

MEMORANDUM

TO: Record

FROM: Heather Graham Lewis, AIA

DATE: May 16, 2016

SUBJECT: Delayed Egress Building Code changes

Summary:

Previously NFPA 101 2000 only permitted a single delayed egress in the path of egress, unless there was a clinical need for locking. A categorical waiver was offered by CMS to allow multiple delayed egresses.

With the adoption of the 2012 NFPA 101, it is permissible to delay egress more than once; however the 2012 Michigan Building Code limits it to one delay before entering an exit. An exit can be a stair, a 2-hour exit passageway, or a door to the exterior.

For example, one delay would be permitted before entering a stair, and a second delay at the bottom of the stairs, at the door to the exterior.

Sprinkling, signage, smoke detectors, emergency lighting and a number of other code requirements must be met.

NFPA 101, specifically permits delayed egress in New and Existing Healthcare and New and Existing Business Occupancies. As it is not mentioned in the New and Existing Ambulatory Healthcare Occupancy chapters, it would be permitted per code language below.

NFPA 101, 2012 states:

[7.2.1.6.1](#) Delayed-Egress Locking Systems.

[7.2.1.6.1.1](#) *Approved, listed, delayed-egress locking systems shall be permitted to be installed on door assemblies serving low and ordinary hazard contents in buildings protected throughout by an approved, supervised automatic fire detection system in accordance with Section 9.6 or an approved, supervised automatic sprinkler system in accordance with Section 9.7, and where permitted in Chapters 11 through 43, provided that all of the following criteria are met:*

- (1) *The door leaves shall unlock in the direction of egress upon actuation of one of the following:*
 - (a) *Approved, supervised automatic sprinkler system in accordance with Section 9.7(b) Not more than one heat detector of an approved, supervised automatic fire detection system in accordance with Section 9.6*
 - (c) *Not more than two smoke detectors of an approved, supervised automatic fire detection system in accordance with Section 9.6*
- (2) *The door leaves shall unlock in the direction of egress upon loss of power controlling the lock or locking mechanism.*

(3)*An irreversible process shall release the lock in the direction of egress within 15 seconds, or 30 seconds where approved by the authority having jurisdiction, upon application of a force to the release device required in [7.2.1.5.10](#) under all of the following conditions:

(a) The force shall not be required to exceed 15 lbf (67 N).

(b) The force shall not be required to be continuously applied for more than 3 seconds.

(c) The initiation of the release process shall activate an audible signal in the vicinity of the door opening.

(d) Once the lock has been released by the application of force to the releasing device, relocking shall be by manual means only.

(4)*A readily visible, durable sign in letters not less than 1 in. (25 mm) high and not less than 1/8 in. (3.2 mm) in stroke width on a contrasting background that reads as follows shall be located on the door leaf adjacent to the release device in the direction of egress:

PUSH UNTIL ALARM SOUNDS

DOOR CAN BE OPENED IN 15 SECONDS

(5) The egress side of doors equipped with delayed-egress locks shall be provided with emergency lighting in accordance with Section 7.9.

[7.2.1.6.1.2](#) The provisions of [7.2.1.6.2](#) for access-controlled egress door assemblies shall not apply to door assemblies with delayed-egress locking systems.

Michigan Building Code, 2012

Please see attached page.

MEANS OF EGRESS

2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from the *fire command center*, a nursing station or other *approved* location.
4. A building occupant shall not be required to pass through more than one door equipped with a special egress lock before entering an *exit*.
5. The procedures for the operation(s) of the unlocking system shall be described and *approved* as part of the emergency planning and preparedness required by Chapter 4 of the *International Fire Code*.
6. All clinical staff shall have the keys, codes or other means necessary to operate the locking devices.
7. Emergency lighting shall be provided at the door.

Exception: Items 1 through 4 shall not apply to doors to areas where persons, which because of clinical needs, require restraint or containment as part of the function of a psychiatric treatment area.

1008.1.9.7 Delayed egress locks. *Approved, listed,* delayed egress locks shall be permitted to be installed on doors serving any occupancy except Group A, E and H occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an *exit*.

1. The doors unlock upon actuation of the *automatic sprinkler system* or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from the fire command center.
4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for 1 second to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only.

Exception: Where *approved*, a delay of not more than 30 seconds is permitted.

5. A sign shall be provided on the door located above and within 12 inches (305 mm) of the release device reading: PUSH UNTIL ALARM

SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.

6. Emergency lighting shall be provided at the door. ••

1008.1.9.8 Access-controlled egress doors. The entrance doors in a *means of egress* in buildings with an occupancy in Groups A, B, E, I-2, M, R-1 or R-2, and entrance doors to tenant spaces in occupancies in Groups A, B, E, I-2, M, R-1 or R-2, are permitted to be equipped with an *approved* entrance and egress access control system, listed in accordance with UL 294, which shall be installed in accordance with all of the following criteria:

1. A sensor shall be provided on the egress side arranged to detect an occupant approaching the doors. The doors shall be arranged to unlock by a signal from or loss of power to the sensor.
2. Loss of power to that part of the access control system which locks the doors shall automatically unlock the doors.
3. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches (1016 mm to 1219 mm) vertically above the floor and within 5 feet (1524 mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the lock—independent of the access control system electronics—and the doors shall remain unlocked for a minimum of 30 seconds.
4. Activation of the building fire alarm system, if provided, shall automatically unlock the doors, and the doors shall remain unlocked until the fire alarm system has been reset.
5. Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors. The doors shall remain unlocked until the fire alarm system has been reset.
6. Entrance doors in buildings with an occupancy in Group A, B, E or M shall not be secured from the egress side during periods that the building is open to the general public.

1008.1.9.9 Electromagnetically locked egress doors. Doors in the *means of egress* in buildings with an occupancy in Group A, B, E, M, R-1 or R-2, and doors to tenant spaces in Group A, B, E, M, R-1 or R-2, shall be permitted to be electromagnetically locked if equipped with listed hardware that incorporates a built-in switch and meet the requirements below:

1. The listed hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
2. The listed hardware is capable of being operated with one hand.