



Background

This Note for Inspecting Officers provides guidance on the standards that are considered appropriate in respect to Automatic Door Release Mechanisms/Hold Open Devices for Self Closing Fire Doors.

The Note aims to set general principles and to provide the reader with information as to which approved document or technical standard is considered by this Authority to be appropriate.

Introduction

The Note is based on guidance approved and issued by the Chief and Assistant Chief Fire Officer's Association in 20 March 2003.

Where self-closing fire doors cause serious restriction in the free movement of people within a building, the occupier may need to consider installing automatic door release mechanisms.

A site-specific risk assessment should normally be carried out and the following criteria should be appropriately applied:

1. The door release mechanism should conform to an appropriate standard or be accredited as part of the European Construction Product Directive (CPD).
2. Doors, fitted with automatic releases should be actuated by an appropriate automatic fire detection and alarm system.
3. The system should give warning of smoke in the areas on either side of a door fitted with an automatic release device. The positions of the detectors should be in accordance with the recommendations of BS 5839: Parts 1 or 6.
4. In buildings in which people sleep within rooms accessed by corridors, other than short lengths of corridor, research has shown that passage of hot fire gases through a door crack can produce smoke sufficiently dense and cool for a corridor to become smoke-logged before adequate warning can be given by detectors in the corridor. In this case, a system in which detectors are installed in rooms that open onto the escape routes, as well as within the escape routes themselves, would be appropriate.
5. All automatic door releases should be triggered by each, or any, of the following:
 - the detection of smoke by an automatic detection; or
 - the actuation of an alarm by a manual fire alarm call point; or
 - failure of the fire warning system.
6. Each automatic door release should be provided with means of manual operation from a position at the door (closing door by hand/foot is considered suitable).

7. In sleeping risk premises each door fitted with an automatic door release should be closed at a predetermined time each night and remain closed throughout the sleeping hours. The method of achieving this may be either automatic or manual, depending on the type of release mechanism installed, but compliance with this will be a matter for the management regime of the premises/workplace. Any remote or unsupervised release of self-closing fire doors may injure occupants. The responsible person should only carry out fire alarm tests and/or remotely release self-closing fire doors if arrangements (so far as is reasonably practicable) are in place to safeguard the occupants from injury, e.g. by a door striking an occupant.
8. The release mechanisms should be operated at least once each week to ensure that:
 - the mechanisms are working effectively, and
 - the doors are not warped and close effectively into their frames
9. The release mechanisms should operate within 20 seconds of the fire alarm operating.
10. Doors fitted with release mechanisms should be provided with appropriate signage e.g. 'Automatic Fire Door – Keep Clear '.
11. The devices must be tested weekly, in association with the testing of the fire alarm system, and maintained in accordance with the manufacturer's instructions. A record should be kept of all testing and maintenance activities. Doors fitted with such devices should be kept closed during periods when the fire alarm system is isolated for maintenance purposes.

Self-Contained Release Devices (SCRD's)

SCRD's are not normally directly connected to a fire alarm system and it is important that additional points are taken into account and/or considered when these types of devices are to be installed. These points are set out below:

1. Acceptance depends upon the outcome of a site-specific risk assessment. They should not normally be used on doors protecting single stairway buildings or protecting other critical means of escape.
2. The fire alarm system should have a secondary power supply to a standard as detailed in BS 5839: Parts 1 or 6.
3. The fire alarm audibility level at the position of any acoustically actuated device must be sufficient to ensure that the mechanisms will release the door upon the actuation of the fire alarm system.
4. The management of the premises/workplace should ensure that there are procedures in place (either manual or automatic) to de-activate any or all of the devices in the following circumstances:
 - When there is a fault in the fire warning system
 - When the fire alarm system is isolated for any reason e.g. maintenance
 - Any other circumstances when the sound of the fire alarm will not trigger the device
5. Self-contained devices should have their batteries replaced at least every 12 months or when the low voltage-warning device sounds.

Further information

BS 7273-4 gives recommendations for the design, installation, commissioning and maintenance of electrical control arrangements for actuation of mechanisms that unlock, release or open doors in the event of fire.

It does not apply to the actual equipment that holds, releases, locks or unlocks the doors, or that facilitates the opening of powered sliding doors. However, recommendations are, where appropriate, given for the standards to which some of this equipment needs to conform.