

Housing Health and Safety Rating System (HHSRS)

Case Studies

Group A
Protection Against
Accidents

Hazard A5
Flames, Hot
Surfaces, etc

Example A5.2
Pre-1920
Semi-detached House
(Non-HMO)

Vulnerable Group
All persons aged
5 years and under

Multiple Locations
Yes

Related Hazard A1
Falls on the Level

Related Hazard A6
Collisions,
Entrapment and
Ergonomics

Dwelling

Description

This is a semi-detached house, built around 1900. It has three bedrooms and a bathroom to the first floor, and two reception rooms and a kitchen to the ground floor. It is rented to a family.



1

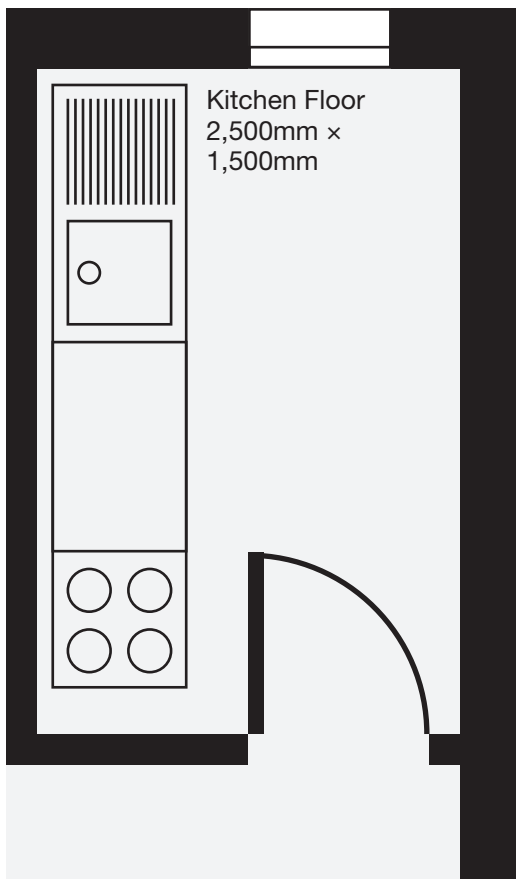
Front view of property

Photo: Peter Fleming
Shutterstock.com

Deficiencies

Description

The small kitchen is 2.5 metres long by 1.5 metres wide. Arranged at one end of one of the longer walls is a 1000 × 500mm single-drainer sink above a sink unit, with a drawer and cupboards below, and a 500 × 500mm freestanding gas cooker at the other end. A worktop, inadequate in terms of its area, construction and cleanability, is provided by a crude 750 × 500mm sheet of chipboard spanning between the sink and cooker. The solid kitchen door opens directly in front of the cooker. There is a vinyl tiled floor which is worn and lifting in places.



Sink
1,000mm x
500mm

Worktop
750mm x
500mm

Cooker
500mm x
500mm



3
Poor condition of
kitchen floor tiles



4
Worktop between
cooker and sink

2
Floorplan showing layout
of kitchen, in particular the
cooker in relation to door

Relevant Baseline Indicators

0

Satisfactory
or N/A

1

Not
Satisfactory

2

Defective

3

Seriously
Defective

Subject	Score	BI	Baseline Indicator
3 Plumbing System	0 1 2 3	3.2	An adequate supply of heated running water shall be provided to sinks, wash-hand basins, baths and showers. Hot water storage tanks shall be set at a minimum temperature of 60°C. At bath taps and shower heads, the maximum temperature shall be 45°C to prevent accidental scalding.
5 Sanitary Facilities: Kitchen	0 1 2 3	5.2	A kitchen sink in good working condition that is properly connected to heated and unheated water supplies and waste pipes, and has an area for draining wet cutlery and utensils which is connected to a waste outlet and sealed with flexible waterproof sealant. Any provided dishwasher and components of the sink, including disposal and water filtration devices, shall be in good working condition and properly connected. All feeds must have isolator valves to allow for maintenance.
	0 1 2 3	5.3	Sufficient work surface shall be provided for food preparation. Sufficient cabinets and/or shelves sufficient to store occupant or visitors' food that does not require refrigeration, and eating, drinking and food-preparation equipment. Cabinets shall have well-fitting doors and no gaps between any surfaces. The work surface, work-surface edges, cabinets and shelves shall be of sound construction and furnished with surfaces that are impervious to water, smooth and cleanable.
	0 1 2 3	5.4	For cooking food, a 4-ring hob (or 2-ring in bedsit-type accommodation) with oven and grill properly installed with all necessary connections for safe and efficient operation, which shall be maintained in good working condition.
	0 1 2 3	5.9	A kitchen floor in good condition, with a sealed, water-resistant, non-absorbent and cleanable surface.
13 Guards	0 1 2 3	13.3	Any open fires or flames as a source of heat must be adequately guarded to ensure any accidental falls or trips do not result in contact with the open flames. Where there is risk of prolonged contact with hot surfaces of more than 43°C, adequate guarding must be provided to prevent contact
15 Heating and Insulation	0 1 2 3	15.2	Hot water cylinder, if present, must be insulated with a minimum 50mm jacket if not pre-insulated, and it must be fitted with a tank thermostat.

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	Hot surface protection
0	1	2	3	Thermostatic taps
0	1	2	3	Kitchen layout
0	1	2	3	Worktop space next to cooker
0	1	2	3	Separation of cooking area
0	1	2	3	Open flames guarding

Score				Matters affecting Harm Outcomes
0	1	2	3	Surface/liquid temperature
0	1	2	3	Exposure time

Likelihood of Harm

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

Justification of Scoring
Likelihood of Harm

There is a much greater risk of injury occurring due to the following aspects: the size of the kitchen; the positioning of the cooker with the door creating a collision risk; and slips and trips on the worn flooring. The position of the hob immediately behind the kitchen door could result in any person using it being pushed onto the hob surface by anyone entering. There is no way of knowing when anyone is using the hob, and it would be difficult to avoid this scenario. There is also a risk that opening the door could cause pans on the stove to fall. In addition, the work surface next to the stove is inadequately fixed and is likely to become dislodged if anything heavy is placed on it. Over a period of 12 months, the issues described above are highly probable; therefore, the likelihood has been increased significantly from the national average score.

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	67.9	
	30.0		30.0		Example Dwelling			
	20.0		20.0		National Average			
Likely	10.0	Likely	10.0	Likely	10.0	National Average	These scores are simply calculated as the sum of the other three harm outcomes subtracted from 100%	
	5.0		5.0		5.0			
	2.0		Example Dwelling		2.0			2.0
Unlikely	1.0	National Average	1.0	Unlikely	1.0	National Average		
	0.5		0.5		0.5			
	0.2		0.2		0.2			
Example Dwelling	0.1	Very Unlikely	0.1	Very Unlikely	0.1	National Average		
National Average	0.0		0.0		0.0			
Score		Score		Score		Score		
0.1%		2.0%		30.0%		67.9%		

Justification of Scoring

Harm Outcomes

If any pans containing heated oil or water are knocked off the stove, such an event is likely to lead to significant burns/scalds to the person nearby, made worse due to them being trapped between the door and the stove and the consequent extended contact with the liquids. This would potentially be worse than for other burns/scalds possible around the home because of the distance these liquids are off floor height and quantities involved.

It is also possible that additional injury may arise as a result of collision with the door. Overall this increases the risk of harm outcomes in the 'Extreme', 'Severe' and 'Serious' categories.

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 5		
Extreme 0.1%	Severe 2.0%	Serious 30.0%
		Moderate 67.9%
Category	Band	Score
1 Legal duty to take action	High	10,000
	Example Dwelling	2,536
2 Discretion to take action	Medium	1,000
	Low	100
	National Average	39

Score
2,536

Scenario 2

After works meeting baseline indicators

Scenario 3

After further improvements

Likelihood of Harm
1 in 100

Extreme 0.0%	Severe 2.0%	Serious 30.0%	Moderate 68.0%
-----------------	----------------	------------------	-------------------

Category	Band	Score
----------	------	-------

1 Legal duty to take action	High	10,000
-----------------------------------	-------------	--------

2 Discretion to take action	Medium	1,000
-----------------------------------	---------------	-------

Example Dwelling	Low	127 100
-------------------------	------------	-------------------

National Average		39
------------------	--	----

Score
127

Likelihood of Harm
1 in 200

Extreme 0.0%	Severe 1.0%	Serious 20.0%	Moderate 79.0%
-----------------	----------------	------------------	-------------------

Category	Band	Score
----------	------	-------

1 Legal duty to take action	High	10,000
-----------------------------------	-------------	--------

2 Discretion to take action	Medium	1,000
-----------------------------------	---------------	-------

Low	100
------------	-----

Example Dwelling +	39
---------------------------	-----------

Score
39

Justification of Scoring

After works meeting baseline indicators

Compliance with BIs 5.3 and 5.4 would ensure the cooker is moved away from the door and deal with the inadequate work surface. Compliance with BI 5.9 would mean replacement of the kitchen floor, reducing the risk to a score that is slightly worse than the national average. The cooker should be located on the end wall, offset from the window and with work surface on either side. The small size of the kitchen would mean risk would continue to be greater than the national average, and the potential injuries sustained for ‘Severe’ and ‘Serious’ would still be worse than average.

Justification of Scoring

After further improvements

The national average scores could be attained by increasing the size of the kitchen, either via extension or relocation to an alternative location (such as the rear reception room). This would allow adequate space for a safe layout of all relevant facilities.

Other Relevant Legislation and Guidance

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.