



Ministry of Housing,
Communities &
Local Government

The Housing Health and Safety Rating System (HHSRS)

Introduction to the Housing Health and Safety Case Studies



RHE Global



Cardiff
Metropolitan
University

Prifysgol
Metropolitan
Caerdydd

Introduction to the Housing Health and Safety Case Studies

These case studies provide example assessments for each hazard under the Housing Health and Safety Rating System (HHSRS) inspection and assessment process.

Case studies should be considered in conjunction with the accompanying Guidance documents listed below:

- The HHSRS Operating Guidance (Part 1): An Introductory Guide” which provides introductory information and guidance on the HHSRS inspection and assessment process.
- The HHSRS Operating Guidance (Part 2): A Technical Guide for Assessors” which provides technical information to support the HHSRS inspection and assessment process, including associated baseline indicators.
- The HHSRS Operating Guidance (Part 3): A Supplementary Guide to the Hazard of Fire and Explosions” which provides additional technical information to support the HHSRS specifically in relation to the hazard of Fire and Explosions.

Acknowledgements

RHE Project Management Team

Alan Davies BSc (Hons),
LLM, MCIEH, CEnvH
(Project Director)
Alison Thomas BSc (Hons),
MCIEH, CEnvH (Project
Manager)

Case Study Output Team

Mark Sherwood BSc (Hons),
MBA, CEnvH, MCIEH
Ian Watson BSc, MPH,
CEnvH, MCIEH
Mark Preston BSc(Hons),
MCIEH, Dip(RSA)
Richard Tacagni MCIEH
CEnvH
Rob Kelly BSc (Hons) MCIEH
John Glazebrook
Paul Mishkin
Liz Webster
Peter Bezant

Project Support

RHE Project Support Team
Joint Inspection Team
West of England Housing
Group
HHSRS Review Phase 2
Project Board

Copyright

© Crown copyright, 2022

Copyright in the
typographical arrangement
rests with the Crown.
You may re-use this
information (not including
logos) free of charge in
any format or medium,
under the terms of the
Open Government Licence.
Contact us to view this
licence:

Online

<https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3>

Mail

Information Policy Team
The National Archives
Kew
London TW9 4DU

Email

psi@nationalarchives.gsi.gov.uk.

Enquiries

Contact us if you have any
enquiries regarding this
publication:

Online

Complete the form at
<https://forms.communities.gov.uk>

Mail

DLUHC
Department for
Levelling Up, Housing
and Communities
Fry Building
2 Marsham Street
London
SW1P 4DF

Telephone

030 3444 0000

Updates

Follow us online for all our
latest news and updates:

Online

<https://twitter.com/luhc>

This publication is also
available on our website:

<https://www.gov.uk/search/guidance-and-regulation?organisations%5B%5D=ministry-of-housing-communities-and-local-government&parent=ministry-of-housing-communities-and-local-government>

This research project was commissioned by the Department of Levelling Up, Housing and Communities (DLUHC) (formerly Ministry of Housing, Communities and Local Government (MHCLG)), hereafter referred to as DLUHC, to undertake a comprehensive review of the Housing Health and Safety Rating System (HHSRS).

RHE Global (RHE) and a project team comprising researchers and practitioners were commissioned to undertake this review of the HHSRS Phase 2.

RHE are grateful for the contributions of all those participating in the review of the HHSRS and particularly acknowledge the contributions made to this report by those listed above.

Contents

Acknowledgements	3
1.0 Introduction to the Case Studies	5
2.0 List of Case Studies	6
3.0 Typical Layout and Content of Case Studies	9
4.0 Glossary of terminology used in the case studies	15

1.0 Introduction to the Case Studies

These case studies replace the original worked examples, published in 2004 and developed to support the introduction of the Housing Health and Safety Rating System (HHSRS) under the Housing Act 2004. The case studies offer model HHSRS assessments for each of the 21 hazards, including consideration of baseline indicators and other relevant matters affecting the likelihood of harm occurrence and its severity. They also propose improvement works necessary to address deficiencies, removing Category 1 hazards and reducing Category 2 hazards.

Assessors should read these case studies in conjunction with the accompanying manuals listed below:

- The HHSRS Operating Guidance (Part 1): An introductory guide', which provides introductory information and guidance on the HHSRS inspection and assessment process.
- The HHSRS Operating Guidance (Part 2): A technical guide for assessors', which provides technical information to support the HHSRS inspection and assessment process, including associated baseline indicators.
- The HHSRS Operating Guidance (Part 3): A supplementary guide to the hazard of Fire and Explosions', which provides additional technical information to support the HHSRS specifically in relation to the hazard of Fire and Explosions.

Landlords and property-related professionals should consider these case studies alongside the guidance document listed below:

- The Landlord and Agent Guide to Housing Health and Safety', which provides an overview of the responsibilities of landlords and property-related professionals under the Housing Act 2004, Part 1: Housing Conditions.

The aim of these case studies is to assist HHSRS assessors in achieving consistency in their assessments and provide all stakeholders with an insight into how the HHSRS operates. They also demonstrate how the baseline indicators fit into the assessment process, and how they help to improve conditions that present a health and safety risk.

The order and numbering of the case studies follows the same order and grouping used in the HHSRS Operating

Guidance. For most of the hazards, a number of case studies are provided.

The majority of the case studies are fictional. The photos, floorplans and property/deficiency descriptions are provided to illustrate the case and do not necessarily represent actual/real scenarios. Some of the case studies are updated versions of the original worked examples which have been altered to demonstrate a wider range of issues and categories of hazard.

All of the relevant deficiencies are listed for each case study; the 'deficiency' section is an exhaustive description of deficiencies considered for the particular scenario. If details of an element are not included, then there are no deficiencies associated with it.

The case studies have been written to make them easier to read and understand, with improved accessibility and enhanced presentation. Keeping the environment in mind, the case studies are not designed to be printed; they are individual documents intended to be viewed on a digital device.

All of the case studies follow the same format, which is explained on pages 9-14, with the following exceptions:

- Crowding and Space: This hazard involves a two-stage assessment – one based on the dwelling itself, and one based on the current occupation
- Fire and Explosions: These case studies include the additional information necessary to properly assess the likelihood of harm in the event of a fire or explosion occurring.
- Combined case studies: Two combined case studies have been developed to demonstrate how deficiencies contribute to more than one hazard and how this translates into the assessment.

2.0 List of Case Studies

ID	Hazard	Dwelling Age	Dwelling Type*	Rating
Protection against accidents				
A1.1	Falls on the Level	Pre-1920	House	1,520
A1.2	Falls on the Level	Pre-1920	House	2,265
A1.3	Falls on the Level	1946–79	Flat	3,160
A1.4	Falls on the Level	Post-1979	House	1,030
A2.1	Falling on Stairs etc.	1920–45	House	1,319
A2.2	Falling on Stairs etc.	1920–45	House	3,333
A2.3	Falling on Stairs etc.	Pre-1920	House	7,655
A2.4	Falling on Stairs etc.	Pre-1920	House	990
A2.5	Falling on Stairs etc.	Post-1979	House	986
A3.1	Falling Between Levels	1946–79	House	495
A3.2	Falling Between Levels	Pre-1920	Flat	265
A3.3	Falling Between Levels	1920–45	House	8
A3.4	Falling Between Levels	Post-1979	Flat	1,319
A3.5	Falling Between Levels	Post-1979	House	1,168
A4.1	Fire and Explosions	Post-1979	Common Parts	379
A4.2	Fire and Explosions	Pre 1920	Flat	4,470
A4.3	Fire and Explosions	1946–79	HMO House	2,136
A4.4	Fire and Explosions	1920–45	House	1,045
A4.5	Fire and Explosions	Post-1979	Flat	55
A4.6	Fire and Explosions	Post-1979	Common Parts	1,079
A4.7	Fire and Explosions	Post-1979	Common Parts	1,101
A4.8	Fire and Explosions	Post-1979	Flat	1,118
A4.9	Fire and Explosions	Post-1979	House	2,136
A5.1	Flames, Hot Surfaces, Etc.	1920–45	Flat	832
A5.2	Flames, Hot Surfaces, Etc.	Pre-1920	House	2,536
A5.3	Flames, Hot Surfaces, Etc.	1920–45	House	412
A5.4	Flames, Hot Surfaces, Etc.	1920–45	House	1,030
A6.1	Collisions, Entrapment and Ergonomics	Pre-1920	House	820
A6.2	Collisions, Entrapment and Ergonomics	Pre-1920	Flat	878
A6.3	Collisions, Entrapment and Ergonomics	1920-45	Flat	243

A7.1	Structural Collapse and Falling Elements	1920–45	House	539
A7.2	Structural Collapse and Falling Elements	Post-1979	House	176
A7.3	Structural Collapse and Falling Elements	Pre-1920	Flat	445
A8.1	Electrical Hazards	1946–79	House	608
A8.2	Electrical Hazards	1920-45	House	251
A8.3	Electrical Hazards	1946-79	Flat	3,040
A8.4	Electrical Hazards	Pre-1920	House	4,030

Physiological requirements				
B9.1	Excess Cold	Pre-1920	Non-HMO	3,115
B9.2	Excess Cold	1946–79	Non-HMO	3,115
B9.3	Excess Cold	1946–79	Non-HMO	10,382
B9.4	Excess Cold	Post-1979	Non-HMO	1,557
B9.5	Excess Cold	Post-1979	Non-HMO	1,557
B9.6	Excess Cold	1946-79	Non-HMO	10,382
B9.7	Excess Cold	Pre-1920	Non-HMO	6,229
B9.8	Excess Cold	1920–45	Non-HMO	3,115
B10.1	Radiation	1946–79	196 Bqm-3	910
B10.2	Radiation	1920–45	800 Bqm-3	3,033
B10.3	Radiation	Pre-1920	2,000 Bqm-3	9,100
B11.1	Damp and Mould Growth	1946–79	Non-HMO	1,756
B11.2	Damp and Mould Growth	1946–79	Non-HMO	1,630
B11.3	Damp and Mould Growth	1946-79	Non-HMO	98
B11.4	Damp and Mould Growth	Post-1979	Non-HMO	98
B11.5	Damp and Mould Growth	Post-1979	Non-HMO	163
B12.1	Lead	1920–45	Non-HMO	489
B13.1	Indoor Air Pollutants	Pre-1920	Non-HMO House	2,884
B13.2	Indoor Air Pollutants	1920–45	Non-HMO House	9,127
B13.3	Indoor Air Pollutants	Pre-1920	Flat	85
B13.4	Indoor Air Pollutants	Post-1979	Non-HMO House	4,807
B14.1	Excess Heat	Post-1979	Flat	1,597
B14.2	Excess Heat	Pre-1920	Flat	1,597
B14.3	Excess Heat	1946–79	Flat	6,386

B15.1	Asbestos (and MMF)	1920-45	Flat	4,036
B15.2	Asbestos (and MMF)	1946-79	House	2,018
B15.3	Asbestos (and MMF)	1946-79	House	673

Protection against infection

C16.1	Domestic Hygiene	Pre-1920	Non-HMO House	293
C16.2	Domestic Hygiene	Pre-1920	HMO	4,390
C16.3	Domestic Hygiene	1946-79	Non-HMO House	163
C16.4	Domestic Hygiene	Post-1979	HMO	489
C17.1	Water Supply	1946-79	Non-HMO	1,630

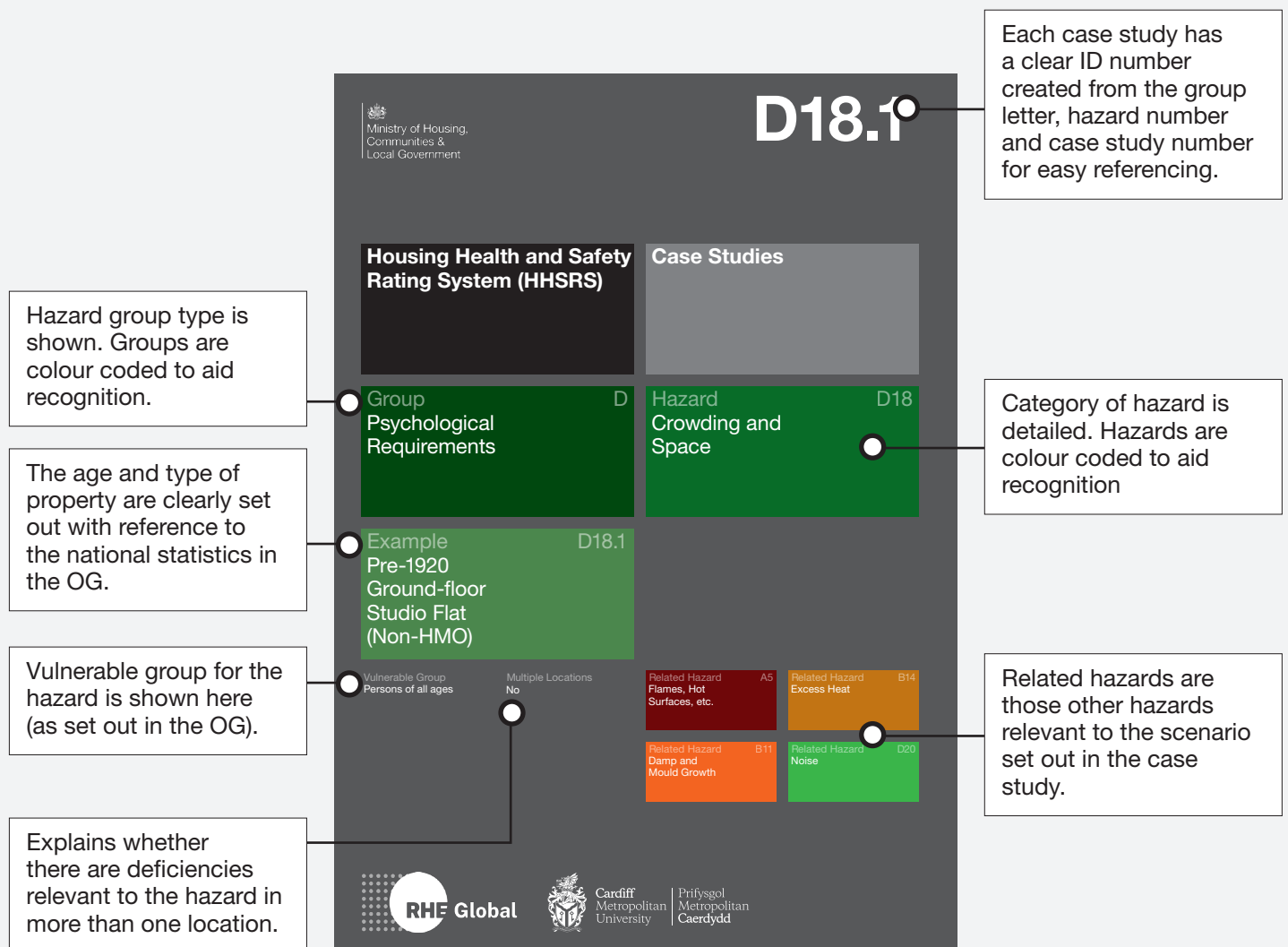
Psychological requirements

D18.1	Crowding and Space	Pre-1920	Flat	2,291
D18.2	Crowding and Space	Pre-1920	House	2,291
D18.3	Crowding and Space	Pre-1920	House	1,146
D18.4	Crowding and Space	Pre-1920	House	2,291
D18.5	Crowding and Space	1946-79	House	2,291
D19.1	Entry by Intruders	Pre-1920	HMO	1,333
D19.2	Entry by Intruders	1946-79	Non-HMO House	800
D20.1	Entry by Intruders	Pre-1920	HMO	2,445
D20.2	Entry by Intruders	Post-1979	HMO	1,630
D20.3	Entry by Intruders	Pre-1920	Non-HMO	978
D21.1	Lighting	Pre-1920	Flat	2,945
D21.2	Lighting	Pre-1920	Flat	294

*The dwelling type for each hazard is defined within this table in the same way that it is categorised within the national statistics table for each hazard (within each hazard profile in Part 2 of the Operating Guidance (OG)).

3.0 Typical Layout and Content of Case Studies

Front cover for each case study clearly shows key pieces of information.



Tabs are present at the top of every page in the case study. These match the group and hazard colour-coding identity.

The case study ID number is included on every page followed by the page number for ease of referencing.

HHSRS

Case Studies

Psychological Requirements

Crowding and Space

D18.1.2

Dwelling

Description

This property is a pre-1920 ground-floor studio flat in a mid-terrace house, with solid brick walls, a slate roof and small gardens to front and rear. The flat is occupied by a single person.

The original layout of the house comprised a non-habitable cellar and, on the ground floor, a living room at the front and a dining-kitchen at the rear. There were two double bedrooms and a bathroom on the first floor and a further two single bedrooms on the second floor, being a former four-bedroomed family house. In recent years the ground-floor living room, dining-kitchen and both first-floor bedrooms have been converted into studio flats, having had kitchen and ensuite facilities installed in the rooms. The ensuite has a locking door. The two second-floor rooms have been converted into a single self-contained flat, with one room containing a kitchen (a kitchen/living/dining room) and the other room being an ensuite bedroom.



1
Front exterior

All photos, plans, diagrams, etc. have a text description for accessibility.

Details of the dwelling are set out. This section includes a description of the dwelling. There will be photos of the exterior and/or plans of the area where available and relevant.

HHSRS

Case Studies

Psychological Requirements

Crowding and Space

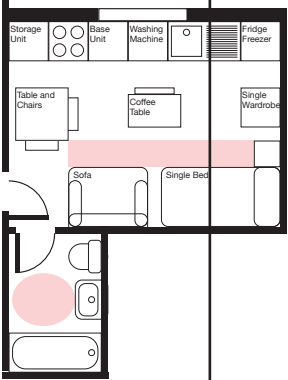
D18.1.3

Deficiencies

Description

The dwelling being assessed is the rear ground-floor studio flat, with a useable floor area of 13 m² and an ensuite bathroom with an area of 3.6 m². Furniture and activity zones in the floor plan are those specified for one-person accommodation. Also, the built-in storage shown is specified in the Nationally Described Space Standard (2015) for one-person accommodation.

A much-reduced inventory of these items can be accommodated in the dwelling.



2
Floorplan

Built-in Storage 1000 x 1000		Living Space Activity Zone 1800 x 1800
Bedroom Table and Chairs 1050 x 500		
Storage Unit 1000 x 500		Kitchen Work Space Zone 1500 x 1000
Chest of drawers 750 x 450		
Kitchen bin 600 x 300		

The deficiencies within the property are detailed. This section includes a text description of all deficiencies and photos, plans and diagrams where available and relevant. Not all deficiencies are shown in image form, so it is important to read the text thoroughly. All deficiencies relevant to the hazard are detailed in the text description. Where an element or issue is not mentioned, this should be taken to mean that it is not deficient.

HHSRS

Case Studies

Psychological Requirements

Crowding and Space

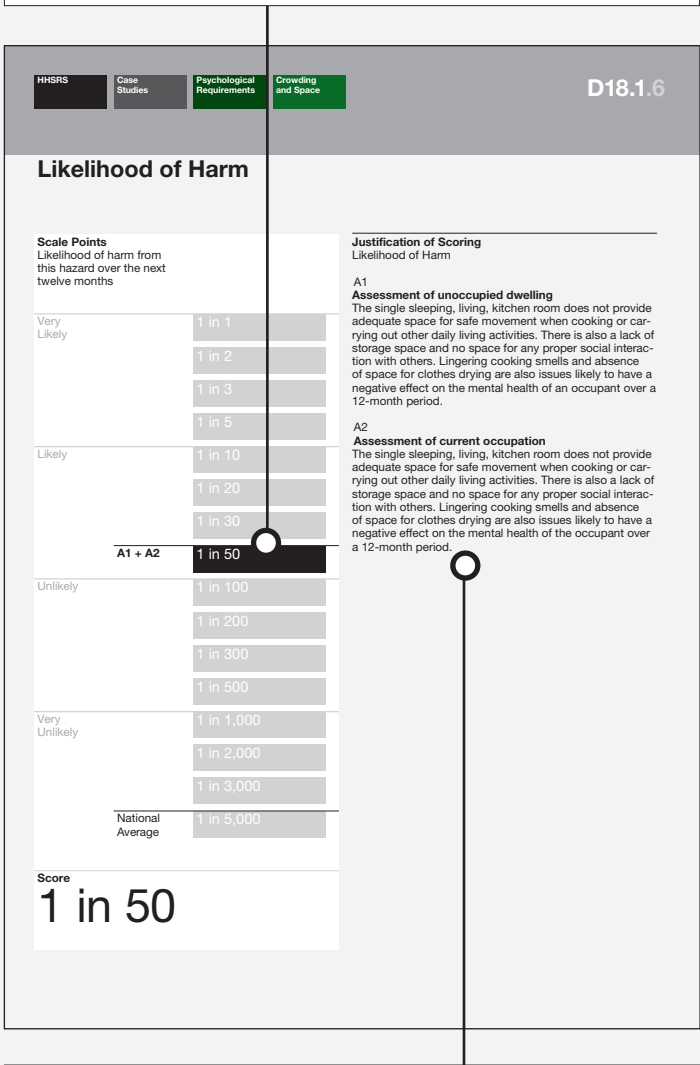
D18.1.5

Other Relevant Matters

Score	Matters affecting Likelihood of Harm
A1	0 1 2 3 Living area size
A2	0 1 2 3
A1	0 1 2 3 Kitchen size
A2	0 1 2 3
A1	0 1 2 3 Bathroom/WC size
A2	0 1 2 3
A1	0 1 2 3 Bathroom/WC door/lock
A2	0 1 2 3
A1	0 1 2 3 Bedroom(s) number
A2	0 1 2 3
A1	0 1 2 3 Bedroom(s) size
A2	0 1 2 3
A1	0 1 2 3 Bedroom(s) location
A2	0 1 2 3
A1	

The RMs are scored from 0 to 3 with a colour-coded key explaining the scores. This is to demonstrate how the RMs have been considered within the assessment and how they have influenced the level of risk. (This does not mean that RMs need to be scored by assessors as part of an HHSRS assessment.)

The scale points for likelihood of harm are all listed. The national average for the dwelling age and type is illustrated by a line, and the assessment of likelihood for the case study scenario is shown by a bold black box and also in text form at the bottom of the scale points.



The text details justification for the assessment of the likelihood of an occurrence.

The scale points for each class of harm outcomes are all listed. The national average for the dwelling age and type is illustrated by a line, and the assessment of harm outcomes for the case study scenario is shown by bold coloured boxes and also in text form at the bottom of each column



The text details justification for the assessment of each class of harm outcomes.

The key details the score and colour coding for each scoring band and category of hazard.



Scenario 1 details the overall score for the assessment of the case study, calculated from the assessed likelihood and harm outcomes on the previous page. The national average is shown by a line, for comparison purposes.

Scenario 2 details the score that can be achieved at the property if there is compliance with the BIs. The text justification explains the works that are necessary to comply with the BIs. The national average is shown by a line, for comparison purposes.



Scenario 3 details the score that can be achieved at the property if further works are carried out after compliance with the BIs (in cluding if there are no works required to comply with the BIs). The text justification explains the further works required to achieve this score. The national average is shown by a line, for comparison purposes.

HHSRS

Case Studies

Psychological Requirements

Crowding and Space

D18.1.10

Other Relevant Legislation and Guidance

Crowding and Space enforcement

Local authorities have a statutory duty to take enforcement action to tackle the Category 1 Crowding and Space hazard. However, the use of enforcement action, particularly prohibition orders, can lead to occupiers becoming displaced from their homes, creating a homelessness situation which results in a statutory duty to arrange suitable alternative accommodation. Priority-need cases will be provided with temporary accommodation; however, there is a risk these may also suffer overcrowding (case law does not prohibit overcrowding of temporary accommodation as short-term solutions are not bound by the same standards as permanent settlement). Local authorities are advised to adopt a holistic approach by involving their homelessness team and, where appropriate, early help/children's social care at the earliest opportunity to identify a course of action aimed at mitigating the effects of overcrowding, facilitating a managed move and ultimately avoiding displacement which results in homelessness.

Where there are high levels of overcrowding in the local housing stock, local authorities may choose to prioritise action, through consideration of the severity of the hazard, with high-scoring assessments reflecting those households living in conditions with the worst crowding, where adverse health effects will be most pronounced. Cases can also be assessed according to the statutory overcrowding tests of the room standard or space standard defined by the Housing Act 1985, which can add further categorisation. Dwellings failing these tests and containing a Category 1 hazard are likely to present a higher priority for action.

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 website.

The final page offers additional information on the scenario from a practical perspective, generally relating to other relevant legislation and guidance that would be useful to officers coming across similar situations.

4.0 Glossary of terminology used in the Case Studies

ACM

Aluminium composite material.

ACM/MCM category

There are various forms of MCM, with ACM being the most well known. It is two thin sheets of metal, between which is a core of insulation material. Government tests of ACM have given it three common classifications: Category 1, 2 or 3. Category 1 ACM is considered safe; Category 2 has a fire-retardant core but when combined with other combustible materials is likely to promote fire spread; and Category 3 has a combustible core and is now banned from use. MCM can be used in flat sheets or in cassette form. Cassette form is shown to increase the fire risk.

ADB

Approved Document B; the guidance for fire safety in building regulations.

Alms-house

A type of charitable housing provided to people in a particular community.

AOV

Automatic opening vents.

BISF

British Iron and Steel Federation: a type of non-traditionally constructed dwelling, where walls are of steel-frame construction, faced externally with vertical steel sheeting.

Bqm-3

Becquerel

Is per cubic metre: a unit of radioactivity used to measure radon.

BRE

Building Research Establishment: One of the testing houses across the country that can perform various tests on products and systems.

BS 5839 Part 6

The standard for residential fire alarms systems within a building (Part 1 is primarily for commercial but can be applied to residential, depending on circumstances). Different grades of system are defined depending on the situation.

Cavity barriers

Used vertically or horizontally within EWS cavities to create barriers to fire spreading. Fire barriers are also required around openings in the EWS such as windows, though sometimes the nature of the window unit is sufficient to be its own barrier, such as if steel framed.

dB LAeq, T

The weighted, equivalent continuous sound level in decibels. T denotes the time period over which the fluctuating sound levels were averaged.

District heating system

A system for distributing heat generated in a centralized location through a system of insulated pipes for residential and commercial heating requirements such as space heating and water heating.

Door equipment

Some doors will utilise fire-door retainers. These are devices that hold open doors and are often used in high-traffic circulation spaces. They will disengage automatically upon the detection of fire.

EDPM

Ethylene propylene diene monomer: This is a form of membrane used in EWS (and roofing) to provide a vapour and moisture barrier. It is combustible but acceptable within EWS.

EICR

Electrical installation condition report: A report undertaken by a competent electrician that sets out the condition of an electrical installation. It will identify any defects and rate them in terms of priority, e.g. C1 defects require immediate attention.

EPC

Energy performance certificate: A certificate that rates a building in terms of its energy performance on a rating of A to J. It also sets out how a building could be improved (where applicable) and the rating it might then achieve. AN EPC is a legal requirement in set circumstances, and sometimes the performance of a building has to reach a certain level in order to be used for its purpose, e.g. privately let.

Euroclass reaction

This is a standard (BS EN 13501-1) that categorises a product's reaction to fire. It provides a classification that covers a product's combustibility and contribution to fire (A–F, where A is non-combustible), smoke propagation/emission level (1–3, where 1 is little or no smoke) and flaming droplets and particles (0–2, where 0 is no droplets). Therefore, a product's classification will combine these three elements and is written in the format as given in the following example: A2-s2-d0.

EWS

External wall system: This relates to the materials and construction of a system that creates the external wall. For instance, a rainscreen material like HPL, behind which is an EDPM, fixing system, insulation and then the internal wall.

EWS1 certificate

A certificate devised to give an overview of the external wall system in terms of fire. The certificate contains different ratings, depending on the systems, from a rating of A1 that states there are no combustible materials in the EWS to a rating of B2 that means there are combustible materials in the EWS and works need to be carried out to improve the situation. These certificates are used by lenders to determine whether they will offer secured loans or mortgages to buildings. The certificates are often supported by some form of report, such as a PAS 8890 report that examines the fire safety of a building, which is in turn supported by a FRAEW (usually an intrusive report that examines the EWS to determine materials, make- up and the presence of cavity barriers.

FD(30)(60)

Fire door providing 30- or 60-minute fire resistance, i.e. it will prevent fire from escaping through the door for that time period. Fire door sets, incorporate the frame and the door. They should be fitted with intumescent strips and cold smoke seals, which help prevent the spread of smoke. Where the door is in use, i.e. not something that is commonly kept locked, it should also have a self-closing device. The doors require correct fire-resistant hinges and screws (usually three hinges) and the gaps between the frame and the door must be between 2 and 4 mm (except at the base, where it can be greater). Any vision panels need to be fitted correctly and be fire resisting. Labels are sometimes retained to the head of the door leaf, indicating the type of fire door it is.

Fire stopping

A method of using fire retardant material to 'stop' gaps. This could be fire collars around pipes and ducting, fire batt to stop up openings, fire-resisting mastic to door frames, etc. Note: Expanding foam is not normally considered acceptable. Orange foam is standard and pink foam has a fire-retarding element to it but should only be used in the smallest of gaps. Often fire-stopping works will be labelled by the contractor carrying out the works, indicating type and date of work.

Fire Strategy

When a building is built or converted into something else, there are a few ways that building can meet the guidance in Approved Document B (ADB) (the guidance for fire safety in meeting building regulations). Commonly, a fire strategy will be produced by fire safety consultants. This will set out the functional requirements of the building regulations, ADB guidance and how it is proposed that the building will meet these, which may include deviations from ADB and an explanation as to how the building compensates for this.

Firefighting shaft

Most medium- to high-rise blocks of flats and medium- and high-rise commercial buildings will have one or more firefighting shafts. A firefighting shaft is a stairway leading from the outside to the head of the building, it being particularly protected from fire. It is the shaft that the fire and rescue service will utilise to combat a fire in the building. If there is a firefighting lift, it will be enclosed in this shaft. The shaft will often have a higher degree of compartmentation and resistance to fire than the rest of the building. The dry or wet riser, where fitted, will have outlets on most levels in the shaft or in the lobby from the shaft. There will be some form of smoke extraction and there might be controls for smoke extraction that the fire and rescue service can utilise.

Firefighting/firefighters/evacuation lift

There are different forms of fire fighting lift, depending on the situation. The principle is to provide the fire and rescue services with equipment to assist them in tackling a fire, such as moving equipment to different levels and providing communications between levels.

Flood zone

An Environment Agency rating based on the likelihood of an area flooding, from flood zone 1 (least likely to flood) to flood zone 3 (most likely to flood).

FRA

Fire Risk Assessment: Required under the Regulatory Reform (Fire Safety) Order 2005 (as amended). It is an assessment of the fire risks within the building and what needs to be done to mitigate those.

FRAEW

Fire risk appraisal of external walls.

Green emergency-door equipment These could be push button and/or a break-glass box, usually green in colour, and are present on doors that need to be opened in the event of a fire to facilitate escape.

HMO

House in multiple occupation.

Hot Work

Relates to fire safety. Examples of hot work include flame cutting, soldering, welding and paint stripping using blow lamps etc.

HPL

High pressure laminate: A single sheet of compressed paper fibre and wood pulp. It has different classifications depending on type and whether a fire retardant has been included in its manufacture.

Insulation

This is often used in an EWS. Mineral wool isn't combustible, but most forms of solid thermal insulation (such as PIR) are combustible.

Interim measures

In the context of fire safety, these are temporary measures put in place at a block to mitigate the heightened risk due to a system breakdown, the presence of unsatisfactory cladding, etc.

Intumescent strips and cold smoke seals

These are strips that are usually routed into the head and jambs of fire doorframes or the doors themselves. They are there to help prevent the spread of smoke and can be separate or combined. The cold smoke seal is a brush of rubber-like strip that helps minimise smoke spread around the door frame until the heat of the fire reaches a point at which the intumescent strip activates and expands to close the gap between the door and the frame. This is one of the main reasons why the gaps between the door and frame have to be within 4 mm; any greater than this might hinder the performance of the strips.

Lightning protection

A system used in buildings to control lightning strikes, ensuring any strike is conducted to the ground safely.

MCB

Miniature circuit breakers.

MCM

Metal composite material.

Mixed-use building

Often blocks of flats will not only be residential in nature but will have other elements such as commercial space, laundries, car parks, etc. In relation to fire, these spaces are often treated differently in terms of their evacuation strategy. Commercial spaces will almost always utilise a simultaneous evacuation strategy. An enclosed basement car park is likely to have its own alarm system along with a smoke management system that incorporates extraction and jet fans/agitators that move smoke to extraction points. (These systems often also manage carbon monoxide extraction.) Sometimes car parks will be open to the outside; in such cases, smoke extraction is not usually required.

MMF

Manufactured mineral fibres.

MOE

Means of escape: These are the ways (single or multiple) that are available to someone evacuating a building. An MOE is usually sterile and protected so that the likelihood of fire and smoke getting into it is minimised. An MOE should always lead to a place a safety.

Nail sickness

A term used to describe the natural deterioration of the nails that hold your roof tiles in place.

NFCC

National Fire Chiefs Council: One of the functions of this body is to produce fire safety policy and guidance, which includes standards for 'waking watches', alarm systems for alerting people to cladding fires, along with other 'interim measures'.

PEEP

Personal emergency evacuation plan: A plan for individuals that may need assistance in the event of an evacuation of a building. The purpose of a PEEP is to provide people who would have difficulty self-evacuating in the event of a fire with a tailored evacuation plan in case they need to do so in a fire emergency.

PIR

Widely used shorthand term for 'polyisocyanurate'.

Quarter house

Part of a building containing four dwellings built back-to-back.

Radburn estate

An estate design that incorporates separation of pedestrians and vehicles via a series of cul-de-sacs pointing into the centre of each block.

RCD

Residual current device.

Redlam bolt

A bolt that keeps a door in a locked state until the glass tube is broken, allowing the bolt to disengage.

RMC

Residents' management company: A legal agreement put in place between the freeholder and leaseholders at the time the development was completed. The RMC has control and is responsible for the management of the building.

RP

Responsible Person – this is a legal term to describe an entity that is responsible for fire safety in a building with regards to enforcement under The Regulatory Reform (Fire Safety) Order 2005 (as amended), which is enforced by the Fire and Rescue Service.

RTM

Right-to-manage company: A legal entity established under statutes that can be set up by leaseholders to obtain control of the management of the common parts from the freeholder. The freeholder retains ownership but not control.

Safety Case

This is a requirement under the Building Safety Act 2022, requiring Accountable Persons to produce a safety case for the building they are responsible for. It identifies the fire and structural issues in the building and what is provided to mitigate those. You can have more than one safety case in a mixed-use building, with a Principal Accountable Person identified to coordinate all Safety Cases.

SAP

Standard Assessment Procedure: the calculation that is required in order to produce a predicted energy assessment for an Energy Performance Certificate.

SIB (or PIB)

Secure information box (or Premises Information Box): A secure and fire-resistant box located in a space accessible by the fire and rescue service that contains vital information for the fire and rescue to use in the event of a fire, e.g. floor plans.

Smoke management system

Most medium- to high-rise buildings (as well as commercial buildings) will incorporate some form of system to help keep the building clear of smoke in the event of a fire. One of the primary functions is to keep the escape stairs free of smoke using AOVs. Corridors and lobbies may also have smoke extraction systems in place, such as AOVs built into the roof, walls or smoke shafts (which can be either natural or mechanical). Smoke systems will often have controls that allow for the fire and rescue service to take control manually. These sometimes also have a 'boost' function to assist with the clearing of smoke, usually being contained in yellow-coloured boxes. Note: Often environmental systems are also incorporated with the smoke systems, meaning that the system can also function to help control temperature and circulate air within the communal spaces. This can create confusion.

Tell-tale

A precision gauge that consist of two plates which overlap for a part of their length, used for crack monitoring.

Travel distances

The length of a corridor impacts upon the ability of someone reaching a place of safety in the event of a fire. Often long corridors will have cross-corridor doors fitted to mitigate excessive travel distances. These are doors that provide a barrier mainly to smoke. Allowable distances in any particular situation are dependant on many factors such as the size of the building, the presence of other firefighting measures, the number of escape routes, etc.

TRV

Thermostatic radiator valve.

Waking watch

A people-based system that requires staff within a block to monitor it for a fire, and if found to alert residents. The NFCC provides guidance on the make-up and duties of a waking watch.

Wimpey No-fines'

A non-traditional construction method which used concrete with no fine aggregates.