



INTRODUCTION

The kitchen is the social hub of the home. We cook and eat there, we socialise there, we even do our washing there! However, as seen in the <u>Department for Communities</u> and <u>Local Government</u> Fire Statistics (2012-13), approximately:

Never assume "a fire won't happen to me". With this in mind Section 1 of this eBook will provide an essential guide for fire safety in the home with a particular focus on the kitchen. Another danger that this eBook



whereas 9% start in the living room or dining room. Given the large number of electrical appliances in the kitchen, this is understandable - as well as the presence of flammable oils, naked flames, and other heat sources.

It is therefore paramount that you implement fire safety - both behaviourally and technologically - in your home.

will touch on is carbon monoxide poisoning; what it is and how to prevent it. For those providing rental accommodation for others, such as private and social landlords, see Section 2 for a best practice guide for safeguarding tenants against fire.







CAUSES OF FIRE AND FATALITIES

1 | FIRE SAFETY IN THE KITCHEN

One of the best ways to protect yourself against fire is to pre-empt the variety of ways it can start in your home. For example, you should be conscious of the potential dangers of household appliances you own, and the behavioural mistakes you might make which could put you in danger.

CAUSES OF FIRE AND FATALITIES

According to the <u>Incident Recording System</u> causes of fire can be categorised into three main areas: cause of fire (a defect, act or accident giving rise to ignition), source of ignition, and item responsible for fire. According to research by <u>Fire Statistics England</u>, the most common causes of accidental fires in the home between 2014/15 were as follows:



As shown in these statistics, a fire can happen at any moment, to anyone, and can involve the most unlikely of household items.



CAUSES OF FIRE AND FATALITIES

1 | FIRE SAFETY IN THE KITCHEN

With the exception of cooking equipment, the majority of electrical fires are a result of electricity supply (e.g. wiring, cabling and plugs) but big products, such as washing machines, tumble dryers and dishwashers, are also common culprits to be aware of in the home. Furthermore, as seen in reports by the <u>London Fire Brigade 2015</u>, even mirrors can start a fire if left near a window.

SAME CAMPAIGN

Based on 10 years of research, the <u>Staffordshire Fire and Rescue Service's</u> SAME Campaign identifies the main factors which put people at risk of dying in a fire:



Smoking - Cigarettes/cigars and lighters have been the biggest cause of fires in which people have died, with 41% of those who died being smokers.



Alcohol – 40% of those who died were regular drinkers and in a number of cases alcohol was a contributing factor as to why the fire started – often with people being intoxicated and then falling asleep whilst smoking or cooking food.



Mobility - 50% had poor mobility



Elderly - 74% were aged 65 +

Given these are the SAME factors that reoccur year after year, it is important to be aware of these when considering your own, or your relatives, fire safety in the kitchen - the most dangerous room in the home. Awareness, in addition to implementing appropriate fire safety measures, is the key for changing these statistics.

TO PREVENT FIRE IN THE HOME/KITCHEN



For minimum protection make sure that smoke alarms are installed on every level of your home within your escape routes such as your hall and landing. As most fires start in the kitchen it is advisable to fit a heat alarm in this room.



For additional protection you can fit smoke alarms in all rooms where a fire could start such as bedrooms and living rooms, or any room that contains electrical equipment.



Regularly check and maintain smoke and heat alarms by testing them weekly and vacuuming the outside of the alarm every three months. This will keep them in good working order.



Rehearse your escape plan from different rooms in the home (this can be turned into a game for kids!)



Establish a night-time routine where you check appliances are off throughout the home, but make sure you spend extra time in the kitchen.



Ensure you consider all the behavioural and technological measures in the General Kitchen Safety Section.



Ensure your home has fire extinguishers & fire blankets, but never attempt to use these on a fire unless you feel it is safe for you to do so. If you are in any doubt do not tackle the fire yourself no matter how small it is.

PREVENTING FIRE HAZARDS

SMOKING, ALCOHOL, CANDLES



Avoid smoking, and cooking, under the influence of alcohol. This will not only make you more careless, but will also likely make you harder to wake in the event of a fire.



Careless disposal of cigarettes is one of the biggest causes of fire starting in the home.



Avoid smoking in the house (most notably, you should never smoke near flammable materials such as curtains and upholstery furniture) and make sure you fully extinguish your cigarette in a proper ashtray



Never leave candles unattended, or near any form of material that has the potential to ignite.





STAYING SAFE IN THE KITCHEN

2 | FIRE SAFETY IN THE KITCHEN

The kitchen is full of potential hazards, but that doesn't mean it can't be used safely and sensibly by housing occupants. Whether you live alone, house share or have a large family, there are several measures that can be put in place to minimise kitchen hazards and improve your level of safety in your home. Here are the main areas to consider:

COOKING



Never leave cooking unattended



Double check the hob is turned off when you have finished cooking



Beware of loose clothing and tea towels near flames



Make sure pan handles don't stick out when cooking



Be extra careful with hot water, steam and oil as these can easily lead to burns.



Never 'throw' food into hot oil or water - not only will this likely cause a splash, but it places your hands in close proximity to the hazard. Always use kitchen utensils instead



Don't put anything metal in the microwave



Avoid cooking if you are tired, have been drinking alcohol or taking medication that may have an effect on alertness

ELECTRICAL SAFETY

There are a variety of electrical appliances in the kitchen, make sure you are:



Not overloading sockets



Keeping electrical appliances clean & away from water



When replacing the fuse use the correct size fuse for the appliance



Turn off electrical equipment when you're not using it (unless they are designed to stay on, like fridges)



Never turn a washing machine, dishwasher or tumble dryer on before going to sleep



Don't let leads from kettles, toasters (or similar) trail across your cooker



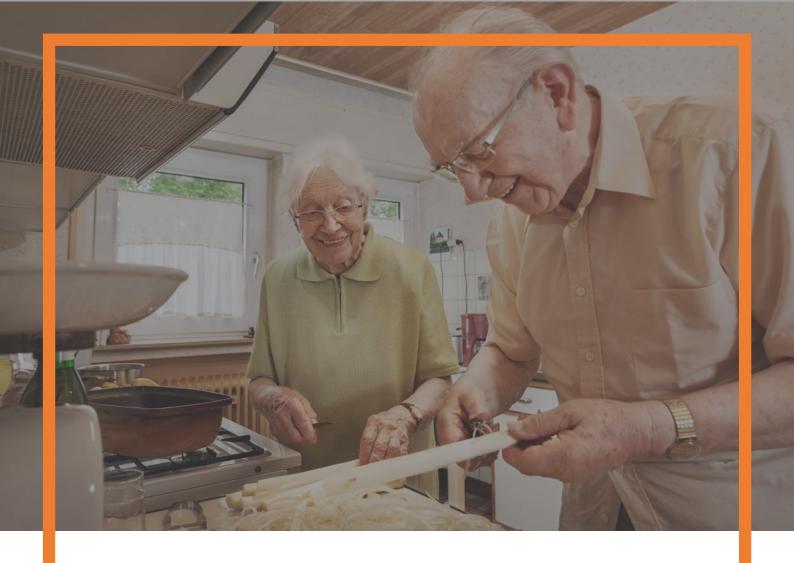
Regularly check flexible cables – look for signs of fraying, wear and tear, or a loose plug



Keep an eye out for hot plugs, scorch marks or fuses that frequently blow. These are all signs of loose wiring, or another electrical problem



If you think an electrical item is too old/is faulty in anyway, DON'T delay. Make sure you fix it or change it immediately.



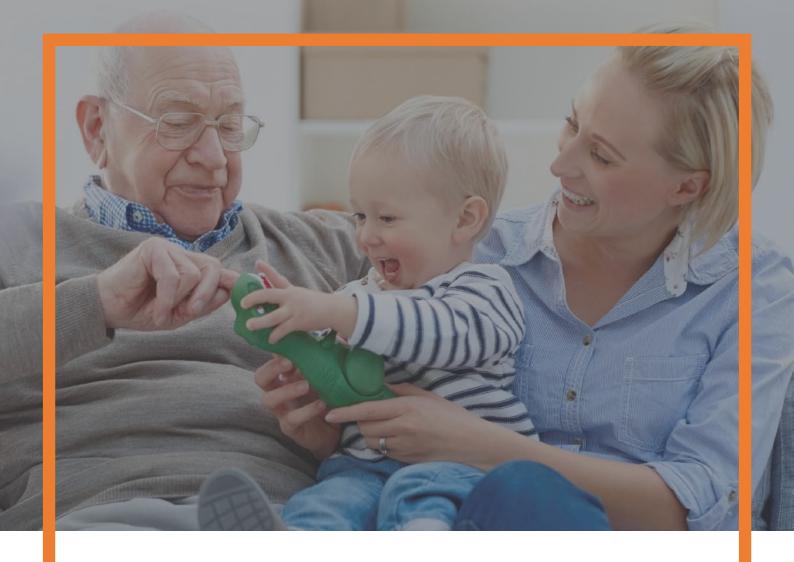
KEEPING THE KITCHEN CLEAN

2 | FIRE SAFETY IN THE KITCHEN

Given the kitchen has the essential function of food storage and preparation, it is fundamental that you keep it clean. Bacteria can easily spread in this environment, and can easily transfer across to food and make you ill.

What's more, leaving your kitchen dirty can also be a carbon monoxide (CO) and fire risk. This is most significant when areas such as the oven, hob and grill aren't properly maintained. For instance, not cleaning the hob can lead to a buildup of fat and grease that can potentially ignite a fire.





VULNERABLE RESIDENTS

3 | FIRE SAFETY IN THE KITCHEN

Vulnerable people, such as children, the elderly (65+ years), or those living with a disability or illness, can be particularly susceptible to hazards in the home. For instance, someone with dementia may be more likely to forget they have left the hob on in the kitchen, or someone with a hearing loss may be unable to hear a fire alarm sounding. 2017 research conducted by <u>Dundee University and Derbyshire Fire and Rescue service</u> indicated that 27 out of 34 children will sleep through smoke detector alarms sounding in the night.



CHILDREN'S SAFETY

3 | FIRE SAFETY IN THE KITCHEN

According to the Children's Burns Trust (CBT), 437 children were burned or scalded in December 2016 alone and the top cause of this is food preparation. Here are some ways to protect your children in the kitchen:



CHILDREN'S SAFETY



Always avoid leaving children alone in the kitchen, or prevent them from entering if you feel unable to monitor them as well as cook (e.g. if you are using a lot of hobs simultaneously)



Keep all your cleaning products, or other potentially poisonous products, locked up or well out of the reach of children.



Keep saucepans at the back of the stove, with handles turned to the back



Keep electric kettles, irons, hair straighteners or other wires out of reach



Keep hot drinks out of reach, and never drink one while holding a baby or child



Don't cook while holding a baby or child.

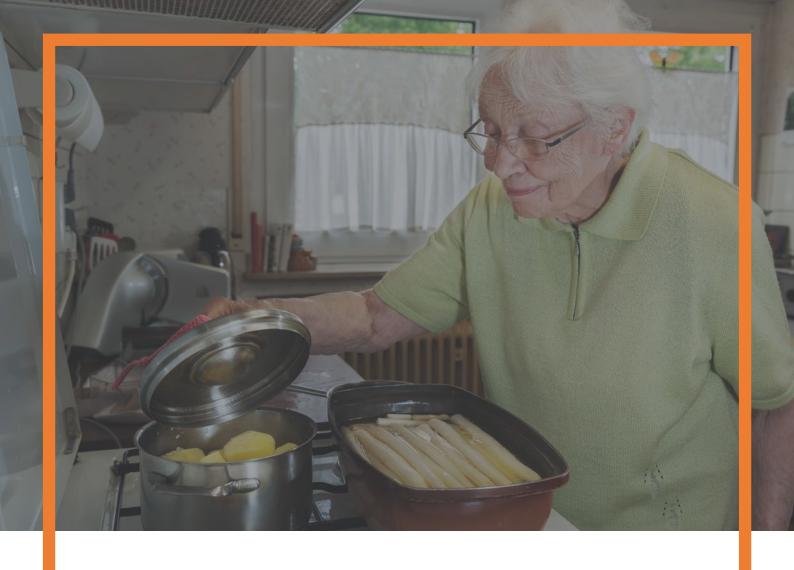


CHILDREN'S SAFETY

3 | FIRE SAFETY IN THE KITCHEN

"I think that what people overlook the most is the danger of hot domestic water. A cup of tea will still severely scald a child 20 minutes after it has been made, and hot water from the tap will cause a dreadful scald in a matter of seconds", Chairman of CBT Trustees Chief Fire Officer Paul Fuller CBE QFSM.

However, being cautious of burns in the kitchen does not solely apply to children. He says, "The young and elderly are especially vulnerable as their skin is thinner, so burns quicker, and they have less ability to remove themselves from the scalding water."



PROTECTING THE VULNERABLE

3 | FIRE SAFETY IN THE KITCHEN

There needs to be special consideration when providing safety measures for vulnerable family members/residents in the kitchen. At the very least, this will provide a peace of mind for both you and them, knowing they have an extra level of protection in the event of a fire.



PROTECTING THE VULNERABLE

3 | FIRE SAFETY IN THE KITCHEN

Extra technological devices that can be considered include:

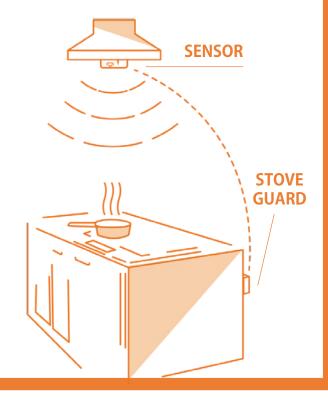


STOVE GUARD

Having a Stove Guard - a device that identifies dangerously high temperatures and a steep temperature rise and turns off the electric supply to the cooker.

Having heat and CO alarms installed in the kitchen that are interlinked with other alarms in the home (they'll provide more protection as all alarms will sound if fire or CO is detected so that you are alerted wherever you are in the house).

Alternatively, for those who may find it hard/are unable to hear a typical auditory-sounding alarm, devices such as strobes and vibrating pads can be used to indicate the presence of fire or CO in the home.





SAFE AND WELL CHECKS

3 | FIRE SAFETY IN THE KITCHEN

Ensuring there is a good level of fire safety in the home - especially in the kitchen - is the best way to protect lives and possessions. Prevention is key, especially if you are a vulnerable person, or know of anyone who is vulnerable.

Given vulnerable residents may be unable to take care of themselves, the usual fire safety standards may be insufficient. If you wish to check the level of fire safety in your home it is important you consult your landlord or you can contact your local Fire and Rescue Service (FRS).

SAFE AND WELL VISITS

Depending on your local FRS and the specific tenant at hand, the FRS can offer 'Home Fire Safety Checks' or 'Safe and Well Visits' or similar, which serve to educate and advise residents about preventing fires in the home, and offer insights into the following:



For further advice or information about requesting a home safety visit for yourself, or on behalf of a friend or family member, please contact your local Fire and Rescue Service. To find your local FRS, see the Chief Fire Officers (CFOA) postcode finder





CARBON MONOXIDE

4 | FIRE SAFETY IN THE KITCHEN

A lesser-known danger in the home is carbon monoxide (CO). It's known as the 'silent killer' as this toxic gas is odourless, colourless and tasteless, and can be produced from appliances in the home including boilers, gas fires and cookers in the kitchen. CO is produced by these appliances when they fail to burn properly and/or are not well ventilated.

Accounting for approximately 50 deaths per year in the UK, and with rising incidents of NHS medical visits (from 2,220 cases in 2013/14 to 2,430 in 2015/16 - sourced by Project SHOUT) - this poisonous gas is a growing problem. Not only is there is a lack of awareness, but the symptoms are often misinterpreted - especially at low levels of exposure.











CARBON MONOXIDE

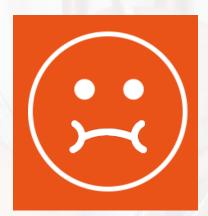
There are a range of symptoms you might expect from Carbon Monoxide poising:



Mild Exposure

If you are suffering from mild exposure of carbon monoxide poisoning you might suffer from 'flu-like symptoms' such as:

Slight headache, nausea, vomiting & fatigue



Medium Exposure

If you are suffering from medium exposure of carbon monoxide poisoning you might suffer from symptoms such as: Severe headache, Drowsiness, Confusion & Fast heart rate



High Exposure

If you are suffering from medium exposure of carbon monoxide poisoning you might suffer from symptoms such as: Unconsciousness, Seizures, Cardiorespiratory failure, & Death

If you and your family experience these symptoms simultaneously, and these disappear/get better when you leave the house, then this is a key indicator that there may be carbon monoxide in your home. Furthermore, if the flame on your boiler is burning with a yellow/orange flame (rather than blue), or if you are finding it hard to light your gas fire, or if there are 'sooty' stains on your cooker, then these are all indicators that there is poor appliance combustion and CO is likely being produced.



PREVENTING CO POISONING

4 | FIRE SAFETY IN THE KITCHEN

As advocated by Project SHOUT, a national campaign raising awareness about CO poisoning, the best way to prevent carbon monoxide poisoning in the home is to get your fuel-burning (such appliances as boilers) regularly serviced by a registered making engineer, sure chimney is regularly swept and most significantly - by installing CO alarms.

Carbon monoxide alarms can ultimately detect what we cannot - the tiny particles of CO gas in the air (measured in parts per million).





neighbours premises. She did not know about the dangers of carbon monoxide, but is now working alongside Project SHOUT to raise awareness in the hope that others do not suffer the same fate.

Therefore this will protect you even if the toxic gas is not

produced in your own home. This

is with particular consideration to

the story of Stacey Rogers, who

sadly lost her son to carbon

monoxide poisoning that seeped

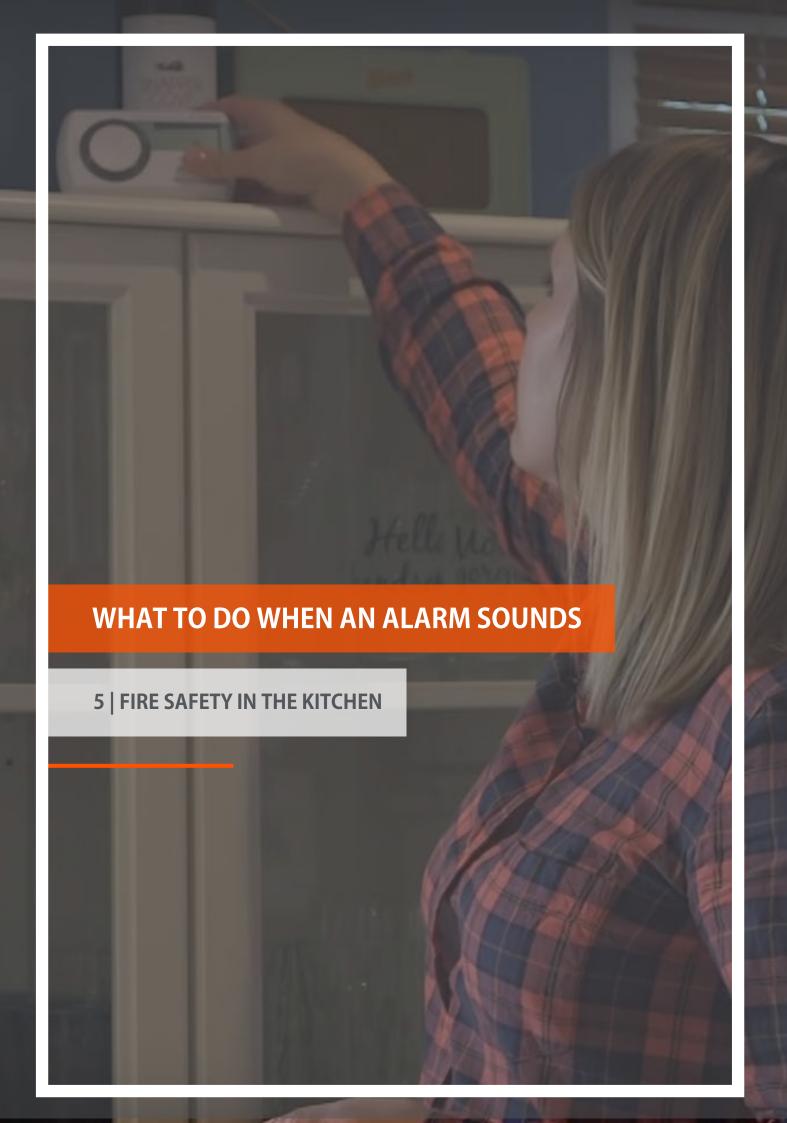
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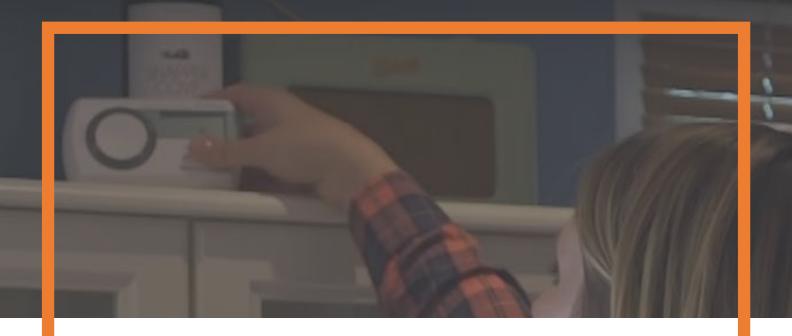
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WHAT TO DO IN THE EVENT OF AN ALARM SOUNDING

5 | FIRE SAFETY IN THE KITCHEN



Unless you know it is a false alarm, you should take every sounding heat and smoke alarm as a serious indicator of fire in your home. You should evacuate quickly and calmly, and call the Fire and Rescue Service.



This will have a shorter sound pattern to a smoke alarm, so will sound different. Open all windows and doors, turn off all fuel-burning appliances and evacuate the property. In an emergency call National Gas Service on: 0800 111 999. Alternatively contact your gas or other fuel supplier on their emergency number. Dependent on how well you feel - you may also need to call an ambulance if you are showing the symptoms of CO poisoning.



WHAT TO DO IN THE EVENT OF A FIRE

5 | FIRE SAFETY IN THE KITCHEN

Even if the fire is in its very early stages in your home, it is never advisable to try and tackle a fire yourself with a fire extinguisher. Fires can spread incredibly fast, so it is imperative you evacuate as quickly as possible and call the fire service on 999.

If your clothes are on fire you should *Stop Drop and Roll* to smother the flames. Otherwise, try to keep windows and doors closed when evacuating (only open them to escape), and stay close to the floor if there is a lot of smoke. If you are unsure as to the whereabouts of the fire, make sure you check doorknobs with the back of your hand before opening it. The fire could potentially be on the other side.



FOR PROTECTING TENANTS IN THE KITCHEN

The Key Areas To Consider When Implementing Co And Fire Safety For Tenants In The Home

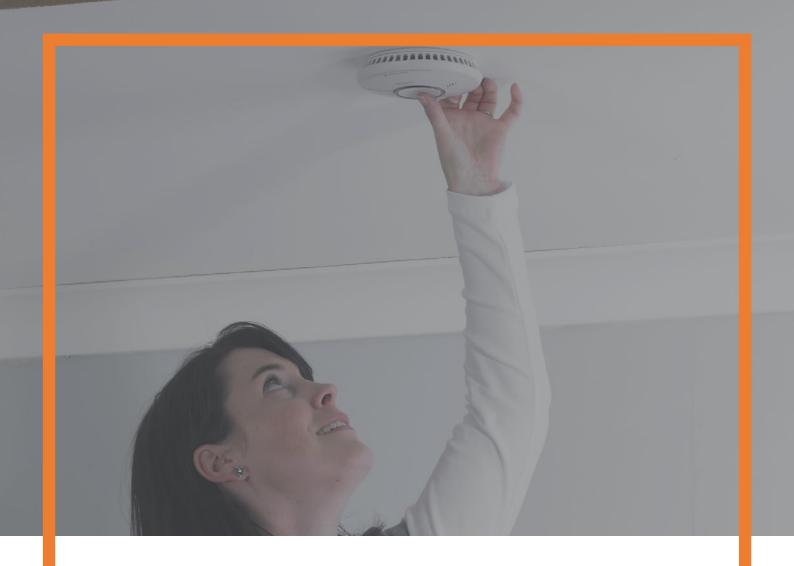
RISK ASSESSMENTS

Before undertaking a risk assessment, it is best practice to read the <u>Local Authorities Coordinators of Regulatory Services</u> (LACORS) guidance (2008). This offers guidance for landlords and fire safety enforcement officers in both local housing authorities (LHAs) and in fire and rescue authorities (FRAs).

The general consensus for a risk assessment, for both private and social housing, is to follow a five step process:



It is also important to specifically consider the tenant at hand, with particular regard to vulnerable tenants. They may live in an adapted property, possess a host of technological devices, may be more of a fire risk in the kitchen, or require assistance when escaping. These all need to be considered in a risk assessment.



INSTALLING ALARMS

8 | GUIDANCE FOR LANDLORDS

Ensure alarms are fitted correctly, installed in a location best adept at warning tenants, and are regularly tested. BS5839-6:2013, which covers private and social housing and HMOs, provides best practice for installing fire detection systems in new, materially altered and existing properties. This should be a key point of reference when defining the grade of system and level of detection needed in a property.

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SMOKE AND HEAT ALARMS

The British Standard BS 5839-6:2013 recommends that smoke and heat alarms be installed:

- On the ceiling, as central as possible in the room
- Sited 300mm from walls and light fittings

Other recommendations include:

- A smoke alarm should be placed within 3m of every escape door and bedroom door to ensure audibility, and positioned between high risk rooms (e.g. the kitchen) and bedrooms—A heat alarm should be used as
- a supplement to a smoke alarm and therefore should not be installed in ideal smoke alarm locations.
- —Instead, they should be installed in kitchens, garages, and lofts.

As outlined in BS5839:Pt 6, neither ionisation alarms or optical alarms are suitable for installation in the kitchen. Ionisation alarms sensitive to small particles of smoke - are more liable to false alarm due to cooking fumes, whereas optical alarms - sensitive to larger particles - are more susceptible to steam. therefore recommended to install multi-sensor alarms. which monitor two different by-products of fire (smoke and temperature), in all rooms but the kitchen. Only CO and heat alarms should installed in the kitchen.

By fitting heat alarms where cooking fumes, dust or moisture may otherwise cause nuisance alarms from smoke detectors (e.g. the kitchen and loft), this will greatly lower the number of unnecessary call-outs by the FRS and also reduce the likelihood of tenants tampering with alarms.





INSTALLING THE RIGHT ALARMS IN THE RIGHT PLACE

8 | GUIDANCE FOR LANDLORDS



According to Fire Statistics Great Britain (2010-11), in 20% of all residential the fires, battervpowered alarms failed to operate because they had missing/flat batteries. This is suggestive of maintenance and/or poor tampering - a likely result of a nuisance alarm in the home. In fact, research carried out by the **Buckinghamshire & Milton Keynes** FRS, revealed that the ceilingmounted alarms were less popular than TV personality Piers Morgan! It is therefore recommended to install smoke alarms with tamperproof sealed for life batteries that are situated correctly, and are regularly tested.



CARBON MONOXIDE ALARMS

As outlined by the British Standard EN 50292, CO alarms should be:

- Installed 1m–3m from all potential sources of carbon monoxide (fuel burning appliances) or placed at breathing height if there isn't one
- Sited 300m from walls and light fittings – this is to ensure that they are outside of any 'dead air' spaces that occur in corners and spaces where the airflow may be blocked
- Situated in rooms where people spend a lot of time e.g. bedroom and living room



CARBON MONOXIDE LEGISLATION IN THE UK

9 | GUIDANCE FOR LANDLORDS

Carbon monoxide legislation varies throughout the UK according to location, type of accommodation and the appliance installed. For instance, under the <u>Building Regulations for England and Wales</u>, CO alarms are required in any room containing a solid fuel-burning appliance (such as an open fire or wood burner) whereas private landlords in Scotland are required to install CO alarms in every room where there is a fixed combustion appliance (this includes gas boilers, oil boilers and open fires and wood burners).

In Northern Ireland there is no private landlord legislation to install carbon monoxide alarms, but Technical document L of the Building Regulations states that:

"Where any combustion appliance is installed, reasonable provision must be made to detect and give warning of the presence of CO gas at levels harmful to people."



CARBON MONOXIDE LEGISLATION IN THE UK

9 | GUIDANCE FOR LANDLORDS

Here is an overview of how CO regulations vary throughout the UK according to location, type of accommodation and specific appliance installed.

BUILDING REGULATIONS

Document J – CO alarm fitted when any new or replacement **SOLID FUEL** appliance fitted. No legal requirement to install CO alarms where there are only gas appliances

Technical Handbook 2 & Technical Document 2 – CO alarm fitted when new or replacement COMBUSTION APPLIANCE is fitted. This covers any fuel burning appliance.

FUEL TYPES

SOLID FUEL IS COAL OR WOOD

COMBUSTION APPLIANCE IS GAS, OIL, COAL AND WOOD (except for a cooker)







INTERLINKING ALARMS

10 | GUIDANCE FOR LANDLORDS

Unfortunately, standalone alarms have limitations in the surrounding area they can detect, and the distance their sound can travel. It is therefore advisable to install a network of interconnected alarms (e.g. via wireless radio-frequency).

This will provide more protection to tenants as all interlinked alarms in the property will sound if fire or CO is detected, therefore quickly alerting tenants to the danger, wherever they may be in the house. All the interlinked alarms also make a differentiated sound pattern for either smoke/ heat or a carbon monoxide incident, and mimic the sound pattern of the triggering alarm, allowing the resident to respond accordingly.



KITCHEN SAFETY CHECKLIST

11 | GUIDANCE FOR LANDLORDS



Installation of carbon monoxide and heat alarm



Ensure there are fire blankets, fire extinguishers, fire doors where appropriate.

It is also fundamental to have an efficient working ventilation system in the kitchen - this will reduce the risk of health problems caused by damp and mould



Have furniture that meets Furniture and Furnishing Regulations (1998)

(seen as the attached on fire safety label)



Provide safety information to tenants

(e.g. copy of section 1)



Work alongside your local Fire and Rescue Service

-The FRS provide an invaluable insight into fire safety in your local area, so it is important to consult with them. All shared areas of blocks of flats or HMOS are covered by the Regulatory Reform (Fire Safety) Order 2005 and may be inspected by your local Fire and Rescue Service.



Educate tenants about evacuation procedure

- make sure you provide the standard process, but also make sure it is specific to your building



KITCHEN FIRE SAFETY CHECKLIST

11 | GUIDANCE FOR LANDLORDS

With increasing awareness, education and implementation of preventative measures in the kitchen not only is the likelihood of fire reduced, but tenants can have peace of mind knowing that they have a higher level of protection in the home. With this in mind, it is appropriate to distribute Section 1 of this eBook to tenants to ensure they know about the potential dangers in the home, and what they can do to help protect themselves and their family. Furthermore, housing providers can utilise section 2 to ensure they have covered the key areas.

FIRE SAFETY IN THE KITCHEN

LINK APPENDIX

Department for Communities and Local Government Fire Statistics (2012-13)

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/456652/Fire_S tatistics Great Britain 2013-14 PDF Version .pdf

Incident Recording System for Fire and Rescue Authorities

https://www.gov.uk/government/publications/incident-recording-system-for-fire-and-rescueauthorities

Fire Statistics England (2014-15), GOV.UK

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/532364/fire-statistics-england-1415-hosb0816.pdf

London Fire Brigade 2015, article "Brigade step up sunlight warning after another refraction blaze"

http://www.london-

fire.gov.uk/news/LatestNewsReleases warningassunstunscelebrity.asp#.WT-nnWjyuUk

Staffordshire Fire and Rescue Service

http://www.staffordshirefire.gov.uk/

Research by Dundee University and Derbyshire Fire and Rescue, BBC article "Smoke alarms 'fail to wake children"

http://www.bbc.co.uk/news/health-38918056

Chief Fire Officers (CFOA) postcode finder

http://www.cfoa.org.uk/frs?postcode=

Project SHOUT

http://projectshout.com/

LACORS, 2009. "Guidance on fire safety provisions for certain types of existing housing" https://www.rla.org.uk/docs/LACORSFSguideApril62009.PDF

BS 5839-1:2013, "Fire detection and fire alarm systems for buildings. Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises"

http://shop.bsigroup.com/ProductDetail/?pid=00000000030260279

Fire statistics Great Britain (2010-11), GOV.UK

https://www.gov.uk/government/statistics/fire-statistics-great-britain-2010-to-2011

Combustion appliances and fuel storage systems: Approved Document J

https://www.gov.uk/government/publications/combustion-appliances-and-fuel-storage-systems-approved-document-i

