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Health and safety is one of the most important issues for social landlords. The sector has a good record in avoiding fire, gas and CO fatalities and injuries, but it could



## **Foreword**

# Health and safety is one of the most important issues for social landlords. The sector has a good record in avoiding fire, gas and CO fatalities and injuries, but it could do more.

This report sets out the legal and regulatory responsibilities on landlords in respect of fire, gas and CO health and safety.

In this guide we summarise these responsibilities, explore the opportunity for using new technology to improve safety monitoring and set out some of the key issues that need to be addressed if the sector is to maximise care for residents.

#### The main findings of this guide are:

- A consistent approach to fire, gas and CO risk assessment is required in social housing
- Landlords should review their risk assessment in terms of the installation of CO alarms
- Voluntary adoption by social landlords of the new PRS carbon monoxide (CO) safety standard is necessary if further legislation and regulation is to be avoided
- Social landlords can benefit from new technology, particularly when preventing CO poisoning
- Awareness of CO risk is increasing but landlords can do more to inform tenants of the risk
- A MOT-style approach to gas safety checks would be helpful
- Rationalising of health and safety rules and regulations could improve resident safety

HouseMark is publishing this report as part of its work on Innovation, notably its desire to explain the business case for using new technology to better manage risk. River Clyde Homes has already adopted a prime focus on health and safety and is keen to promote debate on the issue. Hence this report is published jointly by HouseMark and River Clyde Homes.

Kirsty Wells, Head of HouseMark Scotland

Kevin Scarlett, Chief Executive, River Clyde Homes



do more.

This guide sets out the current responsibilities for Scottish landlords in the social and private sectors on fire and gas safety; it examines rules and regulations; and sets out some key issues for social landlords to consider. We believe that it is unique in doing so.

The guide is aimed at informing the work of those at social landlords with operational responsibility for fire and gas safety.

It is also intended to serve as a reference point for executives and the councillors and board members of social housing providers who have governance responsibility for risk management.

The guide is part of a series covering the four nations of the UK. This series is the result of interviews with individuals and organisations across the UK (see 'Acknowledgements'), supplemented by desk research. We are particularly grateful for the assistance given by River Clyde Homes, North Lanarkshire Council, Southside Housing Association and Wheatley Group.



#### The scale of the issue

Awareness and the management of risk related to fire, gas and carbon monoxide (CO) poisoning has improved significantly in recent decades, particularly in the social housing sector.

In all sectors combined, reported incidents, injuries and fatalities have fallen consistently in over the last 30 or so years - but the numbers are still too high.

There were 29 people killed in Scotland in fires in dwellings in 2013/14 (the most recent figures available) and more than 1,100 injuries. By comparison in 2004/5, 76 people died and there were more than 1,500 injuries. However, an estimated 7,850 were injured.

The available figures for carbon monoxide (CO), while less comprehensive, point to a similar trend. Scottish Government statistics state that between 2009 – 2011, 122 patients were recorded in hospital as having had an episode of 'toxic effect of carbon monoxide' 1. Further, Health Protection Scotland (HPS) states that there were 54 reported CO incidents between 2002 – 2015, including 7 CO incidents in 2015 alone.

The Scottish Government says that a 'considerable number of CO incidents' cause 'fatalities' and 'injury' each year. However, there are no specific figures for CO deaths in Scotland.

The level of awareness of the dangers of domestic fires is far higher than a generation ago when, in 1988 just 8 per cent of households had smoke alarms, compared to almost 90 per cent today. There have been some major advances on tackling chip pan blazes and phasing out open-flue fires as a source of heating.

Scotland's social landlords house around 23 per cent of households and spend a large amount of time and resources each year doing their best to keep people safe. This is supported by the approach taken by the regulator, the Scottish Housing Regulator (SHR), which exists to 'protect the interests of tenants, homeless people and others who use the services provided by social landlords'. It will intervene in the case of any 'notifiable event' where 'the safety of tenants or other service users' is put at risk. On the face of it, social landlords appear to be on top in the fight to protect tenants from fire and gas mishaps.

As a result, there are very few fatalities in social housing. Where they do occur, such as the Lakanal House and Shirley Towers disasters in London, the level of sector concern has led to campaigns by Inside Housing and new

Social landlords have invested in a variety of technologies to improve fire, gas and carbon monoxide safety. This tends to involve integrated fire and heat detection systems that will automatically take a number of steps in the event of an alarm being triggered. These steps include alerting the fire service, returning all lifts to the ground floor (if relevant) and opening the fire escapes.

But can social landlords do more to evaluate and prevent injuries or fatalities?

#### A consistent approach to fire, gas and CO risk assessment

All research respondents were aware of the need to meet fire and gas safety requirements. However, the scope of the approach taken by social landlords varies considerably. Some are simply meeting their basic requirements on fire or gas and taking the risk that there will be no problems, while others are going far beyond this and planning for future changes in tenant lifestyles, changes in regulation and changes in technology.

Respondents were also aware of the risks of carbon monoxide poisoning, with several implementing CO alarm installation programmes. However, as there is no blanket requirement to install CO alarms in social rented homes, the approaches vary markedly and mean some tenants are protected by CO alarms, while others are not.

Concerns have also been expressed in the housing sector about the paucity of in-house skills available to conduct fire risk assessments. This has meant that the quality of assessments can vary. Feedback suggests a need for upskilling on fire risk assessment in the sector to address this.

As housing association boards and local authority councillors bear ultimate responsibility for the actions of their organisation, board members and councillors need to ensure they are fully informed on health and safety matters outlined in this report on fire and gas safety.





<sup>&</sup>lt;sup>1</sup> http://www.npis.org/CMOScotland.pdf

# Landlords should review their risk assessment in terms of the installation of CO alarms

Carbon monoxide leaks can and do occur from appliances other than just gas boilers. For instance, a study by Hackney Homes (a London based social landlord) raised a concern that, while gas boiler servicing is extremely effective at improving safety, greater risks from carbon monoxide poisoning are presented by other gas or solid fuel burning appliances, such as gas cookers, coal fires, etc.

Gas boilers may be well-regulated and as a result generally safe, but other gas or fuel-burning appliances (such as gas cookers) may not be. As a result, there is an emerging view that CO alarms should be installed in rooms wherever fuel-burning appliances are present, whether they belong to the landlord or tenant.

# Voluntary adoption of new PRS carbon monoxide (CO) safety standard by social landlords is necessary if further legislation and regulation is to be avoided

As of 1 December 2015 private sector landlords in Scotland have been required to have working smoke alarms installed in every frequently used room and circulation space and a working CO (carbon monoxide) alarm in each room where there is a fixed combustion appliance.

Yet a social landlord with a home next door to a private rented property from 1 December 2015 now faces far less stringent safety demands on fire and gas. A functioning smoke alarm is not mandatory in all social homes and CO alarms are also not compulsory, other than in new properties or where a fixed combustion appliance is replaced.

The All-Party Parliamentary Carbon Monoxide Group (APPCOG) report of April 2015 recommended that 'Building Regulations should be amended to require social housing providers to fit and maintain standard-compliant carbon monoxide alarms wherever a fuel-burning appliance is installed.'

A number of respondents to this research, including social landlords and the Scottish Fire and Rescue Service called for this change too.

# Social landlords can benefit from new technology, particularly when preventing CO poisoning

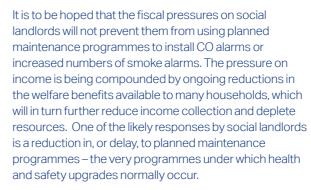
Advances in technology, particularly through the use of sensors placed in 'smart', web-enabled fire and CO alarms, will make it easier - and possibly cheaper in the long run – for landlords to offer a higher standard of care to tenants, while managing their own liability risk more effectively.

Improvements in technology offer clear potential to improve the level of customer care and provide a more comprehensive approach to managing risks. Smart technology enables:

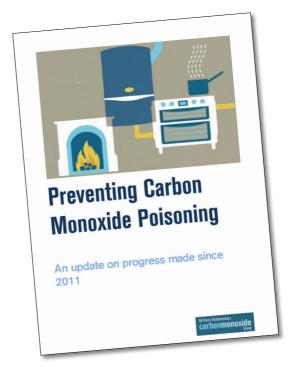
- Alarm sensors and batteries to be automatically and remotely tested and results/faults communicated to the landlord on a real-time basis
- Alerts sent if the devices are tampered with, e.g. tenant or contractor disables the device
- All information gathered can be retained at a central hub. This can help inform landlord asset management analysis and decisions, as well as helping landlords demonstrate they comply with their legal health and safety responsibilities

Some landlords, such as River Clyde Homes and Scottish Borders Housing Association, are piloting the use of smart CO alarms that can remotely and automatically provide 24/7 status updates on all levels of CO emission and offer the potential for significant cost savings as a result.

The use of such technologies has been endorsed by the All-Party Parliamentary Carbon Monoxide Group (APPCOG) as they can help provide more data on carbon monoxide and gas safety, as well as the health risks to tenants and the landlord's employees/contractors of constant exposure to low levels of CO.



Social landlords should consider adapting asset management programmes to adopt an 'invest to save' approach, supported by technology where possible. When conducting risk assessments aligned to any rescheduling of planned maintenance, social landlords should ensure that the opportunity to benefit from new technology is not missed.



# Awareness of CO risk is increasing but landlords can do more to inform tenants of the risk

A recent study by the Gas Safety Trust found only 13 per cent of the general public can identify the symptoms of carbon monoxide poisoning (headaches, vomiting, breathlessness, weakness, confusion, chest pain – which can be similar to flu symptoms). Regarding the 'silent killer', carbon monoxide (CO), why is awareness so low of the risks posed by a highly poisonous gas that cannot be smelled, tasted or seen?

Residents of social housing are a particularly highrisk group for CO poisoning, so steps taken by social landlords to ensure residents are aware of the dangers of CO are therefore particularly important.

Social landlords play a 'trusted messenger' role in their communities. They can thus play an important part in effectively communicating to residents about the dangers posed by fire, gas and carbon monoxide and how best to deal with them safely.

The importance of this role in effectively communicating the dangers posed by CO poisoning in particular, has been highlighted by APPCOG.

# A MOT-style approach to gas safety checks would be helpful

Social landlords – particularly via the Gas Access Campaign, led by Home Group CEO Mark Henderson and gas safety managers throughout the UK have called for a new approach to gas safety checks.

An MOT-style system means that gas safety checks could be carried out up to one month before the expiry of the current gas safety check record, but the new safety check record would be dated such that it is valid for a full twelve months from the expiry date of the current safety check record.

The HSE (Health & Safety Executive) has, in principle, approved this move to an MOT style of LGSR (Landlord Gas Safety Record) for the landlords' annual gas safety checks.



# Rationalisation of health and safety rules and regulations could improve resident safety

At present, social landlords and their tenants face a myriad of rules and regulations concerning fire, gas and carbon monoxide safety in their homes - as well as dealing with an array of organisations responsible for monitoring and enforcing the regulations. At present, updates to regulation require to be cross-referenced with previous guidance, thus introducing scope for error.

These rules differ depending on a number of factors such as:

- · Tenure e.g. social housing, private rented
- Property type e.g. HMO, sheltered housing, residential care home, single property dwelling, new build or existing property

Landlords and their tenants have to deal with an array of organisations responsible for monitoring and enforcing fire and gas safety regulations. Regulations on fire safety are monitored and enforced by Scottish local authorities and the Scottish Fire and Rescue Service (SF & RS). Regulations on gas safety are monitored and enforced by the Health and Safety Executive and the Scottish Housing Regulator (SHR). Private landlords also have to answer to the Private Rented Housing Panel (PRHP)<sup>2</sup> and conform to the Repairing Standard<sup>3</sup>.

There is a general desire among social landlords for legislation and regulations to be more easily accessible. One suggestion was a simple 'grid' approach that could be used by landlords and their contractors that would contain all relevant fire, gas and carbon monoxide duties in one place. Further detail could then be linked to and explored as required. This guide provides a simple grid for illustrative purposes.







<sup>&</sup>lt;sup>2</sup> https://www.prhpscotland.gov.uk/

<sup>&</sup>lt;sup>3</sup> http://www.gov.scot/Topics/Built-Environment/Housing/privaterent/landlords/repairing-standard



Scottish Government statistics show a downward trend in fire deaths; from a high of 76 deaths in 2004/5 to 29 deaths in 2013/14.



# **Overview on fire safety**

5,300 fires were reported in dwellings in Scotland in 2013/14<sup>4</sup>. This resulted in 29 deaths and more than 1,100 injuries. Although high, this continues a downward trend from more than 7,000 in 2004/5 when 76 people died and there were more than 1,500 injuries.

As with other parts of the UK, there is no common standard for fire safety standards in dwellings. Updated Building Standards introduced on 1 October 2015<sup>5</sup> require all new homes in Scotland to have smoke alarms in in every room 'frequently used' during the day, as well as in hallways and landings, with a heat alarm in the kitchen. These alarms must be connected to mains power, with a standby battery backup. Fire safety experts recommend the replacement of domestic smoke alarms, whether battery or mains-wired, when they:

- Fail to respond to tests
- Are ten years old (varying between date of installation and manufacture)

At present, in Scotland, private rented properties built before October 2015 are required to meet more stringent requirements on fire safety than social housing of the same age. The Repairing Standard, which was introduced by the Housing (Scotland) Act 2006<sup>6</sup>, and which all private rented properties must meet, requires private landlords to ensure 'satisfactory provision for detecting fires and for giving warning in the event of fire or suspected fire'.

For social landlords, the Scottish Housing Quality Standard<sup>7</sup> (SHQS) requires at least one smoke alarm to be installed in all properties and it is the duty of the SHR to monitor social landlords' progress towards the SHQS

In 2006, regulations outlined in the Fire (Scotland) Act 20058 and the Fire Safety (Scotland) Regulations 20069 were introduced. Also, in September 2007, a number of regulations came in following the Housing (Scotland) Act 2006 that principally affected private rented accommodation.

The current fire regulations in Scotland, as outlined on the following pages, require social landlords to conduct regular fire risk assessments for dwellings with communal areas that are accessible to the public. These include communal areas of blocks of flats as well as care homes and sheltered housing.

There is no requirement for social landlords in Scotland to conduct fire risk assessments (FRAs) for all homes. As a result, the Scottish Housing Regulator does not collect information on fire safety among registered social landlords. However, several social landlords spoken to for the research do go beyond the minimum requirements and conduct FRAs on other nonmandatory properties that they consider to be high or medium-risk. These include medium-rise blocks and single dwellings above commercial premises.

The Scottish Fire and Rescue Service states that it issued around two dozen enforcement actions in 2014. but that none were to a social landlord.

This section outlines the key legislation and regulations social and private landlords in Scotland are required to adhere to as regards fire safety. This should be read in conjunction with the reference guide on page 36, which illustrates what standards landlords are required to meet at present and what changes may be coming in future.

This table demonstrates an issue highlighted by a number of respondents: the complexity of the challenge they face in ensuring they comply with the myriad rules and regulations on fire safety. All landlords spoken to for the research invest significant sums in ensuring they meet their legal requirements. However, several said were the current situation to be improved, with relevant information simplified or made clearly available in one place, they would be able to reduce spending on ensuring compliance and use these funds to undertake greater safety risk management.

- 4 https://www.gov.uk/government/statistics/fire-statistics-greatbritain-2013-to-2014
- <sup>5</sup> http://www.gov.scot/Resource/0047/00478105.pdf
- 6 https://www.prhpscotland.gov.uk/sites/default/files/prhp/ Scottish%20Government%20guidance%20on%20satisfactory%20 provison%20for%20detecting%20and%20warning%20of%20 fires%20updated%20sep%2014.pdf
- <sup>7</sup> http://www.gov.scot/Topics/Built-Environment/Housing/16342/shqs/ guidance
- 8 http://www.legislation.gov.uk/asp/2005/5/contents
- <sup>9</sup> http://www.legislation.gov.uk/ssi/2006/456/contents/made



## Fire legislation, regulations and guidance: new and upgraded dwellings



#### Building Standards - Technical Handbook 2015

This updated set of Building Standards came into force on 1 October 2015<sup>10</sup> (recently revised on 1 June 2016). It requires all new dwellings to have:

- At least one smoke alarm installed in the principal habitable room
- At least one smoke alarm in every circulation space on each storey such as hallways and landings
- At least one smoke alarm in every access room serving an inner room
- At least one heat alarm installed in every kitchen.

The guidance states: 'The principal habitable room is the most frequently used room by the occupants of a dwelling for general daytime living purposes.'

The alarms must all be hardwired and have a standby power source.

The standards also apply to converted homes in certain circumstances. These are clearly set out by the Scottish Government in Regulation 4 of Technical Handbook

Detailed guidance on the current regulations on fire communication can be found here: http://www.gov.scot/Resource/0047/00478105.pdf

10 http://www.gov.scot/Resource/0047/00478105.pdf Section 2.11

<sup>11</sup> Section 0.4 'Changes in the occupation or use of a building that cause the regulations to apply' http://www.gov.scot/ Resource/0047/00478103.pdf

## Fire legislation, regulations and guidance: existing dwellings



#### Fire Scotland Act 2005 and Fire Safety Scotland Regulations 2006

This Act and the resulting regulations altered the approach towards fire safety in Scotland, passing the responsibility for conducting appropriate fire risk assessments from the Scottish Fire and Rescue Service (SF & RS) to a 'duty holder' at each social landlord.

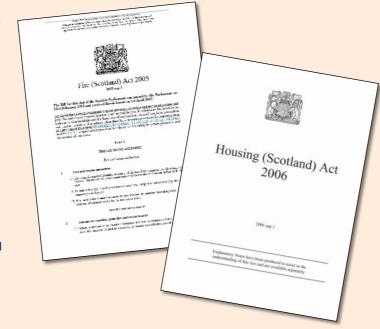
The duty holder must ensure the landlord complies with the requirements of the legislation, but there is no requirement for the SF & RS to check that this has been done for most social housing. The SF & RS will carry out enforcement action on dwellings where it becomes aware of an issue, but will only routinely check 'relevant' buildings i.e. those for which it has a regulatory responsibility. These include care homes and the communal areas of tenements, houses in multiple occupation and multi-storey, high-rise blocks.

Guidance from the Scottish Government on the act can be found here: Practical Fire Safety Guidance for Small **Premises Providing Sleeping Accommodation** 

http://www.gov.scot/Resource/0041/00418071.pdf

Practical Fire Safety Guidance for Medium and Large Premises Providing Sleeping Accommondation

http://www.gov.scot/Resource/0049/00499605.pdf





## Fire legislation, regulations and guidance: existing dwellings

#### Scottish Housing Quality Standard (SHQS)

This was introduced in February 2004 with a target for Scottish social landlords to ensure their relevant properties met the requirements of the standard by April 2015<sup>12</sup>. Annexe E, Section 44 of the SHQS requires all social homes to have at least one smoke alarm. This can either be mains or battery-operated.

The Scottish Housing Regulator regulates compliance with the SHQS as part of the Scottish Social Housing Charter, Annual Charter Return (ARC) and they will intervene on the occasion of a 'notifiable event', defining these as events 'that may seriously affect tenant safety or service delivery arrangements'. They include:

- · Any incident involving the Health & Safety Executive or a serious threat to tenant safety; or where a regulatory or statutory authority has notified its concerns for example the SF & RS, etc.
- · Serious accidental injury or death of a tenant:
  - Where there has been a service failure by the RSL: or
  - Which could potentially affect other tenants' confidence in the landlord and the landlord's reputation

Board members will want to ensure they are managing the risk around 'notifiable events'. For instance, that the organisation is conducting and acting on actions outlined by fire risk assessments, or that clear policies and procedures are in place so that a landlord is not simply passing responsibility for fire safety to tenants.

#### Housing (Scotland) Act 2006, Section 13(1)

This sets out the criteria that must be met if a privately rented property is to meet with the Repairing Standard of the Act<sup>13</sup>. One part of the Repairing Standard states that a property should have adequate provision for detecting and warning of fires.

The Repairing Standard was introduced on 3 September 2007 and applies to all privately rented homes. It is enforced by the Private Rented Housing Panel<sup>14</sup>. Social landlords are not covered by the Repairing Standard.

The Repairing Standard Domestic Technical Handbook was updated in October 2010<sup>15</sup> to reflect the fact that there are now more electrical appliances and devices throughout most homes and so a greater spread of potential fire risks around a property.

The updated standard 16 requires:

A functioning smoke alarm in the room most frequently used during the day (this was altered in May 2014 from a requirement to have a smoke alarm in every room frequently used during the day)

- A functioning smoke alarm in every circulation space (hallways, landings, etc.)
- · A heat alarm in every kitchen
- · All alarms to be interlinked
- · Any smoke or heat alarm installed from after 3 September 2007 to be powered by mains electricity and have a standby power supply

#### Other relevant legislation, regulations and guidance

HSG168 - Fire Safety in Construction http://www.hse.gov.uk/pubns/books/hsg168.htm

12 http://www.gov.scot/Topics/Built-Environment/ Housing/16342/shqs

<sup>13</sup> http://www.gov.scot/Topics/Built-Environment/Housing/privaterent/ landlords/repairing-standard

14 https://www.prhpscotland.gov.uk

<sup>15</sup> Technical Handbooks 2013: – Domestic – Fire, http://www.scotland.gov.uk/Topics/Built-Environment/Building/ Buildingstandards/publications/pubtech/th2013dom2)

16 https://www.prhpscotland.gov.uk/sites/default/files/prhp/ Scottish%20Government%20guidance%20on%20satisfactory%20 provison%20for%20detecting%20and%20warning%20of%20 fires%20updated%20sep%2014.pdf





## **Discussion points: Fire safety**





The approach to fire safety varies to some extent between social landlords. There is a general feeling among social landlords spoken to for the research that this is as a result of varying interpretations of the law and standards.

As the table on page 36 demonstrates, there are several items of legislation and accompanying regulations and guidance that social landlords must keep on top of if they are to comply with their legal obligations on fire safety.

At present updates to regulation must be crossreferenced with previous guidance, thus introducing scope for error. Several respondents to the research identified this as an area where less complexity would simplify the role of compliance, without reducing tenant

Indeed, in some instances and with the advent of different requirements on smoke and CO detectors for private as opposed to social rented homes, tenant safety would likely be improved. A clearer and more straightforward set of requirements for social landlords would also have the benefit of potentially freeing up resources otherwise expended on ensuring legal compliance.

One suggestion was a simple 'grid' approach that could be used by landlords and their contractors that would contain all relevant fire, gas and carbon monoxide duties in one place. Further detail could then be linked to and explored as required.

One respondent called for 'an agreed template for undertaking Fire Risk Assessments (FRAs) in different types of property', to allow a 'minimum common standard' to be supported. This would also simplify and clarify the training required at social landlords.

David Fletcher, Director of Regeneration at Wheatley Group, typified responses from housing associations and local authorities when he said: 'A change to regulations that established agreed common standards for fire risk assessments in differing property types would be welcomed.'

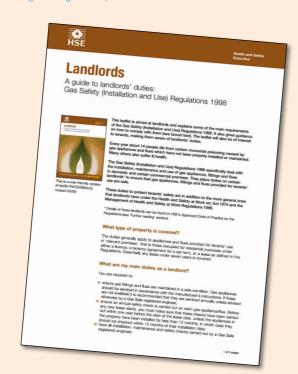
David also agreed that a common standard for dealing with gaining access for gas safety checks would strengthen the landlord's role and responsibilities.

The SF & RS is keen to see social landlords required to meet the same fire safety requirements as private landlords for existing homes (smoke detector in each habitable room and a heat detector in kitchens). It would also support Scotland following Wales and extending the requirement for sprinklers to be installed in all new dwellings (see page 18).

Martin Miller, area manager for prevention and protection at the SF & RS, said: 'We would like to see all landlords meet the higher standards that the private rented sector has to meet on fire safety.' However, Mr Miller added he 'wouldn't want to see the 'relevant premises' list<sup>17</sup> used by the SF & RS extended to cover all dwellings' as this would be tough to adequately

The SF & RS says it enjoys a 'good relationship' with a number of social landlords across the country. This results in 'a lot of referrals from social landlords to households they consider to be vulnerable', for a home fire safety visit. It would like to see all social landlords work with it on this proactive basis.

<sup>17</sup> The 'relevant premises' list (as defined in section 78 of the Fire (Scotland) Act 2005 (asp 5) ('the 2005 Act') can be found at: http://www.legislation.gov.uk/asp/2005/5/section/78





## **Discussion points: Fire safety**

#### Fire Management Case Study: Wheatley Group

between them.

Wheatley Group, the Glasgow-based housing, care and property management group works in communities across Scotland. The group's social landlords have approximately 52,000 homes

One of the critical elements in Wheatley Group's robust approach to fire safety is its investment in a groundbreaking approach to community safety through their Community Improvement Partnership (CIP). The CIP sees the Scottish Fire and Rescue Service and Police Scotland work side by side to help keep the landlord's neighbourhoods safe. A Station Commander from the Fire Service is seconded to the CIP as the 'Liaison Officer' to work hand in hand with the Housing Officers.

#### As well as the CIP, the Group also has a thorough fire safety framework, which incorporates:

- Fire risk assessments the Wheatley Group's Health and Safety team undertake fire risk assessments in all relevant premises to ensure suitable controls are in place for risks identified and legal compliances are met. The fire risk assessment for a location forms the backbone of the fire safety regime and is reviewed at regular intervals.
- Mandatory 'Fire Awareness' training this is delivered by Wheatley Group's Health and Safety team as part of staff induction training and this is then backed up with regular mandatory refresher courses.
- Fire Marshal training this is delivered by the Wheatley Group's Health and Safety team for nominated staff to give a further understanding of the controls in place in respect of fire to safeguard people and property. Courses for both office-based and on-site supported housing staff are provided at regular intervals and all nominated staff must keep up to date.
- Fire Incident Reporting at any location where there is a fire incident or unplanned activation of a fire detection and warning system, a fire incident form must be completed. All fire incident forms are sent to Wheatley Group's Health and Safety team for recording purposes and analysed to determine whether further investigation and/or action is required.

- Monitoring and measuring the number of incidents attended by Scottish Fire and Rescue Service (SF & RS) in relation to the landlords' **properties** – these statistics are recorded on a daily basis by the SF&RS Liaison Officer based at the Wheatley CIP office and all incidents are sent to the relevant Housing Manager for information and where required, further action. This data is particularly helpful in identifying trends and repeat offenders thereby enabling officers to take targeted action where necessary.
- Monitoring and measuring the number of Home Fire Safety Visits (HFSVs) undertaken by the SF&RS in relation to the landlords' properties for all HFSVs the SF&RS Liaison Officer sends this information to the relevant Housing Officer. If any trends have been identified within certain areas. blocks of flats, etc. then SF&RS will in liaison with local staff carry out HSFV's.
- · Raising awareness about fire safety concerns where staff have a concern in relation to fire safety in a domestic property, e.g. when they have concerns about a vulnerable household and fire safety, they can contact the SF&RS Liaison Officer directly or refer the case for a HSFV by SF&RS
- Annual servicing of domestic smoke detectors Wheatley Group works on the basis that all domestic smoke detectors will be serviced annually. However, whilst attempts are made to carry out servicing on all properties, 100% success is not always achievable. This is due to access difficulties within general needs tenancies. However, the Group does achieve a 100% success within its sheltered and very sheltered properties and where a property falls under the gas contract.
- Maintenance of fire safety systems Wheatley Group's landlords all have a pro-active approach to the maintenance of fire safety systems in their nondomestic properties, with fire safety systems part of pro-active service contracts covering automatic fire detection/warning systems, portable/fixed fire extinguishing equipment, emergency lighting, portable and fixed electrical appliances.



# Discussion points: Fire safety





#### Southside Housing Association (SHA)

Southside Housing Association (SHA) currently has a mixture of properties consisting of residential housing blocks, high-rise properties, offices, sheltered housing schemes, purpose built supported accommodation and community spaces. The Association grew substantially during the Glasgow Second Stage Stock Transfer (SSST) in 2011 from 500 traditional tenement properties to 2,087 properties consisting mainly of high rise tower blocks.

This was a huge learning curve for the Association. Tower blocks involve a variety of different services and associated plant and the management of a large quantity of flats under one roof.

SHA was fortunate that skilled housing and concierge staff were transferred along with the new stock and had previous experience in the management of high rise properties. However, they lacked the technical expertise needed to maintain large communal systems.

As a result, it took time for SHA to get to know its new stock and to learn a whole new range of skills, which meant investing in staff training and restructuring in order that it could be certain to meet the specialist Health and Safety requirements that tower blocks require.

The coroner's report from the Lakanhal House fire turned SHA's attention to fire safety within tower blocks.

In 2014 SHA commissioned a fire risk management consultant to provide a holistic approach to Fire Risk Assessments, combining a Fire Assessor's expert analysis with that of a Structural Engineer. The combined partnership produced an assessment of both operational and structural issues related to fire safety in multi-storey flats and housing blocks.

It took over a year to see the completion of the Fire Risk Assessments and to compile an action plan for remedial works.

The key targets for action were:

- sources of ignition
- spread of fire
- fuel loading

As part of this approach, SHA carried out periodic electrical inspections of flats, common areas and the landlord's supplies and - to prevent the spread of smoke and fire - bathroom ducts, part of the communal extract ventilation system, were cleaned and fitted with fire resistant grills and dampers.

Further, breaches in compartmentalisation within common plant rooms and service cupboards were also fire stopped. Any unsafe cable wiring was identified and rectified and redundant cabling was removed. Regular housekeeping inspection regimes are now carried out by SHA concierge teams to monitor these areas to prevent fuel loading and misuse by service contractors.

Hard wired smoke detectors are fitted as standard in every flat and replaced every 10 years as part of the planned maintenance programme. The smoke detectors are tested at void stage and during the periodic electrical inspection of each flat.

In addition, the SHA works with the Scottish Fire and Rescue Services (SF & RS) to undertake Home Fire Safety visits. All SHA flat entrances are fitted with fire doors as standard, and there is a planned programme to replace common area doors such as landing and stairwell doors.

Fuel loading in common areas is also monitored and tenants are encouraged to keep escape routes clear of obstacles and furnishings. In more complex buildings, fire safety signage has been introduced to inform residents of fire safety and escape routes should evacuation be required.

Kathy McLeod, Services Contracts Officer, SHA, said: 'We have a high standard of fire safety throughout our stock and we have made a good start at improving fire safety in particular in our high rise properties, although we still have a way to go.' She added: 'Available resources and costs are always a factor but we are looking now to re-visit what we have achieved, review our assessments and plan to tackle some of the larger pieces of work.'



# Fire safety after Lakanal House and Shirley Towers

Fire safety rose up social landlords' list of priorities after six people died in a blaze at the council-owned Lakanal House tower block in the London Borough of Southwark in 2009. This intensified when a blaze in the Shirley Towers high-rise block, owned by Southampton Council killed two fire fighters in April 2010.

Although much of the safety framework that applied to housing providers was in place long before these tragic events, they sharply focused attention on fire precautions.

As one interviewee said: 'The number one issue is what happened with the decent homes programme and how can you guarantee the work didn't compromise on safety. A lot of time was spent snagging, no doubt, but the process didn't necessarily involve checking compartmentations and whether the work had compromised the [fire safety of the] whole block.'

Nick Cross, then head of housing services at Southampton City Council, agreed saying: 'The key issue for us now is not so much what contractors do – it's us making sure the correct checks are in place at the right time by us and our representatives to ensure the fire stopping has been undertaken.'

Mr Cross added that he and his colleagues at Southampton remain completely focused on the issues surrounding fire safety, since the Shirley Towers fire.

However, he said this was perhaps not the case for other council landlords. 'My sense is that other councils are not talking much about fire safety or health and safety issues. There was a real focus after the fires at Lakanal House and Shirley Towers, but for the past couple of years this hasn't been the case.'

Mr Cross said a reason for this was the tough financial times local authorities were currently experiencing. 'The financial environment is a clear factor now and it will be a concern that health and safety compliance and issues connected to it may slip down the pecking order with competing priorities.'

#### Fire safety notices

Inside Housing's Safe as Houses campaign in October 2009 carried out a survey which found that one in five social landlords had stepped up fire safety work on their tower blocks following the Lakanal House disaster.<sup>18</sup>

**Discussion points:** 

**Fire safety** 

The magazine reported in Fire safety under scrutiny (Inside Housing 16 May 2014) that the London Fire Brigade handed out 35 fire safety enforcement notices against social landlords in the year to March 2014. These notices were issued in cases where a landlord in England breaches fire safety laws – specifically the Regulatory Reform (Fire Safety) Order 2005. Of the 1,948 inspections of blocks of flats of four storeys or higher in England, 20 per cent of residences were found to require a variety of improvements. Only four of the 35 notices for social landlords in England were served on local authorities, with 28 given to housing associations (two were served against housing charities and one against an arm's-length management organisation).

Social landlords we spoke to said that there were a number of reasons for the apparent difference in performance between councils and housing associations. These included differing approaches to obstruction in corridors (considered a fire risk – see below) and, in some instances, more focused political scrutiny on the safety of the housing service. However, this is not always the case as the testimony from Southampton's former head of housing demonstrates

<sup>18</sup> Fire safety under scrutiny, Inside Housing, 16 May 2014, http://www.insidehousing.co.uk/home/analysis/fire-safetyunderscrutiny/7003770.article



## **Discussion points: Fire safety**



#### Case Study **Southern Housing Group**

Like most housing associations Southern Housing Group (a housing association with stock mainly in London and the South East of England) is keen to make its tenants feel they live in a warm and welcoming environment. But this can run the risk of falling foul of the Fire Safety Order and the zero tolerance approach taken in the Order to allowing objects in communal areas which could potentially be deemed a fire hazard.

Rachel Bancroft, group health and safety manager at Southern Housing Group, said the landlord adopts a 'managed approach' to the issue. For instance, in its corridors Southern might allow a picture and a doormat and a potted plant. Southern then produces fliers showing pictures of what's acceptable and what isn't. Southern has regular communications with tenants about fire safety through communal newsletters.

Bancroft said: 'I know some landlords might say it's easier to go for zero tolerance, but we never wanted that. We want residents to take ownership. We don't want our residents to feel they are living in a

#### Complexity of rules and regulations

As the table on page 36 demonstrates, there are several items of legislation and accompanying regulations and guidance that social landlords must keep on top of if they are to comply with their legal obligations on fire safety. At present, updates to regulation require to be cross-referenced with previous guidance, thus introducing scope for error. Several respondents to the research identified this as an area where less complexity would simplify the role of compliance, without reducing tenant safety.

A clearer and more straightforward set of requirements for landlords would also have the benefit of potentially freeing up resources otherwise expended on ensuring legal compliance.

One suggestion was a simple 'grid' approach that could be used by landlords and their contractors that would contain all relevant fire, gas and carbon monoxide duties in one place. Further detail could then be linked to and explored as required. The table on page 36 provides a suggested template.

#### **Fire Suppression Systems**

There has been much discussion since the Lakanal House and Shirley Towers fires about the installation of sprinkler systems in high-rise blocks. In their findings in both fires, coroners highlighted the vital role sprinkler systems could play in saving lives. Yet retrofitting sprinklers is expensive. In an article in July 2015, 19 Inside Housing found just 18 of 2,925 council-owned, high-rise blocks in England had sprinklers in some of their flats.

The Building (Scotland) Regulations 2004,20 specifically article 2.15, automatic life safety fire suppression systems, 21 states that every building must be designed and constructed in such a way that, in the event of an outbreak of fire within the building, fire and smoke will be inhibited from spreading through the building by the operation of an automatic life safety fire suppression

This standard applies only to a building which -

- a) is an enclosed shopping centre;
- b) is a residential care building;
- c) is a high rise domestic building; or
- d) forms the whole or part of a sheltered housing

Recent research carried out for the Scottish Government in 2015, a Cost benefit analysis of sprinklers in Scotland <sup>22</sup> also provides valuable insights. This study involved collecting the most up to date information available on the prevalence, risks and costs of fires in dwellings in Scotland compared to the costs of installing and maintaining sprinkler systems.

The results of the research are consistent with earlier studies in finding that the installation of sprinklers in houses is not cost effective, the excess of cost over benefit being very substantial. In relation to flats, the analysis indicates that if sprinklers could be installed at the lower end of the estimated costs, installation would be cost effective, although the excess of benefit over cost is small. Progress in achieving cost reductions would strengthen the case for installation of sprinklers.

The position with regard to Houses in Multiple Occupation (HMO) is more complex. It is useful to distinguish between shared houses where three of more unrelated people live in one house and traditional "bedsits" in flatted properties.



## **Discussion points: Fire safety**

The study found that the installation of sprinklers in shared houses would not result in costs exceeding benefits. For HMOs in flats and purpose built HMOs the gap between cost and benefit is narrower and there could be a cost benefit case for sprinkler installation if costs can be driven down.

These general conclusions that installation of sprinklers would not be justified on cost benefit grounds in most types of residential property must be tempered by recognition of the fact that particular elements of the community, e.g. people living in deprived areas, single men, older people and people with problems related to alcohol and drugs are disproportionally affected by fire risks. While sprinklers are not the answer to all of these problems, targeted installation of sprinklers to benefit these groups, if achievable, would be likely to be cost effective. This targeted installation could involve a requirement for installation of sprinklers in new social housing flats and accommodation for single person households, and a requirement for installation in new bedsit HMOs.

There may also be other effective responses to the issue of fire risk for vulnerable communities and households which do not require changes to building regulations. The Scotland Together Scottish Community Fire Safety Study made a number of suggestions for action around improving information and advice, specifically:

- Undertaking additional research to establish the relationship between deprivation and fire
- · Formation of closer working arrangements with health practitioners in order to access those most at risk from fire
- Partnership working with housing organisations to identify the targeted Home Fire Safety Visits within Registered Social Landlord and local authority housing stock
- Development of a performance management system for Home Fire Safety Visits
- · Development of a standard risk assessment for installing sprinklers.

<sup>19</sup> http://www.insidehousing.co.uk/business/asset-management/ repairs-and-maintenance/investigation-shows-lack-of-sprinklers-intower-block-homes/7010789.article

<sup>20</sup>http://www.legislation.gov.uk/ssi/2004/406/pdfs/ssi\_ 20040406\_en.pdf

<sup>21</sup> Automatic fire suppression systems control and extinguish fires without human intervention. Examples of automatic systems include fire sprinkler system, gaseous fire suppression, and condensed aerosol fire suppression.



<sup>&</sup>lt;sup>22</sup>http://www.gov.scot/Resource/0047/00477895.pdf



# Overview on carbon monoxide and gas safety



Between 2009 - 2011,122 patients were recorded in Scottish hospitals as having had an episode of 'toxic effect of carbon monoxide' and in 2015 alone there were

7 CO incidents recorded.



## Overview on carbon monoxide and gas safety

#### Carbon monoxide

Despite the risks presented by an odourless and colourless gas, a recent survey in 2014 of the general public by the Gas Safety Trust, found only 13 per cent of 2,000 respondents were aware of the symptoms of CO poisoning (headaches, vomiting, breathlessness, weakness, confusion, chest pain - can be similar to flu symptoms).24

A report in January 2015 by the All-Party Parliamentary Carbon Monoxide (CO) Group found a widespread lack of awareness among members of the public that CO is also produced by fuel-burning appliances other than gas boilers, such as wood-burning stoves or gas cookers.25

It is also the case that recent studies have found a lack of awareness in the medical profession of the symptoms of CO poisoning. The APPCOG has, again, been prominent in this area.<sup>26</sup> Despite this situation, a 2015 report by Kings College London and Public Health England<sup>27</sup> found a pattern of increasing CO poisoning admissions to hospital in England with increasing levels of deprivation. As social housing tends to be in more deprived areas, this finding means social tenants are therefore at higher risk of CO poisoning.

The available figures for carbon monoxide (CO) poisoning in Scotland, while less comprehensive, show that between 2009 – 2011, 122 patients were recorded in hospital as having had an episode of 'toxic effect of carbon monoxide', Further, Health Protection Scotland (HPS) states that there were 54 reported CO incidents between 2002 – 2015, including 7 CO incidents in 2015

The Scottish Government says that a 'considerable number of CO incidents' cause 'fatalities' and 'injury' each year. However, there are no specific figures for CO deaths in Scotland. The Scottish Government has been taking action to enhance the regulations requiring the provision of carbon monoxide alarms in housing. From October 2013, CO alarms became mandatory in all new homes with fixed combustion appliances and those where fixed combustion appliances were replaced.<sup>28</sup> Then, in December 2015, all private landlords were required to install CO alarms in properties with fixed combustion appliances, and where a flue passes through high-risk accommodation, such as a bedroom or main living room.<sup>29</sup>

Yet, this means social landlords have no requirement to install CO alarms in their homes built before October 2013, unless they replace a fixed combustion appliance (such as a gas boiler). At present, a private rented home must meet more stringent safety requirements than many socially rented properties. Landlords participating in our research expressed concern that there is such variation in the standards required reliant on tenure and whether a property is new, upgraded or an existing

The table on page 37 clearly illustrates the scope for confusion and the need for social landlords to keep on top of their requirements. The benefits set out in the previous chapter of a more straightforward approach to compliance with fire requirements apply equally to those for gas and carbon monoxide.

However, the political landscape is changing. The All-Party Parliamentary Carbon Monoxide Group – which published the Carbon Monoxide: From Awareness to Action report in January 2015 – has called for social landlords to be required to meet tougher standards on CO. In its report it said: 'Building Regulations should be amended to require social housing providers to fit and maintain standard-compliant carbon monoxide alarms wherever a fuel-burning appliance is installed."

<sup>24</sup>http://www.gassafetytrust.org/news-and-press/2014/a-new-gstpoll-finds-shockingly-low-understanding-of-the-symptoms

<sup>25</sup>http://www.policyconnect.org.uk/appcog/research/inquirybehavioural-insights

<sup>26</sup>http://www.policyconnect.org.uk/appcog/sites/site\_appcog/files/ report/549/fieldreportdownload/preventingcarbonmonoxidepoisoni ng-anupdateonprogressmadesince2011.pdf

<sup>27</sup>http://jpubhealth.oxfordjournals.org/content/early/2015/03/27/ pubmed.fdv026.full.pdf+html

<sup>28</sup>http://www.gov.scot/Publications/2012/09/5905/2

<sup>29</sup>https://www.scottishlandlords.com/LinkClick.aspx?fileticket=t4YWIasYF0%3D&tabid=432

In its contribution to the research, the APPCOG also outlined the potential for social landlords and their operatives to play a 'trusted messenger' role in spreading information about the risks of CO poisoning.

#### **Gas safety**

As elsewhere in the UK, Scottish social and private landlords must have an annual gas safety inspection and keep a record of the certificate they receive. This is reinforced by the Scottish Housing Quality Standard Section 46 that requires all homes to have a new CP12 certificate each year (now known as the Landlord's Gas Safety Certificate [LGSC]). This is issued by a qualified gas engineer, following an inspection of gas systems.

The Scottish Housing Regulator checks whether social landlords are completing annual gas safety checks. The regulator has played a more prominent role in recent years in enforcing gas safety requirements, with gas safety identified in 2015 as one of its 'thematic enquiries'. The regulator's work has concentrated on landlords ensuring their annual gas safety checks have been conducted as required and sharing best practice.

The SHR has also produced some helpful guidance in relation to gas flues,<sup>30</sup> following discussions with the Health and Safety Executive (HSE). The SHR's interest in this topic has been prompted by a significant number of incidents where poor practice led to the integrity of gas flues being compromised and resulted in serious health and safety issues for tenants and residents.

The SHR focus has worked, with figures for the past two years showing an improvement in performance by Scottish social landlords. The most recent performance figures were published in February 2016 and were for 2014/15<sup>31</sup>. These showed that Scottish social landlords had complied with the requirement in 99.5 per cent of cases (99.5 per cent for housing associations and the same for local authorities). This compares with 98.1 per cent overall in 2013/14 (98.8 per cent for housing associations and 97.6 per cent for local authorities).

Speaking about the 2013/14 figures, Sylvia Ward, governance and performance officer at the SHR, said: 'Anyone we found who was not at 100 per cent on gas safety we followed up with directly. There were not many – a handful of the 196 landlords we regulate. All landlords are now compliant as far as I am aware, so thankfully for us this is not a major issue.'

³ohttps://www.scottishhousingregulator.gov.uk/publications/ regulatory-advice-note-maintaining-integrity-gas-flues

<sup>31</sup>https://www.scottishhousingregulator.gov.uk/sites/default/files/ publications/FINAL%20National%20Report%20on%20the%20 Charter%20201415.pdf

#### Building Standards Technical Handbook 2015 – Section 3: Environment

Sections 3.17-3.22 of the Technical Handbook 2015 covers the requirements in terms of flues, ventilation and storage for all new or refurbished homes in Scotland that contain combustion appliances<sup>32</sup>. Section 3.20.20 sets out the requirement for a CO detector to be installed in all new homes with a fixed combustion appliance and homes where a fixed combustion appliance is replaced. There should be one CO alarm in every space containing a fixed combustion appliance. The regulation suggests battery-powered CO alarms are preferable to hard-wired equivalents, although the latter may be used if fitted with a sensor failure warning device.

#### The Technical Handbook states:

In order to alert occupants to the presence of levels of carbon monoxide which may be harmful to people, a detection system should be installed in all dwellings where:

- A new or replacement fixed combustion appliance (excluding an appliance used solely for cooking) is installed in the dwelling, or
- A new or replacement fixed combustion appliance is installed in an inter-connected space, for example, an integral garage

Carbon monoxide detectors should comply with BS EN 50291-1:2010<sup>33</sup> and be powered by a battery designed to operate for the working life of the detector. The detector should incorporate a warning device to alert the users when its working life is due to expire. Hard-wired, mainsoperated carbon monoxide detectors complying with BS EN 50291-1:2010 (Type A) with fixed wiring (not plug in types) may be used as an alternative, provided they are fitted with a sensor failure warning device.

A carbon monoxide detection system to alert occupants to the presence of carbon monoxide should consist of at least:

- 1 carbon monoxide detector in every space containing a fixed combustion appliance (excluding an appliance used solely for cooking), and
- 1 carbon monoxide detector to provide early warning to high-risk accommodation, that is, a bedroom or principal habitable room, where a flue passes through these rooms

#### Gas Safety (Installation and Use) Regulations 1998

The key legislation covering gas safety in the UK is the Gas Safety (Installation and Use) Regulations 1998.

These specify that landlords must ensure that the gas fittings and flues are maintained in a safe condition and that a gas safety check is carried out annually on each appliance/flue. The Approved Code of Practice (ACOP) and guidance gives practical advice on the Gas Safety (Installation and Use) Regulations.<sup>34</sup> The maximum penalty for failing to adhere to these regulations is a jail term and also a fine of up to a £20,000.

If a tenant has concerns about gas safety, they may raise it with Gas Safe Register<sup>35</sup> (the replacement for CORGI) or the Health and Safety Executive. <a href="http://www.hse.gov.uk/gas/domestic/newschemecontract.htm">http://www.hse.gov.uk/gas/domestic/newschemecontract.htm</a>

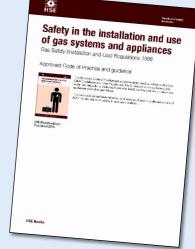
The HSE may make enquiries or investigate, for example where landlords have failed to maintain gas appliances, or where unsafe gas work has been carried out. This may result in enforcement action where appropriate. Further information from the HSE can be found at: http://www.hse.gov.uk/gas/domestic/index.htm.

32 https://www.scottishhousingregulator.gov.uk/publications/ regulatory-advice-note-maintaining-integrity-gas-flues

\*\* https://www.scottishhousingregulator.gov.uk/sites/default/files/publications/FiNAL%20National%20Report%20on%20the%20Charter%20201415.pdf

https://www.scottishhousingregulator.gov.uk/sites/default/files/ publications/FINAL%20National%20Report%20on%20the%20 Charter%20201415.pdf

https://www.scottishhousingregulator.gov.uk/sites/default/files/publications/FINAL%20National%20Report%20on%20the%20Charter%20201415.pdf



Gas safety and carbon monoxide legislation, regulations and guidance: existing, new and upgraded dwellings



# <u>26</u>

# Gas safety and carbon monoxide legislation, regulations and guidance: existing, new and upgraded dwellings





From December 2015 the **Repairing Standard** – which all private rented accommodation in Scotland must meet – was amended to require landlords to ensure 'the house has satisfactory provision for giving warning if CO gas is present in a concentration that is hazardous to health'. <sup>36</sup>

The updated standard goes on to state: 'The installation of CO detectors is intended to reduce the risk of CO poisoning and the consequent loss of life and serious injury. The repairing standard sets a high benchmark for CO detection, matching the standard required for new building.'

The standard adds:

Private landlords must ensure that a detection system is installed in all dwellings they rent to tenants where there is:

- A fixed combustion appliance (excluding an appliance used solely for cooking) in the dwelling or
- fixed combustion appliance in an inter-connected space, for example, an integral garage
- combustion appliance necessarily located in a bathroom (advice would be to locate it elsewhere) the CO detector should be sited outside the room as close to the appliance as possible but allowing for the effect humid air might have on the detector when the bathroom door is open.

A CO detection system to alert occupants to the presence of CO gas should consist of at least:

- 1 CO detector in every space containing a fixed combustion appliance (excluding an appliance used solely for cooking) and
- 1 CO detector to provide early warning in high risk accommodation, that is, a bedroom or principal habitable room, where a flue passes through these rooms.

CO detectors should be powered by a battery designed to operate for the working life of the detector which is usually between five and seven years. The detector should incorporate a warning device to alert the users when its working life is due to expire and should be replaced on or before the expiry date.

Hard-wired, mains-operated CO detectors with fixed wiring (not plug in types) may be used as an alternative, provided they are fitted with a sensor failure warning device. CO detectors must comply with BS EN 50291-1+A1:2002 and, where hard-wired or wireless installations are adopted, applicable European directives.

#### **Scottish Housing Quality Standard**

This was introduced in February 2004 with a target for Scottish social landlords to ensure their relevant properties met the requirements of the standard by April 2015.<sup>37</sup>

Section 46 of the SHQS requires all social homes with oil or gas burning appliances to an annual safety inspection and retain the resulting CP12 (or equivalent for oil) that proves the system has been passed as safe.

<sup>36</sup>https://www.scottishlandlords.com/LinkClick.aspx?fileticket=t4YWl-asYF0%3D&tabid=432

<sup>37</sup>http://www.gov.scot/Topics/Built-Environment/Housing/16342/shqs



# Discussion points: Carbon monoxide and gas safety

# Will the December 2015 Private Rented Sector CO regulations be extended to Scottish social landlords?

Although the regulations exclude social housing, many social landlords we contacted already install CO alarms in rooms where there are solid fuel burning and gas appliances. This tended to happen when any upgrade work was being done, regardless of whether or not it involved replacing a fossil fuel-burning appliance. This is partly because they consider it to be good practice, but also in anticipation of future legislation and/or regulation requiring the practice to be mandatory in the social housing sector.

In its report in January 2015 – Carbon Monoxide: From Awareness to Action<sup>38</sup> – the All-Party Parliamentary Carbon Monoxide (CO) Group (APPCOG) called for Building Regulations to be altered to require social landlords to fit and maintain British Standards Institution-compliant carbon monoxide alarms wherever a fuel burning appliance is installed.

Martin Miller, Area Manager for prevention and protection, at the SF & RS, said: 'I would like to see some moves in Scotland to go further on CO and explore the value of further regulations here.'

#### Hard-wired or battery-operated alarms?

The traditional view when installing fire and CO alarms is they are most effective when they are hard-wired into a property, with a battery back-up.

However, this view is changing in relation to CO detectors in Scotland – as outlined in the recent updates to the Housing (Scotland) Act 2014 and the Repairing Standard. This is principally because of the additional cost and disruption of installing hard-wired alarms. Also, hard-wired alarms are required to have a back-up battery that landlords need to ensure is working. Such checks are usually carried out during the annual gas service for the property.

The current thinking at some social landlords is that battery-powered CO alarm products are worth exploring, as they are cheaper to install and would require the battery to be on-site or remotely checked anyway on at least an annual basis were they to be hardwired.

The issue of ensuring residents can't simply remove batteries is tackled by better positioning of alarms and designing products where removing the battery is much less straightforward for the resident and/or where sensor technology alerts the landlord to the removal of batteries.

<sup>38</sup> Carbon Monoxide: From Awareness to Action is available at: http://www.policyconnect.org.uk/appcog/sites/site\_appcog/ files/report/425/fieldreportdownload/appcogreportcofromawarenesstoaction.pdf





#### Case Study

# **Kirklees Neighbourhood Housing trialling smart CO alarms**

Kirklees Neighbourhood Housing in West Yorkshire has recently completed installation of 150, BSI approved<sup>39</sup> battery-powered, 'smart' carbon monoxide alarms in the homes of vulnerable tenants. This is part of a trial being funded by the north of England's gas distributor, Northern Gas Networks (NGN).

KNH, which manages 23,000 homes on behalf of Kirklees Council, works with NGN and gas safety campaigner Stacey Rodgers, as part of the Kirklees Carbon Monoxide Awareness Group, and so was keen to take part in the pilot. Ms Rodgers', 10-year-old son, Dominic, died of carbon monoxide poisoning from a neighbour's flue and faulty boiler. Ms Rodgers set up The Dominic Rodgers Trust in 2004 to raise awareness of the dangers of CO.

Smart Compliance is the manufacturer that has developed the new Smart CO1 detectors used in the trial scheme. All carbon monoxide emissions (including low levels) are remotely monitored on a 24/7 basis and where CO is detected, the device issues text message notifications to a nominated mobile phone, whether the tenant, homeowner, a close friend or family member. Simultaneous alerts also go to the landlord and emergency services, where relevant. This ensures vulnerable people in particular can be kept safer at home. The detectors also issue weekly reports to confirm that they are fully functional and send alerts to landlords when the batteries need to be replaced and where the device has been tampered with. This information is stored in a secure, central database.

Smart Compliance estimate these features of the CO1 detector could save landlords tens of thousands of pounds a year on attending false alarms and the associated administration costs.

Paul Goodwin, who manages KNH's Gas and Electric team, said: 'It's great technology and you get a lot of information out of these alarms. The database can show different levels of CO at different times of days. This information could be useful when dealing with claims of potential CO poisoning.'

Paul added that the trial had reported a number of false alarms, although the reduction in response times to potential activations was important. At the moment KNH only offers standard carbon monoxide alarms to homes in limited circumstances, such as homes containing solid fuel appliances, open flue boilers and where someone is sleeping in the lounge and there is an open-flue fire. It has no plans to alter this approach at present.

Tom Bell, head of social strategy at NGN, said of the trial scheme: 'Raising awareness of the dangers of carbon monoxide poisoning is an issue we take extremely seriously, as is the health and safety of all our customers. Other gas distribution networks across the country are also taking part in the scheme and we hope that together we will be able to make significant progress in informing people of the risks associated with exposure to CO.'

<sup>39</sup>The British Standards Institute is the body responsible for setting the required standard for fire and CO alarms. The relevant standard for CO alarms is BS EN 50291-1:2010+A1: 2012. The relevant standard for fire alarms is BS EN 14604: 2005.



# Discussion points: Carbon monoxide and gas safety

#### **Investment in CO alarms**

A HouseMark report in 2010, Provision of Carbon Monoxide Detectors in Social Rented Homes, surveyed 138 social landlords covering 1.13 million homes and found that 86 per cent had installed CO alarms 'to some or all of their homes with gas or solid fuel heating' appliances. It concluded that priority was given by these landlords to installing CO alarms in properties with solid fuel-burning appliances and that 'a few' organisations were fitting CO alarms to all properties supplied with gas and solid fuel-heating, or planned to do so.

It should be noted that the HouseMark report dates from 2010, but the resistance from some social landlords to installing CO alarms in all homes was based on the following:

- 'Most of our [gas] boilers are modern 'fail safe' appliances and we therefore believe that these do not need a [CO] detector adjacent to them.'
- 'These aren't fitted as a rule but we have installed CO detectors into properties where the tenant is sleeping in the front room and refuses an electric [fire] alternative. These are normally exceptional circumstances where there's no other practical alternative.'

- 'We only [fit CO alarms] where we are aware that a resident is sleeping in a room that has an open-flued appliance, e.g. a back boiler. A letter is sent to the resident to raise their awareness of the risk.'
- 'Some tenants, particularly those who are vulnerable, may be less safe if they become reliant on the device and that this may make gaining access to carry out the annual service more difficult.'
- 'We analyse every gas boiler and get a recording of CO emissions. If this is above the regulation limits, then the boiler will be investigated. All our boilers are checked every year and there is an active plan to replace open flues with room sealed flues.'

In the light of further research – the APPCOG recommendations and recent developments in technology, these views may well be becoming outdated.

#### Case Study

#### **Hyde Group**

The approach Hyde (a housing association with around 30,000 homes across London and the South East of England) takes to protecting tenants against CO poisoning is three-fold.

First, if a property has a solid fuel-burning appliance Hyde will install a CO alarm. Second, if there are concealed flues, Hyde will install a CO alarm. Third, if a gas engineer says a particular property needs a CO alarm for any reason Hyde will install it – no questions asked.

Daren Jones, gas manager at Hyde, said: 'We'd like to see Building Regulations amended to require CO alarms to be installed in all homes. It would be much easier if it was in black and white and then everyone knew where they stood. There are always costs but you cannot put a cost on lives and safety.

If Building Regulations required CO alarms to be installed when a home is built then everyone would know where they stand. It removes that ambiguity.'

Hyde is conducting a pilot using 'smart' CO detectors in partnership with manufacturer Smart Compliance. Five CO alarms are being installed in each of Hyde's three regions: Peterborough-Northampton, London and the South Coast. Data from the alarms is collected by Hyde and analysed to determine the potential benefit of rolling out eh alarms more widely.

Daren said: 'We want to see what the benefits are compared to the other approaches we take. Technology has a big role to play in the future of fire and gas safety. The key thing for us at present is to ensure the systems are reliable and robust.'





# Data collection on CO incidents and 'trusted messengers'

In its report in January 2015 – Carbon Monoxide: From Awareness to Action – the All-Party Parliamentary Carbon Monoxide (CO) Group (APPCOG) highlighted the need for better data on CO incidents. Improved data would help tenants and landlords to mitigate the risk of CO poisoning.

The APPCOG report emphasised the need for the UK to establish a central data hub which would be empowered to collate all relevant CO performance data. The report highlights<sup>40</sup> the opportunity afforded by the advent of 'smart' CO alarms that communicate remotely with a central hub to convey performance information. This could include reporting any CO alarm triggers, battery lifetime, any faults or tampering with the device.

Writing in the report's foreword, Baroness Finlay, cochair of the APPCOG, said there was an opportunity for the data from smart CO detectors to feed into the central hub.

The Gas Safety Trust maintains the central CO hub that was launched<sup>41</sup> in January 2015, at the same time as the APPCOG report. The hub at www.coportal.org provides a comprehensive database of information on standards and legislation as well as data on CO incidents.

In the same report, the APPCOG also highlighted the importance of the role played by social landlords in ensuring CO safety information is correctly provided to residents. In its response to this research, the APPCOG said: 'As well as identifying unsafe appliances, engineers allowed into properties can also act as 'trusted messengers' to deliver CO safety messaging.' The APPCOG argues that CO deaths and injuries will only be reduced by increased awareness of the dangers - as previously mentioned, such awareness levels among the general public are not high. The more trust an individual has for the messenger, the greater the likelihood of that message being heeded. As the 2015 research<sup>42</sup> by Kings College Hospital and Public Health England demonstrated, residents of social housing are a particularly high-risk group for CO poisoning. Steps taken by social landlords to ensure residents are aware of the dangers of CO are therefore particularly important.

# Cookers and other fuel-burning appliances as a greater CO risk

In 2010, London arm's-length management organisation Hackney Homes, conducted a study with Public Health England to estimate the prevalence of carbon monoxide exposure in dwellings.<sup>43</sup>

Hackney Homes installed CO detectors in its 23,000 homes and Public Health England monitored the results. There were 106 CO incidents reported in the six months from November 2011.

The study revealed that, even within homes where gas boilers were fully serviced and maintained, CO risk remained in a relatively large number of properties.

Following further investigation, Hackney Homes discovered that almost a third of incidents (29.9 per cent) were caused by faulty gas cookers. An additional 10.6 per cent were due to improper cooking methods. These included using foil round the gas hob ring and using oversize pots and pans on small rings, hence increasing the concentration of CO due to greater flame dispersal.

This means that other gas appliances, such as gas cookers that are not subject to the same regulations and checks as gas boilers, are as much, if not a greater risk. The study found that, even if gas boilers are fully serviced, if other gas appliances are present in homes, CO alarms should be installed.

APRecommendation 3 - Data on carbon monoxide levels and incidents should be collected and shared, with a central hub approved through Ofgem supplier conditions, building on existing purely incident-based data. To enable this, alarm and data collection standards should preempt the large amounts of data soon to be recorded through 'smart' homes, and a framework for pooling this with input from academia should be created. Public Health England, with a remit to cover incidents involving all fuels, should be involved in the population-level data work.

- <sup>41</sup> http://www.gassafetytrust.org/news-and-press/2015/gas-safetytrust-launches-new-online-carbon-monoxide-portal-resource
- 42http://jpubhealth.oxfordjournals.org/content/early/2015/03/27/ pubmed.fdv026.long
- <sup>43</sup>McCann L., Close R. et al. (2013) Indoor CO: A case study in England for detection and interventions to reduce population exposure, 'Journal of Environmental and Public Health', 2013, available at: http://www.hindawi.com/journals/jeph/2013/735952/



# Discussion points: Carbon monoxide and gas safety

**Talking Point:** Recommendation 7 of 'Carbon Monoxide: From Awareness to Action<sup>44</sup> proposes that Building Regulations should be amended to require social housing providers to fit and maintain standard-compliant carbon monoxide alarms wherever a fuel burning appliance is installed.

#### Gas maintenance and servicing

Annual Landlord Gas Safety checks and maintenance requirements generally apply to gas appliances, flues and fittings installed in rented residential properties. Appliances owned by the tenant such as gas cookers are not however covered, within the terms of the Gas Safety Installation and Use Regulations 1998, Nevertheless, open flued gas fires installed by a tenant can lead to some uncertainty for landlords because the Health and Safety at Work Act 1974 contradicts the Gas Safety Installation and Use Regulations 1998 and places a duty of care on the landlord to undertake testing of the flue which is part of the fabric of the building. The Health and Safety at Work Act 1974 requires a landlord to ensure that any purpose provided flue (chimney) within a rented property that has a gas appliance attached is safe and fit for use. This will inevitably require a gas engineer to remove the gas fire, check the opening dimensions are correct, of a solid construction. made of suitable materials and will also require a flue flow test to ensure potential products of combustion will have clear passage to atmosphere. Subsequently, the gas service engineer will need to ensure that the tenant's fire is then refitted as per the manufacturer's instructions and that it is ultimately safe for use. In order to do this the engineer will therefore need to test and service the appliance as per manufacturer's instructions or where manufacturer's instructions are not available make the appliance safe and disconnect it from the gas supply. This means that in order for a landlord to meet their legal requirement under this act they will either need to adopt the tenant's appliance within their maintenance contract and service it in accordance with manufacturer's instructions within 12 month intervals or service the appliance at the time of the annual maintenance service and charge the tenant for the service.

In addition, the Gas Safety Installation and Use Regulations 1998 specifies that any appliances and flues serving a rented property – such as district central heating boilers not installed in tenants' accommodation, but used to heat them – are covered.

The Health and Safety Executive (HSE) also point out in their leaflet *A guide to landlords' duties: Gas Safety (Installation and Use) Regulations 1998* <sup>45</sup> that a landlord cannot delegate these duties to a tenant.

In addition, the HSE states in its guidance that a landlord 'should not assume that an annual service inspection meets the safety check requirement, or that a safety check will, on its own, be sufficient to provide effective maintenance. The only way to provide effective maintenance is to undertake a service of the appliance as per the specific manufacturer's instructions.

This also raises the question of whether an annual gas safety inspection will provide adequate protection to tenants from the risks of CO poisoning. As highlighted in the recent carbon monoxide report<sup>46</sup> by the All Party Parliamentary Carbon Monoxide Group, one additional safe guard that landlords could take would be to install 'smart' CO alarms. As well as automatically contacting the landlord and fire service if there is a CO leak, these smart alarms provide a 24/7 evidence base of intelligence on gas and CO safety.

- <sup>44</sup>Carbon Monoxide: From Awareness to Action is available at: http://www.policyconnect.org.uk/appcog/sites/site\_appcog/ files/report/425/fieldreportdownload/appcogreportcofromawarenesstoaction.pdf
- <sup>45</sup>A guide to landlords' duties: Gas Safety (Installation and Use) Regulations 1998 http://www.hse.gov.uk/pubns/indg285.pdf
- 46 Carbon Monoxide: From
  Awareness to Action is
  available at: http://www.
  policyconnect.org.uk/
  appcog/sites/site\_appcog/
  files/report/425/
  fieldreportdownload/
  appcogreportcofromawarenesstoaction.
  pdf





#### Standard efficiency boilers

From October 2015 the sale of 'standard efficiency' gas boilers have been prohibited in the UK, due to EU rule changes meaning this type of boiler emits too much carbon. Standard efficiency boilers are common throughout the UK and Jim Snoddy, specialist services manager at River Clyde Homes, said this change in the law was a 'serious concern'. The reason is that replacing a standard efficiency boiler with a more modern condensing boiler on a high-rise block where the boiler has been ventilated through the internal 'SEduct' ventilation system, is not possible. Condensing boilers will not work when ventilated in this way, as they need to vent directly through an external wall.

Mr Snoddy said: 'We have 270 properties on gas in three high-rise buildings. We can't really run standard efficiency boilers in these buildings any more, as the manufacturers will stop supporting them with spare parts shortly. As a result, we have already begun replacing our standard efficiency boilers with condensing boilers in the 2,700 or so homes where we

#### Health and Safety Compliance Case study: **River Clyde Homes**

River Clyde Homes is a stock transfer landlord that took on the homes of Inverclyde Council in 2007 and now manages more than 8,000 properties. To ensure its homes and working practices are as safe as possible it has recently launched a health and safety compliance team. This consists of:

- · A health and safety compliance officer
- A gas compliance officer
- · An electricity compliance officer
- A mechanical and electrical compliance officer

Jim Snoddy, specialist services manager, at River Clyde Homes, said: 'A compliance team similar to this is not uncommon in some local authority landlords, but, in Scotland, does not tend to be the case in housing associations as they are usually smaller operations.

'We have this team as my experience in previous roles in the commercial building management sector is that there is a real value in the prevention of incidents, rather than in simply responding when something happens.'

One example of this is the move to have just four types of gas boilers in its 3,000 relevant homes, as opposed to the 40 different types at present. Mr Snoddy said RCH was also focusing on bolstering its record-keeping to ensure it meets all requirements and can focus on gas servicing planned works.

Longer-term, Mr Snoddy said this work will prepare the way for a 24/7 building monitoring system to be introduced. 'This will respond to any alarms that come through and instruct our staff and contractors accordingly - it's a really exciting time!' he added.

The H & S compliance team is also at the forefront of efforts to work more closely with the Scottish Fire and Rescue Service. Mr Snoddy said that has led to the creation of a joint board with other emergency and frontline services on how best to respond to major incidents. As a result of this work, RCH has been able to work with the SF & RS on improving the dry risers in its tower blocks and checking the required fire risk assessments have been correctly conducted.

#### Gas maintenance access

Another issue, and perhaps the biggest barrier to carrying out gas safety checks, is gaining access to properties. Many landlords report they go to great lengths to be as convenient to tenants as possible, offering weekend and evening appointments, but many tenants still refuse access.

There is also a proposal to amend the Gas Safety (Installation and Use) Regulations to allow an 'MOTstyle approach to gas safety checks'. 'This would mean that checks could be carried out up to one month before the expiry of the current gas safety check record, but the new safety check record would be dated such that it is valid for a full twelve months from the expiry date of the current safety check record. This ensures that the safety check cycle is not shortened each year.'

The HSE has, in principle, approved this move to an MOT style of LGSR (Landlord Gas Safety Record) for the landlords' annual gas safety checks. The HSE's Stuart Kitchingman spoke at the 2016 Association of Gas Safety Managers (AGSM) Gas Safety Management Conference and confirmed the HSE's support of the move to an MOT style of LGSR and he confirmed the wording of the proposed amendment to HSE Regulation 36(3) (aa) which would state:

'For the purposes of paragraph (3)(a), a safety check carried out not less than 10 months and not more than 12 months after the date of the most recent safety checks shall be treated as if made at the end of that period.'

Subsequent meetings between the AGSM and the HSE have confirmed they are currently putting in place a comprehensive consultation process and an impact assessment to assist with the additional approval, which is still required.

#### Gas Maintenance Access Case Study **North Lanarkshire Council**

Carbon monoxide and gas safety

**Discussion points:** 

North Lanarkshire Council (NLC) is the largest local authority landlord in Scotland and in conjunction with its gas service provider carries out over 32,000 annual gas safety checks to their properties.

The previous practice of seeking a court decree to gain entry resulted in considerable cost and delay which had the potential to lead to an increased risk of unsafe gas installations.

The introduction of 'forced entry' in 2009 (via the Scottish Secure Tenancy Agreement) led to entry rates rising by 20% between 2009 and 2011.

Following a review of good practice in other Scottish authorities and feedback from the Scottish Housing Regulator, an updated process was implemented in 2011. The new process commences the gas safety check at the 12-week pre-certificate expiry marker. This provides additional time to allow for direct engagement by local housing office staff in assessing tenancy management issues before proceeding to forced entry as a last resort. Further, where entry is forced and if there are reasons where the gas supply requires to be capped, (to ensure the continued health and safety of tenants and local residents), the authority will make another visit to resolve any tenancy management issues that may have prompted denial of entry. An energy assessment and where relevant an Income Maximisation referral is also made during this visit to assist and support the tenant.

The revised process removes the requirement for recorded deliveries for formal communications and the need to deploy Sheriff Officers in order to gain entry. This means that NLC personnel have more time to engage with tenants to persuade them to give access and/or tackle any tenancy management that may arise.

NLC currently carry out approximately 55 forced entries per week.

NLC strives to avoid forced entry at all costs. The number of gas safety checks resulting in forced entry has reduced in recent years due to a combination of  $gas\, safety\, campaigns\, by\, the\, authority\, and\, the\, legal$ threat of forced entry.

NLC's commitment to raising awareness amongst tenants is reflected in its participation in 'Gas Access Week' and 'Gas Safety Week'.





#### A comprehensive approach to gas and CO safety Case Study:

#### **Wheatley Group**

The Gas Safety Installation and Use Regulations 1998 require an annual gas service visit. The Wheatley Group achieves 100% performance when it comes to the percentage of their dwellings with a valid gas safety certificate. Wheatley explain that part of this success is down to their 10-month servicing schedule and a diligent approach to managing access on an individual case basis.

Any property identified as having a live gas supply and gas meter will have at least one functional carbon monoxide (CO) detector and smoke detection. As part of the Annual Landlord Gas Service visit, Wheatley Group carries out maintenance and safety checks on the smoke and carbon monoxide detectors within the property as well as gas appliances and meters. All detectors tested are certificated separately and where defects are located a unit will be replaced. Although, under the terms of the Gas Safety Installation and Use Regulations 1998, tenants' gas cookers/hobs are not the responsibility of the landlord, the landlord does carry out a visual risk assessment of the gas cooker/hob at the time of the service visit. Where a gas fire is located within a property it is automatically adopted as part of the gas contract and serviced as per the manufacturer's instructions. 47 Where no instructions are available for the gas fire, the appliance is disconnected from the supply and made safe.

Undertaking an annual gas service check within a tenanted property can result in serious management issues. Failure to obtain access and meet the legal requirement is a major concern. Not only can it put tenants' lives at risk, it can also expose the landlord and its staff to threats of fines and even imprisonment.

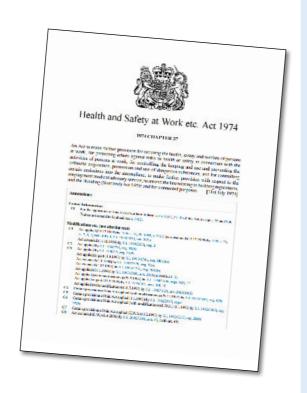
Wheatley Group undertakes a no-access progression plan and the process involves the following:

STEP 1: The Contractor undertakes two visits to obtain access and carry out the work (the duration of this must not exceed four weeks)

STEP 2: If the contractor cannot obtain access, the responsibility is passed to relevant group landlord<sup>48</sup> which has a maximum of four weeks to process the following:

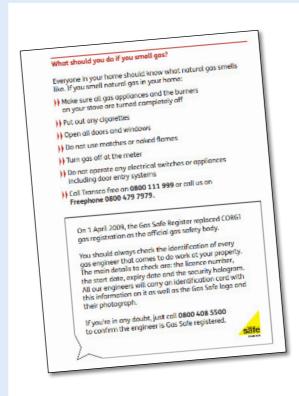
- 1. Letter 1 (week 1)
- 2. Letter 2 or 3 depending on customer interaction sent recorded delivery (week 2)
- 3. Letter 4 forcing access, hand delivered (week 3, forcing access 5 days later)
- **4. Forced access -** Right of access under Scottish Secure Tenancy agreement section 5.12.49 At the point of the forced access, a Service Interval Timer (SIT) is fitted and the keys to the property are held at the Local Housing Office

Additionally, where there is a group heating system providing combined heating and hot water to their properties from one central location, additional testing may take place such as heating pressurisation units (where applicable), fire extinguishers and a tightness test of the gas supply to the appliances. These tests are carried out annually as a minimum, unless manufacturer's instructions specify shorter timescales.





## **Discussion points:** Carbon monoxide and gas safety



A number of council landlords spoken to also said a clearer approach to updating legislation and regulations would be helpful. Renfrewshire Council and Edinburgh Council both said the cross-referencing between old and new documents when regulations were updated was frustrating and introduced the possibility of error. The former suggested the use of an at-a-glance 'grid' to present the key responsibilities and legislation. This could be more easily be kept updated and accessed by landlords and contractors whenever required.

#### Investment in technology

Wheatley Group and its gas contractor have also made significant investment in new technology such as service interval timers, 10-year CO detection units and Personal Digital Assistants (PDAs) to allow for real time electronic recording and certificate production. By printing a customer copy of the Landlords Gas Safety Certificate at the time of the service it removes the management process of ensuring a certificate is issued within the 28-day timescale from service date set within The Gas Safety Installation and Use Regulations 1998.

- <sup>47</sup> This is a requirement of the Health and Safety at Work Act 1974 section 3, as the flue is part of the fabric of the building.
- 48 Wheatley Group currently has nine subsidiary organisations; Glasgow Housing Association, Dunedin Canmore, Cube Housing Association, Loretto Housing, Loretto Care, West Lothian Housing Partnership, Barony Housing Association, Lowther Homes and Your Place.
- <sup>49</sup> Housing (Scotland) Act 2001: Model Scottish Secure Tenancy Agreement http://www.gov.scot/Resource/Doc/ 158830/0043130.pdf

# Quick reference grids on fire, gas and carbon monoxide



Fire safety rules for social and private rented sectors (PRS): Scotland

FIRE						
TENURE	RELEVANT FIRE/SMOKE LEGISLATION	RESPONSIBLE ENFORCING BODY	SMOKE ALARM REQUIRED IN ALL HOMES?	SMOKE ALARM REQUIRED IN ALL NEW HOMES?	SMOKE ALARM REQUIRED IN ALL UPGRADED OR RETROFITTED HOMES?	UPCOMING REGULATION OR LEGISLATION
SOCIAL HOUSING	Fire Act (Scotland) 2005  Building Standards  Technical Handbook 2015, Revised 1 June 2016, Sections 2 & 4  Scottish Quality Housing Standard (SHQS)	Scottish Fire & Rescue Service Local Authority Building Control Scottish Housing Regulator (SHR) Scottish Government	NO	YES	NO*	None
PRIVATE RENTED SECTOR	Fire Act (Scotland) 2005 — Housing (Scotland) Act 2006 —	Scottish Fire & Rescue Service Local Authority Building Control Private Rented Housing Panel (PRHP) —	YES	YES	YES	Note - the Private Housing (Tenancies) (Scotland) Act passed on 22 April 2016 does not have any measures on fire safety. No further legislation is known of at this time

<sup>\*</sup> A smoke alarm is recommended by the Scottish Housing Regulator, but it is only a requirement where a home is converted as defined by Regulation 4 of the Building Standards Technical Handbook 2015



# Quick reference grids on fire, gas and carbon monoxide

Gas and Carbon Monoxide safety rules for social and private rented sectors (PRS): Scotland

GAS AND CARBON MONOXIDE (CO)						
TENURE	RELEVANT GAS AND CO LEGISLATION	RESPONSIBLE ENFORCING BODY	CO ALARM REQUIRED IN ALL HOMES?	CO ALARM REQUIRED IN ALL NEW HOMES?	CO ALARM REQUIRED IN ALL UPGRADED OR RETROFITTED HOMES?	UPCOMING REGULATION OR LEGISLATION
SOCIAL	The Building (Scotland) Regulations 2004 — Building Standards — Technical Handbook Revised 1 June 2016, Sections 3 & 4 — Gas Safety (Installation and Use) Regulations 1998 —	Scottish Fire & Rescue Service — Local Authority Building Control — Health & Safety Executive (HSE) — Scottish Housing Regulator (SHR) — Scottish Government —	NO	YES**	YES*	None
PRIVATE RENTED SECTOR	The Building (Scotland) Regulations 2004  Building Standards  Technical Handbook 2015, Revised 1 June 2016, Sections 3 & 4  Gas Safety (Installation and Use) Regulations 1998  Gas Safety (Installation and Use) Regulations 1998  Hegulations 1998  Hegulations 1998, Approved Code of Practice  Housing (Scotland) Act 2006	Scottish Fire & Rescue Service Local Authority Building Control Health & Safety Executive (HSE) Private Rented Housing Panel (PRHP) —	YES***	YES**	YES***	Note - the Private Housing (Tenancies) (Scotland) Act passed on 22 April 2016 does not have any measures on gas/CO safety. No further legislation is known of at this time

<sup>\*</sup>ACO alarm is recommended by the Scottish Housing Regulator, but it is only a requirement where a home is tred as defined by Regulation 4 of the Building Standards Technical Handbook 2015

<sup>\*\*</sup>From October 2013, a CO alarm is required in every new home with a fixed combustion appliance and in all homes where a replacement fixed combustion appliance is installed

# **Appendix 1** Research questions on health and safety issues around fire, gas and carbon monoxide



#### **Questions for social landlords:**

- 1. What aspects of health and safety do you actively monitor and measure performance on, focusing on fire, smoke and gas?
- 2. What legislation is this complying with? Are you working towards meeting new legislation coming in the future?
- 3. What is your strategy here and how are you delivering it? (We are looking for case studies of innovative approaches)
- **4.** Do you keep extensive records that need to be submitted to a regulating body? Apart from the risk of accident, what policing is there of your approach to gas / smoke / fire risk
- **5.** To what extent has your organisation invested in new technology to help your performance in health and safety on fire, smoke and gas?
- **6.** Are you working with any partners as part of your strategy? If so whom please?
- 7. What are the key challenges in this area of health and safety as you see it? What are your key achievements?
- 8. What would you like to see changed in terms of regulations to make your job/responsibilities more straightforward?



# **Appendix 2 – Glossary of terms**

TERM	DEFINITION		
Battery-powered	Carbon monoxide (CO), smoke and other alarms/detectors that are run from batteries and not hard wired to an electric power source		
СО	CO is the chemical symbol for carbon monoxide, a colourless, odourless, tasteless and highly poisonous gas that is commonly produced when carbon-based fuels (such as wood, oil and gas) do not burn properly. If present in high concentrations and undetected it can be fatal. Chronic (persistent and long-term) exposure to lower levels of CO, as can occur with faulty domestic boilers, may go unrecognised. The symptoms include milder versions of those seen in acute CO poisoning, with headache, nausea, dizziness, light-headedness, fatigue and sleepiness, difficulty concentrating and memory problems, as well as changes in mood.  People may be aware that something is wrong, but be unable to identify exactly what is the matter, or may attribute the problems to overwork, stress or depression. If symptoms disappear while away at work, reappearing on returning home, or if other people in the same premises develop similar symptoms, it may become more obvious that there is an environmental cause.  Although most people seem to recover following chronic low level CO exposure when the source is removed, it can lead to anoxic brain injury.		
Fire alarm	An alarm that is activated when fire is detected. These can be manual or automatic.  There are eight categories of fire alarm, with the range intended to cover all building and use types		
Hard-wired	Carbon monoxide, smoke and other alarms can be connected to the main electricity supply (hard-wired). However, they still require a battery back-up. These can be alkaline batteries (which need annual changing) or the alarm can be supplied with re-chargeable lithium batteries, which will last the lifetime of the alarm, or alarms fitted with sealed 10 year batteries. Mains alarms need to be installed by a qualified electrician.		
Heat alarm	Carbon monoxide (CO), smoke and other alarms/detectors that are run from batteries and not hard wired to an electric power source		
Smart alarms	Smart alarms, including smoke and CO alarms, perform additional functions to the detection and alerts performed by traditional devices, often through a connection such as Wi-Fi, GSM (Global System for Mobile communication. In everyman terms it's used for sending text messages), ultra-narrow band, etc. For instance, a smart CO device may communicate data about the extent of CO levels and specific location of an incident in a property to a portal and mobile phone through the GSM network, in addition to standard audible and visual alerts. These smart devices are also capable of reporting faults with the batteries and sensors or that they have been tampered with		
Smoke alarm	An alarm that activates automatically when it detects smoke		

## **About the authors**



Stuart Macdonald is an award-winning journalist and former editor of Inside Housing magazine. He is the founding director of communications consultancy See Media, which works with landlords and their suppliers in the UK affordable housing sector. At Inside Housing, Stuart launched the successful 'Safe as Houses' campaign aimed at raising awareness of fire and gas safety issues among social landlords.

Denise Chevin is a writer, researcher and award-winning editor in the built environment. She edited Building Magazine and its web site Building.co.uk and prior to that revamped and edited the social housing magazine, Housing Today. Denise is also research fellow of the Smith Institute and has written a number of parliamentary reports including *No More Lost Generations*, looking at youth unemployment.

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