Public Input No. 187-NFPA 101-2018 [Section No. 14.2.2.2.4]

14.2.2.2.4* - Classroom Door Locking to Prevent Unwanted Entry.

Glassroom doors shall be permitted to be locked to prevent unwanted entry provided that the locking means is approved and

Emergency Locking of Classroom Doors.

14.2.2.4.1* Where emergency locking of classroom doors to resist forced entry is desired, doors shall be permitted to equipped with approved locking hardware, provided all of the following conditions are met:

(1) The * For other than remotely locked doors, the emergency locking means shall be capable of being engaged without opening the door.

The unlocking and unlatching from the classroom side of the door can

- (2) locking doors against entry, from inside the classroom, when doors are closed.
- (3) * Where doors are equipped with electrified locking functions, remotely locked doors shall be openable from the classroom.
- (4) <u>Egress from the classroom shall</u> be accomplished without the use of a key, tool, or special knowledge or effort.
- (5) The releasing mechanism shall open the door leaf with not Not more than one releasing operation -

The releasing mechanism for unlocking and unlatching shall be

- (6) shall be required to open doors from the classroom.
- (7) * Emergency locking hardware shall be permitted to be installed at any location on the door assembly, provided the releasing mechanism is located at a height not less than 34 in. (865 mm) and not exceeding 48 in. (1220 mm) above the finished floor.

Locks, if remotely engaged,

(8) * The door shall be

unlockable

(9) capable if being opened from the

classroom side of the door without the use of a key, tool, or special knowledge or effort.

- (10) entry side by key or other credential.
- (11)
- (12) The door shall be capable of being unlocked and opened from outside the room with the necessary key or other credential.
- (13)
- (14)
- (15) The

locking means shall not modify the door closer, panic hardware, or fire exit hardware.

- (16) Modifications to fire door assemblies, including door hardware, shall be in accordance with NEPA 80.
- (17) The emergency action plan, required by 14.7.1, shall address the use of the locking and unlocking means from within and outside the room both sides of the doors.
- (18) Staff shall be drilled in the engagement and release of the locking means, from within and outside the room both sides of the doors, as part of the emergency egress drills required by 14.7.2.

- 14.2.2.2.4.2* Where doors serving occupant loads of less than 100 persons are equipped with fire exit hardware or panic hardware, emergency locking means of 14.2.2.2.4.1 shall be permitted.
- 14.2.2.2.4.3 Installation of the locking means of 14.2.2.2.4.1 shall not modify door closers, fire exit hardware, or panic hardware or prohibit their operation.
- 14.2.2.2.4.4* Where approved, doors other than classroom entry doors shall be permitted to be equipped with the emergency locking functions of 14.2.2.2.4.1.

Statement of Problem and Substantiation for Public Input

Section 14.2.2.2.4* Classroom Door Locking to Prevent Unwanted Entry is new to the 2018 edition of the Code. As these provisions and requirements appear in the Second Draft Report, it is unclear as to what conditions they are intended to address or create. For example, the phrase "...to Prevent Unwanted Entry" is ambiguous—the purpose of locking any door is "to prevent unwanted entry." Other than the provisions of 7.2.1.5.9 that requires stair tower doors leading to roofs to be locked (against entry/access to the roof), the Code is silent as to when doors are REQUIRED to be locked "to prevent unwanted entry." As written, 14.2.2.2.4 could be construed as REQUIRING all classroom doors to be locked against entry; eliminating the owner's option to not lock classroom doors at all.

Setting the above aside for the moment, it's more likely that 14.2.2.2.4 is intended to address concerns regarding locking of doors in emergency conditions (e.g., active-shooter and other violent incidents in schools) rather than "...to Prevent Unwanted Entry." The alternate version of Section 14.2.2.2.4 Emergency Locking of Classroom Doors is offered for the committee's consideration. It contains provisions that attempt to provide resistance to forced entry, while creating swift and free egress conditions that might be needed under emergency conditions. The related annex section has been expanded to reflect the intent of this alternative language.

The provisions of 14.2.2.2.4 are flawed and result in requirements that do not achieve their intended goal for emergency locking of doors for the following reasons:

- 1. The charging statement could be interpreted as requiring school districts to "upgrade" all existing classroom doors to comply with these new provisions, which would be a precedence in the Code on two counts. First, it would mandate the upgrading of existing the doors without any technical justification—school districts subject to the 2018 edition of the Code would not have a choice. Second, the Code would require certain doors to be locked, a subject on which the Code has been silent on until now (save for doors leading to roof access from stair towers).
- 2. Item (1) does not require the locking means to be "lockable" from the classroom; it merely requires the locking means to be "...engaged without opening the door." The intent of this provision is to require doors to be "lockable" from inside classrooms to protect faculty and staff from dangerous circumstances in corridors to which they might be exposed when manually locking doors, but item (1) neglects to require locks to be engaged from the classroom. Further, all key operated locking hardware devices are capable of being engaged without opening doors, albeit from the entry side of the doors. An argument could be made that the application of a door barricade device on the inside of classroom doors (locking doors against egress) complies with item (1); especially, in combination with items (2) and (3).
- 3. Original items (2), (4), and (5) imply that doors are locked against egress, which is the condition these new provisions were designed to prevent. In fact, these conditions permit the installation of so-called door barricade devices instead of severely restricting the use of such devices.
- 4. Item (2) explicitly addresses "the unlocking" and "unlatching" of doors from the classroom as two distinctly separate actions; actions that are separate from the "releasing operation" required in item (3). It could be construed that items (2) and (3) result in at least three separate actions that would be necessary to egress from classrooms. Consequently, items (2) and (3), when combined, seem to allow the application of door barricade devices.

Other issues in the original language include:

A. Item (1) requires locking hardware to be engaged without opening the doors, but it fails to specify the engagement of the locking hardware is to be accomplished from the classroom side of the door; all locks can be engaged from the corridor side without opening the door, rendering item (1) useless as written.

- B. The original item (2) relies on the word "can," which creates a non-mandatory requirement that is subjective, and is noncompliant with the NFPA Manual of Style. Item (2) also requires unlocking of the hardware to be accomplished from the classroom side of the door—under these provisions, the corridor side of the door is locked against entry— unlocking the corridor side of the door is unnecessary for egress purposes. More importantly, item (2) should address egress since egress requires unlatching of doors, regardless of whether the corridor side of the doors are locked.
- C. In item (2) (as originally written) the phrase "the unlocking and unlatching from the classroom..." [underlining added for emphasis] implies the doors are locked against egress, which is the condition these provisions seek to prevent. Several of the modern security- classroom locks are designed to lock doors against entry by use of a key on the room side of the door, which means they can be unlocked (for entry) by a key on the egress side—they cannot comply with the latter condition of item (2). Item (3) in the revised version eliminates this concern by focusing on egress rather than unlocking the doors.
- D. In original item (4), the placement of the releasing device for egress purposes is more important than its function; releasing the locking hardware results in unlatching the door. Additionally, item (4) should address the placement of the releasing device on the classroom side of the door, which is unclear in the current language.
- E. In original item (5), the phrase, "Locks, if remotely engaged,..." could be interpreted as requiring all classroom doors to be capable of being remotely locked since the charging statement of 14.2.2.2.1 requires all conditions to be met. Additionally, in the proposed changes, the original item (5) is rendered unnecessary by the revised requirements of item (1) and item (3).
- F. Similar to original item (2), the original phrase in item (5), "Locks, if remotely engaged, shall be unlockable from the classroom..." implies remotely locked doors are locked against egress. For egress purposes, item (5)—moved to item (2) in the revised version— should require doors to be openable when doors are remotely locked; the corridor side of the doors can remain locked against entry.
- G. Original item (8) is unnecessary since new fire-rated door assemblies are required to be installed in accordance with NFPA 80, as specified in 8.3.3.1. Installation of hardware components is NOT considered to be a modification of a fire door frame or door when it complies with the listings and installation instructions of the affected components. NFPA 80 does not address modifications to door hardware components.
- H. Regarding original annex paragraph A.14.2.2.2.4 gymnasiums, auditoriums, and cafeterias are types of assembly occupancies that are found in schools, which are beyond the scope of 14.2.2.2.4's provisions.

The proposed revised section "Emergency Locking of Classroom Doors" corrects all the above flaws and provides guidance to users of the Code through the expanded annex commentary. (See the related PI for Annex A.)

Related Public Inputs for This Document

Related Input

Relationship

Public Input No. 188-NFPA 101-2018 [Section No. A.14.2.2.2.4]

Public Input No. 189-NFPA 101-2018 [New Section after A.14.2.2.2.4]

Public Input No. 190-NFPA 101-2018 [Section No. 15.2.2.2.4]

Public Input No. 193-NFPA 101-2018 [Section No. 16.2.2.2.6]

Public Input No. 195-NFPA 101-2018 [Section No. 17.2.2.2.6]

Public Input No. 216-NFPA 101-2018 [New Section after 7.2.1.6.3]

Public Input No. 217-NFPA 101-2018 [Section No. 14.2.2.2.4]

Public Input No. 218-NFPA 101-2018 [New Section after 14.2.2.2.3.3]

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