



Position Statement

Domestic fire detection & assistive technology

The National Fire Chiefs Council (NFCC) is committed to creating safer, healthier and more resilient communities.

In support of this strategic objective it is considered that improving the standard of fire detection within dwellings would contribute significantly to reducing fire casualties and fatalities and also materially reduce fire losses arising from accidental fires.

In addition, it is important that public fire safety information and advice keeps pace with changing technical standards, advances in technology and also reflects the range of products being manufactured, supplied and retailed in the UK.

The primary intent of this position statement is to revise the version issued in May 2015, to harmonise and update the information and advice being provided to the public and others in respect of domestic fire detection.

Background

In 1987, only 9% of households in the UK had a working smoke alarm. Current figures show that approximately 90% of households now have a working smoke alarm. This improvement has largely resulted from a significant programme of home safety visits undertaken by Fire and Rescue Services, and from regular publicity campaigns around the simple messages of fitting smoke alarms and testing them regularly.

Current Position

NFCC believe every home should have smoke alarms and no home should be unprotected. Despite the significant increase in ownership of working smoke alarms, dwelling fire fatalities still occur, even in properties where smoke alarms are fitted and working. In some instances, smoke alarms are not fitted in the right place or are not suitable for the occupiers needs. Advances in technology also mean that we have a greater understanding that different types of smoke alarms respond in different ways to some types of fires.

To prevent fire injury and minimise fire damage it is crucial that any outbreak of fire in the home is quickly detected and the alarm raised at the earliest possible stage of smoke production and fire growth.

Given these issues, the fact that current advice is more than 30 years old and smoke alarms are less expensive and benefiting from advances in new technology, NFCC is updating its advice as follows:

- Fitting a smoke alarm on every floor of a home should be recognised as a minimum standard (in a circulation space such as a hall or landing).
- It is recommended that, additionally, smoke alarms are fitted in every room in

the house which is regularly inhabited (i.e. bedrooms, living rooms, dining rooms) based upon the fire risk to the occupants.

- NFCC recommend that the smoke alarm has a sealed battery compartment to prevent tampering or removal of the battery.
- NFCC recommend an optical multi sensor smoke alarm with a ten year life span.
- It is additionally recommended that a heat alarm should be fitted in the kitchen.
- Where possible, these alarms should be inter-linked so that all will actuate within the property irrespective of the fire location.
- All smoke alarms (including hard wired or those with removable batteries) should be replaced after ten years, or by the 'replace by' date indicated on the base or earlier if found to be defective.

Public Safety Information

Key public fire safety messages and prevention activities such as home safety visits should be aimed at protecting all occupants of dwellings.

NFCC encourage those who can (or have a legislative responsibility to do so) to provide suitable and sufficient fire detection and warning and support those who can't, due to age, ill health and/or social circumstance to get the help and assistance needed to adequately protect themselves from fire.

Specialist domestic fire alarms are readily available for persons with impaired hearing to increase audibility and consideration should be given to the provision of an interlinked smoke alarm within the bedroom.

NFCC aims to ensure that all homes within the UK are provided with a standard of fire detection and warning that is appropriate to the layout, fire risks and hazards within the home and best suited to the health and circumstances of the occupants.

Scotland

In 2018 changes were made to [the Housing \(Scotland\) Act 1987](#) in relation to fire and smoke alarms which will apply to **all homes in Scotland**.

The main requirements are:

- At least one smoke alarm installed in the room most frequently used for general daytime living purposes.
- At least one smoke alarm in every circulation space on each storey, such as hallways and landings.
- One heat alarm installed in every kitchen.
- All alarms should be ceiling mounted.
- All alarms should be interlinked.

There will be a two-year period for compliance once the regulations are in force, meaning homeowners would have until early 2022 to comply.

Assistive Technology (AT)

The NFCC is committed to making people safer in their homes by identifying and championing new and effective technological solutions to support the prevention or early warning of fire in the home.

Assistive technology (AT) is an umbrella term for any device or solution which assists someone in living a safe and healthy life, while maximising personal independence.

It should be noted that AT is not an alternative to person centred risk assessments or

providing appropriate standards of fire safety. A holistic approach that considers the person, their specific needs/risks and their living environment is essential. Provision of AT is not confined only to those with age related conditions, AT can be essential for a broad range of individuals who wish to live safe and healthy lives, as independently as possible, for as long as possible.

Using a person centred approach, FRS's should be able to determine what specific AT is relevant for their prevention and protection strategy locally, through discussions with the individual, family members or the responsible person in buildings such as sheltered housing or blocks of flats.

Preventing Fires

The three means of fire prevention most commonly used by AT solutions are:

- Fire prediction
- Fire detection
- Fire suppression

A range of solutions and devices exist. Prediction solutions monitor individuals and raise the alarm when a person's behaviour crosses a set threshold of risk making them likely to experience a fire. These high risk individuals can then receive highly targeted and person-centric interventions. Fire detection linked to monitoring services can summon a fire response automatically, even if the individual is unable to do so. Automatic fire suppression systems (other than sprinklers) can detect fires in their early stages, suppress them and even summon a fire response. There are also devices that aim to address specific vulnerabilities, such as hard of hearing alarms.

NFCC Position

NFCC will support UK Fire and Rescue Services to understand best practice in terms of AT, and to maximise the knowledge of reliable risk reduction equipment and standards locally. This is with the view to reduce preventable fire deaths and injuries, which fall within the Fire and Rescue Service remit.