

Adhoc Health Care MOE Study Group
Study Group Report of Adhoc Meeting July 12&13, 2012
Possible Public Comments
E25, E69, E74, G71, G77/G80

Means of Egress Study Group

E25 (D) Automatic controls for general means of egress lighting

1006.1.1 (IFC [B] 1006.1.1) Occupancy sensors. Occupancy sensors shall be permitted to activate the required illumination for the means of egress provided they meet all of the following conditions:

1. The occupancy sensors operate as fail safe devices when the occupancy sensor fails;
2. Where the occupancy sensor is activated by an occupant the area served is illuminated for a minimum duration of 15 minutes;
3. The occupancy sensor operates as a fail safe device in the event of a power supply failure to the emergency lighting system required by Section 1006.3.
4. The means of egress is not required to have illumination to charge luminous egress path markings in accordance with Section 1024.5

Public comment is Request As Modified.

Modify the proposal as follows:

1006.1 (IFC [B] 1006.1) Illumination required. The *means of egress*, including the *exit discharge*, shall be illuminated at all times the building space served by the *means of egress* is occupied.

Exceptions:

1. Occupancies in Group U.
2. *Aisle accessways* in Group A.
3. *Dwelling units* and *sleeping units* in Groups R-1, R-2 and R-3.
4. *Sleeping units* of Group I occupancies.
5. Portions of the *means of egress* provided with automatic lighting controls installed in accordance with Section 1006.1.1.

1006.1.1 (IFC [B] 1006.1.1) Occupancy sensors Automatic lighting controls. Occupancy sensors Automatic lighting controls shall be permitted to activate the required illumination for the means of egress provided they meet all of the following conditions:

1. The controls shall be configured to provide the required illumination within each room or space while occupied.
2. Where provided, occupant sensors shall activate the required illumination ~~the occupancy sensor is activated by an occupant the area served is illuminated~~ for a minimum duration of 15 minutes.
- ~~3.~~ 4-3. Where the automatic lighting controls fail, the controls shall fail in the on or operating state. The occupancy sensors operate as fail safe devices when the occupancy sensor fails;
4. Occupant sensors shall not extinguish lighting. The means of egress is not required to have illumination to charge luminous egress path markings in accordance with Section 1024.5
- ~~3.~~ 5. All designated emergency lighting luminaries in the means of egress path shall operate in the event of emergency system activation providing light levels in accordance with Section 1006.3. The occupancy sensor operates as a fail safe device in the event of a power supply failure to the emergency lighting system required by Section 1006.3.

6. The automatic lighting controls shall be tested as a component of the emergency lighting equipment in accordance with the IFC Section 604.5.

Reason: The revised proposal responded to the committee's comments "However, there is a concern that there are currently no standards for testing or listing of these controls – specifically looking for a fail-safe device. These automatic controls should be limited to general means of egress lighting and not relied on for emergency means of egress lighting." The testing section was added in point 6 and item 5 refines how the emergency means of egress lighting if used. We refined other areas of the proposal to indicate the need to fail on and not interfere with any of the luminous marking system needs.

Today's practice:

	Emergency fixture options		
	Battery powered wall fixtures	Battery back-up ceiling fixtures	Designated fixtures connected to emergency panels
Normal power ON	OFF as standard feature	May be turned OFF when space unoccupied, maybe left ON depending on design	Mostly ON 24/7
Normal power OFF	ON as standard feature	ON as standard feature	ON when transfer switch connects to emergency generator

Change we would like to see:

	Emergency fixture options		
	Battery powered wall fixtures	Battery back-up ceiling fixtures	Designated fixtures connected to emergency panels
Normal power ON	OFF as standard feature	Turned OFF when space unoccupied	Turned OFF when space unoccupied
Normal power OFF	ON as standard feature	ON as standard feature	ON when transfer switch connects to emergency generator

E69-12(D) Exception for child abduction locks

1008.1.9.6 (IFC [B] 1008.1.9.6) Special locking arrangements in Group I-2. Approved, special egress locks shall be permitted in a Group I-2 occupancy where the clinical needs of persons receiving care require such locking. Special egress locks shall be permitted in such occupancies where the building is 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 are installed and operate in accordance with Items 1 through 7 below.

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, 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 Exceptions:

1. 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.

2. Items 1 through 4 shall not apply to doors to areas where a listed egress control system is utilized to reduce the risk of child abduction.

Public comment is Request As Modified.

Modify the proposal as follows:

1008.1.9.6 (IFC [B] 1008.1.9.6) Special locking arrangements in Group I-2. Approved, special egress locks shall be permitted in a Group I-2 occupancy where the clinical needs of persons receiving care require such locking. Special egress locks shall be permitted in such occupancies where the building is 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 are installed and operate in accordance with Items 1 through 7 below.

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, 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.

Exceptions:

1. 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.
2. Items 1 through 4 shall not apply to doors to areas where a listed egress control system is utilized to reduce the risk of child abduction from nursery and obstetric areas of a Group I-2 hospital.

Reason: This issue of protection against child abduction is an important one for hospitals. However, we also understand the code development committee's concern that the proposed exception could be read to allow for an entire hospital to be locked down. The modification will limit these systems to the high risk areas of the nursery and obstetric areas only.

E74-12(D) signage at delayed egress locks

1008.1.9.7 (IFC [B] 1008.1.9.7) Delayed egress locks. *Approved, listed,* delayed egress locks locking systems, 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 rearming shall be by manual means only.
Exception: Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.
5. A sign shall be provided on the door located above and within 12 inches (305mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 (30) SECONDS.
Exception: Where approved, the installation of a sign is not required when it interferes with the safety of the residents in Group I occupancies.
6. Emergency lighting shall be provided at the door.

Public comment is Request As Modified.

Modify the proposal as follows:

IBC 1008.1.9.7 (IFC [B] 1008.1.9.7) Delayed egress locks. *Approved, listed, delayed egress locking systems, 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 rearming shall be by manual means only.

Exception: Where approved, a delay of not more than 30 seconds is permitted on a delayed egress door.

5. A sign shall be provided on the door located above and within 12 inches (305mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 (30) SECONDS.

Exception: Where approved, in Group I occupancies, the installation of a sign is not required when the instructions compromise the safety of the residents in Group I occupancies where persons who because of clinical needs require restraint or containment as part of the function of the treatment area.

6. Emergency lighting shall be provided at the door.

Reason: When housing dementia patient, especially first stage Alzheimer patients, reading is often still in their capabilities. They are ambulatory, often in good physical condition, but not capable of self preservation. Their greatest dangers are elopement into traffic, ice and snow, darkness and wildlife. The intent of the proposed exception is to address this important safety issue. Families are relying on these facilities to keep their loved ones safe.

The MOE committee had a concern that the instruction signage at delayed egress locks was needed for visitors. In all Group I facilities, staff is trained to assist in evacuation of all occupants, including residents and visitors. In addition, delayed egress systems already include connection to both the sprinkler system and the fire detection system, both required under this section. In the event of a fire activation of the fire alarm or sprinkler system or power failure, all delayed egress doors unlock from the inside and allow free unobstructed egress. Dementia units are staffed to assist residents and visitors in fire and weather emergencies with practiced emergency plans. Having a direct signage at the door adds to the likelihood that there will be elopements. All doors with delayed egress systems will still be required to have exit signs.

Where facilities that are faced with a choice between ~~applying for~~ delayed egress with escape instructions at each door, or going to a full lockdown such as controlled egress, the facility will always pick pursuit of the latter due to concerns for patient safety.

Several of the locking options do allow locking occupants in where there are staff releases the locks. This option would allow a facility to address patient safety without totally relying on staff to open exit doors in a fire event.

G71-12 Part I (AS) change or terminology

Public comment requests Disapproval.

407.4.2 ~~Travel distance~~ Distance of travel. The ~~travel distance of travel~~ between any point in a Group I-2 occupancy sleeping room and an *exit access* door in that room shall be not greater than 50 feet (15 240 mm).

407.4.3.3 ~~One intervening room~~ One intervening room. For rooms other than sleeping rooms located within a *care suite*, *exit access* travel from the *care suite* shall be permitted through one intervening room where the ~~travel distance of travel~~ to the *exit access* door from the *care suite* is not greater than 100 feet (30 480 mm).

407.4.3.4 ~~Two intervening rooms~~ Two intervening rooms. For rooms other than sleeping rooms located within a *care suite*, *exit access* travel within the *care suite* shall be permitted through two intervening rooms where the ~~travel distance of travel~~ to the *exit access* door from the *care suite* is not greater than 50 feet (15 240 mm).

407.4.3.5.3 ~~Travel distance~~ Distance of travel. The ~~travel distance of travel~~ between any point in a *care suite* containing sleeping rooms and an *exit access* door from that *care suite* shall be not greater than 100 feet (30 480 mm).

407.5 ~~Smoke barriers~~ Smoke barriers. *Smoke barriers* shall be provided to subdivide every *story* used by persons receiving care, treatment or sleeping and to divide other *stories* with an *occupant load* of 50 or more persons, into no fewer than two *smoke compartments*. Such *stories* shall be divided into *smoke compartments* with an area of not more than 22,500 square feet (2092 m²) and the ~~travel distance of travel~~ from any point in a *smoke compartment* to a *smoke barrier* door shall be not greater than 200 feet (60 960 mm). The *smoke barrier* shall be in accordance with Section 709.

408.6.1 ~~Smoke compartments~~ Smoke compartments. The number of residents in any *smoke compartment* shall be not more than 200. The ~~travel distance of travel~~ to a door in a *smoke barrier* from any room door required as *exit access* shall be not greater than 150 feet (45 720 mm). The ~~travel distance of travel~~ to a door in a *smoke barrier* from any point in a room shall be not greater than 200 feet (60 960 mm).

408.8.1 ~~Occupancy Conditions 3 and 4~~ Occupancy Conditions 3 and 4. Each sleeping area in Occupancy Conditions 3 and 4 shall be separated from the adjacent common spaces by a smoke-tight partition where the ~~travel distance of travel~~ from the sleeping area through the common space to the *corridor* exceeds 50 feet (15 240 mm).

422.3 ~~Smoke compartments~~ Smoke compartments. Where the aggregate area of one or more *ambulatory care facilities* is greater than 10,000 square feet (929 m²) on one *story*, the *story* shall be provided with a *smoke barrier* to subdivide the *story* into no fewer than two *smoke compartments*. The area of any one such *smoke compartment* shall be not greater than 22,500 square feet (2092 m²). The ~~travel distance of travel~~ from any point in a *smoke compartment* to a *smoke barrier* door shall be not greater than 200 feet (60 960 mm). The *smoke barrier* shall be installed in accordance with Section 709 with the exception that *smoke barriers* shall be continuous from outside wall to an outside wall, a floor to a floor, or from a *smoke barrier* to a *smoke barrier* or a combination thereof.

Reason: Code change G70 has rewritten this Section 407 for clarity, however, the sections continue to deal with exit access travel distance to exit a room or suite, not distance to a specific object (as indicated in Part II and III of G71). The same holds true for the smoke compartments in Group I-3 and ambulatory care facilities (Sections 408 and 422). Therefore, the Adhoc Health Care committee is asking for disapproval of Part 1 only.

G77(AS) & G80(AS)

G80-12 (AS)

407.11 Electrical systems. In Group I-2 occupancies, the essential electrical power for electrical components, equipment and systems shall be designed and constructed in accordance with the provisions of Chapter 27 and NFPA 99.

IFC 604.2.15 (IBC [F] 2702.2.16) Group I-2 Occupancies. Essential electrical power for Group I-2 occupancies shall be in accordance with Section 407.11.

Public comment request AM:

407.11 Electrical systems. In Group I-2 occupancies, the essential electrical ~~power~~ system for electrical components, equipment and systems shall be designed and constructed in accordance with the provisions of Chapter 27, ~~and NFPA 99~~ and NFPA 101. [Fuel supplies for emergency power systems shall be provided in accordance with NFPA 99 and NFPA 110.](#)

[F] 2702.2.16 Group I -2 Occupancies. Essential electrical ~~power~~ systems for Group I-2 occupancies shall be in accordance with Section 407.11.

Reason: The intent of the modification would be to revise the term "essential electrical power" to use the NFPA defined term:

Essential Electrical Systems is defined by NFPA 99-2012, as follows:

3.3.48 Essential Electrical System. A system comprised of alternate sources of power and all connected distribution systems and ancillary equipment, designed to ensure continuity of electrical power to designated areas and functions of a health care facility during disruption of normal power sources, and also to minimize disruption within the internal wiring system.

Appendix commentary: **A.3.3.48 Essential Electrical System.** The essential electrical system can be comprised of three branches: life safety branch, critical branch, and equipment branch.

In addition, the intent is to coordinate this proposal with G77.

(Adhoc Health Care committee to discuss alternatives and pick one.)

Option 1 - The G80 change refers back to chapter 27 – which has the link to NFPA 110 for the review of the system. G80 includes a direct reference to NFPA 99, which would allow the use of the risk based approach supported by the committee. I believe our change covers the spirit of G77, with the exception of the 96 hour rule.

Option 2 - Adding a reference to NFPA 101 will address the idea of duration.

G77 – 12(AS)

407.9 Emergency power. A minimum of 96-hours of emergency power shall be provided to the essential electrical systems in Group I-2 hospitals and nursing homes. Emergency power shall be connected to the life safety branch and the critical branch defined in NFPA 70, and further defined as emergency power supply systems in Chapter 4 of NFPA 110.

IFC 604.2.16 (IBC [F] 2702.2.17) Group I-2 Occupancies. Emergency power shall be provided in Group I-2 hospitals and nursing homes in accordance with Section 407.9 of the *International Building Code*.

Public comment requests Disapproval.

Reason: The committee requests disapproval of this proposal based on the following three reasons. In addition, the committee feels that the proposed revisions to G80 will address at least a portion of the concerns in this proposal.

First reason: G77 requires a 96 hour fuel supply. NFPA only requires this for Level 1 systems (not necessarily all nursing facilities) in a seismic risk area. This proposal would greatly increase the scope of that requirement counter to the intent of the NFPA standards. The reason statement from the committee says they would rather use a risk based approach in NFPA 99.

Secondly, G77 makes a statement that is technically flawed. It says that emergency power should only be connected to the critical or life safety branches – it could be read to disallow the third branch of the traditional essential electrical system: the equipment branch. This is in direct conflict with NFPA 99.

Thirdly, the reference to NFPA 110 for e-power connection to branches is incorrect as well – NFPA 110 does not address the division of branches of e-power it addresses the performance of the system, components and switches. Chapter 4 in the 2010 version only deals with the classification of the e-power system.