

Scottish Government Building Standards Ministerial View Reference V2020/1

Functional Standard 2.9 Escape

Standard 2.9 (Escape) states: “Locking devices on final exit doors and on escape windows should not prevent occupants escaping from the building. The intention is to assist escape, but not to exclude the use of locks or other safety devices (see Section 4 Safety).”

Verifier

West Lothian Council

Technical Context

The building warrant is for the erection of 5 blocks of flatted dwellings with a top most storey height varying between 12 and 15 metres and comprising 146 dwellings in total. Each block is served with a single escape stair with one common access / escape door. It is proposed to use an access control system that employs a magnetic locking device without the provision of fail unlocked on power failure for this door.

The view of Scottish Ministers

On behalf of Scottish Ministers, the Building Standards Division has considered all the information submitted in this case and their view is set out below.

The building is designed on the principle of ‘stay put’ other than the dwelling of fire origin. The key area of doubt in relation to compliance with standard 2.9 is the whether or not the access control system to the final exit door should fail-safe on power failure. The proposal indicates that the electronic locking device will release the door using the normal push to exit button, activation of smoke detection and manual door release. Therefore, the focus of this Ministerial View is on whether or not the proposal adversely affects occupants opportunity to escape should they wish to evacuate.

BS 7273-4:2015 Code of practice for the operation of fire protection measures – Part 4: Actuation of release mechanisms for doors states, “in principle, actuation of release mechanisms is intended to occur in response to any of the following conditions:

- operation of the fire detection and alarm system, whether by operation of a manual call point or activation of an automatic fire detector;
- any failure of the fire detection and alarm system including system error;
- any electrical power failure; and
- in the case of electronically locked doors, activation of a manual release control.”

Guidance contained in the 'Practical Fire Safety Guidance for Existing High Rise Domestic Buildings (2019) states "All final exit doors from the building should be easily openable from the inside without the use of a key or code. A simple turn handle or lever is preferred. Any exits fitted with electronic locking mechanisms must fail-safe on power failure and have a standby power supply. In some situations, it might be necessary to consider the provision of override controls in accordance with BS 7273-4."

Whilst the likelihood of power failure occurring at the same time as an outbreak of fire is low, the guidance above recommends that the electronic lock should also release on electrical power failure.

Having carefully considered all the information submitted in this case, it is the view of Scottish Ministers that the proposals do not meet the requirements of Standard 2.9.