

Housing Health and Safety Rating System (HHSRS)

Case Studies

Group A
Protection Against
Accidents

Hazard A8
Electrical Hazards

Example A8.4
Pre-1920
Detached
House

Vulnerable Group
All persons aged
5 years and under

Multiple Locations
Yes

Related Hazard A4
Fire and
Explosions

Dwelling

Description

This is a two-bedroomed detached house, built 1890–1900, with solid brick walls and a tiled roof. The property has been extensively modified over the years, though a lot of the work carried out has been decorative.

The windows are a mixture of replacement uPVC double glazing to the rear elevation, and wooden windows to the front elevation.

There is a gas boiler and central heating, also dating from the 1980s. On the ground floor there are two living rooms and, in a rear addition, a kitchen. On the first floor there are two bedrooms and a small bathroom.

The property is owner-occupied. There is no EPC or electrical certificate available.



1

Front exterior

Deficiencies

Description

There is a mixture of wiring from the 1950s to the 1980s, with a wired fuse board in the understairs cupboard and cracked surface-mounted light switches in the hall, living room and kitchen.

There are broken sockets on skirting boards in the living room and second bedroom. Two of the sockets above the worktops in the kitchen are broken.

Wiring appears to be earthed to a nail that is hammered into one of the rafters in the roof. Some of the wiring in the roof space that is part of the lighting circuit for the bedroom and bathroom has been nibbled by mice, exposing the copper wiring.



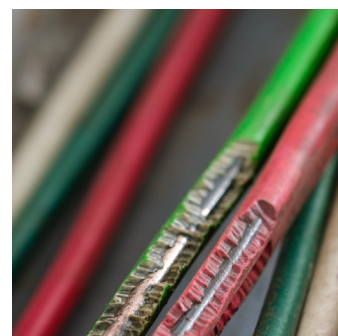
2
Consumer unit to
understairs cupboard



3
Cracked light switch to
kitchen



4
Broken socket to living
room



5
Nibbled wiring in loft
room

Relevant Baseline Indicators

0

Satisfactory
or N/A

1

Not
Satisfactory

2

Defective

3

Seriously
Defective

Subject	Score	BI	Baseline Indicator
14 Lighting and Services	0 1 2 3	14.4	All electrical installations, including fixtures and fittings, must be maintained in good repair.
	0 1 2 3	14.6	Every habitable room shall have at least 2 separate and remote double electric sockets that are suitably located for use. Kitchens shall have at least 4 suitably located double sockets.
18 Pest Management	0 1 2 3	18.1	The property and all structures and areas within the curtilage of the property shall be free of pest infestation with no features present that will attract and support pests. Inspection shall take place to ensure a pest free environment.
19 Fire Safety	0 1 2 3	19.2	All electrical equipment supplied by landlords in rented residential premises is safe and compliant with current UK requirements for safety of domestic electrical products; all electrical appliances supplied by the landlord are subject to testing in line with the IET Code of Practice for In-service Inspection and Testing of Electrical Equipment (Fifth Edition) (unless they are under one year old and display a UKCA/CE marking).
	0 1 2 3	19.4	The electrical installation should have been inspected and tested within the last 5 years.

Other Relevant Matters

0

Satisfactory
or N/A

1

Not
Satisfactory

2

Defective

3

Seriously
Defective

Score

Matters affecting
Likelihood of Harm

0123

Fuse and meter location

0123

Waterproofing

0123

Lightning protection system

Score

Matters affecting
Harm Outcomes

0123

Fuse and meter location

0123

Waterproofing

0123

Lightning protection system

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
		1 in 5
Likely	Example Dwelling	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
		1 in 2,000
		1 in 3,000
	National Average	1 in 5,000

Score

1 in 10

Justification of Scoring

Likelihood of Harm

The old consumer unit lacks RCD protection. The system incorporates rewirable fuses, meaning it is less likely to trip, thereby sustaining electricity to the defective sockets. This provides a lower standard of protection to an occupant exposed to an electrical hazard. The cracked and broken sockets indicate an electrical system in poor repair and not up to modern standards. Give the damaged state of a number of the sockets in the property along with cracked light switches, there is an increased likelihood that someone will come into contact with live wiring.

Whilst the light switches and the some of the sockets (such as those in the kitchen) may not be in easy reach of the vulnerable group, those broken sockets in the living room and second bedroom (the room that you would expect that the vulnerable group might occupy) are easily accessible, and the inquisitive nature of the vulnerable group significantly increases the risk of a harmful occurrence over the next 12 months. In addition, the likelihood of electrocution from contact with metal surfaces is increased due to the uncertain earthing of the installation.

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	Example Dwelling+ National Average	50.0	Example Dwelling National Average	29.5
	30.0		30.0		30.0		39.5
	20.0		Example Dwelling		20.0		These scores are simply calculated as the sum of the other three harm outcomes subtracted from 100%
Likely	10.0	National Average	10.0	10.0			
	5.0		5.0	5.0			
	2.0		2.0	2.0			
Unlikely	1.0	Unlikely	1.0	1.0			
	Example Dwelling + National Average		0.5	0.5	0.5		
			0.2	0.2	0.2		
Very Unlikely	0.1	Very Unlikely	0.1	0.1			
	0.0		0.0	0.0			
Score 0.5%		Score 20.0%		Score 50.0%		Score 29.5%	

Justification of Scoring

Harm Outcomes

The absence of RCD protection means that the power would not be cut off in the event of an electrocution, leading to 'severe' harm outcomes. As RCD protection is present in over 80% of properties, this means there is a higher risk of severe harm outcomes than at the average property.

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 10

Extreme0.5%

Severe20.0%

Serious50.0%

Moderate29.5%

Category	Band	Score
1 Legal duty to take action	High	10,000
Example Dwelling		2,735
2 Discretion to take action	Medium	1,000
	Low	100
	National Average	6

Score

2,735

Scenario 2

After works meeting baseline indicators

Likelihood of Harm
1 in 3,000

Extreme	Severe	Serious	Moderate
0.5%	10.0%	50.0%	39.5%

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

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

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

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

Example		9
National Average		6

Score

9**Scenario 3**

After further improvements

Likelihood of Harm
1 in 5,000

Extreme	Severe	Serious	Moderate
0.5%	10.0%	50.0%	39.5%

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

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

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

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

Example		6
----------------	--	----------

Score

6

Example
Dwelling +
National
Average

Justification of Scoring

After works meeting baseline indicators

Baseline Indicator 14.4 addresses the disrepair to the installations, including the sockets and the switches. BI 19.4 requires an electrical report; this would also highlight the lack of RCD protection and earthing, ensuring steps are taken to comply with the current IEE Regulations. BI 18.1 addresses the mouse infestation, resulting in the severe harm outcomes returning to the national average, and the likelihood of an occurrence being reduced to a value closer to the national average.

Justification of Scoring

After further improvements

A full rewiring to the property along with the installation of a modern consumer unit would improve the property to higher than the national average.

Other Relevant Legislation and Guidance

Electrical Safety Standards

The Electrical Safety Standards in the Private Rented Sector Regulations 2020 would not apply in this case as the property was owner/occupied at the time of assessment. If the property is rented again in the future, the Electrical Safety Standards in the Private Rented Sector (England) Regulations 2020 require landlords to have the electrical installations in their properties inspected and tested by a person who is qualified and competent, at an interval of at least every 5 years. Landlords must provide a copy of the electrical safety report to their tenants and, if requested, to their local authority.

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.