

Fire Policy Practice Guidance Note		
The Use of Fire Door Release Mechanisms – V04		
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KEY POINTS

- The use of fire door-release mechanisms in healthcare premises can have the benefit of easing the flow of people around a building and reduce unnecessary damage to fire doors.
- A site-specific risk assessment should be carried out in areas where automatic door-release mechanisms may be advantageous.
- It is illegal under current fire safety legislation to deliberately hold fire doors in the open position with items such as wooden wedges, chairs etc.
- Current legislation and guidance covering automatic door-release mechanisms is the Regulatory Reform (Fire Safety) Order 2005, the Health and Safety at Work Act 1974, BS 5839 and BS 7273.

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1 Introduction

- 1.1 Fire doors are designed to be kept closed at all times to ensure their effectiveness in preventing smoke and heat entering areas provided as means of escape and to generally stop the spread of fire. It is recognised however, that in certain circumstances, it may be beneficial to have self-closing fire doors kept open for practical reasons. Using a wedge, be it a box, fire extinguisher, wooden block, chair etc. is dangerous and also against the law and carries severe penalties if a wedged open fire door is deemed to have contributed to unnecessary harm or fire damage.
- 1.2 The purpose of this Practice Guidance Note (PGN) is to set out specific guidelines to enable Cumbria Northumberland, Tyne and Wear NHS Foundation Trust (the Trust) and NTW Solutions Limited (NTWS) to be assured that the fire protection in place in Trust premises is used in the correct manner.

2 Scope

- 2.1 This PGN together with any associated procedures and guidance notes, shall be observed by all employees of the Trust and NTWS and is applicable to responsible persons and their nominated deputies

3 Statement

- 3.1 The Trust and NTWS are committed to effective management and control of fire safety in order to reduce the risks to patients, staff, visitors and members of the public.
- 3.2 The Fire Safety Advisors will actively assist all persons to ensure they are aware of their responsibilities regarding the use of fire doors and any other equipment or systems provided for the purpose of life safety.

4 General principles

- 4.1 Under the Regulatory Reform (Fire Safety) Order 2005, every workplace within the Trust will have fire protection installed in the workplace in the form of passive and active measures. Passive measures include structural items such as fire doors, fire resistant wall coverings etc. Active measures will include fire extinguishers, fire alarm and smoke removal systems where appropriate. Fire door-release mechanisms for part of the fire safety measures and, if used correctly, will be of great value to areas that constantly have movement of people.
- 4.2 There are certain criteria that must be followed when deciding to install fire door-release devices and the guidance of BS 5839 and BS 7273 should be used as a benchmark, typically this will include:
 - There must be smoke detection in the immediate area on both sides of the door to be held open

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- They must not be fitted to fire doors that protect a single stairway which forms part of the sole escape route
- They must not be fitted to any fire door that protects a stairway forming part of an escape route from a sleeping risk
- All fire doors fitted with these devices must be signed 'Automatic Fire Door – Keep Clear'
- Doors fitted with door-release mechanisms must be kept free from obstruction and be kept in the closed position every night in sleeping risks and when any premises fitted with them are unoccupied

4.3 All fire door-release mechanisms must be triggered by any of the following methods:

- The actuation of any automatic smoke/heat detector
- The actuation of a manual fire alarm call-point
- Any fault on the fire alarm system (fail safe)
- Any loss of power to the fire alarm wiring system
- Each fire door-release device should be provided with a means of manual operation from a position at the door

4.4 In sleeping risks, each fire door fitted with a door-release device should be closed at night and remain closed throughout the sleeping hours. The method of achieving this may be manual or automatic depending on the type of mechanism and will be determined by the management regime of the premises and the responsible person. This is to safeguard the occupants in the event of fire and also from injury which may be caused by a door striking the occupant.

5 Types of Release Mechanism

5.1 There are various types of door-release mechanism designed to hold open fire doors and different methods of operation. These include following devices:

- Automatic door-release mechanisms (electrically wired to the fire alarm system). There are basically two systems in use, radio-controlled wireless system and automatic electrically wired system
- Self-contained release devices (battery operated, sound activated devices), these devices are normally independent of the electrical side of the fire alarm system and are battery operated. They are fitted to the base of the door and have an audible sound sensor incorporated in the body of the device which will actuate on detecting the fire alarm sounder. This in turn will release the fire door approximately 20 seconds after the alarm sounds.
- Electro-hydraulic door controls are basically self-closing/opening devices that operate electrically via the fire alarm system. They look like normal self-closing devices but can hold the door open as well as hold it closed. They meet the requirements of the Equality Act and fire safety regulations with regards to

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safety in public buildings. They are suitable for double doors and can be set to hold open doors at 70 degrees or to swing free in either direction until the fire alarm actuates or the power fails. As with other door-release devices, they have a manual override facility.

6.0 Self-closing Devices

6.1 A commonly used item of equipment on fire resistant doors is a self-closing device. This hardware is designed to work in the opposite way to a hold-open device. Because fire doors are designed to be in the closed position unless being used, a self-closing device is normally fitted to force the door to close once a person has gone through the door. These doors should never be held open using secondary devices such as wooden wedges or chairs.

6.2 It is widely known throughout clinical areas that these doors need to be accessible. The use of common sense is the order of the day in these situations. If a door needs to be kept open for longer than it would take for a person to pass through it, it should be returned to its normal operation as soon as possible and never be left in the forced open position if a room or work area is vacated. In other words, if you leave a room, close the door after you. Only by doing this will the spread of heat and smoke be contained.

7 Testing

7.1 The devices must be tested weekly. This is normally carried out when testing the fire alarm system which simply involves observing the operation of the devices and ensuring they function correctly. They must be maintained in accordance with the manufacturers instructions and a record should be kept of all testing.

7.2 The release mechanisms should be operated at least once a week to ensure that:

- The mechanisms are working effectively
- The doors are not warped and closed correctly into their rebates.
- The mechanisms should operate within 20 seconds of the fire alarm operating
- Self-contained devices should have their batteries replaced at least every 12 months or when the low voltage warning device sounds or flashes

7.3 The responsible person of the premises should ensure that there are procedures in place to deactivate any or all of the devices in the following circumstances:

- When there is a fault in the fire alarm system
- When the fire alarm system is isolated for any reason
- Any other circumstances when the fire alarm audibility will not trigger the device

7.4 A risk assessment must be carried out prior to fitting the devices to ensure:

- The alarm sounders are close enough to activate the devices

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- The door having the device fitted is of satisfactory condition
- Whether there is likely to be contact with persons when doors are released
- Type of floor covering under the device (floor plate may be required)

8 Summary

8.1 Fire doors are provided to increase the safety value of a building along with other fire protection and to afford a degree of safety for the occupants of those buildings. If you have fire doors that would benefit from the addition of door-release devices, contact the Fire Safety Advisor for your area of the Trust.

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