

HOUSING HEALTH & SAFETY RATING SYSTEM

LANDLORDS GUIDE TO THE RISK ASSESSMENT OF RESIDENTIAL HAZARDS

LEEDS CITY COUNCIL

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LANDLORDS GUIDE

HOUSING HEALTH & SAFETY RATING SYSTEM

This guide is to assist landlords who wish to risk assess their property.

The guide is available on the Council's website .. www.leeds.gov.uk type into the search engine .. **hmo** .. or alternatively .. HHSRS landlords guide. The guide will be periodically updated. Landlords should ensure that they are using the current edition. All updated versions will be re-dated.

The guide adopts some of the principles of the Government's Housing Health and Safety Rating System (HHSRS) which is the method used by Leeds City Council's Environmental Health Officers when assessing the condition of privately rented accommodation. HHSRS is an enforcement tool and as such does not oblige landlords to carry out a risk assessment in the same way as an employer. However, landlords as responsible persons do have a duty to carry out a risk assessment for fire safety purposes in connection with the common parts of flats and houses in multiple occupation (HMOs).

Landlords may well have a responsibility to ensure that they carry out repairs so that their property is in a safe condition so as to avoid death/injury to occupiers (under the Defective Premises Act) . Additionally, landlords have statutory repairing obligations (under the Landlord and Tenant Act 1985). Carrying out and documenting risk assessments, and acting on the findings, can assist landlords to satisfy this responsibility.

STEP 1 - AWARENESS OF HAZARDS

Familiarise yourself with the 29 hazards that you will need to check your property for.

These are listed on page 4.

STEP 2 – AWARENESS OF DEFICIENCIES THAT CAUSE HAZARDS

Familiarise yourself with the POTENTIAL deficiencies that cause hazards.

These are explained in the *Description of Hazards* section of this guide from page 6 onwards.

STEP 3 – PROPERTY SURVEY

Inspect your property to identify whether or not there are any hazards that need remedial action.

This is done by making a written note of any of the deficiencies that can cause a hazard.

Deficiencies can be defects e.g. disrepair, or shortfalls e.g. inadequate heating.

STEP 4 – ASSESSING THE RISK FROM A HAZARD

The HHSRS requires a considered assessment of the **likelihood** of the hazard causing harm to an occupier or visitor to the property over a 12 month period, and the potential **severity** of that harm.

In the *Description of Hazards* on page 5 onwards, the matters that affect likelihood and severity are listed.

Using these lists as a scoring check sheet, score any deficiencies that you have identified using the following key:

Key	- Satisfactory	
	1 Not satisfactory	(Low priority)
	2 Defective	(Medium priority)
	3 Seriously defective	(High priority)

Landlords should also have regard to the vulnerability of their tenants, considering age, mobility, etc., in assessing the risk from hazard(s).

STEP 5 – PRIORITISING REMEDIAL WORKS

The scores for any deficiencies will provide an indication of the priority that will need to be given to remedial works i.e. a low score would indicate low priority.

When considering what remedial works, if any, are needed to remove or reduce a hazard, take into account the relative seriousness of the deficiencies that have been scored. A hazard with an overall low score may still need priority action if some of the individual deficiencies scored are particularly hazardous.

The checklist scoring system is intended to provide a simple indication of whether remedial works to deal with a hazard should be low, medium or high priority. The system is not designed to be a scientifically accurate risk assessment process. This system does not enable a person to compare the relative scores between each hazard but merely highlights areas of most concern.

Occupancy should be taken into account when assessing priority of works. The very young and the elderly are particularly prone to some hazards - these have been highlighted on the list of hazards. Only when considering 'crowding' should primary regard to current occupation be made. The best course of action to deal with a hazard will take account of current occupancy and possible occupancy changes.

Although the private rented sector tends to cater for younger, able bodied people rather than vulnerable groups, landlords should be mindful of those

hazards that put vulnerable people at higher risk and take the necessary remedial action as appropriate.

STEP 6 – DECIDING ON REMEDIAL WORKS

As a matter of principle hazards should be removed where practicable.

However some hazards are unavoidable. Unavoidable hazards should be reduced to as low a level of risk that is practicable and cost effective.

The cost of remedial works should be borne in mind in determining the best course of action.

Deciding on what works may be necessary to remedy some hazards may be straightforward e.g. those arising from disrepair. For example if a gas fire is unsafe it needs to be repaired/replaced. Likewise damp requires eradication. However deciding on remedial works for others will be more challenging.

To assist landlords the Council have some advisory recommendations for certain hazards to ensure that they are at an acceptably low risk level, these include: excess cold, fire, crowding & space, lighting, falls on stairs.

LIST OF HAZARDS

HAZARD	VULNERABLE GROUP	PAGE NO.	COUNCIL COMMENTS
Asbestos		5	
Biocides		6	
Carbon monoxide	The elderly	6	
Collision & entrapment		7	
Crowding & space		8	YES
Damp & mould growth	The young	8	
Domestic hygiene		9	
Electrical hazards	The young	10	
Entry by intruders		10	YES
Position & operability of amenities	The elderly	11	
Excess cold	The elderly	11	YES
Excess heat	The elderly	12	
Explosions		13	
Falls in baths	The elderly	13	
Falls between levels	The young	14	
Falls on the level	The elderly	15	
Falls on stairs	The elderly	15	YES
Fire	The elderly	16	YES
Food safety		17	
Hot surfaces	The young	18	

Lead	The young	18	
Lighting		19	YES
Noise		19	
Personal hygiene	The young	20	
Radiation (Radon gas)	The elderly	21	
Structural collapse		21	
Uncombusted gas fuel		22	
Volatile organic compounds		23	
Water supply		23	

CARRYING OUT A RISK ASSESSMENT - WORKED EXAMPLE

HAZARD = EXCESS COLD

A 1930s two storey, three bed roomed mid terraced property occupied by three students with ground floor lounge, kitchen diner and first floor bathroom.

Brick built with cavity walls. No insulation in the loft space or cavity walls. Single glazing in original windows in sound condition. Old gas fire in the lounge. Free standing electric convector heaters with simple on/off switches provided in the bedrooms. Wall mounted radiant electric heater in the kitchen diner. No heating to bathroom.

Some dampness to the bedroom ceilings. Ventilation to all rooms is solely from the opening casements.

Potential deficiencies

Score

- | | |
|--|---|
| a) Thermal insulation – inadequate insulation of the external envelope of the dwelling, including the presence of cold bridges. | 3 |
| b) Dampness – in such a position, and sufficiently extensive and persistent as to reduce the effectiveness of the thermal insulating material and/or the structure. | 2 |
| c) Settling of insulation – compression of the thermal insulating material reducing its effectiveness. | - |
| d) Type of heating provision – inappropriate or inefficient systems and appliances. | 3 |
| e) Size of heating system – systems and appliances inadequate for the size of dwelling. | 3 |
| f) Installation and maintenance of heating system – inadequately installed or maintained systems. | - |
| g) Controls to heating system – inadequate or inappropriate controls to the system or appliance. | 3 |
| h) Amount of ventilation – inadequate, excessive, or inappropriate provision for thorough ventilation. | 1 |
| i) Ventilation controls – inadequate means of controlling the ventilation. | 1 |
| j) Disrepair to ventilation – to the system or controls. | 2 |
| k) Draughts – uncontrollable draughts and those situated to cause discomfort. | 1 |

There are a number deficiencies identified, many of them with high scores. The risk to health and safety from excess cold is therefore very high and remedial works are necessary as a high priority.

Recommended remedial works could include: provision of central heating with thermostatic controls in each room, provision of loft insulation, remedy the dampness and also consider cavity wall insulation and double glazing.

DESCRIPTION OF HAZARDS

ASBESTOS

Health effects The inhalation of asbestos fibres can cause pleural disease (pleural plaques and fibrosis), lung cancer and mesothelioma (cancer of the pleura, the lining around the lung, or, less frequently, cancer of the peritoneum).

The presence of asbestos does not necessarily constitute a hazard but regard should be had to its location, condition and whether it could be interfered with.

Preventative measures The prevention of the release of asbestos fibres.

Matters relevant to the likelihood and the severity of harm include:

- a) Date of construction – asbestos is found in dwellings in a number of situations; houses and particularly flats, built between 1946 and 1979 or between 1920 and 1945 are more likely to have asbestos.
- b) Presence of asbestos – particularly in accessible positions.
- c) Unsealed asbestos – unsealed asbestos based materials.
- d) Disrepair – damage or disrepair to asbestos based material.
- e) Presence of MMF – in accessible positions.

As a guide, Leeds City Council recommends:

As removal is likely to result in an increase in airborne fibre levels, where asbestos is present it should be managed *in situ* if it is:

- in good condition;
- not likely to be damaged; and/or
- not likely to be worked on or disturbed
- Paint the asbestos seal it
- Dampen down if friable

Management of asbestos materials involves:

- identifying the location and condition of asbestos;
- ensuring it is effectively sealed;
- making inaccessible to prevent occupiers damaging the sealing surface;
- labeling;
- keeping a record of the location of asbestos in the building.

Where existing asbestos is damaged or is likely to be damaged or disturbed, an expert

assessment needs to be made and action taken to repair, seal, enclose or remove it.

To avoid the possibility of adverse health effects, high peak exposures to asbestos fibres should always be avoided. Most work on asbestos insulation, asbestos insulating board and lagging, including sealing and removal, should normally only be done by a contractor licensed by the Health and Safety Executive (HSE).

BIOCIDES

These are chemicals used to treat timber and mould treatment growth in dwellings. They do not include those chemicals used to treat infestations of cockroaches, rats or mice.

Health effects The main health risk is from inhalation although skin contact could be an issue. Health outcomes are liable to be moderate but still warrant medical attention.

Preventative measures The use of biocides must be in accordance with the instructions, and provided proper precautions are observed during use and afterwards to allow for fume dispersal, risks should be minimised. Problems only occur where biocides are incorrectly used.

Potential deficiencies:

- a) Use of biocides – use particularly in living areas.
- b) Misuse – failure to follow the instructions for use and other proper precautions.

CARBON MONOXIDE AND FUEL COMBUSTION PRODUCTS

This relates to the combustion or incomplete combustion of gas, oil and solid fuel used for heating and cooking.

Health effects At high concentrations carbon monoxide can cause unconsciousness and death. At lower concentrations, it causes a range of symptoms from headaches, dizziness, weakness, nausea, confusion, and disorientation, to fatigue.

Preventative measures Gas, oil and solid fuel burning appliances must be correctly installed and maintained. Flues should be regularly checked and kept clean. Adequate ventilation must be provided.

Potential deficiencies:

- a) Flue less appliances – gas or oil burning appliances, including cookers.
- b) Disrepair to appliance – to gas, oil or solid fuel burning appliances resulting in incomplete combustion.
- c) Inadequate ventilation – particularly in rooms with gas, oil or solid fuel burning appliances.
- d) Disrepair to ventilation – disrepair to or blocking up of the means of ventilation.
- e) State of flues – lack of proper and regular cleaning of flues serving gas, oil or solid fuel burning appliances.
- f) Disrepair to flues – serving gas, oil or solid fuel burning appliances.

- g) Flue outlet siting – sited adjacent to openable window or in a covered passage.
- h) Extractor fans – in rooms with open flued appliances.
- i) Ventilation lobby – no lobby between a garage and living accommodation.
- j) Carbon monoxide detectors – lack of, or defects to, detectors.

Leeds City Council comment:

It is a legal requirement that all gas installations are maintained safe and are inspected annually by a CORGI registered gas engineer and an inspection report provided.

Appliances burning with a yellow flame and/or causing staining are warning signs that the appliance may be faulty or in need of servicing and should be checked immediately.

COLLISION AND ENTRAPMENT

This relates to risks of physical injury from trapping body parts in, for example, doors and windows or accidents associated with poor design of facilities in the house such as low headroom.

Health effects Bruising. Cuts. Fractures.

Preventative measures Avoid or reduce obstructions, low headrooms, gaps and powered mechanisms. Doors and windows to be maintained in satisfactory repair. Safety glazing in high risk locations.

Potential deficiencies:

- a) Door design defects – difficult operation of doors and door catches.
- b) Disrepair to doors – disrepair of door and/or door furniture.
- c) Door closer defects – overly powerful mechanisms.
- d) Door location – doors opening out into small circulation areas, corridors, landings or staircases.
- e) Window design defects – difficult operation of opening lights and window catches.
- f) Disrepair to windows – disrepair of windows, frames and/or window furniture.
- g) Windows location – windows opening across pathways.
- h) Non-safety glass – in a door, low window or other vulnerable location.
- i) Unprotected gaps – gaps of over 100 mm in banisters in which young children could get trapped.
- j) Low headroom to doors – well under 1.9 metres.
- k) Low beams and ceilings – well under 1.9 metres.

CROWDING AND SPACE

This relates to hazards associated with lack of adequate space in living and sleeping areas for normal household family life.

Health effects Psychological distress and mental disorders, increase in heart rate, reduction of tolerance, a reduction of the ability to concentrate, increased hygiene risks, increased risk of accidents, and spread of contagious disease.

Preventative measures Within a dwelling there should be sufficient space for the separation of different household activities, either by physical separation or by a clearly defined space within a larger space.

Matters relevant to the likelihood and severity of harm include:

- a) Living area – lack of living area of an adequate size for the household or potential household.
- b) Kitchen area – lack of a separate kitchen area of adequate size.
- c) Personal washing area – lack of a separate, or an appropriately sited, or sized personal washing area.
- d) Washing area door – no door to the personal washing area or lock on door or glazed door.
- e) Sanitary accommodation – lack of separate, or an appropriately sited or sized, sanitary accommodation compartment.
- f) Number of bedrooms – inadequate number of bedrooms for the household or potential household.
- g) Bedroom size – inadequate size of bedrooms.
- h) Bedroom location – inappropriately sited bedrooms.
- i) Recreational space – lack of safely fenced or guarded recreational space, readily visible from within the dwelling.

As a guide, Leeds City Council recommends:

Minimum floor areas for rooms used for sleeping

<u>No. of persons</u>	<u>Floor area of room</u>
2	110 sq. ft.
1.5	90 – 110 sq ft
1	70 -90 sq ft
0.5	50 -70 sq ft

Children under the age of 10 count as half a unit. Children over the age of 10 should not share a bedroom with a member of the opposite sex.

For minimum recommended room sizes for HMOs please refer to the Council’s advisory HMO standards available on the Council’s internet site www.leeds.gov.uk and type HMO into the search engine.

DAMP & MOULD GROWTH

This covers threats to health related to the presence of mould, fungal growth and dust mites associated with dampness and/or high humidities. It also includes problems associated with penetrating and rising dampness.

Health effects Allergies. Asthma. Infections. Cancer. Nausea & diarrhoea. Depression, anxiety, feeling of shame

Preventative measures Dwellings should be warm, dry & well ventilated

Potential deficiencies:

- a) Energy efficiency – inadequate heating and insulation of the dwelling.
- b) Background ventilation – lack of controllable background ventilation.
- c) Extract ventilation – lack of safe and accessible means for the extraction of moisture laden air during cooking, bathing or showering.
- d) Clothes drying facilities – lack of facilities ventilated to the external air.
- e) Damp proofing – in disrepair or otherwise inadequate, resulting in rising or penetrating dampness.
- f) Disrepair – floors, walls or roofs allowing water penetration.
- g) Exposed water tanks and pipework – inadequate frost protection.
- h) Water using appliances – inadequately installed and sealed facilities, such as baths, showers, wash hand basins and WC basins, which may permit splashing.
- i) Plumbing and waste pipes – inadequately installed, or disrepair to, waste pipes or plumbing serving water using appliances (such as baths, showers, wash hand basins, bidets and sinks) causing leaks.
- j) Rain water goods – inadequate or defective.
- k) Roof and sub-floor spaces – inadequate ventilation.
- l) Small rooms sizes – may result in high occupant density.

Other information

The location of damp/and or mould is relevant; the threat to health being influenced by the number and intended use of the affected room(s).

Affected bedrooms are significant particularly for younger people because of the large amount of time that they tend to spend in them.

Similarly damp and/or moulds in rooms used for living and sleeping e.g. bedsits and small flats, is more significant, as occupants spend a greater proportion of their time in them.

Condensation is a symptom of high humidity and poor insulation, whereas other types of dampness are potential causes. Under this heading both condensation and damp are relevant factors.

DOMESTIC HYGIENE, PESTS AND REFUSE

This category covers hazards which can result from:

- a) poor design, layout and construction such that the dwelling cannot be readily kept clean and hygienic;
- b) access into, and harbourage within, the dwelling for pests; and
- c) inadequate and unhygienic provision for storing and disposal of household waste.

Health effects Gastro-intestinal diseases. Asthma and allergic reactions. Emotional distress.

Preventative measures The design, construction and subsequent maintenance of the dwelling should enable it to be kept clean, preventing the build-up of dirt and dust which may enable organisms to multiply.

Matters relevant to the likelihood and the severity of harm include:

- a) Internal walls and ceilings – uneven and/or cracked internal walls and/or ceilings.
- b) External walls & roof – missing or damaged brickwork, including airbricks, to external walls and other disrepair to external walls and roof.
- c) Ventilators – other unprotected ventilators to walls and/or roofs.
- d) Solid floors – uneven and/or cracked solid floors.
- e) Suspended floors – uneven and/or open-jointed boarding to suspended timber floors.
- f) Under floor space – ill fitting covers or lack of means of access to under floor spaces to facilitate treatment of infestations.
- g) Roof space – ill fitting covers or lack of means of access to roof spaces to facilitate treatment of infestations.
- h) Skirting and architraves – loose and/or ill-fitting skirting boarding or architraving.
- i) Windows and doors – ill fitting doors and/or windows.
- j) Windows and door frames – open joints between window and/or door frames and adjacent walls.
- k) Ducts and pipe work – open joints to service ducting and/or pipe work.
- l) Access to ducts – lack of means of access into service ducting to facilitate treatment of infestations.
- m) Service entry points – open joints to service entry points.
- n) Water seals – defective water seals to WC basins and/or drainage inlets.
Disrepair to drains – including sewers and/or inspection chambers.
- p) Open vent pipes – missing guards to drainage vent pipes.
- q) Design deficiencies – areas which harbour dirt and dust points created through poor design and/or construction.
- r) Internal refuse areas – the lack of, or defects to, any internal refuse storage space.
- s) External refuse areas – the lack of, or defects to, any clearly defined area for refuse containers.
- t) Refuse chutes etc – the lack of or defects to means of disposal of refuse to each floor of multi-occupied buildings.

ELECTRICAL HAZARDS

This category covers hazards from shock and burns resulting from exposure to electricity (It does not include risks associated with fire caused by deficiencies to the electrical installations, such as ignition of material by a short-circuit.)

Health effects Shock. Burns. Fatality.

Preventative measures Safety precautions adequate to prevent electrocution.

Matters relevant to the likelihood and the severity of harm include:

- a) Electrical installation out-of-date – non-compliance with current requirements.
- b) Number and siting of outlets – inadequate number of, and/or badly sited electrical

socket outlets. Overloading of existing sockets.

c) Fuses and meters – inappropriately sited fuses and meters.

d) Earthing – lack of or inadequately earthed electrical system.

e) Disrepair of installation/broken installations – including to supply, meters, fuses, wiring, sockets, light fittings or switches.

f) Presence of water – electrical installations in close proximity to water, including areas of damp.

Leeds City Council comment

Where there is an indication that there may be an above average risk, then a full inspection and test report by a qualified electrician or electrical engineer should be commissioned.

ENTRY BY INTRUDERS

This covers difficulties in keeping a dwelling secure against unauthorised entry and the maintenance of defensible space.

Health effects Fear of burglary. Stress & anguish. Injuries caused by intruder

Preventative measures Make the property secure to deter and delay an intruder:

Matters relevant to the likelihood and the severity of the harm include:

a) Location – high level of poverty and crime in the area.

b) Defensible space – both public and private around the dwelling.

c) Lighting – pedestrian routes to an estate or immediate neighbourhood, entry points to dwelling, including any security lighting.

d) Pedestrian routes – definition of routes to an estate or immediate neighbourhood.

e) Housing layout – no natural unobstructed view of neighbouring dwellings.

f) Doors and windows – insubstantial construction, disrepair or inadequate locks.

g) Door viewers – lack of viewers to external doors.

h) Door chains – lack of or broken chains to external doors.

i) Concierge etc – concierge or entry-phone system to a block of flats.

j) Burglar alarms – lack of or defective alarm system.

Other information

There needs to be a balance between security measures and other measures that may be affected by them e.g. fire safety.

The extent of appropriate security measures will be proportional to the likelihood of a burglary that in turn will be related to the general burglary rate in the area in which the property is situated.

Leeds City Council do not recommend fixed security grilles on the outside of windows. Quick-release security grilles fitted to the inside of windows enable the rapid removal of grilles to permit escape through the window in the event of a fire.

POSITION AND OPERABILITY OF AMENITIES ETC

This category covers threats of physical strain associated with functional space and other features at dwellings.

Health effects Strain, sprain and fall injuries.

Preventative measures The layout of the dwelling and in particular the kitchen and bathroom should be such as to make use convenient and easy, as well as safe, and should facilitate cleaning.

Matters relevant to the likelihood and the severity of harm include:

- a) Position of amenity – inappropriate positioning of a wash hand basin, bath, shower, bidet and/or sanitary basin.
- b) Space for amenity – inadequate functional space for the use of a wash hand basin, bath, shower, bidet and/or sanitary basin.
- c) Kitchen worktops – inappropriate positioning of a worktop and/or sink.
- d) Kitchen space – inadequate functional space for the use of cooking facilities, worktops and/or sinks.
- e) High level storage – inappropriate siting of a shelf or wall cupboard.
Window controls – inappropriate positioning of window controls, handles, locks etc..
- g) Electric switch/sockets – inappropriate siting of electric switch and/or socket outlet.
- h) Operation of windows etc – stiff or otherwise difficult operation of window, door, or tap handles and catches.

EXCESS COLD

This category covers the threats to health from sub-optimal indoor temperatures.

Health effects Hypothermia Respiratory conditions - bronchitis, pneumonia and influenza Cardiovascular - heart attacks and strokes Infections

Preventative measures Whole dwelling to be capable of being adequately and efficiently heated

Matters relevant to the likelihood of an occurrence and the severity of the outcomes include:

- a) Thermal insulation – inadequate insulation of the external envelope of the dwelling, including the presence of cold bridges. This can include insufficient thickness of existing insulation.
- b) Dampness – in such a position, and sufficiently extensive and persistent as to reduce the effectiveness of the thermal insulating material and/or the structure.
- c) Settling of insulation – compression of the thermal insulating material reducing its effectiveness.
- d) Type of heating provision – inappropriate or inefficient systems and appliances.
- e) Size of heating system – systems and appliances inadequate for the size of dwelling.
- f) Installation and maintenance of heating system – inadequately installed or

maintained systems.

- g) Controls to heating system – inadequate or inappropriate controls to the system or appliance.
- h) Amount of ventilation – inadequate, excessive, or inappropriate provision for thorough ventilation.
- i) Ventilation controls – inadequate means of controlling the ventilation.
- j) Disrepair to ventilation – to the system or controls.
- k) Draughts – uncontrollable draughts and those situated to cause discomfort.
- l) Double glazing – presence or absence of double glazed windows and panels

As a guide, Leeds City Council recommends:

Insulation

- 300 mm mineral fibre insulation in roof voids
- Insulation board fitted between rafters when re-roofing
- Attic ceilings lined with insulating board
- Cavity wall insulation
- Internal faces of external dry lining with insulation board

Heating Systems

- Central heating with thermostatically controlled valves to individual radiators
- Electric storage heaters
- Balanced flue wall mounted gas fires

As a guide, Leeds City Council do not recommend:

- Wall mounted electric convector heaters except in small rooms and unless provided with controllable heat output
- Gas fires in sleeping rooms
- Gas fires as the only source of heating of a dwelling
- Electric radiant heaters as the only source of heating within a dwelling

Further guidance is available on the Council's website .. www.leeds.gov.uk ..type HMO into the search engine.

EXCESS HEAT

This category includes threats from excessively high indoor air temperatures.

Health effects Thermal stress, Cardiovascular strain and trauma. Strokes. Dehydration. Death

Preventative measures The structure of the dwelling should provide or incorporate sufficient thermal insulation, having regard to its construction, its geographical location, its position in relation to other dwellings and buildings and its orientation.

Matters relevant to the likelihood and the severity of harm include:

- a) Thermal insulation – inadequate provision for thermal insulation particularly in attic flats.
- b) Orientation of glazing – large areas of south facing glazing in inappropriately designed dwellings.
- c) Heating controls – faulty, inappropriately designed, or inadequate controls to the heating system.
- d) Ventilation provision – inadequate or inappropriate provision for ventilation.
- e) Ventilation control – inadequate means of controlling the ventilation.
- f) Disrepair to ventilation – to the system or devices.

EXPLOSIONS

This category covers the threat from the blast of an explosion, from debris generated by the blast, and from the partial or total collapse of a building as the result of an explosion.

Health effects Crushing, bruising, puncture injuries, fractures, and head, brain and spinal injuries.

Preventative measures Gas appliances should be properly designed and installed and should satisfy the relevant safety regulations. The appliances and associated flue should be regularly serviced and maintained by a competent person.

Matters relevant to the likelihood and the severity of harm include:

- a) Gas installations – defects to the gas installation (pressure regulators, meters and pipework).
- b) Gas appliances – defects to the gas appliances.
- c) Maintenance defects – lack of evidence of regular testing and servicing of the gas installation and/or appliances.
- d) Ventilation – lack of appropriate means of ventilation, taking account of the type of gas used.
- e) Gas storage – inadequate or defective storage equipment for other than mains gas.
- f) Hot water storage tank – tank of greater than 3 gallons (15 litres) connected directly to the mains water supply.
- g) Vented hot water system – inadequately sized and/or blocked vent to system.
- h) Unvented hot water system – lack of or defective non self-resetting thermal cut-out and/or temperature relief valve to unvented system.

FALLS ASSOCIATED WITH BATHS ETC

Health effects Cuts. Bruising. Fractures

Preventative measures Baths and showers should be stable and securely fitted, provide for slip resistance and incorporate safety features such as handles or grab rails

Matters relevant to the likelihood and the severity of harm include:

- a) Poor friction – of the internal surface of a bath or shower.
- b) Siting of taps, wastes, light switches and other controls– inappropriate sitings increasing the risk of falls.
- c) Handles and grab rails – lack of, or insecurely fitted.
- d) Unstable appliance – unstable fitting of bath, shower, wc basin, or wash hand basin.
- e) Inadequate space – for the functional area immediately adjacent to the appliance.
- f) Inadequate lighting – lack of adequate natural or artificial lighting.
- g) Glare – from natural or artificial lighting.
- h) Space heating – inadequate means of heating the bathroom.
- i) Projections – the presence of sharp edges, heating installations, or glass or inappropriate positioning.
- j) Inadequate space – functional space and space between appliances.
- k) Space heating – inadequate means of heating the bathroom.

FALLS BETWEEN LEVELS

This category covers falls from one level to another, inside or outside a dwelling, where the difference in levels is more than 300mm. It includes, for example, falls out of windows, falls from balconies or landings, falls from accessible roofs, into basement wells, and over garden retaining walls.

Health effects Cuts. Bruising. Fractures. Head, brain and spinal injuries. Fatality.

Preventative measures Prevention of falls

Matters relevant to the likelihood and the severity of harm include:

For windows,

- a) Ease of window operation – degree of difficulty to use window catches and opening lights.
- b) Safety catches – lack of such catches or features to catches.
- c) Opening limiters – no restriction preventing windows being opened more than 100mm.
- d) Sill heights – less than 1,100mm above floor level and/or lack of safety glass or guarding.
- e) Disrepair of window – to frame, catches, hinges, sashes, safety devices and opening lights.
- f) Ease of cleaning – outer surfaces that are difficult to clean.

For balconies, landings, roof parapets, basement wells, etc, matters

- a) Height of guarding – extending less than 1,100mm above the balcony, roof surface or floor.
- b) Easily climbed guarding – constructed so as to facilitate climbing by young children.

- c) Openings in guarding – openings greater than 100mm.
- d) Construction/repair of guarding – insufficient strength and fixing.

For windows, balconies, landings, roof parapets, basement wells, etc,

- a) Height above ground – the distance of a fall to the ground or next level.
- b) Nature of ground – the nature of the surface and any features which may be collided with.
- c) Non-safety glass – the lack of safety glass where appropriate in the window or guarding.

FALLS ON THE LEVEL

This category covers falling on any level surface such as floors, yards, and paths. It also includes falls associated with trip steps, thresholds, or ramps, where the change in level is less than 300mm.

Health effects Cuts. Bruising. Fractures. Head, brain and spinal injuries.

Preventative measures Avoidance or reductions of tripping hazards

Matters relevant to the likelihood and the severity of harm include:

- a) Lack of floor surface – no properly constructed floor, path, or yard where needed.
- b) Excessive slope – to the floor, path or yard.
- c) Uneven surface – to the floor, path, or yard.
- d) Trip steps/threshold – the presence of such steps or projecting thresholds.
- e) Disrepair – to the structure and surface of the floor, path or yard.
- f) Poor slip resistance – to the surface of the floor, path or yard.
- g) Inadequate drainage – of surface water from the path or yard.
- h) Inadequate space – for the carrying out of appropriate tasks and manoeuvres.
- i) Poor lighting or glare – both artificial and natural.
- j) Hard surfaces – unforgiving or abrasive surface to the floor, path or yard.
- k) Projections etc – the presence of sharp edges, heat producing appliances, or glass, in the area where a fall might occur.
- l) Nature of area – and of the activities which will be undertaken in the area where a fall might occur.

FALLS ASSOCIATED WITH STAIRS AND STEPS

This category covers any fall associated with a stairs, steps and ramps where the change in level is greater than 300mm.

Health effects Cuts. Bruising. Fractures. Head, brain and spinal injuries. Fatality.

Preventative measures Safe stairs in good repair, in well illuminated stairways

Matters relevant to the likelihood and the severity of harm include:

- a) Tread lengths – of less than 280mm or greater than 360mm.
- b) Riser heights – of less than 100mm or greater than 180mm.

- c) Variation in tread or riser – dimensional variation producing an uneven pitch.
- d) Nosing length – projecting more than 18mm beyond any riser.
- e) Poor friction quality – of treads and nosings.
- f) Openings – in stairs or guarding through which a 100mm diameter sphere can pass.
- g) Alternating treads – stairs so constructed, particularly those not conforming to current regulations.
- h) Lack of handrails – the absence to both sides of the staircase.
- i) Height of handrails – set below 900mm or above 1,000mm.
- j) Lack of guarding – the absence where there is no wall to both sides of the staircase.
- k) Height of guarding – not extending to at least 900mm above the treads.
- l) Easily climbed guarding – constructed so as to facilitate climbing.
- m) Stair width – less than 1,000mm.
- n) Length of flight – long flights may increase the likelihood of a fall.
- o) Inadequate lighting – natural and/or artificial, particularly to the top and foot of a flight.
- p) Lighting controls – inadequate or inconvenient means of controlling the artificial lighting.
- q) Glare from lighting – whether natural or artificial.
- r) Door(s) onto stairs – doors opening directly onto the stairs.
- s) Inadequate landing – inadequate floor space leading to the stairs.
- t) Construction/disrepair – inadequate construction or disrepair to any element of the stairs.
- u) Thermal efficiency – inadequate heating and insulation of the dwelling.
- v) Length of flight – long flights increase the severity of the outcome.
- w) Pitch of stairs – stairs which are of above average steepness or shallowness.
- x) Projections etc – the presence of sharp edges, heating installations, or glass, to the stairs or at the foot of the flight.
- y) Hard surfaces – unforgiving surfaces at the foot of the flight.
- z) Construction/disrepair – inadequate construction of, or disrepair to, any element of the stairs.

FIRE

This category covers threats from exposure to uncontrolled fire and associated smoke at a dwelling.

Health effects Burns Gas and smoke and carbon monoxide inhalation

Preventative measures The dwelling design, construction and condition should limit the chances of carelessness causing a fire, limit the spread of a fire, howsoever caused, and provide safe and ready means of escape.

Matters relevant to the likelihood and severity of harm from fire include:

- a) Heater/cooker position – inappropriate siting and/or close proximity of flammable materials.
- b) Space heating – inadequate for the whole of the dwelling encouraging use of supplemental heaters.
- c) Defects to heating – defects or disrepair to appliances or system.

- d) Clothes drying facilities – lack of proper facilities may result in clothes being dried in front of and too close to radiant fires.
- e) Number/siting of sockets – insufficient and/or inappropriately sited electric socket outlets.
- f) Electrical installation – defects to the supply, meters, fuses, wiring, sockets or switches.
- g) Non-fire resistant fabric – allowing fire to spread.
- h) Smoke permeable fabric – allowing smoke to spread.
- i) Fire stops to cavities – lack of, allowing fire to spread.
- j) Disrepair to fabric – walls, ceilings and/or floors may allow smoke, fumes and/or fire to spread.
- k) Internal doors – insufficient doors or doors of inappropriate materials or ill-fitting doors.
- l) Self-closers – lack of effective self-closers where appropriate.
- m) Smoke/heat detectors – lack of, or defective, smoke and/or heat detectors with alarms or of detection and alarm system.
- n) Fire fighting equipment – lack of adequate and appropriate means of primary fire fighting.
- o) Means of escape – inadequate safe means of escape in case of fire.
- p) Combustible furnishings – including furniture and furnishings.
- q) Fire fighting equipment – lack of adequate and appropriate means of primary fire fighting.

As a guide, Leeds City Council recommends:

The Council's advisory fire safety measures for rented properties are available for reference on the Council's website .. www.leeds.gov.uk .. and type **HMO** into the search engine. These advisory standards include fire precautions for HMOs and singly occupied properties including back to back houses.

FOOD SAFETY

This category covers threats of infection resulting from inadequacies in provision and facilities for the storage, preparation and cooking of food.

Health effects Food poisoning

Preventative measures Kitchen facilities should be in a properly designed room or area, laid out so as to make safe and hygienic preparation and cooking of food easy,

Matters relevant to the likelihood and the severity of harm include:

Storage

- a) Food storage facilities – the absence of properly designed facilities of adequate size for the household.
- b) Impervious surfaces – lack of smooth, easily cleansed surfaces.
- c) Disrepair to storage facilities – or dampness to the facilities.
- d) Space for fridge and freezer – lack of appropriately sited space for a refrigerator

and freezer.

e) Power sockets – lack of sufficient power socket outlets.

Preparation

f) Sink provision – the absence of a kitchen sink, with a separate supply of cold drinking and hot water for each household.

g) Drainer to sink – the absence of a drainer to each sink or the absence of a dual sink.

h) Kitchen worktops – the lack of sufficient worktops with adjacent power sockets.

i) Disrepair – to the sinks, drainers or worktops.

Cooking

j) Provision for cooking – the absence of cooking facilities, including an oven and hob.

k) Size of cooking facilities – inadequately sized oven and/or hob having regard to the number and size of the (potential) household(s).

l) Disrepair to cooking facilities – defects or disrepair to the oven and/or hob.

m) Space for cooking facilities – the absence of sufficient space for the installation of an oven and/or hob.

Design, layout and state of repair

n) Kitchen floor – uneven, porous, damp, or otherwise defective surface to the floor of the kitchen area.

o) Walls and ceilings – uneven, damp, or otherwise defective walls or ceiling surfaces.

p) Impervious finishes – lack of such finishes adjacent to a cooker, sink, a drainer or a worktop.

q) Defective seal – between a sink, a drainer, or a worktop and the adjacent wall surface.

r) Kitchen lighting – inadequate or inappropriate natural or artificial lighting to the kitchen area.

s) Ventilation – inappropriate or defective means of ventilation of the kitchen area.

HOT SURFACES AND MATERIALS

This category covers threats of:

a) burns – injuries caused by contact with a hot flame or fire, and contact with hot objects or hot non-water based liquids; and

b) scalds – injuries caused by contact with hot liquids and vapours.

It includes burns caused by clothing catching alight from a controlled fire or flame.

Health effects Burns. Scalds.

Preventative measures There should be adequate guarding of any open flame on space and heating appliances. The temperature of exposed surfaces of radiators, pipework between radiators and that serving hot water tanks and taps, storage heaters, boilers and tanks should be limited to a maximum of 43°C, or appropriately guarded.

Matters relevant to the likelihood and the severity of harm include:

a) Unprotected hot surfaces – exposed surfaces to fixed appliances or pipework with

surface temperatures of 43°C or more.

- b) Unguarded open flames – to space or water heating appliances.
- c) Hot water to bath – water from bath and basin taps supplied above 46°C.
- d) Hot water to sink – water from kitchen sink taps supplied above 60°C.
- e) Thermostatic taps – no thermostatically controlled taps or incorrectly set thermostatically controlled mixer taps or anti scald devices.
- f) Kitchen layout – poor layout or inadequate space to kitchen, in particular where cooker or worktop is sited close to a door or thoroughfare.
- g) Inadequate separation – of kitchen from living or sleeping areas.
- h) Surface/liquid temperature – the temperature of the hot liquid or surface.
- i) Exposure – the length of time exposure is expected.

LEAD

This covers the threats to health from the ingestion of lead.

Health effects Lead when ingested accumulates in the body, and has toxic effects on the nervous system, cognitive development and blood production. Continual exposure at low levels has been shown to cause mental retardation and behavioural problems in children.

Preventative measures Overcoating or removal of old lead paint. Replacement of old lead water supply pipework.

Matters relevant to the likelihood and the severity of harm include:

- a) Date of construction – dwellings constructed before 1970.
- b) Old paintwork – the presence of old paint likely to contain lead.
- c) Disrepair to old paint – damage and/or flaking of old paintwork likely to contain lead.
- d) Previous lead paintwork – where allowed to flake or inappropriately removed resulting in accessible lead in dust or garden soil.
- e) Lead pipework – the presence of such pipework for domestic water.
- f) Plumbo-solvent water – water of high acidity likely to dissolve lead in pipes.

LIGHTING

This category covers the threats to physical and mental health associated with inadequate natural and/or artificial light. It includes the psychological effect associated with the view from the dwelling through glazing.

Health effects: Depression and psychological effects caused by a lack of natural light or the lack of a window with a view. Disturbance by intrusive artificial external lighting at night. Eye strain from glare and a lack of adequate light.

Preventative measures There should be sufficient natural light during daylight hours to enable normal domestic tasks to be carried out without eyestrain. Artificial lighting should be positioned to provide sufficient light to enable domestic and recreational activities to be carried out without eyestrain

Matters relevant to the likelihood and severity harm include:

- a) Obstruction – of windows by buildings or other features.
- b) Size, shape and position – inadequate size, inappropriate shape and/or position of windows preventing reasonable penetration of daylight into room.
- c) Position of artificial lighting – inadequate means and/or inappropriate siting of artificial lighting.
- d) Control of artificial lighting – lack of sufficient, accessible switches to control artificial lighting.
- e) Glare etc – artificial lighting causing glare, shadows and/or obvious flicker.
- f) Window view – inappropriate shape and/or size of window preventing view of outside.
- g) Outlook – lack of reasonable view through living room windows.

As a guide, Leeds City Council recommend:

That the glazed area of windows serving a room should not be less than one tenth of the floor area of the room and that the amount of natural lighting received in a room during an average day is sufficient for the undertaking of normal daytime activities without the use of artificial lighting.

NOISE

Health effects Stress responses. Sleep disorders. Lack of concentration. Headaches, Anxiety and irritability. Sleep disturbance.

Preventative measures Preventative measures to eliminate noise or reduce it to an acceptable level.

Matters relevant to the likelihood and severity of harm include:

- a) Site of dwelling – located in a particularly noisy environment.
- b) Internal insulation – inadequate construction and/or insulation of floor/ceiling structure within the dwelling or between the dwelling and other premises.
- c) External insulation – inadequate levels of sound insulation to external structure.
- d) Disrepair – disrepair of windows and/or external or internal doors allowing increased noise penetration.
- e) Siting of plumbing – inappropriate siting of plumbing fittings and/or facilities.
- f) Equipment – noisy equipment or facilities.
- g) Door closers – overly powerful mechanisms resulting in banging.

PERSONAL HYGIENE, SANITATION AND DRAINAGE

This category covers threats of infection and threats to mental health associated with personal hygiene, including personal washing and clothes washing facilities, sanitation and drainage.

Health effects Gastro-intestinal illness. Skin infections. Gastrointestinal Infection.

Preventative measures Provision of adequate hygienic personal washing and WC facilities serviced by an effective drainage system

Matters relevant to the likelihood and the severity of harm include:

Personal hygiene

- a) Bath or showers – lack of sufficient and/or appropriately sited baths or showers for the number of occupants or potential occupants.
- b) Wash-hand basins – lack of sufficient and/or appropriately sited wash hand basins for the number of occupants or potential occupants.
- c) Hot and cold water supply – inadequate supplies of hot and cold water (or water at a controlled temperature) to each bath, shower and wash hand basin.
- d) Kitchen sink – the lack of a sink for each household with separate supplies of cold and hot water.
- e) Clothes drying facilities – the lack of sufficient and/or appropriately sited facilities in the dwelling or building.
- f) Disrepair to facilities – disrepair or defects to, or associated with, a bath, shower, wash hand basin, hot or cold water supply, sink or clothes drying facility.
- g) Inadequate lighting – to the room containing the personal washing facilities.
- h) Shared facilities – personal hygiene facilities shared by more than one household.

Sanitation facilities

- i) Sewage system – none or an obsolete system
- j) Sanitary provision – insufficient numbers of sanitary closets (whether water, composting or chemical) for the numbers in occupation.
- k) Sanitary closet siting – inappropriate or inconvenient location of a sanitary closet.
- l) Disrepair of sanitary closet – cracked or otherwise non-impervious bowl to a water closet or other sanitary appliance.
- m) Water to WC – inadequate supply of water to the flushing cistern serving a water closet.
- n) Effective flush – defective mechanism to a flushing cistern serving a water closet.
- o) Seat/lid to sanitary closet – missing or non-impervious seat and/or lid to a sanitary closet basin.
- p) Ventilation to compartment – inadequate ventilation to the compartment or room housing a sanitary closet.
- q) Unhygienic compartment – defective design, construction and/or maintenance of the surfaces to the walls and floor of the compartment resulting in them not being capable of being kept clean and hygienic.
- r) Inadequate lighting – to the compartment or room containing a sanitary closet.
- s) Adjacent wash hand basin – lack of a wash hand basin in the room, compartment or immediately adjacent room.

Drainage

- t) Soil and waste pipe provision – the lack of an adequately sized soil or waste pipe connected to a water-using facility able to carry foul or waste water safely to the drainage system.
- u) Pipe defects – defects to a soil or waste pipe serving a water using facility.
- v) Traps and water seals – the lack or disrepair of a trap and water seal.
- w) Ventilation of pipes – inadequate ventilation to a soil or waste pipe.
- x) Disrepair to system – defects to the foul or waste water drainage systems.
- y) Private sewage system – missing or defective private foul sewage treatment system or private foul sewage storage cistern.

RADIATION (RADON GAS)

This category covers the threats to health from radon gas and its daughters, primarily airborne, but also radon dissolved in water.

Health effects Lung cancer from long term exposure to radon gas

Preventative measures To achieve radon gas levels as low as is practicable.

The primary relevant matter is whether the dwelling is sited in an Affected Area. If it is, then the following matters may increase the likelihood of an occurrence:

- a) Timber ground floor – ground floor of suspended timber construction particularly if without adequate sub-floor ventilation.
- b) Disrepair to solid floor – holed, cracked or other disrepair to a solid ground floor.
- c) Lack of DPM – lack of or defective damp proof membrane to solid floor.
- d) Sealing around services – inadequate sealing around service entry points, and similar disrepair.
- e) Ventilation rates – high upper-level ventilation rates.
- f) Open fires – use of open fires and solid-fuel-effect open fires, without additional through the wall ventilation.

Remedial measures

- g) Disrepair to any remedial measures, such as a radon sump or associated fan.
- h) Extractor fans – continuous use of extractor fans in kitchens, bathrooms or WCs.
- i) Private water supply – particularly if from a borehole or well.

STRUCTURAL COLLAPSE AND FALLING ELEMENTS

This category covers the threat of whole dwelling collapse, or of an element or a part of the fabric being displaced or falling because of inadequate fixing, disrepair, or as a result of adverse weather conditions. Structural failure may occur internally or externally within the curtilage threatening occupants, or externally outside the curtilage putting at risk members of the public.

Health effects injuries range from minor bruising to death.

Preventative measures The foundations and load bearing external walls should be designed, constructed and maintained to be of sufficient strength to support the weight of the building, fittings, furnishings and its users. Any disrepair should not interfere with structural integrity. Any external cladding, rendering or similar finishing and any coping stonework etc. should be securely fixed and in repair.

Matters relevant to the likelihood and the severity of harm include:

- a) Structural movement – evidence of continuing movement.
- b) Structural cracks etc – cracks and/or bulges to external walls.
- c) Open joints – to brick, stone or block work to external walls or chimney stacks.
- d) Cladding defects – loose render or other insecure external finish to external walls.
- e) Loose coping(s) – to parapet or balcony walls or to chimney stacks.

- f) Loose guarding – to balconies, roof terraces etc.
- g) Structural damage – to balconies etc.
- h) Disrepair to lintels/sills – cracked lintels and/or sills or other disrepair around openings to external and internal walls.
- i) Insecure frames or hinges – to either windows or doors.
- j) Roof movement – sagging, distorted or spreading to the roof structure.
- k) Loose roof covering – loose or slipped roof slates, tiles etc.
- l) Loose pots – to chimney stacks.
- m) Insecure rainwater goods – including eaves gutters and/or external pipework.
- n) Staircase failure – springy, distorted or other indications of failure of staircase structure.
- o) Insecure guarding – to staircases and/or landings.
- p) Defective ceilings etc – cracked, damp and/or bulging ceilings.
- q) Defective internal walls – cracked and/or bulging internal walls.
- r) Insecure internal frames – loose door frames or hinges.
- s) Loose fittings or fixtures – loose cupboards, shelves or handrails.

UNCOMBUSTED FUEL GAS

This category covers the threat of asphyxiation resulting from the escape of fuel gas into the atmosphere within a dwelling.

Health effects Asphyxiation.

Preventative measures Appliances should be properly designed and installed. The appliances should be regularly serviced and maintained by a competent person.

Matters relevant to the likelihood and severity of harm include:

- a) Gas supply – the supply of gas from a non-authorised supplier.
- b) Gas installations – defects to the installation, including pressure regulators, meters and pipework.
- c) Gas appliances – defects to boilers, fires etc.
- d) Maintenance defects – lack of evidence of regular testing and servicing of the gas installation and/or appliances.
- e) Siting of appliances – locations adjacent to windows or doors where there is a risk of flames blowing out.
- f) Gas detector provision – the lack of correctly sited detectors or detectors being defective

As a guide, Leeds City Council recommends:

It is a legal requirement that all gas installations are maintained safe and are inspected annually by a CORGI registered gas engineer and an inspection report provided.

VOLATILE ORGANIC COMPOUNDS

VOCs are a diverse group of organic compounds which includes formaldehyde, that are gaseous at room temperature, and are found in a wide variety of materials in the home.

Health effects Short term irritation and allergic reactions to the eyes, nose, skin and respiratory tract. Higher concentrations can result in headaches, nausea dizziness and drowsiness.

Preventative measures Emissions of VOCs from building materials and treatments and from furnishings should be minimised. Low emission materials and products should be used where possible. Dwellings should also be provided with means of ensuring adequate and appropriate ventilation.

Matters relevant to the likelihood and severity of harm include:

- a) VOC emitting materials – the use of materials during construction, alteration or maintenance which emit high levels of volatile organic compounds.
- b) VOC emitting treatments – the use of treatments during construction, alteration or maintenance which emit high levels of volatile organic compounds.
- c) Inadequate ventilation – inadequate or inappropriate provision for ventilation.
- d) Disrepair – to the ventilation system.

WATER SUPPLY FOR DOMESTIC PURPOSES

This category covers the quality and adequacy of the supply of water within the dwelling for drinking and for domestic purposes such as cooking, washing, cleaning and sanitation. As well as the adequacy, it includes threats to health from contamination by bacteria, protozoa, parasites, viruses, and chemical pollutants.

Health effects Gastro-intestinal illness.

Preventative measures Drinking water should be wholesome.

Matters relevant to the likelihood and the severity of harm include:

- a) Intermittent supply – regular or prolonged interruption of supply.
- b) Water pressure – water delivered to taps at inappropriate pressure.
- c) Defective pipe work etc – inappropriate materials used for pipe work, storage tanks, or fittings.
- d) Contamination of tanks – inadequate protection against contamination of water storage tanks.
- e) Water filter defects – poor maintenance of water filters.