

## **Common Housing Quality Standard Forum**

### **Topic Paper 2: Safety elements of a common standard**

#### **Purpose**

1. This paper has been prepared to facilitate discussion by members of the Common Housing Quality Standard Forum on an issue relating to the development of a new cross-tenure housing standard for Scotland. This paper focusses on safety elements of a standard.

#### **Common Housing Quality Standard**

2. The sustainable Housing Strategy includes a commitment to publish proposals for a common cross-tenure housing standard beyond the existing tolerable standard for housing. Currently, there are different standards which apply to houses in different tenures (owner-occupied, private rented, social rented).

3. The aim of the Common Housing Quality Standard Forum is to enable discussion with and between stakeholders on key issues affecting house condition to inform recommendations by the Scottish Government for a new common housing standard. Scottish Ministers will take account of the recommendations in considering whether to take forward a formal public consultation on a proposed common standard.

#### **Background**

4. The tolerable standard is the minimum standard for all housing in Scotland. Under the Housing (Scotland) Act 1987, a house which is below the tolerable standard is unfit for human habitation and the local authority has a duty to ensure that it is closed, demolished or brought up to standard as soon as is reasonably possible. The tolerable standard includes elements for wholesome water and safe electrical installations. It also requires houses to be substantially free of rising or penetrating damp and to have satisfactory provision for lighting, ventilation and heating.<sup>1</sup>

5. Scottish building standards regulations set out minimum standards that must be met by new buildings and where work requires a building warrant.<sup>2</sup> It includes elements that are intended to limit risk of harm to an acceptable level. Changes to building standards are based on research which models a cost-benefit analysis of interventions.

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<sup>1</sup> Implementing the Housing (Scotland) Act 2006, Parts 1 and 2: Advisory and Statutory Guidance for Local Authorities: Volume 4 Tolerable Standard, <http://www.gov.scot/Publications/2009/03/25154751/0>.

<sup>2</sup> Scottish Government Building Standards Division, Technical Handbooks 2013 Domestic – Safety, <http://www.gov.scot/Topics/Built-Environment/Building/Building-standards/publications/pubtech/th2013dom4>.

6. Safety elements in building standards include –

- Safe access to buildings
- Reduction of the risk of slips, trips and falls
- Safe electrical installations
- Prevention of dangerous obstructions
- Safe hot water storage
- Safe storage of liquefied petroleum gas
- Doors and windows designed to deter house breaking

7. These elements gradually feed through into existing housing stock as buildings are replaced and renovated, but can be costly to retrofit.

8. The Environmental Protection Act (EPA) defines matters that constitute “statutory nuisances”, which include “any premises in such a state as to be prejudicial to health or a nuisance”. A local authority has a statutory duty to take such steps as are reasonably practicable to investigate a complaint of a statutory nuisance.<sup>3</sup>

9. The Scottish Housing Quality Standard (SHQS) is the minimum standard for social housing. SHQS includes several elements specifically related to safety<sup>4</sup> –

- Lead free pipework
- Mechanical ventilation in some kitchens and bathrooms
- External noise insulation
- Smoke detectors
- Safe electrical, gas or oil systems
- Safe working spaces in kitchens
- Safe lifts, lobbies, halls and passages, paths and common areas, refuse chutes and bin stores
- Adequate common lighting
- Secure doors

10. The repairing standard for private rented homes covers<sup>5</sup> –

- Gas and electrical installations
- The supply of water
- Appliances and furnishings provided by the landlord
- Smoke and fire detectors
- Carbon monoxide detectors

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<sup>3</sup> Environmental Protection Act 1990, section 79, as amended by amended by the Environment Act 1995, the Noise and Statutory Nuisance Act 1993, and the Public Health etc. (Scotland) act 2008, <http://www.legislation.gov.uk/ukpga/1990/43/section/79#extent-S>.

<sup>4</sup> SHQS Technical Guidance for Social Landlords: Must be Healthy, Safe and Secure, <http://www.gov.scot/Topics/Built-Environment/Housing/16342/shqs/AppendixE>.

<sup>5</sup> Housing (Scotland) Act 2006, section 13, amended from 1 April 2015 by the Housing (Scotland) Act 2014, <http://www.legislation.gov.uk/asp/2006/1/section/13>.

11. Accommodation that is occupied as a house in multiple occupation (HMO) must be licenced by the local authority and comply with conditions which include the safety and security of the people who occupy it.<sup>6</sup> Specific elements of this include<sup>7</sup> –

- Carbon monoxide detectors
- Gas and electrical safety
- Kitchen space standards
- Secure doors

12. Safety elements in housing standards go beyond the physical condition of the building and reflect the quality of the dwelling as a place for people to live in.

13. For some safety elements, it may be appropriate for landlords (private and social) and owners of flats to have duties that do not (or cannot) be required of all home owners.

### **Safety elements in existing standards**

14. Existing standards include the following elements –

- Smoke and fire detectors
- Carbon monoxide detectors
- Electrical safety
- Gas safety
- Other heating system safety
- Wholesome water/lead pipes
- Safe kitchens
- Noise insulation
- Safe environment
- Secure doors

### ***Smoke and fire detectors***

15. The total number of fires has reduced in recent years, but in 2012-13 there were still around 5,000 accidental house fires in Scotland. There were 41 deaths and 1,164 injuries in reported house fires alone, and considerable damage to property. 45% of fatal fires started in living rooms and 28% started in kitchens. 72% of fatal fires occurred in accommodation which had no working smoke detection (this includes homes with alarms that are broken, out-of-battery or disabled). According to national fire statistics dwelling fires in which smoke alarms raise the alarm are –

- Discovered more rapidly (less than 5 minutes) after ignition, and
- Associated with lower fatal casualty rates.

The installation of smoke and fire detectors is intended to reduce the risk of fire and the consequent loss of life, injury and damage to property.

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<sup>6</sup> Housing (Scotland) Act 2006, section 131, <http://www.legislation.gov.uk/asp/2006/1/section/131>.

<sup>7</sup> Licensing of Houses in Multiple Occupation: Statutory Guidance for Scottish Local Authorities <http://www.gov.scot/Topics/Built-Environment/Housing/privaterent/government/laguidancepdf>.

16. Building standards requirement for new homes and the Scottish Fire and Rescue Service's recommended standard for all homes is that there should be –

- A functioning smoke alarm in the room which is frequently used by the occupants for general daytime living purposes,
- One functioning smoke alarm in every circulation space, such as hallways and landings,
- One heat alarm in every kitchen

All alarms should be interlinked, and any new alarm system should be hardwired.

17. This is the standard that private landlords are required to meet. In social housing, SHQS requires that there "There must be at least one smoke detector present in the property," battery alarms are allowed and there is no requirement for the landlord to determine if smoke detectors are in working order.

### ***Carbon monoxide detectors***

18. At least 50 people die of carbon monoxide poisoning every year in the UK and installation of carbon monoxide alarms is recommended as good practice. Since 1 October 2013 Scottish building regulations have required carbon monoxide detectors to be fitted when a new or replacement boiler or other fixed heating appliance is installed in a dwelling. The need for carbon monoxide detection applies to any fixed heating appliance powered by a carbon based fuel, that is, gas (both mains and liquid petroleum gas), oil and solid fuel (coal, coke, wood, wood pellets, etc.).

19. HMOs must have a suitably located carbon monoxide detector in any room with a gas appliance.

20. From 1 December 2015, private sector landlords will be required to have carbon monoxide detectors installed if there is a carbon fuelled appliance in a house.

### ***Electrical safety***

21. The tolerable standard requires that the electrical wiring and associated components and fittings in a house are adequate and safe to use. The national standard for electrical safety is BS 7671 Requirements for Electrical Installations (known as the Wiring Regulations) and is published by the Institution of Engineering and Technology (IET). The Wiring Regulations are non-statutory, but they can be used to demonstrate compliance with a statutory obligation.

22. SHQS requires electrical installations in social housing to be free from visible indicators of danger –

- Broken casings
- Damaged power socket boxes
- Exposed wiring
- Other obvious signs of damage, disrepair or unauthorised alterations, especially to the consumer/meter unit

23. In private rented housing landlords must also ensure that any electrical appliances they provide are safe for use. From 1 December 2015 private landlords have to ensure that electrical safety inspections (covering installations and any appliances provided by the landlord) are carried out every 5 years.

24. HMOs must have periodic electrical safety inspections (covering installations and any appliances provided by the owner) and must have light fittings in bathrooms and showers which are designed to reduce the risk of electric shock and condensation damage to wiring.

25. The supply of electricity is reserved to the UK Government under the Scotland Act 1998. The Scottish Government cannot regulate how electricity is transmitted, nor what constitutes in general a safe supply or supply to an appropriate standard. The duties of landlords under SHQS and the Repairing Standard are part of wider schemes to protect tenant safety and refer to existing standard of electrical safety under BS 7671.

### ***Gas safety***

26. The SHQS standard requires gas installations to be free from visible indicators of danger –

- Wall mounted boilers in danger of detaching
- Rusted boilers
- Holes in gas flues
- Balanced gas flues with unsafe or incorrectly positioned guards
- Smell of gas around boiler

27. Gas Safety Regulations require private and social landlords to carry out annual gas safety checks on appliances and flues.<sup>8</sup>

28. The Gas Safety Regulations predate devolution but similar considerations would apply as noted in paragraph 25 above.

### ***Other heating systems***

29. SHQS includes a safety element for oil heating systems. The standard requires installations in social housing to be free from visible indicators of danger –

- Wall mounted boilers in danger of detaching
- Rusted boilers or tanks
- Leaking oil tanks or pipes
- Smell of oil around boiler

30. Liquefied petroleum gas heaters are not permitted in HMOs.

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<sup>8</sup> Gas Safety (Installation and Use) Regulations 1998 (SI 1998/2451), regulation 36, <http://www.legislation.gov.uk/ukxi/1998/2451/regulation/36/made>

## ***Wholesome water/Lead pipes***

31. The tolerable standard requires homes to have a supply of wholesome water. Wholesome water is defined by guidance by reference to Drinking Water Quality Regulations. These regulations prescribe maximum permitted concentrations of harmful substances. The point of test is the kitchen water tap.

32. The only way to test the wholesomeness of water is to carry out a water sample test.

33. One area of particular concern is lead in drinking water. The current permitted level under Drinking Water Quality Regulations is 10 micrograms per litre.<sup>9</sup>

34. However, current thinking of the World Health Organisation is that no level of lead is safe –

Lead is a metal with no known biological benefit to humans. Too much lead can damage various systems of the body including the nervous and reproductive systems and the kidneys, and it can cause high blood pressure and anemia. Lead accumulates in the bones and lead poisoning may be diagnosed from a blue line around the gums. Lead is especially harmful to the developing brains of fetuses and young children and to pregnant women. Lead interferes with the metabolism of calcium and Vitamin D. High blood lead levels in children can cause consequences which may be irreversible including learning disabilities, behavioral problems, and mental retardation. At very high levels, lead can cause convulsions, coma and death.<sup>10</sup>

35. The main source of lead in drinking water is lead piping. Drinking water can be treated with orthophosphates to reduce the uptake of lead from pipes and this is added at some public water supply treatment works. It is not a universal practice however and there is no surety that where it is added, that lead levels can be reduced below the permitted level in all properties connected to the public water supply throughout a supply area. The principal solution is the removal of all lead pipes.

36. The SHQS standard requires social housing to be free of lead pipes from the boundary stop-cock to the kitchen tap (the supply pipe).

A water quality standard could include two separate elements

- A requirement for properties to be free of lead in the supply pipe, and
- If “lead free” cannot be vouched or demonstrated at the time of sale or change of tenancy, a requirement to carry out a water quality test.

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<sup>9</sup> Water Supply (Water Quality) (Scotland) Regulations 2001 (SSI 2001/207), Schedule 1, <http://www.legislation.gov.uk/ssi/2001/207/schedule/1/made>

<sup>10</sup> WHO: Water-Related Diseases, [http://www.who.int/water\\_sanitation\\_health/diseases/lead/en/](http://www.who.int/water_sanitation_health/diseases/lead/en/)

### ***Safe kitchens***

37. SHQS requires that social tenants should be able to use the kitchen facilities safely, in particular –

- There must be sufficient space between the cooker and the sink to prevent the risk of electrocution
- The kitchen must be wide enough to cook without the risk of being jostled by someone else in the kitchen
- Tenants should be able to access cupboards and appliances safely
- There must be room around the cooker so that someone using it cannot be hit by an opening door

38. There are also minimum space standards for kitchens in HMOs.

### ***Noise insulation***

39. Some social homes have to have external noise insulation to protect tenants from extreme noise levels from motorways, trunk roads, railways, factories or aircraft runways. This standard is fairly low and only affects a few properties. There is no requirement to provide noise insulation from internal sources of noise i.e. sources of noise from people, objects or activities from neighbouring properties. There are noise insulation standards for HMOs but these refer to protection of neighbours from undue public nuisance. Noise can be a statutory nuisance under EPA, however there are no statutorily-defined limits as to what level of noise constitutes a nuisance.

### ***Safe environment***

40. Social housing must have safe lifts, lobbies, halls and passages, paths and common areas, refuse chutes and bin stores and have adequate common lighting. These elements apply to common parts of buildings and compliance may require cooperation of other owners who are not required to meet these standards.

### ***Secure doors***

41. The repairing standard requires doors to individual houses and flats to be kept in good condition and work to be carried out on common parts if tenants are adversely affected, but does not set specific security standards and does not require landlords to install new measures.

42. Social tenants should have secure doors to individual dwellings. The requirements for adequate security for locks are –

- Single doors should have a mortice lock or a rim type deadlock or a key operated multi-point lock
- Double doors, including French doors, should have a mortice lock with 2 key operated security bolts shooting into the frame fitted top and bottom of each opening door, or a rim type deadlock with 2 key operated security bolts shooting into the frame, fitted top and bottom of each opening door, or a key operated multi-point lock

- Patio doors should have an anti-lift device preventing the lifting of sliding patio doors from their frames plus either a key operated multi-point lock or one key operated patio door lock plus two key operated security bolts (fitted top and bottom of each opening door) shooting into either the frame or the door, or one key operated patio door lock

43. Social tenants should also have an entry system for common front doors, and all common doors should be secure. The aim of this measure is to prevent casual loitering and vandalism and to allow tenants to exercise some control over who gains access to the property. It is intended to prevent people from simply wandering in to the common areas. There is evidence that visible security measures, particularly at the point of entry, do discourage burglaries.<sup>11</sup>

44. The Scottish Fire and Rescue Service recommends that thumb-turn locks are fitted to all above ground flatted properties to make it easier for residents to exit their property without having to find the appropriate key in the event of an emergency.

45. HMOs must have secure locks on all access doors and ground floor and accessible windows. Door locks must be capable of being opened from the inside without a key to allow escape in case of fire.

### ***Legionella***

46. Legionnaires' disease is a potentially fatal form of pneumonia caused by legionella bacteria. The standards set out in Scottish housing legislation and guidance do not specifically cover Legionella, but HSE advice is that, under the Health and Safety at Work etc. Act 1974 and the Control of Substances Hazardous to Health Regulations 2002, landlords are responsible for ensuring that the risk of exposure to legionella in rented property is properly assessed and controlled.<sup>12</sup>

### ***Impact on health of other elements***

47. Health can be adversely affected by poor quality housing. Some elements of condition standards that relate to fabric condition or amenity can have an impact on health. These include –

- Dampness and condensation<sup>13</sup>, due to water penetration or poor ventilation.
- Overcrowding and poor space standards<sup>14</sup>.

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<sup>11</sup> Home security and place design: some evidence and its policy implications, <http://www.securedbydesign.com/professionals/pdfs/Home-Security-and-Place-Design.pdf>

<sup>12</sup> Legionnaires' disease Part 2: The control of legionella bacteria in hot and cold water Systems, <http://www.hse.gov.uk/pubns/priced/hsg274part2.pdf>, paragraphs 2.138-2.151

<sup>13</sup> Can damp and mould affect my health?, <http://www.nhs.uk/chq/Pages/Can-damp-and-mould-affect-my-health.aspx?CategoryID=87&>

<sup>14</sup> Space Standards: the Benefits, <http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/files/space-standards-the-benefits.pdf>; Space Standards in Dwellings, <http://www.gov.scot/Resource/Doc/217736/0090848.pdf>.

- Extreme temperatures (i.e. both cold due to poor energy efficiency and the risks of high temperatures, especially to elderly occupiers if homes cannot be cooled), understandably the cooler climate of Scotland emphasises the importance of keeping homes warm.
- Poor ventilation can contribute to condensation problems and illness associated with air quality.

### **Other safety elements that have been identified**

48. The following safety elements are not currently required in private or social rented housing or for owner occupiers –

- Asbestos (except for common parts of social housing)
- Thermostatic mixing valves
- Residual current devices
- Sprinklers

### **Asbestos**

49. Asbestos is responsible for over 5000 deaths every year, but the majority of the current fatal cases from asbestos exposure are associated with very high exposures from past industrial processes and installation of asbestos products.

50. Asbestos may be part of any commercial or domestic building which was built or refurbished before the year 2000. HSE advice is that asbestos is usually safe if in a good condition and sealed and undisturbed. However, if asbestos is removed or disturbed work should be carried out by qualified specialist contractors.<sup>15</sup>

51. The statutory duty of employers to manage asbestos does not apply to domestic premises generally, but does apply to common parts of flats.

These requirements mean that organisations such as local authorities, housing associations, social housing management companies and others who own, or are responsible for, domestic properties, have legal duties to ensure the health and safety of their staff (and others) in domestic premises used as a place of work. As employers, the organisations also have duties under the general requirements of CAR 2012 to identify asbestos, carry out a risk assessment of work liable to expose employees to asbestos and prepare a suitable written plan of work.<sup>16</sup>

52. Consequently, social landlords have a duty to carry out asbestos surveys on common parts of flats.

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<sup>15</sup> Health and Safety at Work etc Act 1974, section 3(1), <http://www.legislation.gov.uk/ukpga/1974/37/section/3>, and the Control of Asbestos Regulations 2012 (SI 2012/632), regulation 8, <http://www.legislation.gov.uk/uksi/2012/632/regulation/8/made>.

<sup>16</sup> HSE, Asbestos: The survey guide, <http://www.hse.gov.uk/pubns/books/hsg264.htm>, page 9; “CAR 2012” = Control of Asbestos Regulations 2012 (SI 2012/632), regulation 4, <http://www.legislation.gov.uk/uksi/2012/632/regulation/4/made>.

### ***Thermostatic mixing valves***

53. Children and older people are particularly vulnerable to scalding damage from hot water. Thermostatic mixing valves (TMVs) are installed behind taps to mix hot and cold water to a pre-set temperature. Hot water tanks store water at 60°C to prevent the spread of legionella. Building Regulations for new domestic buildings call for the temperature of hot water, delivered to baths and bidets, to not exceed 48°C. The installation of TMVs is one way that this can be achieved. TMVs are intended to reduce the risk of scalding injuries by mixing hot and cold water. TMVs are not currently required under SHQS or the Repairing Standard. 48°C is hotter than most adults have their bath water but the temperature restrictions in new buildings is objected to by some occupiers who prefer to be able to run water hotter.

### ***Residual current devices***

54. A Residual Current Devices (RCD) is a sensitive safety device that switches off electricity automatically if there is a fault. RCDs offer a level of personal protection that ordinary fuses and circuit-breakers cannot provide. Fitting one or more RCDs into the consumer unit (fuse box) can protect an occupier against electric shock and reduce the risk of electrical fires

### ***Sprinklers***

55. Relative to population, the number of fires, deaths and injuries is higher in deprived areas than in the rest of Scotland and is higher too for single persons living alone, for older people and for people affected by problems related to abuse of alcohol and drugs. The evidence indicates that most of these deaths and injuries and much of the damage would have been prevented had the properties concerned been fitted with sprinklers. However, sprinkler systems are expensive, particularly if water pressure or building height requires additional pumps. Building standards require an automatic fire suppression system, such as sprinklers to be installed in new or converted dwellings which form part of a sheltered housing complex and in high rise domestic buildings.<sup>17</sup>

56. The Scottish Government has just published research to provide an updated position on the cost effectiveness of providing residential sprinklers in Scotland.<sup>18</sup> This covers houses, flats, HMOs and halls of residence. Research continues to show it is not cost effective to widen sprinkler coverage to all new or converted dwellings or other residential buildings however targeted installations to benefit vulnerable groups could be cost effective.

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<sup>17</sup> Scottish Building Standards, Technical Handbook – Domestic: Fire, Standard 2.15, <http://www.gov.scot/Topics/Built-Environment/Building/Building-standards/techbooks/techhandbooks/th2015dom2>

<sup>18</sup> Research project to update cost-benefit analysis for residential sprinklers in Scotland, <http://www.gov.scot/Topics/Built-Environment/Building/Building-standards/publications/pubresearch/researchfire/resfiresprink>

### ***Standards or risk assessments***

57. The examples of Legionella, asbestos, TMVs and sprinklers raise a point whether for some elements or some classes of occupier what is needed is not a duty to comply with a standard so much as a duty to carry out a risk assessment.

### **Suggested questions for discussion**

- 1) Should improving occupants' health and reducing the risk of injury or death be a key driver for decisions on future housing standards?
- 2) Should a common minimum housing safety standard be considered? Should this be part of a broader common standard or should it stand alone?
- 3) What elements should be included within a safety standard? Are there others we should include? Should a safety standard seek to harmonise existing standards across tenures? Should new minimum standards be added?
- 4) Should the duty of landlords in the private and social sector and of owners in flats be higher than the obligations of owner-occupiers? What are the implications of this approach?
- 5) Should the health impact be explicitly stated as a factor in elements such as ventilation, dampness, space and thermal efficiency?
- 6) Is there a hierarchy of safety elements? Should any hierarchy be based primarily on the different health and safety risks to the occupiers? Is it practical for this to be based on a cost-benefit analysis?
- 7) Do some of these elements sit better within a duty on owners or landlords to carry out a risk assessment for specific types or property or specific classes of occupier rather than a blanket standard applying to all homes?
- 8) How should compliance with safety elements be measured?

**Scottish Government  
July 2015**

## Annex A: Summary of current safety duties in different tenures

	<b>Social Landlords</b>	<b>Private Landlords</b>	<b>Owner Occupiers</b>	<b>New and Converted Buildings</b>
<b>Fire Detectors</b>	Partial	Yes	No	Yes
<b>Carbon Monoxide Detectors</b>	No	Yes (1/12/15)	No	Yes
<b>Electrical Installations</b>	Yes	Yes	Yes	Yes
<b>Periodic Electrical Safety Inspections</b>	No	Yes (1/12/15)	No	No
<b>Periodic Gas Safety Inspections</b>	Yes	Yes	No	No
<b>Oil Heating System</b>	Yes	Yes	No	Yes
<b>Wholesome Water</b>	Yes	Yes	Yes	?
<b>Lead Pipe Free</b>	Yes	No	No	Yes
<b>Safe Kitchen Space</b>	Yes	No	No	No
<b>Noise Insulation</b>	Partial	No	No	No
<b>Safe Environment</b>	Yes	Partial	No	No
<b>Secure Doors</b>	Yes	Partial	No	Yes
<b>Legionella</b>	Yes	Yes	No	Yes
<b>Damp Free</b>	Yes	Yes	Yes	Yes
<b>Overcrowding</b>	Yes	Yes	Yes	No
<b>Thermal Efficiency</b>	Yes	Yes	Yes	Yes
<b>Ventilation</b>	Yes	Yes	Yes	Yes
<b>Asbestos</b>	Partial	No	No	Yes
<b>Thermostatic Mixing Valves</b>	No	No	No	(Partial)

	<b>Social Landlords</b>	<b>Private Landlords</b>	<b>Owner Occupiers</b>	<b>New and Converted Buildings</b>
<b>Residual Current Devices</b>	No	No	No	No
<b>Sprinklers</b>	No	No	No	(Partial)