Decoded

Delayed Egress vs. Controlled Egress

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Photo courtesy of Lori Greene

Prior to the 2009 editions of the International Building Code (IBC) and NFPA 101 – *The Life Safety Code*, health care facilities with a need to contain patients for their safety did not have a lot of options. Although there was some leeway with locking requirements for psychiatric facilities, security needs in other types of health care units, such as memory care, maternity, pediatrics, and emergency rooms were not specifically addressed by the model codes.

For these areas, delayed egress locks or alarms could be installed, but they weren't always enough to deter patients or visitors from using the doors. This put the patients at risk of elopement, or in the case of infants and children, possible abduction.

The 2009 edition of the IBC added a section called *Special Locking Arrangements in Group I-2* (1008.1.9.6), which described a fail-safe lock that would be released in an emergency to allow egress, but the code section used the terminology "delayed egress lock" even though the code did not require the product that is commonly known by that name in the door and hardware/security industry. The 2012 edition of the IBC corrected the terminology by changing "delayed egress lock" to "special egress lock" (1008.1.9.6) which helped to clarify that the intent of this section was not to require a delayed egress lock which would release after 15 seconds.

In the 2015 edition of the IBC, the terminology was changed once again (hopefully for the last time) to "controlled egress lock" (1010.1.9.6). The 2015 edition also expanded this section to apply to Group I-1 (alcohol and drug centers, assisted living facilities, congregate care facilities, group homes, halfway houses, residential board and care facilities, and social rehabilitation facilities) as well as Group I-2 (foster care facilities, detoxification facilities, hospitals, nursing homes, and psychiatric hospitals). Within these facilities, the IBC allows controlled egress locks to be used where the patients' clinical needs require their containment and all of the other requirements are met.

The changes over these three editions of the IBC have caused some confusion regarding delayed egress vs. controlled egress. While a controlled egress device allows the egress doors serving certain areas to remain locked until they are unlocked by staff, the automatic fire protection system, or a power failure, delayed egress locks must automatically unlock 15 seconds after a building occupant actuates the device by pressing on the touchpad or the door, along with other emergency egress requirements. The section of the IBC addressing controlled egress in certain areas of a health care facility does not require the door to release automatically after a building occupant attempts to exit by pushing or pulling on the door or hardware.

The IBC does not specifically state which types of health care units can be equipped with controlled egress locks, but the 2015 IBC Commentary states: *"The areas where controlled egress may be permitted include psychiatric areas, dementia units, Alzheimer's units, maternity units, and newborn nurseries. Code officials may also permit these provisions in other areas such as emergency departments or pediatric areas where the safety and/or security of the occupants are of primary concern."* This helps to establish the intent of section 1010.1.9.6, but the Authority Having Jurisdiction (AHJ) may provide additional guidance.

Beginning with the 2009 edition, NFPA 101 includes similar controlled egress requirements in Chapter 18 – *New Health Care Occupancies*, and Chapter 19 – *Existing Health Care Occupancies*. Chapter 7 of NFPA 101 also includes a section addressing delayed egress. There are variations between the model codes with regard to these two applications, and the table on the next page compares each of the criteria for both delayed egress and controlled egress systems.

If these requirements are carefully followed and the appropriate system is installed as allowed by the code adopted in the project's jurisdiction, patient security will be enhanced without jeopardizing life safety. ■

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	2015 International Building Code		2015 NFPA 101 - The Life Safety Code	
	Delayed Egress	Controlled Egress	Delayed Egress	Controlled Egress
Code Section	1010.1.9.7 - Delayed Egress	1010.1.9.6 Controlled egress doors in Groups I-1 and I-2	7.2.1.6.1 - Delayed Egress Locking Systems	"18.2.2.2.5 (New Health Care) 19.2.2.2.5 (Existing Health Care) Also refer to 20.1.3.6 (New Ambulatory Health Care) and 21.1.3.6 (Existing Ambulatory Health Care)"
Use Groups Where Application is Allowed	Any Use Group except Assembly, Educational, or High Hazard	Only allowed in Use Groups I-1 (alcohol and drug centers, assisted living facilities, congregate care facilities, group homes, halfway houses, residential board and care facilities, social rehabilitation facilities) and I-2 (foster care facilities, detoxification facilities, hospitals, nursing homes, psychiatric hospitals) - where the clinical needs of persons receiving care require their containment (examples in the IBC Commentary include psychiatric areas, dementia units, Alzheimer's units, maternity units, newborn nurseries, and possibly emergency departments or pediatric areas depending on AHJ preference). Prior to the 2015 edition, this section was limited to Use Group I-2.	"Doors serving low- and ordinary-hazard contents in the following new and existing occupancies: Assembly - permitted except on main entrance/exit doors; exception: in airport terminals, delayed egress locks are not permitted on doors in the egress path from the aircraft through the airport loading walkway into the airport terminal building Educational, Day-Care, Health Care, Ambulatory Health Care, Hotels and Dormitories, Apartment Buildings, Mercantile, Business, Industrial, Storage - permitted with no restrictions Lodging or Rooming Houses - limited to one delayed egress device per escape path Residential Board and Care - limited to exterior doors only	New and Existing Health Care Occupancies - where patient special needs require specialized protective measures for their safety (examples in Annex A include pediatric units, maternity units, and emergency departments), all of the requirements below must be met including automatic release. Where the clinical needs of patients require specialized security measures (examples in Annex A include psychiatric, Alzheimer's and dementia units where patients are housed in specialized units) or where patients pose a security threat (examples in Annex A include forensic and detention units), staff must be able to readily unlock doors at all times, but automatic release is not required. Also refer to 20.1.3.6 (New Ambulatory Health Care) and 21.1.3.6 (Existing Ambulatory Health Care).
Required Fire Protection System	Equipped throughout with an automatic sprinkler system or approved automatic smoke or heat detection system.	Equipped throughout with an automatic sprinkler system or approved automatic smoke or heat detection system.	Protected throughout by an automatic fire detection system or an automatic sprinkler system.	Protected throughout with a supervised automatic sprinkler system, AND 1 of the following: a) complete smoke detection system throughout the locked space, OR b) ability to remotely unlock doors from an approved location within the locked space that is constantly attended.
Actuation Time	Up to 3 seconds (was 1 second prior to the 2015 IBC) when force of 15 pounds is applied.	Release is not required to be actuated by an occupant attempting to operate the door.	Up to 3 seconds when a force of 15 pounds is applied.	Release is not required to be actuated by an occupant attempting to operate the door.
Automatic Release Delay	15-second delay before lock releases to allow egress (30 seconds with AHJ approval).	Lock is not required to release automatically after actuating the door hardware.	15-second delay before lock releases to allow egress (30 seconds with AHJ approval).	Lock is not required to release automatically after actuating the door hardware.
Rearming After Actuation	Manual rearm required.	Not addressed in the 2015 IBC.	Manual rearm required.	Not addressed by NFPA 101-2015.
Audible Alarm	Audible alarm required.	No audible alarm required.	Audible alarm required.	No audible alarm required.
Signage	Required Signage: "Push [pull] until alarm sounds. Door can be opened in 15 [30] seconds." Signage must be on the door above and within 12 inches of the door exit hardware. New in 2015: Signage must comply with A117.1 requirements. In Group I occupancies, AHJ may allow signage to be omitted for certain types of treatment areas.	No signage required.	Required Signage: "Push [pull] until alarm sounds. Door can be opened in 15 [30] seconds." Signage must be readily visible, durable, with letters not less than 1-inch high and 1/8-inch stroke with a contrasting background, located on the door adjacent to the release device on the egress side.	No signage required.
Action on Actuation of Fire Alarm / Sprinkler System	Unlock for immediate egress (no delay).	Unlock for immediate egress (not required for psychiatric treatment areas where restraint or containment is required because of patients' clinical needs, and - new in 2015 - not required when a listed child abduction system is used in an I-2 hospital nursery or obstetric area).	Unlock (no delay) in the direction of egress upon actuation of sprinkler system, or not more than one heat detector, or not more than two smoke detectors.	Unlock for immediate egress upon activation of the smoke detection system, waterflow in the automatic sprinkler system (not required where patients require specialized security measures or where patients pose a security threat).
Action on Power Failure	Unlock for immediate egress (no delay).	Unlock for immediate egress (not required for psychiatric treatment areas where restraint or containment is required because of patients' clinical needs, and - new in 2015 - not required when a listed child abduction system is used in an I-2 hospital nursery or obstetric area).	Unlock for immediate egress (no delay).	Unlock for immediate egress (not required where patients require specialized security measures or where patients pose a security threat).
Remote Release	Capable of being deactivated at the fire command center and other approved locations.	Capable of being unlocked by a switch which directly breaks power to the lock, located at the fire command center, nursing station, or other approved location (not required for psychiatric treatment areas where restraint or containment is required because of patients' clinical needs, and - new in 2015 - not required when a listed child abduction system is used in an I-2 hospital nursery or obstetric area).	Not addressed in NFPA 101-2015.	Remote control of locks is one option for rapid removal of occupants (see below for additional options). For new occupancies, remote control must be from within the locked area.
Staff Release	Not required.	Procedures for unlocking doors must be part of emergency plan. All clinical staff must carry keys, codes, or other credentials to unlock doors.	Not required.	Staff can readily unlock doors at all times. Rapid removal of occupants facilitated by a) remote control of locks (for new occupancies remote control must be from within the locked area), b) keys carried by staff at all times, or c) other reliable means always available to staff.
Emergency Lighting	Required on the egress side of the door.	Must be provided at the door.	Required on the egress side of the door.	No requirement for emergency lighting referenced in this section.
Maximum Quantity of Devices	One delayed egress lock per egress path. New in 2015: I-2 or I-3 occupancies may have 2 doors with delayed egress locks in one egress path, with a maximum combined delay of 30 seconds.	Occupant must not be required to pass through more than one controlled egress lock before entering an exit (not limited for psychiatric treatment areas where restraint or containment is required because of patients' clinical needs, and - new in 2015 - not limited when a listed child abduction system is used in an I-2 hospital nursery or obstetric area).	Refer to occupancy chapter limitations above.	One locking device per door, maximum, for new occupancies. AHJ may approve more than one lock per door for existing occupancies.
Required Listings for Locking System	UL 294 - Standard for Access Control System Units	UL 294 - Standard for Access Control System Units	No specific listing referenced in this section.	No specific listing referenced in this section.
Type of Locking Hardware Typically Used	Approved, listed, delayed egress panic hardware or fire exit hardware, delayed egress mag-lock, or other electrified lock with listed delayed egress controller.	Controlled egress panic hardware or fire exit hardware, electromagnetic lock, or other fail safe electrified lock.	Approved, listed, delayed egress panic hardware or fire exit hardware, delayed egress mag-lock, or other electrified lock with listed delayed egress controller.	"Controlled egress panic hardware or fire exit hardware, electromagnetic lock, or other fail safe electrified lock. Note: NFPA 101-2015 allows these doors to be disguised with murals in existing health care occupancies if certain criteria are met. Refer to section 19.2.2.2.7."