First Revision No. 6570-NFPA 101-2024 [Detail]

7.2.1.2 Door Leaf Width and Height.

Submitter Information Verification

Committee: SAF-MEA

Submittal Date: Mon Jul 15 15:32:19 EDT 2024

Committee Statement

Committee Statement: The revision changes the title of 7.2.1.2 for consistency with the action in FR-6569 (new 7.2.1.2.4).

Response Message: FR-6570-NFPA 101-2024

First Revision No. 6569-NFPA 101-2024 [New Section after 7.2.1.2.3]

7.2.1.2.4 Door Leaf Height.

7.2.1.2.4.1

Doors in the means of egress shall be not less than 80 in. (2030 mm) in clear opening height.

7.2.1.2.4.2

Projections into the required clear opening height by door closers, overhead door stops, door frame stops, power door operators, and electromagnetic door locks shall be permitted a minimum of 78 in. (1980 mm) above the floor.

Submitter Information Verification

Committee: SAF-MEA

Submittal Date: Mon Jul 15 15:18:57 EDT 2024

Committee Statement

Committee Statement: A minimum clear height for door openings, and typical door hardware which projects or encroaches into the top of the door opening is not directly addressed in NFPA 101. The last item in each section: 7.2.1.2.1.1, 7.2.1.2.1.2, 7.2.1.2.2.1, and 7.2.1.2.2.2 implies that door openings are required to have a minimum height of 6 ft. 8 in. It is common for the identified door hardware items to be installed at the top

of door openings which are 6 ft. 8 in. (80 in) tall. This revision is consistent with ADA requirements.

Response Message: FR-6569-NFPA 101-2024

Public Input No. 353-NFPA 101-2024 [New Section after 7.2.1.2.3.2]

First Revision No. 6553-NFPA 101-2024 [Section No. 7.2.1.5.7]

7.2.1.5.7* Stair Enclosure Re-entry.

Every door assembly in a stair enclosure serving more than four stories, unless permitted by 7.2.1.5.7.2, shall meet one of the following conditions:

(1) Re-entry from the stair enclosure to the interior of the building shall be provided.

(2) An automatic release shall be provided that meets all of the following:

(a) The automatic release shall unlock all stair enclosure door assemblies to allow re-entry from the stair enclosure to the interior of the building .

(b) The automatic release shall be actuated with the initiation of the building fire alarm system.

(c) The automatic release shall unlock the stair enclosure door to allow re-entry upon loss of power to the automatic release or to the electrical system controlling the automatic release.

(d) The automatic release in new installations shall unlock stair enclosure door assemblies upon receiving a signal from the fire command center, central control point, or other approved location.

(e)* Door electromechanical or electromagnetic locking hardware for new installations shall be listed in accordance with UL 294, *Access Control System Units*, or UL 1034, *Burglary-Resistant Electric Locking Mechanisms*.

(3) Selected re-entry shall be provided in accordance with 7.2.1.5.7.1.

7.2.1.5.7.1

Door assemblies on stair enclosures shall be permitted to be equipped with hardware that prevents re-entry into the interior of the building, provided that all of the following criteria are met:

(1) There shall be not less than two levels where it is possible to leave the stair enclosure to access another exit.

(2) There shall be not more than four stories intervening between stories where it is possible to leave the stair enclosure to access another exit.

(3) Re-entry shall be possible on the top story or next-to-top story served by the stair enclosure, and such story shall allow access to another exit.

(4) Door assemblies allowing re-entry shall be identified as such on the stair side of the door leaf.

(5) Door assemblies not allowing re-entry shall be provided with a sign on the stair side indicating the location of the nearest door opening, in each direction of travel, that allows re-entry or exit.

7.2.1.5.7.2

The requirements of 7.2.1.5.7, except as provided in 7.2.1.5.7.3, shall not apply to the following:

(1) Existing installations in buildings that are not high-rise buildings as permitted in Chapters 11 through 43

(2) Existing installations in high-rise buildings as permitted in Chapters 11 through 43 where the occupancy is within a building protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7

(3) Existing approved stairwell re-entry installations as permitted by Chapters 11 through 43

(4) Stair enclosures serving a building permitted to have a single exit in accordance with Chapters 11 through 43

(5) Stair enclosures in health care occupancies where otherwise provided in Chapter 18

(6) Stair enclosures in detention and correctional occupancies where otherwise provided in Chapter 22

(7) Stair enclosure discharge doors

7.2.1.5.7.3

When the provisions of 7.2.1.5.7.2 are used, signage on the stair door leaves shall be required as follows:

(1) Door assemblies allowing re-entry shall be identified as such on the stair side of the door leaf.

(2) Door assemblies not allowing re-entry shall be provided with a sign on the stair side indicating the location of the nearest door opening, in each direction of travel, that allows re-entry or exit.

Submitter Information Verification

Committee: SAF-MEA

Submittal Date: Thu Jul 11 14:58:47 EDT 2024

Committee Statement

Committee Statement: In 7.2.1.5.7, the revisions in (2)(a) are intended to more clearly communicate the intent.

Added (2)(c) is to require the door locking hardware to be “fail safe” by unlocking to permit re-entry upon power loss to the automatic release or to the electrical system controlling the release.

Added (2)(d), for new installations, requires the ability to trigger the automatic release from a central location – the fire command center, and central control point, or other approved location.

In 7.2.1.5.7.2, new Item 7 clearly communicates in this section that requirements of 7.2.1.5.7 are not applicable to stair enclosure discharge doors.

Response Message: FR-6553-NFPA 101-2024

Public Input No. 282-NFPA 101-2024 [Section No. 7.2.1.5.7]

First Revision No. 6556-NFPA 101-2024 [Section No. 7.2.1.6.2.1]

7.2.1.6.2.1*

Where permitted in Chapters 11 through 43, door assemblies in the means of egress shall be permitted to be equipped with sensor-release electrical locking system hardware provided that all of the following criteria are met:

(1) A sensor shall be provided on the egress side, arranged to electrically unlock the door leaf in the direction of egress upon detection of an approaching occupant.

(2) Door leaves shall automatically electrically unlock in the direction of egress upon loss of power to the sensor or to the part of the locking system that electrically locks the door leaves.

(3) Door locks shall be arranged to electrically unlock in the direction of egress from a manual release device or contactless release device complying with all of the following criteria:

(a) The manual release device or contactless release device shall be located on the egress side, 40 in. to 48 in. (1015 mm to 1220 mm) vertically above the floor, and within 60 in. (1525 mm) of the secured door openings, except as otherwise permitted by 7.2.1.6.2.1(3)(b).

(b) The requirement of 7.2.1.6.2.1(3)(a) to locate the manual release device within 60 in. (1525 mm) of the secured door opening shall not apply to previously approved existing installations.

(c) ~~The~~ Where provided, the manual release device shall be readily accessible and clearly identified by a sign that reads as follows: PUSH TO EXIT.

(d)* Where provided, the contactless release device shall be readily accessible and clearly identified by a sign that reads as follows: WAVE TO EXIT.

A.7.2.1.6.2.1(3)(d)

A wave-to-open sensor is considered a contactless release device.

(e) When operated, the manual release device or contactless release device shall result in direct interruption of power to the electrical lock — independent of the locking system electronics — and the lock shall remain unlocked for not less than 30 seconds.

(f) * The contactless release device referenced in 7.2.1.6.2.1(3) that is used to automatically unlock the doors in the direction of egress shall be independent of the sensor referenced in 7.2.1.6.2.1(1) and 7.2.1.6.2.1(2) .

A.7.2.1.6.2.1(3)(f)

The contactless release device needs to be independent of the sensor referenced in 7.2.1.6.2.1(1) and 7.2.1.6.2.1(2) in order to ensure both sensors will not fail simultaneously.

(4) Activation of the building fire-protective signaling system, if provided, shall automatically electrically unlock the door leaves in the direction of egress, and the door leaves shall remain electrically unlocked until the fire-protective signaling system has been manually reset.

(5) The activation of manual fire alarm boxes that activate the building fire-protective signaling system specified in 7.2.1.6.2.1(4) shall not be required to unlock the door leaves.

(6) Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically electrically unlock the door leaves in the direction of egress, and the door leaves shall remain electrically unlocked until the fire-protective signaling system has been manually reset.

(7) The egress side of sensor-release electrically locked egress doors, other than existing sensor-release electrically locked egress doors, shall be provided with emergency lighting in accordance with Section 7.9.

(8)* Door electromechanical or electromagnetic locking hardware for new installations shall be listed in accordance with UL 294, *Access Control System Units*, or UL 1034, *Burglary-Resistant Electric Locking Mechanisms*.

A.7.2.1.6.2.1

The sensor referenced in 7.2.1.6.2.1(1) and 7.2.1.6.2.1(2) used to unlock the door upon occupant approach is typically mounted above the locked door in the direction of egress. The purpose of the contactless release device referenced in 7.2.1.6.2.1(3) is to provide another option to the “PUSH TO EXIT” button that does not require physical contact and that is located within 60 in. (1525 mm) of the door to unlock the doors in the event the sensor referenced in 7.2.1.6.2.1(1) and 7.2.1.6.2.1(2) fails. Contactless release devices should be installed and operated in accordance with the manufacturer’s instructions.

Supplemental Information

File Name	Description	Approved
101_MEA_FR-6556_7.2.1.6.2.1.docx		

Submitter Information Verification

Committee: SAF-MEA

Submittal Date: Thu Jul 11 16:28:36 EDT 2024

Committee Statement

Committee Statement: The use of contactless sensors (contactless release devices) to open doors is becoming more prevalent due to Covid and other concerns about the spread of infection, especially in health care settings. Contactless sensors (e.g., “wave to open” devices) can perform similarly to manual “push to exit” devices and should therefore be permitted as a substitute for “push to exit” devices, but only if they are listed to UL 294 and only if they are configured to be independent of the (overhead motion) sensors used to unlock the door upon occupant approach such that a single failure will not result in both types of sensors failing simultaneously.

Note that the term 'contactless sensor' has been revised to 'contactless release device' to avoid confusion with the required sensor located above the door and to be consistent with the term 'manual release device'.

Response Message: FR-6556-NFPA 101-2024

Public Input No. 5-NFPA 101-2024 [Section No. 7.2.1.6.2.1]

Public Input No. 6-NFPA 101-2024 [Section No. A.7.2.1.6.2]

Public Input No. 75-NFPA 101-2024 [Section No. 7.2.1.6.2.1]

Public Input No. 76-NFPA 101-2024 [New Section after A.7.2.1.6.2]

First Revision No. 6566-NFPA 101-2024 [Section No. 7.2.1.6.3]

7.2.1.6.3* Door Hardware Release of Electrically Locked Egress Door Assemblies.

A.7.2.1.6.3

These locking systems cause the electrical lock to be released by the normal operation of the door-mounted unlocking/unlatching hardware. If the door is equipped with a mechanical lock in addition to the electrical lock, the operation of the releasing door hardware would also mechanically unlock the door assembly in the direction of egress.

One example of this type of locking system is panic hardware that has an internal switch connected to an electromagnetic lock that is positioned at the top of the door opening. The normal operation of unlocking/unlatching the door mechanically with the panic hardware also activates the internal switch which directly interrupts the power supplied to the electromagnetic door lock, allowing the door to be opened for unobstructed and immediate egress.

7.2.1.6.3.1

Door assemblies in the means of egress shall be permitted to be equipped with approved electrical locking systems released by the operation of door hardware provided that all of the following conditions are met:

(1) The hardware for egress-side occupant release of the electrical lock is affixed to the door leaf.

(2) The hardware has an obvious method of operation that is readily operated in the direction of egress under all lighting conditions.

(3) The hardware is capable of being operated with one hand in the direction of egress.

(4) Operation of the hardware directly and immediately interrupts the power supply to the electric lock to unlock the door assembly in the direction of egress.

(5)* Loss of power to the listed releasing hardware automatically unlocks the door assembly in the direction of egress.

(6)* Door electromechanical or electromagnetic locking hardware for new installations is listed in accordance with UL 294, *Access Control System Units*, or UL 1034, *Burglary-Resistant Electric Locking Mechanisms*.

7.2.1.6.3.2

The provisions of 7.2.1.6.1 for delayed-egress electrical locking systems and the provisions of 7.2.1.6.2 for sensor-release of electrical locking systems shall not apply to door assemblies with door hardware release of electrically locked egress doors.

Submitter Information Verification

Committee: SAF-MEA

Submittal Date: Fri Jul 12 12:09:06 EDT 2024

Committee Statement

Committee The revision provides explanatory information about door hardware release of

Statement:	electrically locked egress door assemblies.
Response Message:	FR-6566-NFPA 101-2024

Public Input No. 312-NFPA 101-2024 [New Section after A.7.2.1.6.2.1(8)]

First Revision No. 6558-NFPA 101-2024 [Section No. 7.2.1.7.3]

7.2.1.7.3* Fire Exit Hardware.

~~Only approved fire exit hardware shall be used on fire-protection rated door assemblies. New panic hardware and new fire exit hardware shall comply with UL 305, *Panic Hardware* , and ANSI/BHMA A156.3, *Exit Devices* .~~

7.2.1.7.3.1

Only approved fire exit hardware shall be used on fire-protection-rated or fire-resistance-rated door assemblies.

7.2.1.7.3.2

New panic hardware and new fire exit hardware shall comply with UL 305, *Panic Hardware*, and ANSI/BHMA A156.3, *Exit Devices*.

Submitter Information Verification

Committee: SAF-MEA

Submittal Date: Thu Jul 11 17:27:42 EDT 2024

Committee Statement

Committee Statement: Fire exit hardware devices can be (and are) used on both fire protection-rated and fire resistance-rated side-hinged and pivoted swinging doors. As currently written, 7.2.1.7.3 seems to exclude using fire exit hardware on fire resistance-rated doors.

Response Message: FR-6558-NFPA 101-2024

Public Input No. 11-NFPA 101-2024 [Section No. 7.2.1.7.3]

First Revision No. 6564-NFPA 101-2024 [Section No. 7.2.1.10]

7.2.1.10 Revolving Door Assemblies.

7.2.1.10.1

Revolving door assemblies, whether used or not used in the means of egress, shall comply with all of the following:

(1) New revolving doors shall comply with ANSI/BHMA A156.27, *Power and Manual Operated Revolving Pedestrian Doors*, and shall be installed in accordance with the manufacturer's installation instructions.

(2) Revolving door wings shall be capable of book-fold or breakout for egress in accordance with ANSI/BHMA A156.27, unless they are existing revolving doors approved by the authority having jurisdiction.

(3) When revolving door wings are collapsed into the book-fold position, the parallel egress paths formed shall provide an aggregate width of 36 in. (915 mm), unless they are approved existing revolving door assemblies.

(4) Revolving door assemblies shall not be used within 10 ft (3050 mm) of the foot or the top of stairs or escalators.

(5) A dispersal area acceptable to the authority having jurisdiction shall be located between stairs or escalators and the revolving door assembly.

(6) The revolutions per minute (rpm) of door wings shall not exceed the following:

(a) The values in Table 7.2.1.10.1 for existing revolving doors~~.~~

(b) The values in ANSI/BHMA A156.27 for new revolving doors~~.~~

(7) Each revolving door assembly shall have a conforming ~~side-hinged swinging~~ door assembly, other than a revolving door, in the same wall as the revolving door within 10 ft (3050 mm) of the revolving door, unless one of the following conditions applies:

(a) Revolving door assemblies shall be permitted without adjacent ~~swinging~~ conforming door assemblies, as required by 7.2.1.10.1(7), in street floor elevator lobbies, provided that no stairways or door openings from other parts of the building discharge through the lobby and the lobby has no occupancy other than as a means of travel between the elevators and street.

(b) The requirement of 7.2.1.10.1(7) shall not apply to existing revolving door assemblies where the number of revolving door assemblies does not exceed the number of swinging door assemblies within 20 ft (6100 mm) of the revolving door assembly.

Table 7.2.1.10.1 Existing Revolving Door Assembly Maximum Speed

Inside Diameter			Manual Speed Control
ft/in.	mm	Power-Driven Speed Control (rpm)	(rpm)
6 ft 6 in.	1980	11	12
7 ft	2135	10	11
7 ft 6 in.	2285	9	11
8 ft	2440	9	10
8 ft 6 in.	2590	8	9
9 ft	2745	8	9
9 ft 6 in.	2895	7	8
10 ft	3050	7	8

7.2.1.10.2

Where permitted in Chapters 11 through 43, revolving door assemblies shall be permitted as a component in a means of egress, provided that all of the following criteria are met:

(1) Revolving door openings shall not be given credit for more than 50 percent of the required egress capacity.

(2) Each revolving door opening shall not be credited with more than a 50-person capacity or, if of not less than a 9 ft (2745 mm) diameter, a revolving door assembly shall be permitted egress capacity based on the clear opening width provided when collapsed into a book-fold position.

(3) Revolving door wings shall be capable of being collapsed into a book-fold position when a force not exceeding 130 lbf (580 N) is applied to the wings within 3 in. (75 mm) of the outer edge.

7.2.1.10.3

Revolving door assemblies not used as a component of a means of egress shall have a collapsing force not exceeding 180 lbf (800 N) applied at a point 3 in. (75 mm) from the outer edge of the outer wing stile and 40 in. (1015 mm) above the floor.

7.2.1.10.4

The requirement of 7.2.1.10.3 shall not apply to revolving door assemblies, provided that the collapsing force is reduced to a force not to exceed 130 lbf (580 N) under all of the following conditions:

(1) Power failure, or removal of power to the device holding the wings in position

(2) Actuation of the automatic sprinkler system, where such a system is provided

(3) Actuation of a smoke detection system that is installed to provide coverage in all areas within the building that are within 75 ft (23 m) of the revolving door assemblies

(4) Actuation of a clearly identified manual control switch in an approved location that reduces the holding force to a force not to exceed 130 lbf (580 N)

Supplemental Information

File Name	Description	Approved
101_MEA_FR-6564_7.2.1.10.docx		

Submitter Information Verification

Committee: SAF-MEA

Submittal Date: Fri Jul 12 11:32:56 EDT 2024

Committee Statement

Committee Statement: Any door that complies with Ch. 7 should be able to be used next to a revolving door.

Response Message: FR-6564-NFPA 101-2024

Public Input No. 276-NFPA 101-2024 [Section No. 7.2.1.10]

First Revision No. 6560-NFPA 101-2024 [Section No. 7.2.2.4.5.5]

7.2.2.4.5.5

New handrails shall be installed to provide a clearance of not less than 2¼ in. (57 mm) between the handrail and ~~the wall to which it is fastened~~ any wall, guard, or other surface .

Submitter Information Verification

Committee: SAF-MEA

Submittal Date: Fri Jul 12 09:08:15 EDT 2024

Committee Statement

Committee Statement: The current code language only requires the 2.25 inch clearance from a wall, but handrails are typically only mounted to walls on the outer side of the stair treads. The inside handrails are typically mounted to guards, top railings, newel posts, or other non-wall surfaces which would not require this clearance. The updated language clarifies that the 2.25 inch clearance requirement applies to all handrail mount locations, not just on walls.

Response Message: FR-6560-NFPA 101-2024

Public Input No. 78-NFPA 101-2024 [Section No. 7.2.2.4.5.5]

First Revision No. 6561-NFPA 101-2024 [Section No. 7.2.2.4.6.3]

7.2.2.4.6.3*

Open guards, other than approved existing open guards, shall have intermediate rails or an ornamental pattern such that a sphere 4 in. (100 mm) in diameter is not able to pass through any opening up to a height of 34 in. (865 mm), ~~and the following also shall apply~~ except as permitted by following :

(1) The triangular openings formed by the riser, tread, and bottom element of a guardrail at the open side of a stair shall be of such size that a sphere 6 in. (150 mm) in diameter is not able to pass through the triangular opening.

(2) In detention and correctional occupancies, in industrial occupancies, and in storage occupancies, ~~the clear distance between intermediate rails, measured at right angles to the rails, shall not exceed~~ guards shall not have openings that allow the passage of a sphere 21 in. (535 mm) in diameter .

Submitter Information Verification

Committee: SAF-MEA

Submittal Date: Fri Jul 12 09:21:12 EDT 2024

Committee Statement

Committee Statement: The term “and the following shall apply” contained at the end of 7.2.2.4.6.3 has caused some AHJs to interpret that the 4-inch sphere rule must be applied regardless of the 21-inch allowance permitted in 7.2.2.4.6.3(2).

Response Message: FR-6561-NFPA 101-2024

Public Input No. 60-NFPA 101-2024 [Section No. 7.2.2.4.6.3]

Public Input No. 102-NFPA 101-2024 [Section No. 7.2.2.4.6.3]

First Revision No. 6562-NFPA 101-2024 [Section No. 7.4.2]

7.4.2 Spaces About Electrical Equipment.

~~**7.4.2.1** 1000 Volts, Nominal, or Less.~~

7.4.2.1 Number of Means of Egress.

The minimum number of means of egress for working space about electrical equipment, other than existing electrical equipment, shall be in accordance with ~~110.26(C) of~~ *NFPA 70*.

7.4.2.2 Door Unlatching and Direction of Door Swing.

The method of door unlatching and direction of door swing for working space about electrical equipment, other than existing electrical equipment, shall be in accordance with ~~110.26(C)(3) of~~ *NFPA 70*.

~~**7.4.2.2** Over 1000 Volts, Nominal.~~

~~**7.4.2.2.1** Number of Means of Egress.~~

~~The minimum number of means of egress for working space about electrical equipment, other than existing electrical equipment, shall be in accordance with 110.33(A) of *NFPA 70* .~~

~~**7.4.2.2.2** Door Unlatching and Direction of Door Swing.~~

~~The method of door unlatching and direction of door swing for working space about electrical equipment, other than existing electrical equipment, shall be in accordance with 110.33(A)(3) of *NFPA 70* .~~

Supplemental Information

File Name	Description	Approved
101_MEA_FR-6562_7.4.2.docx		

Submitter Information Verification

Committee: SAF-MEA

Submittal Date: Fri Jul 12 10:07:30 EDT 2024

Committee Statement

Committee Statement: The revision deletes references to specific articles of NFPA 70 to preclude the need to maintain them over the life of the code. It was noted that in some jurisdictions, newer editions of the NEC might be enforced, so removing the specific references will reduce potential confusion.

Response Message: FR-6562-NFPA 101-2024

First Revision No. 6563-NFPA 101-2024 [Section No. 7.15.1.2]

7.15.1.2

The provisions of Section 7.15 shall not apply where the limited or supervised use of elevators for evacuation is part of a formal or informal evacuation strategy, including the relocation or evacuation of ~~patients in health care occupancies~~ occupants with disabilities and the relocation or evacuation of ~~occupants with disabilities in other~~ patients in health care occupancies.

Submitter Information Verification

Committee: SAF-MEA

Submittal Date: Fri Jul 12 10:32:53 EDT 2024

Committee Statement

Committee Statement: The revisions are intended to clarify the requirement.

Response Message: FR-6563-NFPA 101-2024

First Revision No. 6565-NFPA 101-2024 [Section No. A.7.1.3.2.1(9)(d)]

A.7.1.3.2.1(9)(c)

This provision will allow security cameras, public address systems, emergency communication systems, telephone repeaters and similar life safety devices in the exit enclosure, and wiring and similar pathways for such devices, to penetrate the fire barrier serving the exit enclosure. It is the intent of this provision to prevent the exit enclosure from being used as a vertical chase for building services.

Submitter Information Verification

Committee: SAF-MEA

Submittal Date: Fri Jul 12 11:52:25 EDT 2024

Committee Statement

Committee Statement: The revision ties the annex note to the correct item.

Response Message: FR-6565-NFPA 101-2024

Public Input No. 40-NFPA 101-2024 [Section No. A.7.1.3.2.1(9)(d)]