4.8	Ventilation for the bathroom must be provided by mechanical extraction that is ducted to the outside of the building, in line with Baseline Indicator 16.1.
5	Sanitary Facilities: Kitchen	0	1	2	3	5.6	Suitable facilities for the effective and safe removal of fumes and moisture-laden air to the external air by means of a cooker hood or extractor fan; a cooker hood that only recycles the odour through an active carbon filter would not be acceptable, it must vent to outside. A mechanical extractor would be the normal mechanism for this function, in line with Baseline Indicator 16.1.
6	Clothes Drying Facilities	0	1	2	3	6.1	Where the dwelling does not contain a secure and private garden or yard for the exclusive use of that dwelling, a dryer (vented or recirculation type), or dedicated space to install a dryer, or access to a communal dryer facility must be provided.
15	Heating and Insulation	0	1	2	3	15.1	Structural thermal insulation shall be provided to minimise heat loss. Where there is a loft space, insulation shall be provided as detailed: a minimum 250mm of loft insulation (assumed to be mineral wool or similar).
		0	1	2	3	15.3	If the walls are of cavity wall construction, they must be insulated unless professional examination confirms to do so is technically unfeasible, due to either their condition or location in terms of wind-driven rain, or the width of the cavity being less than 40mm.

Relevant Baseline
Indicators

0

Satisfactory
or N/A

1

Not
Satisfactory

2

Defective

3

Seriously
Defective

Subject	Score	Baseline Indicator
	0 1 2 3	15.4 Every dwelling shall have a properly installed heating system in good and safe working condition that is capable of safely and adequately heating all habitable rooms, bathrooms and WC rooms. The system must be capable of heating the main living area to 21°C and the remaining habitable rooms to a temperature of 18°C when the external temperature is minus 1°C, and the system should not allow the temperature to exceed 25°C in any room during the heating season.
	0 1 2 3	15.5 Heating and hot water must be capable of being controlled effectively and timed to operate by the occupiers.
16 Ventilation	0 1 2 3	16.1 The air exhausted from a bathroom, WC room, kitchen, clothes dryer or basement must be provided by mechanical ventilation or by a correctly designed and installed natural ventilation system, as required by Part F of the Building Regulations. In addition, it shall not be vented into any other parts of the building's habitable space or an attic; such air shall discharge directly to the outdoors but not near any intake on the building exterior.
	0 1 2 3	16.2 All habitable rooms must have at least one window, door or skylight which opens to the outside and can be fixed in an open position. In addition, ventilation may also be provided by the presence of trickle vents, air bricks or passive stack ventilation.
	0 1 2 3	16.3 In each habitable room, the size of the openable windows, doors and skylights together must be at least 5% of the floor area of that room.
	0 1 2 3	16.4 All means of ventilation shall be maintained in good repair and working order.
17 Moisture and Contaminant Control	0 1 2 3	17.1 Every foundation, roof, roofing component, exterior wall, floor, door, skylight and window shall be watertight, weathertight, free of persistent dampness or moisture and in good condition.
	0 1 2 3	17.2 The building's drainage system, such as footing or foundation drains, gutters, downspouts, rainwater collection containers or other elements shall direct water away from the structure.
	0 1 2 3	17.3 No single room in any of the property shall have an observable level of damp or mould growth or deterioration of internal finishes that exceeds 5% of the wall and/or ceiling surface.

Other Relevant Matters

0

Satisfactory or N/A

1

Not Satisfactory

2

Defective

3

Seriously Defective

Score					Matters affecting Likelihood of Harm
0	1	2	3		Energy efficiency
0	1	2	3		Water tanks and pipework
0	1	2	3		Plumbing and waste pipes
0	1	2	3		Roof and subfloor spaces
0	1	2	3		Room sizes
0	1	2	3		Flood protection

Score					Matters affecting Harm Outcomes
0	1	2	3		Energy efficiency
0	1	2	3		Water tanks and pipework
0	1	2	3		Plumbing and waste pipes
0	1	2	3		Roof and subfloor spaces
0	1	2	3		Room sizes
0	1	2	3		Flood protection

Likelihood of Harm

Scale Points	
Likelihood of harm from this hazard over the next twelve months	
Very Likely	1 in 1
	1 in 2
	Example Dwelling 1 in 3
	1 in 5
Likely	1 in 10
	1 in 20
	1 in 30
	1 in 50
Unlikely	1 in 100
	1 in 200
	1 in 300
	1 in 500
Very Unlikely	1 in 1,000
	National Average 1 in 2,000
	1 in 3,000
	1 in 5,000
Score	
1 in 3	

Justification of Scoring
Likelihood of Harm

Poor thermal insulation combined with cold bridging, inefficient electric heating and lack of a working mechanical extract fan in the bathroom have contributed to extensive dampness and mould growth to the bathroom and third bedroom. Inhaling mould spores over a 12-month period would considerably exacerbate any respiratory illness such as asthma. Living in such visibly unsatisfactory conditions could also cause psychological harm, potentially causing anxiety or depression and a feeling of social isolation due to fear of inviting guests to the property.

Given the considerable amount of mould and the further proliferation likely to occur over the next 12 months if not treated, the likelihood of illness arising from these conditions is high.

Harm Outcomes

Extreme		Severe		Serious		Moderate			
Death, permanent paralysis, etc.		Heart attack, serious fractures, etc.		Chronic stress, severe concussion, etc.		Broken fingers, moderate cuts, etc.			
Very Likely	50.0	Very Likely	50.0	Very Likely	50.0	Example Dwelling +	89.0		
	30.0		30.0		30.0	National Average	89.0		
	20.0		20.0		20.0				
Likely	10.0	Likely	10.0	Example Dwelling + National Average	10.0				
	5.0		5.0	5.0					
	2.0		2.0	2.0					
Unlikely	1.0	Example Dwelling + National Average	1.0	Unlikely	1.0	These scores are simply calculated as the sum of the other three harm outcomes subtracted from 100%			
	0.5		0.5		0.5				
	0.2		0.2		0.2				
Very Unlikely	0.1	Very Unlikely	0.1	Very Unlikely	0.1				
Example Dwelling + National Average	0.0		0.0						
Score		Score		Score				Score	
0.0%		1.0%		10.0%				89.0%	

Justification of Scoring

Harm Outcomes

There is no reason to believe the potential spread of harm outcomes will be any different to the national average.

Safety Ratings

Scenario 1
As described in this document

Key

Category	Band	Score
1 Legal duty to take action	High	10,000
2 Discretion to take action	Medium	1,000
	Low	100

Likelihood of Harm 1 in 3			
Extreme 0.0%	Severe 1.0%	Serious 10.0%	Moderate 89.0%
Category	Band	Score	
1 Legal duty to take action	High	10,000	
2 Discretion to take action	Example Dwelling	1,630	1,000
	Medium	1,000	
	Low	100	
National Average		2	
Score		1,630	

Scenario 2

After works meeting baseline indicators

Likelihood of Harm 1 in 300			
Extreme 0.0%	Severe 1.0%	Serious 10.0%	Moderate 89.0%
Category		Band	Score
1 Legal duty to take action		High	10,000
2 Discretion to take action		Medium	1,000
		Low	100
Example			16
National Average			2
Score			16

Justification of Scoring

After works meeting baseline indicators

Complying with the baseline indicators would necessitate the provision of controllable and effective heating to all habitable rooms and bathroom, insulation of brick cavity walls, removal of mould or any internal finishes where deterioration exceeds 5%, and mechanical extract ventilation to be repaired to reduce the risk of future growth. Therefore, the likelihood of harm over 12 months would be classified as ‘unlikely’. The baseline indicators do not, however, directly address all the energy-efficiency/cold-bridging issues at the property. As such, the likelihood remains higher than average.

Scenario 3

After further improvements

Likelihood of Harm 1 in 2,000			
Extreme 0.0%	Severe 1.0%	Serious 10.0%	Moderate 89.0%
Category		Band	Score
1 Legal duty to take action		High	10,000
2 Discretion to take action		Medium	1,000
		Low	100
Example			2
Dwelling + National Average			2
Score			2

Justification of Scoring

After further improvements

Retrofit improvements to the external fabric of the property should be implemented to eliminate cold bridging. This would increase internal surface temperatures, reducing condensation formation, improving energy efficiency and reducing heat loss.

Other Relevant Legislation and Guidance

Leasehold Properties

In leasehold properties, there may be restrictions on works that can be carried out without the freeholder and management company's express approval. This could include, for example, alteration of doors and windows as well as maintenance of the structure of the building (e.g. the roof).

Party Walls

A party wall agreement may be needed before works can be undertaken to party structures, party walls that form part of a building or shared garden boundaries.

Energy Performance of Buildings

The Energy Performance of Buildings Regulations 2012 require an EPC to be produced when a property is placed for sale or rent (subject to tenancy type). Where a property is required to have an EPC, it is subject to the requirements of the Energy Efficiency (Private Rented Property) (England and Wales) Regulations 2015.

Dwelling Perspective

When assessing multiple dwellings in the same building, due consideration may need to be given to the level of risk posed to different flats within a building. The likelihood of an occurrence and harm outcomes resulting from an occurrence may vary significantly, dependant on the location of the flat within a building, for many hazards.

Updates

Matters for consideration listed in this section were correct at the time of publication. For the most up-to-date legislation and guidance in these areas, please visit the [gov.uk](https://www.gov.uk) website