

Highlights of National Fire Protection Association (NFPA) 101[®] - Life Safety Code[®] 2009 & NFPA 5000[™]

Building Construction & Safety Code 2009

Notes: In this Code Reference Guide, "fire protection system" means an approved sprinkler system, approved fire alarm system, or both. Numbers in brackets () refer to applicable sections of the code publication.

Locks, Latches, and Alarm Devices (NFPA 101[®]: 7.2.1.5, NFPA 5000[™]: 11.2.1.5.2)

Locks, if provided, shall not require the use of a key, tool, or special knowledge or effort for operation from the egress side...

- except as specifically allowed by the occupancy chapters
- exterior doors shall be permitted to have key-operated locks from the egress side as long as:
 - exception is permitted in the occupancy chapters for the specific occupancy, and
 - on or adjacent to the door there is a sign (THIS DOOR TO REMAIN OPEN WHEN THE BUILDING IS OCCUPIED), and
 - locking device is of a type that is readily distinguishable as locked, and
 - key is immediately available to any occupant inside the building when door is locked
- these provisions may be revoked by the AHJ for cause
- where permitted by the occupancy chapters, key operation shall be permitted, provided that the key can't be removed when the door is locked from the egress side

Electrically Controlled Egress Door Assemblies (NFPA 101[®]: 7.2.1.5.5, NFPA 5000[™]:11.2.1.5.6)

An electric lock may be used with approved, listed hardware with a built-in request to exit switch in the means of egress if it meets the following conditions:

- The hardware releasing the lock is mounted on the locked door leaf.
- The hardware operation is obvious and readily operated for egress.
- The hardware requires the use of only one hand to egress.
- Power to the electronic lock is interrupted upon activation of the hardware.
- Loss of power to the hardware unlocks the electric lock.

Stairwell Reentry (NFPA 101[®]: 7.2.1.5.7, NFPA 5000[™]:11.2.1.5.8.1)

Every door in a stair enclosure serving more than four stories shall meet one of the following criteria:

- re-entry from the stair enclosure to the interior of the building shall be provided,
- an automatic release actuated by the fire alarm system shall unlock all stair enclosure doors to provide reentry
- selected reentry - selected doors shall be permitted to have locking hardware, provided that
 - at least 2 levels are unlocked, there aren't more than 4 stories between unlocked floors, and
 - the top or next to the top floor is unlocked, signage on the stair side identifies unlocked doors, and
 - signage on the stair side of locked doors indicates the location of the nearest unlocked door in each direction

The following applications are not required to comply:

- existing installations as permitted in the occupancy chapters
- stairs serving a building permitted to have a single exit in accordance with the occupancy chapters
- stairs in health care occupancies where otherwise provided in the occupancy chapter
- stairs in detention and correctional occupancies where otherwise provided in the occupancy chapter

Stair to Roof (NFPA 101[®]: 7.2.1.5.8, NFPA 5000[™]: 11.2.1.5.9)

If a stair enclosure allows access to the roof, the door to the roof either shall be kept locked or shall allow re-entry from the roof

Releasing Devices (NFPA 101[®]: 7.2.1.5.9 - 7.2.1.5.11, NFPA 5000[™]: 11.2.1.5.10 - 11.2.1.5.12)

- latch or other fastening device on a door shall be provided with a releasing device having an obvious method of operation under all lighting conditions
- releasing mechanism (except existing installations) shall be located between 34" and 48" above the finished floor. Doors shall be openable with not more than 1 releasing operation
 - exception: egress doors from individual living units and guest rooms of Residential Occupancies may require 2 releasing operations, as long as no key is required for egress and both mechanisms are less than 48" A.F.F. (existing security devices complying with this exception may have three releasing operations - devices that are not automatic latching may be located up to 60" A.F.F.)
- each leaf of a pair in a means of egress shall have its own releasing device, and each device has to operate independently (can't require 1 device to be released before the other), except
 - where automatic flush bolts are used, the door leaf with the flush bolts shall have no doorknob or surface-mounted hardware - unlatching any leaf shall not require more than 1 operation
 - no additional locking device (padlock, hasp, chain, deadbolt, etc.) shall be installed on a door which requires panic hardware

Delayed Egress Locks (NFPA 101[®]: 7.2.1.6.1, NFPA 5000[™]: 11.2.1.6.1)

Approved, listed, delayed egress locks shall be permitted on doors serving low and ordinary hazard contents in buildings protected throughout by an approved, supervised automatic fire detection system or sprinkler system, where permitted by chapters 12-42, provided that:

- doors unlock upon actuation of the sprinkler system, any heat detector, or up to 2 smoke detectors, and
- doors unlock upon loss of power controlling the locking mechanism, and
- an irreversible process (such as pushing the door or touchpad) releases the lock within 15 (AHJ can approve a delay of up to 30 seconds) upon application to the release device (15 lbf for not more than 3 seconds), and
- initiation of the release process activates an audible signal in the vicinity of the door, and
- after release, locking shall be by manual means only, and
- signage on egress side of door (PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 SECONDS)

Access-Controlled Egress Doors (NFPA 101®: 7.2.1.6.2, NFPA 5000™: 11.2.1.6.2)

Where permitted in the occupancy chapters, doors in the means of egress shall be permitted to have an approved entrance and egress access control system, provided that:

- one of the following shall be provided:
 - a sensor on the egress side unlocks the door upon detection of an occupant approaching the door, or
 - listed panic or fire exit hardware that, when operated, unlocks the door, and
- loss of power to the sensor unlocks the door, and loss of power to the lock unlocks the door, and
- manual release device adjacent to the door unlocks the door, must have signage (PUSH TO EXIT), and must result in direct interruption of power to the lock, and door remains unlocked for at least 30 seconds, and
- if the building has a fire protection system, actuation of the fire protection system automatically unlocks the door, and the door remains unlocked until the fire protection system is manually reset

Elevator Lobby Exit Access Door Locking (NFPA 101®: 7.2.1.6.3, NFPA 5000™: 11.2.1.6.3)

On new and existing ambulatory health care, apartment building, assembly, business, day-care, educational, health care, high-rise, hotels and dormitories, and mercantile occupancies, doors that separate the elevator lobby from the exit-access are permitted to be locked electronically if the follow is met.

- The electronic switch to release the lock is listed with UL294
- The building is protected throughout with a fire alarm, and movement of water through the system actuates the fire alarm system
- The elevator lobby is protected by an approved smoke detection system that upon detection of smoke, activates the fire alarm system
- Activation of fire alarm by means other than manual pull stations unlock the elevator lobby door(s).
- Loss of power to the elevator lobby door(s) unlocks the assembly
- The elevator lobby does not have emergency power backup
- Once unlocked, the door(s) will not relock until the fire alarm has been manual reset
- Where elevator doors remain latched after unlocking, latch-releasing hardware is used in accordance with 7.2.1.5.9
- A two-way communication system allows communication between the elevator lobby and a constantly staffed control point
- The control point staff is trained and capable to provide emergency assistance
- Neither delayed egress or access controlled systems are to be applied to elevator lobby door(s)

Panic Hardware (NFPA 101®: 7.2.1.7, NFPA 5000™: 11.2.1.7)

- actuating portion of device must extend at least 1/2 the width of the door leaf
- device must be mounted between 34" and 48" above finished floor (A.F.F.) (30" to 48" for existing applications)
- door locations requiring panic hardware are listed within the individual occupancy chapters:
 - means of egress doors in Assembly, Day Care, and Educational Occupancies with an occupant load of 100 or more persons shall be permitted to have a latch or lock only if it is panic hardware
 - doors serving high hazard contents areas with occupant loads of more than five shall be permitted to have a latch or lock only if it is panic hardware
- required panic hardware (except as allowed for Detention & Correctional Occupancies), shall not be equipped with any locking device, set screw, or other arrangement that prevents the release of the latch when pressure is applied to the releasing device

- fire exit hardware may not be equipped with devices to hold the latch retracted unless the devices are listed and approved for such purposes

Self-Closing Devices (NFPA 101®: 7.2.1.8, NFPA 5000™: 11.2.1.8)

Doors designed to normally be kept closed in a means of egress shall be a self-closing door and shall not be secured in the open position, except:

- where allowed by NFPA 101®/5000 or the AHJ, doors can be automatic closing, if
 - upon release of the hold-open mechanism, the door becomes self-closing, and
 - door can be easily released manually, and
 - releasing mechanism is activated by the building fire protection system, and
 - upon loss of power to the hold-open device, the door becomes self-closing, and
 - release of one door in a stair enclosure results in closing of all doors in that stair

Note: A standard door closer with no hold-open mechanism is self-closing. A door with a closer and an electric or battery-operated hold-open mechanism actuated by the fire protection system is automatic-closing.

Inspection of Door Openings (NFPA 101®: 7.2.1.15)

In both new and existing assembly, day care, educational, and residential board and care occupancies, doors required to swing in the direction of egress must be tested and inspected no less than once per year in accordance with the following:

- Inspection shall comply with NFPA 80 requirements
- Inspections are permitted to be done less than annually if approved in a written program per NFPA 80 section 5.2.2
- A written record of inspections must be signed and kept for review by AHJ
- Individuals conducting inspection must demonstrate "Knowledge and understanding of the operating components of the type of door being subjected to testing"
- The following should be verified as a minimum inspection:
 - Floor space on both sides of opening is clear and unobstructed
 - Door leaf(s) open and close freely
 - Forces to fully open the door comply with 7.2.1.4.5 requirements
 - Latching and Locking devices comply with 7.2.1.5 requirements
 - Paired door leaves comply with 7.2.1.5.10 requirements
 - Door closers are adjusted to comply with ADA requirements
 - Projection of door leaves into egress path comply with 7.2.1.4.3
 - Power doors comply with 7.2.1.9
 - Any required signage is intact and legible
 - Any special locking functions comply with 7.2.1.6
 - Egress impeding security devices are not installed on openings