

# SHROPSHIRE FIRE AND RESCUE SERVICE

## FIRE SAFETY ADVICE SHEET

### AUTOMATIC DOOR RELEASE MECHANISMS (SELF CLOSING FIRE DOORS)

#### Introduction

It is essential that all buildings are provided with suitable means of escape to allow people to evacuate as quickly as possible in the event of a fire. To ensure people have adequate time in which to make their escape, it is often necessary to protect escape routes from the effects of fire (heat, smoke and other products of combustion) by the provision of fire resisting floors, walls and self closing fire doors.

It is appreciated that some self-closing fire doors will prove to be inconvenient for day to day functional requirements.

Such fire doors **may** be held in the open position by the installation of effective automatic door release mechanisms, providing they comply with the conditions listed below.

- a) The door release mechanism should conform to an appropriate standard or be accredited as part of the European Construction Product Directive (CPD).
- b) Electrical control arrangements for actuation of release mechanisms should comply with the recommendations for the design, installation, commissioning and maintenance detailed in BS 7273-4: 2007, Code of Practice for the Operation of Fire Protection Measures. Activation of Release Mechanisms for Doors
- c) All doors fitted with automatic releases should be actuated by an appropriate automatic fire detection and alarm system. British Standard BS 5839 details the appropriate criteria
- d) The area on both sides of the door to be effectively covered by a smoke detector linked to the fire alarm system.

- e) The door to close immediately on the operation of either the automatic detection system or the manually operated fire alarm system. All automatic door releases should be triggered by each or any of the following:
- The detection of smoke by an automatic detector head; or
  - The actuation of the fire alarm by a manual call point; or
  - Failure of the fire warning or power systems
- f) In sleeping risk premises, (other than care homes and children's homes) each door fitted with an automatic door release should be closed at a predetermined time each night and remain closed throughout the sleeping hours. This may be achieved either manually or automatically, depending upon the type of release mechanism installed, but compliance with this will be a matter for the management regime of the premises/workplace.
- g) In care homes and children's homes it may be that closing the doors at night would have a disproportionately adverse effect on the quality of care provided, when balanced against the fire safety benefits. The responsible person at such premises should undertake a suitable risk assessment in relation to this issue.
- h) Any remote or unsupervised release of self-closing fire doors has the potential to injure the occupants. The responsible person should only carry out fire alarm tests and/or remotely releasing the fire doors if arrangements (so far as is reasonably practicable) are in place to safeguard the occupants from injury.
- i) No self-closing door to be obstructed (other than by the automatic smoke detector operated door release).
- j) Self-closing devices are to operate normally (non-automatically) if required. The door must be able to close manually by operation of a switch fitted in a suitable position i.e. on or adjacent to the door release.
- k) The system to be tested at least once a week to ensure that the mechanisms are working effectively, and the doors are not warped and close effectively into their frames (fire doors fitted with latches should close so that the latch mechanism fully engages into the door frame) .
- l) A record should be kept of all testing and maintenance activities, and any fire doors fitted with such devices should be kept closed during periods when the fire alarm system is isolated for maintenance purposes.
- m) The doors to be permanently marked on both sides at about eye level with a conspicuous notice bearing the words "**Automatic Fire Door Keep Clear**" conforming to HEALTH AND SAFETY (SAFETY SIGNS AND SIGNALS) REGULATIONS 1996.

- n) The door release should be installed on the same plane (level) as the self closing device to prevent warping of the door. Warping may result in additional expense should rectification be required at a later date.

### **Self-Contained Release Devices (SCRD's)**

- a) SCRD's are not normally connected directly to the fire alarm system, but rely upon the acoustic levels produced by the warning devices (bells or sirens) for their activation. The use of SCRD's should only be accepted depending upon the outcome of a site-specific risk assessment. They should **not** normally be used on doors protecting single stairway buildings or other critical means of escape.
- b) The fire alarm/detection system should conform to the recommendations of BS 5839, and the fire alarm audibility level at the position of any acoustically activated device must be sufficient to ensure that the mechanisms will release the door upon activation of the fire alarm.
- c) The management of the premises/workplace must ensure that there are suitable procedures in place (either manual or automatic) to de-activate any or all of the SCRD's in the following circumstances:
- When there is a fault in the fire warning system.
  - When the fire alarm is isolated for any reason e.g. maintenance.
  - Any other circumstances when the sound level of the fire alarm will not trigger the device.
- d) Self-contained devices should have their batteries replaced at least every 12 months (or sooner if the manufacture's instructions so dictate) or when the low voltage warning device operates.

Proposals for installing door release units should be forwarded to the Chief Fire Officer for consideration **before** a firm decision is made.

For further information or for general fire safety matters, Shropshire Fire and Rescue Service can be reached on **01743 260 260** or via our web site at **[www.shropshirefire.gov.uk](http://www.shropshirefire.gov.uk)**