ICC Committee on Health Care Hospitals and Nursing Homes Group A Draft Proposals – Revised 12-8-2017

Work groups are:

- G/MOE - General/Means of egress – Chair: Henry Kosarzycki
- MEP – Mechanical/Electrical/Plumbing – Chair: Tim Peglow
- F/FS – Fire/Fire Safety – Chair: Bill Koffel
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Proposal/ Ktag No.	Section Number	Work Group	Assigned	Notes
K162	IBC 603.1	G/MOE	Williams	New – review and reason
K163	IBC 603.1	G/MOE	Carpenter	Reason
K211	IFC 1031.3.1	G/MOE	Carpenter	Split/reason
K221	IBC 1010.1.9.6	G/MOE	Carpenter	Split/reason
K222	IBC 1010.1.9.6, 1010.1.9.7, 1010.1.9.8	G/MOE	Carpenter	Split/reason
K223		G/MOE	Jewell	
K224	IBC 1010.1.3.2	G/MOE	Kosarzycki	Reason; Co-sponsored with BCAC
K226		G/MOE	Kosarzycki	
K227		G/MOE	Kosarzycki	
K232				See K211
~~K233~~	~~IFC 1104.7~~	~~G/MOE~~	~~Pollitt~~	~~Do not process~~
K241	IFC 1105.6.1	G/MOE	Pollitt	Reason
K254		G/MOE	Pollitt	
K255	IBC 407.4.4.3	G/MOE	Sayers	Reason
K256 & K257	IBC 407.4.4.3	G/MOE	Williams	Reason
K322	IFC Chapter 38	F/FS	O'Neill	Reason
K323	IMC Chapter 15	MEP	Peglow	Reason
K324	IBC 407, 420 and 422	MEP	Peglow	3- proposals – reason, add ambulatory care Show to FCAC and PMGCAC
K331	IBC 806.9	F/FS	Rice	Co-sponsored with FCAC
K346 & K354	IFC 901.7	F/FS	Koffell	Reason Co-sponsored with FCAC
K362	IBC 407.3.1	F/FS	Jewell	Reason
K363	IFC 1105.5.4.2.2.	F/FS		Reason
K364		F/FS	Jewell	

K371		F/FS	Jewell	
K372	IFC 709	F/FS	Jewell	Reason Co-sponsored with FCAC
K374		F/FS	Jewell	
K379		F/FS	Jewell	
K431		F/FS	Bresette	
K521	IMC 407.1	MEP	Peglow	Reason
K523	IMC 920.4	MEP	Peglow	Reason Show to PMGCAC
K524	IFC 903.3.2, IFGC 303.3.1	MEP	Zannoni	Reason Show to FCAC and PMGCAC
K711 & K712	IFC 403.8.2	F/FS	O'Neill	Coordination across requirements Possible for some co-sponsorship with FCAC
K741	IFC 310.9	F/FS	O'Neill	Reason
K791	IBC/IFC 3310.2.1	F/FS	O'Neill	Reason
K909 & K924	IFC 5306.5 & IPC 1202	MEP	Flannery	Reason/ Co-sponsored with FCAC Show to PMGCAC
K913	IFC 1105.11	MEP	Zannoni	Reason
K918		MEP	Peglow	Proposal
K920	IFC 604.4.2	FS/F	Flannery	Reason
K925	IFC5003.7.4	F/FS	Flannery	Reason
K926	IFC 5306.1	MEP	Flannery	Reason
K928	IFC 5306.6	MEP	Zannoni	New – review and reason
K933	IFC 403.8.2.4	F/FS	O'Neill	Comment
P1	IBC	G/MEO	Carpenter/Caulkins	Assisted toileting – in process/split and add showers
P2	IPC 608.2	MEP	Williams	Water supply – in process Show to PMGCAC
P3	IMC 5003.8.3	F/FS	O'Neill	Oxodized gases
P4	IBC 717.5	F/FS	Flannery	Flex ducts
P5	IBC 1020.5	MEP	Kim	
P6	IBC 508.3.1.2	G/MOE	Kim	

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K?

Subject
Work Group:
Committee member:

Add new/Revise section as follows:

New/Revised Text

Reason:
Cost Impacts:

K162

Subject combustible roofs
Work Group: General/MOE
Committee member: Williams

Add new/Revise section as follows:

IBC 603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. Fire-retardant-treated wood shall be permitted in:
    - 1.1. Nonbearing partitions where the required fire-resistance rating is 2 hours or less.
    - 1.2. Nonbearing exterior walls where fire-resistance-rated Construction is not required.
    - 1.3. Roof construction, including girders, trusses, framing and decking.

      Exception:
      1. In buildings of Type IA construction exceeding two stories above grade plane, fire-retardant-treated wood is not permitted in roof construction where the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).
      2. In Group I-2, combustible roofs shall be covered by a Class A roof covering, and shall be separated by a 2 hour horizontal assembly.
    - 1.4. Balconies, porches, decks and exterior stair-ways not used as required exits on buildings three stories or less above grade plane.

Reason:
Cost Impacts:

K163

Subject: Non-bearing wall construction
Work Group: G/MOE
Committee member: Carpenter

Revise section as follows:

IBC 603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

1. *Fire-retardant-treated wood* shall be permitted in:
    - 1.1. In other than Group I-2 and ambulatory care, Nonbearing partitions where the required *fire resistance rating* is 2 hours or less.
    - 1.2 In Group I-2 occupancies and ambulatory care facilities, nonbearing partitions where the required fire resistance rating is 2 hours or less except for construction of shaft enclosures.
    - 1.2. Nonbearing *exterior walls* where fire-resistance-rated construction is not required.
    - 1.3. Roof construction, including girders, trusses, framing and decking.

1.4. Balconies, porches, decks and exterior stairways not used as required exits on buildings three stories or less above grade plane.

(No change to Items 2 through 26)

Reason: Amy to write reason
Cost Impacts:

K211 & K232

Subject: obstructions in corridors
Work Group: G/MOE
Committee member: Carpenter

Revise section as follows:

IBC 407.4.3 Projections ~~in nursing home~~ corridors. In Group I-2~~, Condition 1~~ occupancies, where the corridor width is not less than 96 inches (2440 mm), projections shall be permitted for furniture where all of the following criteria are met:

1. The furniture is attached to the floor or to the wall.
2. The furniture does not reduce the clear width of the corridor to less than 72 inches (1830 mm) except where other encroachments are permitted in accordance with Section 1005.7.
3. The furniture is positioned on only one side of the *corridor*.
4. Each arrangement of furniture is 50 square feet (4.6 m_2) maximum in area.
5. Furniture arrangements are separated by 10 feet (3048 mm) minimum.
6. Placement of furniture is considered as part of the fire and safety plans in accordance with Section 1002.2.

IBC [BE] 1020.2 Width and capacity. The required capacity of *corridors* shall be determined as specified in Section 1005.1, but the minimum width shall be not less than that specified in Table 1020.2.

Exception: In Group I-2 occupancies, *corridors* are not required to have a clear width of 96 inches (2438 mm) in areas where ~~there~~ the corridors will not be ~~stretcher or bed movement for access to care or as~~ part of the defend-in-place strategy or for access to housing, treatment or for use by residents~~-~~or care recipients.

IBC [BE] TABLE 1020.2
MINIMUM CORRIDOR WIDTH

OCCUPANCY	MINIMUM WIDTH (inches)
Any facility not listed below	44
Access to and utilization of mechanical, plumbing or electrical systems or equipment	24
With an occupant load of less than 50	36
Within a dwelling unit	36
In Group E with a corridor having a occupant load of 100 or more	72
In corridors and areas serving stretcher traffic in ambulatory care facilities	72
Group I-2 Condition 1in a smoke compartment with 30 or fewer residents and where the corridor serves areas for housing, treatment or use by residents.	72
Group I-2 Condition 1in a smoke compartment with more than 30 residents and where the corridor serves areas for housing, treatment or use by residents.	96 [a]
Group I-2 Condition 2 ~~in areas~~ where ~~required for bed movement~~ the corridor serves areas for housing, treatment or use by care recipient	96

For SI: 1 inch = 25.4 mm.

a. See Section 407.4.3 for minimum corridor width where there is fixed furniture in the corridor.

IFC 1031.3.1 Group I-2. In Group I-2, the required clear width for aisles, corridors and ramps that are part of the required means of egress shall comply with Sections 407.4.3 and 1020.2. ~~The facility shall have a plan to maintain the required clear width during emergency situations.~~

Exception: In areas required for bed movement, equipment shall be permitted in the required width where all of the following provisions are met:

1.The equipment is low hazard and wheeled.

2. The facility shall have a plan to remove wheeled equipment in order to maintain the required clear width during emergency situations.

2. The equipment does not reduce the effective clear width for the *means of egress* to less than 5 feet (1525 mm).
3. The equipment is limited to:
   3.1. Equipment and carts in use.
   3.2. Medical emergency equipment.
   3.3. Infection control carts.
   3.4. Patient lift and transportation equipment.
4. Medical emergency equipment and patient lift and transportation equipment, when not in use, are required to be located on one side of the corridor.
5. The equipment is limited in number to not more than one per patient sleeping room or patient care room within each smoke compartment.

10-2-17: This section comprehensively covers two KTAGs (need 3 separate code changes) and includes:

Includes I-2 for fixed furniture allowance – 407.4.3
Clarifies corridor width for nursing homes and hospitals – Table 1020.2, Section 1020.2
Modifies IFC to point to fixed furniture allowances – footnote Table 1020.2, IFC Chapter 11?
Moves specific "plan" for moving fixed furniture to the exception of 1031.3.1

Reason:
Cost Impacts:

K221

Subject: lock on care recipients room doors
Work Group: G/MOE
Committee member: Carpenter

Revise section as follows:

IBC 1010.1.9.7 (IFC [B] 1010.1.9.7) Controlled egress doors in Groups I-1 and I-2. Electric locking systems, including electromechanical locking systems and electromagnetic locking systems, shall be permitted to be locked in the means of egress in Group I-1 or I-2 occupancies where the clinical needs of persons receiving care require their containment. Controlled egress doors 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 all of the following:

1. The door locks shall unlock on actuation of the *automatic sprinkler system* or *automatic* ~~*fire*~~ *smoke detection system*.
2. The door locks shall unlock on loss of power controlling the lock or lock mechanism.
3. The door locking system shall be installed to have the capability of being unlocked by a switch located at the *fire command center*, a nursing station or other approved location. The switch shall directly break power to the lock.
4. A building occupant shall not be required to pass through more than one door equipped with a controlled egress locking system before entering an exit.

5. The procedures for unlocking the doors 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 systems.
7. Emergency lighting shall be provided at the door.
8. The door locking system units shall be listed in accordance with UL 294.

Exceptions:

1. Items 1 through 4 shall not apply to doors to areas occupied by persons who, 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.

10-2-2017: Maybe two changes
CMS is more specific on the release mechanisms.
Remove "psychiatric" to allow for other secure areas based on treatment. The exceptions should also allow for dementia areas to address possible wandering as a safety issue for patients.

Note: 10-8-207 – New section

907.3.2 Special locking systems. Where special locking systems are installed on means of egress doors in accordance with Section 1010.1.9.7 or 1010.1.9.8, an automatic detection system shall be installed as required by that section.

[F] 907.4.3 Automatic smoke detection. Where an automatic smoke detection system is required it shall utilize smoke detectors unless ambient conditions prohibit such an installation. In spaces where smoke detectors cannot be utilized due to ambient conditions, *approved* automatic *heat detectors* shall be permitted.

Reason:
Cost Impacts:

K222

Subject: egress doors
Work Group: G/MOE
Committee member: Carpenter

Revise section as follows:

1010.1.9.7 Controlled egress doors in Groups I-1 and I-2. ~~Electric~~ locking systems, including electromechanical locking systems and electromagnetic locking systems, shall be permitted to be locked in the means of egress in Group I-1 or I-2 occupancies where the clinical needs of persons receiving care require their containment. Controlled egress doors 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 all of the following:

1. The electrical door locks shall unlock on actuation of the *automatic sprinkler system* or *automatic fire detection system*.
2. The electrical door locks shall unlock on loss of power controlling the lock or lock mechanism.
3. The door locking system shall be installed to have the capability of being unlocked by a switch located at the *fire command center*, a nursing station or other approved location. The switch shall directly break power to the lock.
4. A building occupant shall not be required to pass through more than one door equipped with a controlled egress locking system before entering an exit.

5. The procedures for unlocking the doors 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 systems.
7. Emergency lighting shall be provided at the door.
8. The electrical door locking system units shall be listed in accordance with UL 294.

Exceptions:

1. Items 1 through 4 shall not apply to doors to areas occupied by persons who, 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.

1010.1.9.8 Delayed egress. Delayed egress locking systems shall be permitted to be installed on doors serving the following 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.

1. Group B, F, I, M, R, S and U occupancies.
2. Group E classrooms with an occupant load of less than 50.

Exception: Delayed egress locking systems shall be permitted to be installed on *exit* or *exit access* doors, other than the main *exit* or *exit access* door, serving a courtroom in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

1010.1.9.8.1 Delayed egress locking system. The delayed egress locking system shall be installed and operated in accordance with all of the following:

1. The delay electronics of the delayed egress locking system shall deactivate upon actuation of the *automatic sprinkler system* or *automatic fire detection system*, allowing immediate free egress.
2. The delay electronics of the delayed egress locking system shall deactivate upon loss of power controlling the lock or lock mechanism, allowing immediate free egress.
3. The delayed egress locking system shall have the capability of being deactivated at the f*ire command center* and other *approved* locations.
4. An attempt to egress shall initiate an irreversible process that shall allow such egress in not more than 15 seconds when a physical effort to exit is applied to the egress side door hardware for not more than 3 seconds. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the delay electronics have been deactivated, rearming the delay electronics 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. The egress path from any point shall not pass through more than one delayed egress locking system.

   Exceptions:

   1. In Group I-1, Condition 2, Group I-2 or I-3 occupancies, the egress path from any point in the building shall pass through not more than two delayed egress locking systems provided that the combined delay does not exceed 30 seconds.
   2. In Group I-1, Condition 1 or I-4 occupancies, the egress path from any point in the building shall pass through not more than two delayed egress locking systems provided the combined delay does not exceed 30 seconds and the building is equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.
6. A sign shall be provided on the door and shall be located above and within 12 inches (305 mm) of the door exit hardware:

   6.1. For doors that swing in the direction of egress, the sign shall read: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.

   6.2. For doors that swing in the opposite direction of egress, the sign shall read: PULL UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.

   6.3. The sign shall comply with the visual character requirements in ICC A117.1.

~~**Exception:** Where approved, in Group I occupancies, the installation of a sign is not required where care recipients who because of clinical needs require restraint or containment as part of the function of the treatment area.~~

7. Emergency lighting shall be provided on the egress side of the door.
8. The delayed egress locking system units shall be *listed* in accordance with UL 294.

1010.1.9.9 Sensor release of electrically locked egress doors. Sensor release of electric locking systems shall be permitted on doors located in the *means of egress* in any occupancy except Group H where installed and operated in accordance with all of the following criteria:

1. The sensor shall be installed on the egress side, arranged to detect an occupant approaching the doors, and shall cause the electric locking system to unlock.
2. The electric locks shall be arranged to unlock by a signal from or loss of power to the sensor.
3. Loss of power to the lock or locking system shall automatically unlock the electric locks.
4. 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 electric lock—independent of other electronics—and the electric lock shall remain unlocked for not less than 30 seconds.
5. Activation of the building *fire alarm system*, where provided, shall automatically unlock the electric lock, and the electric lock shall remain unlocked until the fire alarm system has been reset.
6. Activation of the building *automatic sprinkler system* or *fire detection system*, where provided, shall automatically unlock the electric lock. The electric lock shall remain unlocked until the *fire alarm system* has been reset.

7. Emergency lighting shall be provided on the egress side of the door.

8~~7~~. The door locking system units shall be *listed* in accordance with UL 294.

10-2-2017: Three changes.
1010.1.9.6 – this option should be allowed for manual and electronic locking doors. The exceptions should also allow for dementia areas to address possible wandering as a safety issue for patients. Reasonable for Group I-1, Condition 2.
Emergency lighting may be on a door that is from a suite.

Note 10-8-2017: 2015 text was presented. Proposal revised to 2018 text.

Reason:
Cost Impacts:

K224

Subject: sliding doors
Work Group: G/MOE
Committee member: Henry
Co-sponsored with BCAC

Add new section as follows:

IBC 1010.1.3.2 Manual horizontal sliding doors. Where manual horizontal sliding doors are required to latch, the doors shall be equipped with a latch or other mechanism that prevents the doors from rebounding into a partially open position if forcefully closed.

Notes 10-4-2017: List where required to latch. Is there a force that could be listed? What are specifics of "other mechanism"? BCAC will look at co-sponsoring

Reason:

Cost Impacts:

~~K233~~

Subject – door width
Work Group: G/MOE
Committee member: Pollitt

Revise section as follows:

IFC 1104.7.1 Group I-2. In Group I-2 occupancies, means of egress doors where used for the movement of beds shall provide a minimum clear opening width of 41-1/2 inches (1054 mm). Doors serving as means of egress doors and not used for movement of beds shall provide a minimum clear opening width of 32 inches (813 mm).

IFC 1104.7.2 Ambulatory care. In ambulatory care facilities, doors serving as means of egress from patient treatment rooms shall provide a minimum clear opening width of 32 inches (813 mm).

Note: Brad says allowed to be 32" for movement of beds, gurneys and wheelchair, otherwise go all the way back to 28".
10-2-2017: Decision is to not move forward with modification

Reason:
Cost Impacts:

K241

Subject – number of exits, story and compartment
Work Group: G/MEO
Committee member: Pollitt

Add new section as follows:

IFC 1105.6.1 Two means of egress. Not less than two exits from every story and not less than two means of egress from every smoke compartment shall be provided in accordance with IBC Section 407.5.4.

Renumber subsequent sections.

Reason:
Cost Impacts:

K255

Subject: exit from suites
Work Group: General/MOE
Committee member: Jim Sayers

Revise section as follows:

IBC 407.4.4.3 Access to corridor. Movement from habitable rooms shall not require ~~passage through~~ more than ~~three doors and~~ 100 feet (30 480 mm) distance of travel within the suite.

~~**Exception:** The distance of travel shall be permitted to be increased to 125 feet (38 100 mm) where an automatic smoke detection system is provided throughout the *care suite* and installed in accordance with NFPA 72.~~

10-2-2017: Intervening rooms gone in suites, but no increase in travel distance – revisit exception. Should be in the IFC for existing suites.

REVISED by Jim Sayers 11-30-2017

IBC 407.4.4.2 Separation. Care suites shall be separated from other portions of the building, including other care suites, by a smoke partition complying with Section 710

407.4.4.3 Access to corridor. Movement from habitable rooms shall not require ~~passage through~~ more than ~~three doors and~~ 100 feet distance of travel within the suite.

Exception: The distance of travel shall be permitted to be increased to 125 feet where an automatic smoke detection system is provided throughout the care suite and installed in accordance with NFPA 72.

407.4.4.4 Doors within care suites. Doors in care suites serving habitable rooms shall be permitted to comply with one of the following:

1. Manually operated horizontal sliding doors permitted in accordance with Exception 9 to Section 1010.1.2.
2. Power-operated doors permitted in accordance with Exception 7 to Section 1010.1.2.
3. Means of egress doors complying with Section 1010.

407.4.4.5 Care suites containing sleeping room areas. Sleeping rooms shall be permitted to be grouped into care suites where one of the following criteria is met:

~~1. The care suite is not used as an exit access for more than eight care recipient beds.~~
2. The arrangement of the care suite allows for direct ~~and constant~~ visual supervision into the sleeping rooms by care providers.
3. An automatic smoke detection system is provided in the sleeping rooms and installed in accordance with NFPA 72.

407.4.4.5.1 Area. Care suites containing sleeping rooms shall be not greater than 7,500 square feet in area.

Exception: Care suites containing sleeping rooms shall be permitted to be not greater than 10,000 square feet in area where an automatic smoke detection system is provided throughout the care suite and installed in accordance with NFPA 72, <u>and direct visual supervision is provided by care providers.</u>

407.4.4.5.2 Exit access. Any sleeping room, or any care suite that contains sleeping rooms, of more than 1,000 square feet shall have no fewer than two exit access doors from the care suite located in accordance with Section 1007.

407.4.4.6 Care suites not containing sleeping rooms. Areas not containing sleeping rooms, but only treatment areas and the associated rooms, spaces or circulation space, shall be permitted to be grouped into care suites and shall conform to the limitations in Sections 407.4.4.6.1 and 4.7.4.4.6.2.

407.4.4.6.1 Area. Care suites of rooms other than sleeping rooms, shall have an area not greater than 12,500 square feet.

Exception: Care suites not containing sleeping rooms shall be permitted to be not greater than 15,000 square feet in area where an automatic smoke detection system is provided throughout the care suite in accordance with Section 907.

407.4.4.6.2 Exit access.

Care suites, other than sleeping rooms, with an area of more than 2,500 square feet shall have no fewer than two exit access doors from the care suite located in accordance with Section 1007.1.

Reason:
Cost Impacts:

K256 & K257

Subject: access to corridors
Work Group: G/MOE
Committee member: Williams

Add new/Revise section as follows:

IBC 407.4.4.3 Access to corridor. Movement from habitable rooms shall not require ~~passage through~~ more than ~~three doors and~~ 100 feet (30 480 mm) ~~distance~~ of travel within the suite to the exit access door. The exit access doors shall lead directly to an exit access corridor or horizontal exit.

Exceptions:

1. The distance of travel shall be permitted to be increased to 125 feet (38 100 mm) where an automatic smoke detection system is provided throughout the care suite and installed in accordance with NFPA 72.
2. Where two or more exit access doors are required, not more than one of the doors shall be permitted to be an exit door.

Notes 11-29-2017: John Williams talked to Bill Koffell; Nanci is sending additional input for language.

IBC 407.4.4.5 Care suites containing sleeping room areas. Sleeping rooms shall be permitted to be grouped into care suites where one of the following criteria is met:
1. The *care suite* is not used as an *exit access* for more than eight care recipient beds.
2. The arrangement of the *care suite* allows for direct and constant visual supervision into the sleeping rooms by care providers.
3. An automatic smoke detection system is provided in the sleeping rooms and installed in accordance with NFPA 72.

IBC 407.4.4.5.1 Area. *Care suites* containing sleeping rooms shall be not greater than 7,500 square feet (696 m_2) in area.
Exception: *Care suites* containing sleeping rooms shall be permitted to be not greater than 10,000 square feet (929 m_2) in area where an automatic smoke detection system is provided throughout the *care suite* and installed in accordance with NFPA 72 .

IBC 407.4.4.5.2 Exit access. Any sleeping room, or any care suite that contains sleeping rooms, of more than 1,000 square feet (93 m^2) shall have no fewer than two exit access doors from the care suite located in accordance with Section 1007.

IBC 407.4.4.6.2 Exit access. Care suites, other than sleeping rooms, with an area of more than 2,500 square feet (232 m^2) shall have no fewer than two exit access doors from the care suite located in accordance with Section 1007.1.

Reason:
Cost Impacts:

K322

Subject: Clinical laboratories
Work Group: F/FS
Committee member: O'Neill

Add new/Revise section as follows:

IFC CHAPTER 38 HIGHER EDUCATION and Group I-2, Condition 2 Clinical LABORATORIES

SECTION 3801
GENERAL

IFC 3801.1 (IBC [F] 428) Scope. Laboratories in Group B occupancies used for educational purposes above the 12th grade, and Group I-2, Condition 2 clinical laboratories complying with the requirements of this chapter shall be permitted to exceed the maximum allowable quantities of hazardous materials in control areas set forth in Chapter 50 without requiring classification as a Group H occupancy. Except as specified in this chapter, such laboratories shall comply with all applicable provisions of this code and the Building Code.

SECTION 3803 GENERAL
SAFETY PROVISIONS

3803.3 (IBC [F] 428) Safety showers. Where more than 5 gallons (19 L) of corrosive liquid or flammable liquid are stored, handled or used, suitable facilities with fixed overhead or flexible hand-held showers shall be installed and maintained in accordance with the *International Plumbing Code*.

3803.4 (IBC [F] 428) Neutralizing or absorbing agents. Where more than 5 gallons (19 L) of corrosive liquids are stored, handled or used, a quantity of-neutralizing or absorbing agents shall be provided.

IBC [F] 307.1.1 Uses other than Group H. An occupancy that stores, uses or handles hazardous materials as described in one or more of the following items shall not be classified as Group H, but shall be classified as the occupancy that it most nearly resembles.
(No change for Items 1 through 16)
17. Group B higher education laboratory occupancies complying with Section 428 and Chapter 38 of the *International Fire Code*.
18. Group I-2, Condition 2 Clinical Laboratories complying with Sections 407 and 428 and Chapter 38 of the *International Fire Code*.

IBC SECTION 407 GROUP I-2

IBC 407.12 Clinical Laboratories In Group I-2, Condition 2 occupancies, clinical laboratories shall be designed and constructed in accordance with Section 428 and NFPA 45.

Reason:
Cost Impacts:

Question from staff: Do you need any of the separation requirements in Section 428?

K323

Subject: medical gas system
Work Group: MEP
Committee member: Tim Peglow

Add new/Revise section as follows:

IMC SECTION 407
AMBULATORY CARE FACILITIES AND
GROUP I-2 OCCUPANCIES

IMC 407.1 General. Mechanical ventilation for ambulatory care facilities and Group I-2 occupancies shall be designed and installed in accordance with this code and ASHRAE 170. Where medical supplies are stored and medical equipment is stored or in use, manufacturer's requirements for humidity shall be followed.

ASHRAE 170—2017 Ventilation of Health Care Facilities 407

Reason: This change is to assure hospitals and ambulatory care facilities are built according to Centers for Medicare and Medicaid Conditions of participation.
Cost Impacts: Minimal cost impact to manage space humidity per manufacturer's recommendations. There may be some construction and operating savings versus 2008 version of ASHRAE 170.

K324

Subject: Cooking facilities
Work Group: MEP
Committee member: Carpenter

10-5-2017: Show to FCAC and PMGCAC

Proposal #1

Add new/Revise section as follows:

407.2.5 Nursing home housing units. In Group I-2, Condition 1 occupancies, in areas where nursing home residents are housed, shared living spaces, group meeting or multipurpose therapeutic spaces shall be permitted to be open to the *corridor*, where all of the following criteria are met:

Items 1 through 5……

407.2.6 Nursing home cooking facilities. In Group I-2, Condition 1 occupancies, rooms or spaces that contain a cooking facility with domestic cooking appliances shall be ~~permitted to be open to the corridor where all of the following criteria are met~~ shall be in accordance with all of the following criteria:

1. The number of care recipients housed in the smoke compartment shall not be greater than 30.
2. The number of care recipients served by the cooking facility shall not be greater than 30.
3. Not more than one cooking facility area shall be permitted in a smoke compartment.
4. The types of domestic cooking appliances permitted shall be limited to ovens, cooktops, ranges, warmers and microwaves.
5. The corridor shall be a clearly identified space delineated by construction or floor pattern, material or color.

6. The space containing the domestic cooking facility shall be arranged so as not to obstruct access to the required exit.
7. Domestic cooking hoods installed and constructed in accordance with Section 505 of the *International Mechanical Code* shall be provided over cooktops and ranges.
8. Cooktops and ranges shall be protected in accordance with Section 904.13.
9. A shut-off for the fuel and electrical power supply to the cooking equipment shall be provided in a location that is accessible only to staff.
10. A timer shall be provided that automatically deactivates the cooking appliances within a period of not more than 120 minutes.
11. A portable fire extinguisher shall be provided. Installation shall be in accordance with Section 906, and the extinguisher shall be located within a 30- foot (9144 mm) distance of travel from each domestic cooking appliance.

IBC 407.2.7 Limited cooking facilities. In Group I-2 occupancies, where domestic ovens, cooktops, ranges, warmers and microwaves are used for food warming or *limited cooking*, a domestic range hood in accordance with IMC 505.6 shall be provided. Other than in occupational and physical therapy areas, the space containing the domestic cooking appliance shall be permitted to be open to the corridor where all of the following criteria are met:

1. Not more than one cooking facility area shall be permitted in a smoke compartment.
2. A shut-off for the fuel and electrical power supply to the cooking equipment shall be provided in a location that is accessible only to staff.
3. The space containing the limited cooking facility shall be arranged so as to not obstruct access to the required exit.
4. A portable fire extinguisher shall be provided. Installation shall be in accordance with Section 906, and the extinguisher shall be located within a 30 foot (9144 mm) distance of travel from each domestic cooking appliance.

IBC 202.1 Definitions

Limited Cooking. Activity cooking, use for physical therapy/occupational therapy, nutrition education, warming, reheating, or baking. Limited cooking does not include daily preparation of meals serving customers, employees, residents or commercial uses.

IMC 505.6 Other than Group R. In other than Group R occupancies, where domestic cooktops ranges, and open-top broilers are used for domestic purposes, food warming or limited cooking, domestic cooking exhaust systems shall be provided.

Reason: This is needed to align the I-codes with federal standards and current practices –NFPA 101 Section 18.3.2.5.2.
Food warming and limited cooking is defined as activity cooking, use for physical therapy/occupational therapy, warming soup, reheating leftovers, baking cookies, etc., and occasional meal preparation for a small group of people. When all meals of the day, every day, is prepared using a cooking appliance, installations in Group I-1 and I-2 occupancies shall be in accordance with the *International Building Code* and Section 904.13 of the *International Fire Code* or Section 506 of this code.

The changes to 505.6 are needed because Section 505.2, refers back to UL 507. UL 507 specifically excludes “fans for use in cooking areas when the fan is intended for other than household use. (this will need to be re-numbered if the IMC code change passes)

10-9-2017 Question from staff: 407.2.5 is open to corridor and 407.2.6 is cooking facility. You want cooking facilities in a room to also comply with these requirements. Question would be to also split the limited cooking in the same way. Maybe need to take shall be permitted to be open to the corridor where out of 407.2.6.

Proposal #2

420.7 Group I-1 assisted living housing units. In Group I-1 occupancies, where a fire-resistance corridor is provided in areas where assisted living residents are housed, shared living spaces, group meeting or multipurpose therapeutic spaces open to the corridor shall be in accordance with all of the following criteria:

Item 1 through 6

IBC 420.8 Group I-1 cooking facilities. In Group I-1 occupancies, rooms or spaces that contain cooking facilities with domestic cooking appliances shall be permitted to be open to the corridor where ~~shall be in accordance with~~ all of the following criteria are met:

1. In Group I-1, Condition 1 occupancies, the number of care recipients served by one cooking facility shall not be greater than 30.
2. In Group I-1, Condition 2 occupancies, the number of care recipients served by one cooking facility and within the same smoke compartment shall not be greater than 30.
3. The types of domestic cooking appliances permitted shall be limited to ovens, cooktops, ranges, warmers and microwaves.
4. The space containing the domestic cooking facilities shall be arranged so as not to obstruct access to the required exit.
5. Domestic cooking hoods installed and constructed in accordance with Section 505 of the *International Mechanical Code* shall be provided over cooktops or ranges.
6. Cooktops and ranges shall be protected in accordance with Section 904.13.
7. A shutoff for the fuel and electrical supply to the cooking equipment shall be provided in a location that is accessible only to staff.
8. A timer shall be provided that automatically deactivates the cooking appliances within a period of not more than 120 minutes.
9. A portable fire extinguisher shall be provided. Installation shall be in accordance with Section 906 and the extinguisher shall be located within a 30-foot (9144 mm) distance of travel from each domestic cooking appliance.

~~**420.8.1 Cooking facilities open to the corridor.** Cooking facilities located in a room or space open to a corridor, aisle or common space shall comply with Section 420.8.~~

420.8.1 Limited cooking facilities. In Group I-1 occupancies, where domestic ovens, cooktops, ranges, warmers and microwaves are used for food warming or *limited cooking*, a domestic range hood in accordance with IMC 505.6 shall be provided. The space containing the domestic cooking appliance shall be permitted to be open to the corridor where all of the following criteria are met:

1. Not more than one cooking facility area shall be permitted in a smoke compartment.
2. A shut-off for the fuel and electrical power supply to the cooking equipment shall be provided in a location that is accessible only to staff.
3. The space containing the limited cooking facility shall be arranged so as to not obstruct access to the required exit.
4. A portable fire extinguisher shall be provided. Installation shall be in accordance with Section 906, and the extinguisher shall be located within a 30 foot (9144 mm) distance of travel from each domestic cooking appliance

IBC 202.1 Definitions

Limited Cooking. Activity cooking, use for physical therapy/occupational therapy, nutrition education, warming, reheating, or baking. Limited cooking does not include daily preparation of meals serving customers, employees, residents or commercial uses.

505.6 Other than Group R. In other than Group R occupancies, where domestic cooktops and ranges~~, and open-top broilers~~ are used for domestic purposes, food warming or limited cooking, domestic cooking exhaust systems shall be provided.

Reason: This is needed to align the I-codes with federal standards and current practices.
420.8 is cleaning up the language to eliminate 420.8.1 and be consistent with the language in 407.2.6.

New 420.8.1 is introducing language for limited cooking.

Food warming and limited cooking is defined as activity cooking, use for physical therapy/occupational therapy, warming soup, reheating leftovers, baking cookies, etc., and occasional meal preparation for a small group of people. When all meals of the day, every day, is prepared using a cooking appliance, installations in Group I-1 and I-2 occupancies shall be in accordance with the *International Building Code* and Section 904.13 of the *International Fire Code* or Section 506 of this code.

The changes to 505.6 are needed because Section 505.2, refers back to UL 507. UL 507 specifically excludes "fans for use in cooking areas when the fan is intended for other than household use. (this will need to be renumbered if IMC code change passes)

10-9-2017 Question from staff: 2018 IBC 420.7 is for spaces open to corridor, while 420.8 is the cooking facility. Don't think you want to change highlighted text above. You want cooking facilities in a room to also comply with these requirements. Question would be to also split the limited cooking in the same way.

Proposal 3

IMC SECTION 505
DOMESTIC COOKING EXHAUST EQUIPMENT

IMC 505.3 Exhaust ducts. Domestic cooking exhaust equipment shall discharge to the outdoors through sheet metal ducts constructed of galvanized steel, stainless steel, aluminum or copper. Such ducts shall have smooth inner walls, shall be air tight, shall be equipped with a backdraft damper, and shall be independent of all other exhaust systems. ~~Installations in Group I-1 and I-2 occupancies shall be in accordance with the *International Building Code* and Section 904.13 of the *International Fire Code*.~~

Exceptions:

1. ~~In other than Groups I-1 and I-2,~~ where installed in accordance with the manufacturer's instructions and where mechanical or natural ventilation is otherwise provided in accordance with Chapter 4, listed and labeled ductless range hoods shall not be required to discharge to the outdoors.
2. Ducts for domestic kitchen cooking appliances equipped with downdraft exhaust systems shall be permitted to be constructed of Schedule 40 PVC pipe and fittings provided that the installation complies with all of the following:
   2.1. The duct shall be installed under a concrete slab poured on grade.
   2.2. The underfloor trench in which the duct is installed shall be completely backfilled with sand or gravel.
   2.3. The PVC duct shall extend not more than 1inch (25 mm) above the indoor concrete floor surface.
   2.4. The PVC duct shall extend not more than 1 inch (25 mm) above grade outside of the building.
   2.5. The PVC ducts shall be solvent cemented.

IMC 505.4 Group I-1 and I-2 minimum airflow. Installations shall be in accordance with IBC Section 420.8 for Group I-1 and in accordance with Section 407.2.6 in Group I-2 of the International Building Code and Section 904.13 of the *International Fire Code*. The domestic recirculating or exterior vented cooking hood shall have a minimum airflow of 500 cfm (14,000 L/min).

Renumber subsequent sections.

10-9-2017 Question from staff: 2018 IMC Section 505.2 includes provisions for exhaust. Please verify if the last sentence in 505.4 is still needed.

Reason: This is required to align the I-codes with Federal standards and to clean up some conflicting information.

505.2 now states that domestic exhaust systems must comply with UL 507. This standard only applies to domestic exhaust fans used in a residential/"household use" setting. Therefore, the clarification that 505.2 only applies to R Occupancies is warranted. New section 505.6 is being proposed in a separate code change to address non-residential domestic uses.

Exception #1, language was incorrectly added to require that Group I-1 and I-2 occupancies cannot have recirculating hoods. As long as proper mechanical or natural ventilation is provided, the hood is installed per manufacturer's instructions, and it meets the ventilation requirements of new section 505.4, there is no justification on why these hoods cannot be re-circulating. After all, NFPA 96 allows Type 1 hoods to be recirculating.

10-4-2107 Questions from staff: *Do we still need to add this into ambulatory care and outpatient clinics?*

To IFC:
I-2 nursing homes –

- Limited cooking – regular domestic hood, recirculating hood permitted, no extinguisher in the hood, agree to staff lock-out/control – nursing homes, assisted living, outpatine clinics, therapy area in hospitals.
- Domestic cooking for < 30 residents – UL300A extinguisher in hood, recirculating hood permitted, staff lock-out
- Commercial cooking >30 residents- go to IMC 506.

Tim working with Amy

Reason:
Cost Impacts:

K331

Subject: Interior Wall and Ceiling Finishes
Work Group: F/FS
Committee member: Sarah Rice

Co-sponsor with FCAC
FCAC: This will address pre-built locker systems, so it should also be in IBC. Agree. Marcello will help.

Add new/Revise section as follows:

IBC SECTION 806
DECORATIVE MATERIALS AND TRIM

[F] 806.9 Combustible lockers. Where lockers constructed of combustible materials are used, the lockers shall be considered to be interior finish and shall comply with Section 803.

Exception: Lockers constructed entirely of wood and noncombustible materials shall be permitted to be used wherever interior finish materials are required to meet a Class C classification in accordance with Section 803.1.2.

Reason: The requirements in this section are contained in the IFC but they should equally be contained in the IBC, because lockers are often included in building plans (such as in schools) and they should be checked at the time of issuing the certificate of occupancy instead of waiting until after the building is in use.

IFC SECTION 808

FURNISHINGS OTHER THAN UPHOLSTERED FURNITURE AND MATTRESSES OR DECORATIVE MATERIALS IN NEW AND EXISTING BUILDINGS

IFC 808.4 Combustible lockers. Where lockers constructed of combustible materials are used, the lockers shall be considered to be interior finish and shall comply with Section 803.

Exception: Lockers constructed entirely of wood and noncombustible materials shall be permitted to be used wherever interior finish materials are required to meet a Class C classification in accordance with Section 803.1.2.

Cost Impacts:

K346 & K354

Subject: Fire alarm
Work Group: F/FS
Committee member: Koffel

Co-sponsor with FCAC?
10-5-2017: Exception pre-approved impaired management procedure complying with NFPA 25 and 72, and then expand to other occupancies
11-16-2017: Expansion will require co-sponsorship

Revise section as follows:

IFC 901.7 Systems out of service. Where a required *fire protection system* is out of service, the fire department and the *fire code official* shall be notified immediately and, where required by the *fire code official*, the building shall be either evacuated or an *approved* fire watch shall be provided for all occupants left unprotected by the shutdown until the *fire protection system* has been returned to service.

Exception: Facilities with an approved notification and impairment management procedure complying with NFPA 25 or NFPA 72.

Where utilized, fire watches shall be provided with not less than one *approved* means for notification of the fire department and their only duty shall be to perform constant patrols of the protected premises and keep watch for fires.

Reason: The primary purpose of the proposed exception is to address the word "immediately." In addition to periodic maintenance and testing, the extent of construction activity in existing Group I-2 buildings would result in the fire department and fire code official being constantly notified of fire protection systems being placed out of service and then needing to make a determination as to whether a fire watch or building evacuation are required. In many instances, the duration of the system being out of service is relatively short. For example, a dry pipe sprinkler system is impaired at the conclusion of every trip test for the time period necessary to reset the system.

NFPA 25 and NFPA 72 address these situations and allow either 10 hours in a 24 hour period (NFPA 25) or 4 hours in a 24 hour period (NFPA 72) of time before the building is required to be evacuated or a fire watch is implemented. Both documents still require the fire department, code official, and other parties (such as the insurance carrier) to be notified. The NFPA documents also address issues such as:

- Designating an impairment coordinator (NFPA 25)
- Responsibilities of the impairment coordinator (NFPA 25)
- Tagging system (NFPA 25)
- Restoring the system to service and the resultant notifications (Both NFPA 25 and NFPA 72)
- Supervising station notification requirements (NFPA 72)
- Risk mitigation (NFPA 25 and NFPA 72)
- Record keeping (NFPA 25 and NFPA 72)

The list of responsibilities in Sections 901.7.4 and 901.7.6 are essentially the same as the lists in NFPA 25. As such, the primary impact of this change is to establish an acceptable time period prior to establishing the requirement for a fire watch or building evacuation. The established time period also results in uniformity and allows for proper planning when a preplanned impairment is anticipated. It also relieves the code official from being required to establish when a fire watch or building evacuation is required.

Cost Impacts:

K362

Subject Corridors – Construction of Walls
Work Group: F/FS
Committee member: Jewell

Add new/Revise section as follows:

IBC 407.3.1 Corridor doors. *Corridor* doors, other than those in a wall required to be rated by Section 509.4 or for the enclosure of a vertical opening or an *exit*, shall not have a required *fire protection rating* and shall not be required to be equipped with *self-closing* or automatic-closing devices, but shall provide an effective barrier to limit the transfer of smoke and shall be equipped with positive latching. Roller latches are not permitted. Other doors shall conform to section 716.

407.3.1.1 Door construction. Doors in corridors not required to have a *fire protection rating* shall comply with the following:

1. Solid doors shall have close fitting operational tolerances, head and jamb stops.
2. Dutch style doors shall have an astragal, rabbet or bevel at the meeting edges of the upper and lower door sections. Both the upper and lower door sections shall have latching hardware. Dutch style door shall have hardware that connects the upper and lower sections to function as a single leaf.
3. To provide make-up air for exhaust systems in accordance with Section 1020.5, Exception 1, doors are permitted to have louvers or to be the clearance between the bottom of the door and the floor surface or threshold shall not exceed ¾ inch (19.1 mm).

IBC 710.5 Openings. Openings in smoke partitions shall comply with Sections 710.5.1 ~~and 710.5.2~~ through 710.5.3.

IBC 710.5.2 Doors. Doors in smoke partitions shall comply with Sections 710.5.2.1 through 710.5.2.3.

IBC 710.5.2.1 Louvers. Doors in smoke partitions shall not include louvers.

Exception: Where permitted in accordance with Section 407.3.1.1.

Add new section as follows:

IBC 710.5.3 Pass through openings in Group I-2 Condition 2. Where pass through openings are provided in smoke partitions in Group I-2, Condition 2 occupancies, such openings shall comply with the following:

1. Smoke compartment in which the pass through openings occur do not contain a patient care suite or sleeping room.
2. Pass through openings are installed in a door or vision panel that is not required to have a *fire protection rating*.
3. Pass through openings are used for the secure or controlled transfer of pharmaceutical supplies, laboratory samples, or financial exchange.
4. The top of the pass through opening is located a maximum of 48 inches above the floor.
5. The aggregate area of all such pass through openings within a single room shall not exceed 80 square inches ($0.05m^2$).

10-3-2017: 407.3.1.1 Item 3 – maybe split louver and undercut into separate requirements. Good start. Look to see if conflict with 407.3.1.1 and 710.5.2.

From 709.5 openings in smoke barriers – portion of exception 1
. . . . doors shall not be required to be protected in accordance with Section 716. The doors shall be close fitting within operational tolerances, and shall not have a center mullion or undercuts in excess of 3/4 inch (19.1 mm), louvers or grilles. The doors shall have head and jamb stops, and astragals or rabbets at meeting edges. Where permitted by the door manufacturer's listing, positive-latching devices are not required. Factory-applied or field-applied protective plates are not required to be labeled.

717.5.7 Smoke partitions. A *listed smoke damper* designed to resist the passage of smoke shall be provided at each point that an air transfer opening penetrates a smoke partition. *Smoke dampers* and *smoke damper* actuation methods shall comply with Section 717.3.3.2.

Exception: Where the installation of a *smoke damper* will interfere with the operation of a required smoke control system in accordance with Section 909, *approved* alternative protection shall be utilized.

Reason:
Cost Impacts:

K363

Subject: Existing doors
Work Group: F/FS
Committee member:

Add new/Revise section as follows:

IFC 1105.5.4.2.2 Corridor doors. Doors in corridor walls shall limit the transfer of smoke by complying with the following:

1. Doors shall be constructed of not less than 1¾ inch-thick (44 mm) solid bonded-core wood or capable of resisting fire not less than 1/3 hour.

   Exception: Corridor doors in buildings equipped throughout with an automatic sprinkler system.

2. Frames for side-hinged swinging doors shall have stops on the sides and top to limit transfer of smoke.
3. Where provided, vision panels in doors shall be a fixed glass window assembly installed to limit the passage of smoke. Existing wired glass panels with steel frames shall be permit-ted to remain in place.
4. The clearance between the bottom of the door and the top of the threshold or floor ~~Door undercuts~~ shall not exceed 1 inch (25mm).
5. Doors shall be positive latching with devices that resist not less than 5 pounds (22.2 N). Roller latches are prohibited.
6. Mail slots or similar openings shall be permitted in accordance with Section 1105.5.4.3.

IFC 1105.5.4.2.3 Dutch doors. Where provided, dutch doors shall comply with Section 1105.5.4.2.2. In addition, dutch doors shall be equipped with latching devices on either the top or bottom leaf to allow leaves to latch together. The space between the leaves shall be protected with devices such as astragals to limit the passage of smoke.

IFC 1105.5.4.2.4 Self- or automatic-closing doors. Where self- or automatic-closing doors are required, closers shall be maintained in operational condition. Hold opens shall release the door when the door is pushed or pulled. –or- Hold open devices on doors shall be capable of manual release.

IFC 1105.5.4.2.5 Protective plates. Protective plates installed on corridor doors shall not be limited in size.

Reason:
Cost Impacts:

K372

Subject smoke compartment
Work Group: F/FS
Committee member: Jewell

Co-sponsor with FCAC

Add new/Revise section as follows:

IBC [BG] SMOKE COMPARTMENT. A space within a building ~~enclosed by *smoke barriers* on all sides, including the top and bottom~~ separated from other interior areas of the building by *smoke barriers*, including interior walls and horizontal assemblies.

IBC 709.4.1 Smoke-barrier ~~walls~~ assemblies separating smoke compartments. *Smoke-barrier* ~~walls~~ assemblies used to separate *smoke compartments* shall form an effective membrane enclosure that is continuous from outside wall or *smoke barrier* wall to outside wall or another *smoke barrier* wall and horizontal assemblies.

Reason:
Cost Impacts:

Notes: 11-16-2017: Need FCAC co-sponser

K521

Subject HVAC both Hospitals and Ambulatory Healthcare Facilities
Work Group: MEP
Committee member: Peglow

Add new/Revise section as follows:

IMC 407.1 General. Mechanical ventilation for ambulatory care facilities and Group I-2 occupancies shall be designed and installed in accordance with this code, ASHRAE 170 and NFPA 99

Reason:
Cost Impacts:

K523

Subject Suspended Unit Heaters

Work Group: MEP
Committee member: Tim Peglow

10-5-2017: Show to PMGCAC

Add new section as follows:
IMC 920.1 General. Unit heaters shall be installed in accordance with the listing and the manufacturer's instructions. Oil-fired unit heaters shall be tested in accordance with UL 731.

IMC 920.2 Support. Suspended-type unit heaters shall be supported by elements that are designed and constructed to accommodate the weight and dynamic loads. Hangers and brackets shall be of noncombustible material. Suspended type oil-fired unit heaters shall be installed in accordance with NFPA 31.

IMC 920.3 Ductwork. A unit heater shall not be attached to a warm-air duct system unless *listed* for such installation.

IMC 920.4 Prohibited Uses. In Group I-2 and Ambulatory Care Facilities, suspended-type unit heater are prohibited in corridors, exit access stairways and ramps, exit stairways and ramps and patient sleeping areas.

Reason:
Cost Impacts:

K524

Subject Gas fireplaces
Work Group: MEP
Committee member: Pier-George Zanoni

10-5-2017: Show to FCAC and PMGCAC

Add new/Revise section as follows:

IFC **903.3.2 Quick-response and residential sprinklers.** Where *automatic sprinkler systems* are required by this code, quick-response or residential automatic sprinklers shall be installed in all of the following areas in accordance with Section 903.3.1 and their listings:

1. Throughout all spaces within a smoke compartment containing care recipient *sleeping units* in Group I-2 in accordance with the *International Building Code.*
2. Throughout all spaces within a smoke compartment containing gas fireplace appliances and decorative gas appliances in Group I-2 in accordance with the *International Building Code.*
2. Throughout all spaces within a smoke compartment containing treatment rooms in ambulatory care facilities.
3. *Dwelling units* and *sleeping units* in Group I-1 and R occupancies.
4. Light-hazard occupancies as defined in NFPA 13.

IFGC 303.3.1 Fireplaces and decorative appliances in Group I-2~~, Condition 2~~ occupancies. In Group I-2, Condition 2 occupancies, gas fireplace appliances and decorative gas appliances shall be prohibited ~~in Group I-2, Condition 2 occupancies~~ except where such appliances are direct-vent appliances installed in public lobby and waiting areas that are not within smoke compartments containing patient sleeping areas. In Group I-2, Condition 1 occupancies, gas fireplace appliances and decorative gas appliances shall be prohibited in patient sleeping rooms. In Group I-2 occupancies, the appliance controls shall be located where they can be accessed only by facility staff. Such fireplaces shall comply with Sections 501.2 and 604.1 of this code and Section 915 of the *International Fire Code*.

Reason: Need quick response sprinkler heads for all Group I-2. Add prohibition for fireplaces in nursing home patient rooms.
Cost Impacts:

K711 & K712

Subject – Fire and Safety evacuation plan
Work Group: Fire/Fire Safety
Committee member: O'Neill

Fire and Safety Evacuation Plan

Note: This proposal looks at coordination across Group B ambulatory care, Groups I-1, I-2 and I-3 and R-4. Bob Davidson interested in sponsoring Group I-3 changes for coordination with Group I-1 and I-2 proposals for consistency across facilities with defend in place plans. Show how this will look all together in reason for first change.

Proposal 1

General reference

403.4 Group B occupancies. An *approved* fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for buildings containing a Group B occupancy where the Group B occupancy has an *occupant load* of 500 or more persons or more than 100 persons above or below the lowest *level of exit discharge* and for buildings having an ambulatory care facility.

~~**404.3**~~ **403.4.1 Ambulatory care facilities.** Ambulatory care facilities shall comply with the requirements of Sections ~~401,~~ 403.3.1 through 403.3.4 ~~and 404 through 406~~.

~~**403.3.1**~~ **403.4.1.1 Fire evacuation plan…..**

~~**403.3.2**~~ **403.4.1.2 Fire safety plan…..**

~~**403.3.3**~~ **403.4.1.3 Staff training…..**

403.8 Group I occupancies. An *approved* fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group I occupancies. Group I occupancies shall comply with Sections 403.8.1 through 403.8.3.4.

403.8.1 Group I-1 occupancies. Group I-1 occupancies shall comply with Sections 403.8.1.1 through 403.8.1.7.

403.8.2 Group I-2 occupancies. Group I-2 occupancies shall comply with Sections ~~401,~~ 403.8.2.1 through 403.8.2.3 ~~and 404 through 406~~.

403.8.3 Group I-3 occupancies. Group I-3 occupancies shall comply with Sections 403.8.3.1 through 403.8.3.4.

403.10 Group R occupancies. Group R occupancies shall comply with Sections 403.10.1 through 403.10.3.6.

403.10.3 Group R-4 occupancies. An *approved* fire safety and evacuation plan in accordance with Section 404 shall be prepared and maintained for Group R-4 occupancies. Group R-4 occupancies shall comply with Sections 403.10.3.1 through 403.10.3.6.

Reason: Move specific ambulatory care facility criteria so that it is a subset of Group B. See the last phrase in Section 403.4 – so this is where it belongs. Reference to 401 and 404 through 406 is inconsistent and not necessary – this would already be required where applicable.

Proposal 2

Fire evacuation plans

Ambulatory care –
403.3.1 Fire safety and evacuation plan. The fire safety and evacuation plan required by Section 404 shall include a description of special staff actions. This shall include procedures for stabilizing patients in a defend-in-place response, staged evacuation, or full evacuation in conjunction with the entire building if part of a multitenant facility.

Group I-1
403.8.1.1 Fire safety and evacuation plan. The fire safety and evacuation plan required by Section 404 shall include a description of special ~~employee~~ staff actions~~.~~ ~~, including fire protection~~ Plans shall include all of the following in addition to the requirements of Section 404.

1. Procedures ~~necessary~~ for full evacuation of residents~~, and~~
2. In Group I-1, Condition 2, procedures for staged evacuation of residents through a refuge area in an adjacent smoke compartment and then to an exterior assembly point.
3. Shall be amended or revised upon admission of any resident with unusual needs.

~~**403.8.1.1.1 Fire evacuation plan.** The fire evacuation plan required by Section 404 shall include a description of special staff actions. In addition to the requirements of Section 404, plans in Group I-1, Condition 2 occupancies shall include procedures for evacuation through a refuge area in an adjacent smoke compartment and then to an exterior assembly point.~~

Group I-2
403.8.2.1 Fire safety and evacuation plans. The fire safety and evacuation plans required by Section 404 shall include a description of special staff actions. Plans shall include all of the following in addition to the requirements of Section 404.

1. Procedures for evacuation for patients with needs for containment or restraint and post-evacuation containment, where present.
2. A written plan for maintenance of the means of egress.

3. Procedure for a defend-in-place strategy.
4. Procedures for a full-floor or building evacuation, where necessary.
5. In Group I-2, Condition 2, shall be amended or revised upon admission of any resident with unusual needs.

Group I-3

403.8.3.1 Fire safety and evacuation plan. The fire safety and evacuation plans required by Section 404 shall include a description of special staff actions. Plans shall include all of the following in addition to the requirements of Section 404.

1. Procedures for evacuation for detainees with needs for containment or restraint and post-evacuation containment, where present.
2. Procedure for a defend-in-place strategy.
3. Procedures for a full-floor or building evacuation, where necessary.

Group R-4

403.10.3.1 Fire safety and evacuation plan. The fire safety and evacuation plan required by Section 404 shall include a description of special ~~employee~~ staff actions.~~, including fire protection~~ Plans shall include the procedures necessary for full evacuation of residents, and shall be amended or revised upon admission of a resident with unusual needs.

Reason: Coordination of requirements for fire and safety evacuation plans. Consistent use of the term "employee" vs. "staff" because everyone in the building may not be an employee – example: doctors, interns, security – but still have responsibilities during an emergency.

Proposal 3

Fire Safety Plan

Ambulatory Care

403.3.2 Fire safety plan. A copy of the fire safety plan shall be maintained at the facility at all times. ~~The plans~~ Plans shall include all of the following in addition to the requirements of Section 404.2.3:

1. Locations of patients who are rendered incapable of self-preservation.
2. Maximum number of patients rendered incapable of self-preservation.
3. Area and extent of each ambulatory care facility.
4. ~~Location of adjacent smoke compartments or refuge areas, where required.~~
5. ~~Path of travel to adjacent smoke compartments.~~
6. Location of any special locking~~, delayed~~ or egress ~~or access~~ control arrangements.

Group I-1

403.8.1.1.2 Fire safety plans. A copy of the fire safety plan shall be maintained at the facility at all times. Plans shall include the following in addition to the requirements of Section 404.2.3:

1. Location and number of resident sleeping rooms.
2. Location of special locking or egress control arrangements.

Group I-2

403.8.2.2 Fire safety plans. A copy of the plan shall be maintained at the facility at all times. Plans shall include all of the following in addition to the requirements of Section 404.2.3:

1. Location and number of patient sleeping rooms and operating rooms.
2. ~~Location of adjacent smoke compartments or refuge areas.~~
3. ~~Path of travel to adjacent smoke compartments.~~
4. Location of special locking~~, delayed~~ or egress ~~or access~~ control arrangements.
5. ~~Location of elevators utilized for patient movement in accordance with the fire safety plan, where provided.~~

Group I-3
403.8.3.1 Fire safety plans. A copy of the fire safety plan shall be maintained at the facility at all times. Plans shall include the following in addition to the requirements of Section 404.2.3:
1. Location and number of cells.
2. Location of special locking or egress control arrangements.

Group R-4
403.10.3.1.1 Fire safety plans. A copy of the fire safety plan shall be maintained at the facility at all times. Plans shall include the following in addition to the requirements of Section 404.2.3:
1. Location and number of resident sleeping rooms.
2. Location of special locking or egress control arrangements.

Reason: Group I-1, Condition 2 includes smoke compartments. When looking at adding smoke compartments, refuge area and path of travel, it was noted that this is already stated in 404.2.1 Item 1 and 404.2.2 Items 2.2 and 4.5. Therefore it is proposed to remove form Ambulatory care and Group I-2. Assisted evacuation is addressed in 404.2.1 Item 4 and 404.2.2 Item 2.3. Last cycle there was a lot of work on the different locking systems. There should be a consistent and generic reference for these locking systems – "location of special locking or egress control arrangements".

Proposal 4

Staff training:

Ambulatory care
403.3.3 Staff training. ~~Employees~~ Staff shall be periodically instructed and kept informed of their duties and responsibilities under the plan. Records of instruction shall be maintained. Such instruction shall be reviewed by the staff at intervals not ~~less than every~~ not exceeding two months. Training of new staff shall be provided promptly upon entrance to duty. ~~A copy of the plan shall be readily available at all times within the facility.~~
Staff shall be instructed in the proper use of portable fire extinguishers and other manual fire suppression equipment.

Group I-1
403.8.1.2 ~~Employee~~ Staff training. ~~Employees~~ Staff shall be periodically instructed and kept informed of their duties and responsibilities under the plan. Records of instruction shall be maintained. Such instruction shall be reviewed by ~~employees~~ staff at intervals not exceeding two months. Training of new staff shall be provided promptly upon entrance to duty. ~~A copy of the plan shall be readily available at all times within the facility.~~
Staff shall be instructed in the proper use of portable fire extinguishers and other manual fire suppression equipment.

Group I-2
403.8.2.3 Staff training. Staff shall be periodically instructed and kept informed of their duties and responsibilities under the plan. Records of instruction shall be maintained. Such instruction shall be reviewed by staff at intervals not exceeding two months. Training of new staff shall be provided promptly upon entrance to duty.
Staff shall be instructed in the proper use of portable fire extinguishers and other manual fire suppression equipment.

Group I-3
403.8.3.1 ~~Employee~~ Staff training. Staff shall be periodically instructed and kept informed of their duties and responsibilities under the plan. Records of instruction shall be maintained. Such instruction shall be reviewed by staff at intervals not exceeding two months. ~~Employees shall be instructed in the proper use of portable fire~~

~~extinguishers and other manual fire suppression equipment.~~ Training of new ~~employees~~ staff shall be provided promptly upon entrance to duty. ~~Refresher training shall be provided not less than annually.~~

Staff shall be instructed in the proper use of portable fire extinguishers and other manual fire suppression equipment.

403.8.3.2 ~~Employee~~ Staff staffing. Group I-3 occupancies shall be provided with 24-hour staffing. An ~~employee~~ staff shall be within three floors or 300 feet (91 440 mm) horizontal distance of the access door of each resident housing area. In Group I-3 Conditions 3, 4 and 5, as defined in Chapter 2, the arrangement shall be such that the ~~employee~~ staff involved can start release of locks necessary for emergency evacuation or rescue and initiate other necessary emergency actions within 2 minutes of an alarm.

Exception: An ~~employee~~ staff shall not be required to be within three floors or 300 feet (91 440 mm) horizontal distance of the access door of each resident housing area in areas in which all locks are unlocked remotely and automatically in accordance with Section 408.4 of the *International Building Code*.

Group R-4

403.10.3.2 ~~Employee~~ Staff training. ~~Employees~~ Staff shall be periodically instructed and kept informed of their duties and responsibilities under the plan. Records of instruction shall be maintained. Such instruction shall be reviewed by ~~employees~~ staff at intervals not exceeding two months. Training of new staff shall be provided promptly upon entrance to duty. ~~A copy of the plan shall be readily available at all times within the facility.~~

Staff shall be instructed in the proper use of portable fire extinguishers and other manual fire suppression equipment.

Reason: The criteria is not consistent is using the term “employee” or “staff”. It is important for employees within these facilities to be trained, including training for new employees and review of the plan. The language is revised to be consistent, and added to Group I-2 and I-3.

Where fire extinguishers are provided, the staff should be trained in their use.

Consistent use of the term “employee” vs. “staff” because everyone in the building may not be an employee – example: doctors, interns, security – but still have responsibilities during an emergency.

Proposal 5

Group I-1

403.8.1.? Keys. Keys necessary for unlocking doors installed in a means of egress shall be individually identifiable by both touch and sight.

Group I-2

403.8.2.? Keys. Keys necessary for unlocking doors installed in a means of egress shall be individually identifiable by both touch and sight.

Group I-3

403.8.3.4 Keys. Keys necessary for unlocking doors installed in a means of egress shall be individually identifiable by both touch and sight.

Reason: Where special locking arrangements are permitted by Section 1010.1.9.6 , staff may have keys. This requirement is already in the allowances for jails. It seems reasonable for assisted living and nursing homes where staff unlocking of egress doors is permitted.

Question for Group I-1 and I-2, should there be some information about keys for staff controlled locks in Section 1010.1.9.7. I-3 uses 1010.1.9.11. – Yes, add especially for phsyc

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Proposal 6

Resident training.

Ambulatory care
None for training

Group I-1
403.8.1.3 Resident training. Residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a fire. In Group I-1, Condition 2 occupancies, training shall include evacuation through an adjacent smoke compartment and then to an exterior assembly point. The training shall include actions to take if the primary escape route is blocked. ~~Where the resident is given rehabilitation or habilitation training, methods of fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation training program.~~ Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.

403.8.1.3.1 Rehabilitation training. Where the resident is given rehabilitation or habilitation training, methods of fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation training program.

403.8.1.3.2 Notification. Provisions shall be made for residents in Group I-1 Condition 2 to readily notify staff of an emergency.

Group I-2
403.8.2.3 Resident training. In Group I-2, Condition 1, residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a fire. Training shall include evacuation to an adjacent smoke compartment. The training shall include actions to take if the primary escape route is blocked. Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.

403.8.2.3.1 Rehabilitation training. In Group I-2, Condition 1, where the resident is given rehabilitation or habilitation training, methods of fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation training program.

403.8.2.3.2 Notification. Provisions shall be made for residents in Group I-2 Condition 1 to readily notify staff of an emergency.

Group I-3
403.8.3.3 Resident training. In Group I-3, residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a fire. In Group I-3, Conditions 2 through 5, training shall include evacuation into an adjacent smoke compartment. The training shall include actions to take if the primary escape route is blocked. Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.

~~**403.8.3.3**~~ **403.8.3.4 Notification.** Provisions shall be made for residents in Group I-3 Conditions 3, 4 and 5~~, as defined in Chapter 2,~~ to readily notify ~~an employee~~ staff of an emergency.

Group R-4
403.10.3.3 Resident training. Residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a fire. The training shall include actions to take if the primary escape route is blocked. ~~Where the resident is given rehabilitation or habilitation training, methods of fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation training program.~~ Residents shall be trained to assist each other in case of fire to the extent their physical and mental abilities permit them to do so without additional personal risk.

403.10.3.3.1 Rehabilitation training. Where the resident is given rehabilitation or habilitation training, methods of fire prevention and actions to take in the event of a fire shall be a part of the rehabilitation training program.

403.10.3.3.2 Notification. Provisions shall be made for residents in Group R-4 Condition 2 to readily notify staff of an emergency.

Reason: Group I-1 and R-4 require resident training. Residents in nursing homes and rehab facilities are also long term, and should be trained on evacuation plans where possible. Rehabilitation training should be a separate item so that it is noted.

Group I-2, Condition 2. Residents in nursing homes should at least be made aware of the plan to move to an adjacent smoke compartment, and move themselves is possible.

Some jails allow for free movement. These residents should all be trained to know what will happen if there is a fire to minimize panic. Condition 1 will evacuate the outside since free movement is permitted. Condition 2 through 5 will evacuate into the adjacent fire compartment. Fire department have always been able to stop drills when they want to, so this could just be knowing where to go and not actually practicing moving into the next compartment when there are security issues.

Group I-3 has a requirement that residents have a way to notify staff in an emergency. This seems appropriate for other facilities where residents may need help before the fire alarms/sprinklers activate.

Proposal 7

Drill frequency:

Ambulatory care

TABLE 405.2
FIRE AND EVACUATION DRILL FREQUENCY AND PARTICIPATION

Group or Occupancy	Frequency	Participation
Group B b	Annually	All occupants
Group B ~~e~~ (Ambulatory care facilities)	Quarterly on each shift [a]	Employees
Group B b (Clinic, outpatient)	Annually	Employees

a. In severe climates, the fire code official shall have the authority to modify the emergency evacuation drill frequency.

b. Emergency evacuation drills are required in Group B buildings ~~having an occupant load of 500 or more persons or more than 100 persons above or below the lowest level of exit discharge~~ required to have fire and safety evacuation plans in accordance with Section 403.4.

~~c. Emergency evacuation drills are required in ambulatory care facilities in accordance with Section 403.3.~~

Group I-1

403.8.1.4 Drill frequency. In addition to the evacuation drills required in Section 405.2, employees shall participate in drills an additional two times a year on each shift.. Twelve drills with all occupants shall be conducted in the first year of operation. Drills are not required to comply with the time requirements of Section 405.4.

403.8.1.5 Drill times. Drill times are not required to comply with Section 405.4.

TABLE 405.2
FIRE AND EVACUATION DRILL FREQUENCY AND PARTICIPATION

Group or Occupancy	Frequency	Participation

Group I-1 e	Semiannually on each shift a	All occupants

a. In severe climates, the fire code official shall have the authority to modify the emergency evacuation drill frequency.

e, In Groups I-1 and R-4, see Section 403.8.1.4 and 403.10.3.4 for additional drills for employees.

Group I-2

403.8.2.4 Drill frequency. In Group I-2, Condition 1, in addition to the evacuation drills required in Section 405.2, employees shall participate in drills an additional two times a year on each shift.. Twelve drills with all occupants shall be conducted in the first year of operation.

TABLE 405.2
FIRE AND EVACUATION DRILL FREQUENCY AND PARTICIPATION

Group or Occupancy	Frequency	Participation
Group I-2, Condition 1 f	Semiannually on each shift a	All occupants
Group I-2, Condition 2	Quarterly on each shift a	Employees

a. In severe climates, the fire code official shall have the authority to modify the emergency evacuation drill frequency.

f, In Group I-2, Condition 1, see Section 403.8.2.4 for additional drills for employees and Section 403.8.2.3 for residents participation.

Group I-3

403.8.3.4 Drill frequency. In Group I-3, in addition to the evacuation drills required in Section 405.2, employees shall participate in drills an additional two times a year on each shift.. Twelve drills with all occupants shall be conducted in the first year of operation.

TABLE 405.2
FIRE AND EVACUATION DRILL FREQUENCY AND PARTICIPATION

Group or Occupancy	Frequency	Participation
Group I-3 g	~~Quarterly on each shift a~~ Semiannually on each shift a	~~Employees~~ All occupants

a. In severe climates, the fire code official shall have the authority to modify the emergency evacuation drill frequency.

g., In Group I-3, see Section 403.8.3.4 for additional drills for employees and Section 403.8.3.3 for residents participation.

Group R-4

403.10.3.4 Drill frequency. In addition to the evacuation drills required in Section 405.2, employees shall participate in drills an additional two times a year on each shift . Twelve drills with all occupants shall be conducted in the first year of operation.

403.10.3.5 Drill times. Drill times are not required to comply with Section 405.4.

TABLE 405.2
FIRE AND EVACUATION DRILL FREQUENCY AND PARTICIPATION

Group or Occupancy	Frequency	Participation
Group –R-4 e	Semiannually on each shift a	All occupants

a. In severe climates, the fire code official shall have the authority to modify the emergency evacuation drill frequency.

e,. In Groups I-1 and R-4, see Section 403.8.1.4 and 403.10.3.4 for drills for employees.

Reason: Primary purpose is for consistency to put minimum drills in the table and additional drills for employees in each use group.

Group B – the reference back to fire and safety evacuation plans will keep the same threshold, and will reduce the chance that over time the numbers could be changed in one place and not the other. The reference back to ambulatory care requirements is circular. No other use group sends you back to the requirements for drills in the fire and safety evacuation plans. This may just be residual when ambulatory care was part of Group B instead of a specific line item.

Coordinated table for Group I-2 and I-3 where resident training is being added by previous proposal.

Proposal 8

Drill timing and weather

Ambulatory care

403.3.4 Emergency evacuation drills. Emergency evacuation drills shall comply with Section 405.

Exception: The movement of patients to safe areas or to the exterior of the building is not required.

Group I-1

403.8.1.4 Drill frequency. In addition to the evacuation drills required in Section 405.2, employees shall participate in drills an additional two times a year on each shift.. Twelve drills with all occupants shall be conducted in the first year of operation. ~~Drills are not required to comply with the time requirements of Section 405.4.~~

~~**403.8.1.5 Drill times.** Drill times are not required to comply with Section 405.4.~~

~~**403.8.1.7 Emergency evacuation drill deferral.** In severe climates, the *fire code official* shall have the authority to modify the emergency evacuation drill frequency specified in Section 405.2.~~

Group I-2

403.8.2.3 Emergency evacuation drills. Emergency evacuation drills shall comply with Section 405.

Exception~~s~~:

~~1.~~ The movement of patients to safe areas or to the exterior of the building is not required.

~~2. Where emergency evacuation drills are conducted after visiting hours or where patients or residents are expected to be asleep, a coded announcement shall be an acceptable alternative to audible alarms.~~

Group I-3

Group R-4

~~**403.10.3.5 Drill times.** Drill times are not required to comply with Section 405.4.~~

TABLE 405.2

FIRE AND EVACUATION DRILL FREQUENCY AND PARTICIPATION

Group or Occupancy	Frequency	Participation

Note: Footnote a is currently tied to Ambulatory care, Group E, all Group I, and R-4. – remove footnote a

~~a. In severe climates, the fire code official shall have the authority to modify the emergency evacuation drill frequency.~~

405.4 Time. Drills shall be held at unexpected times and under varying conditions to simulate the unusual conditions that occur in case of fire.

Exceptions:

1. In severe climates, the fire code official shall have the authority to modify the emergency evacuation drill termination points and frequency.
2. In Groups I-1, I-2, I-3 and R-4, where employee only emergency evacuation drills are conducted after visiting hours or where patients or residents are expected to be asleep, a coded announcement shall be an acceptable alternative to audible alarms.

Reason: Group I-1 and R-4 allow for the timing to not be "unexpected time and under varying conditions". We believe this was to not startle patients at night while they are sleeping. However, both types of facilities require additional drills for staff at all shifts. It seems more appropriate to follow the exception under Group I-2, Exception 2 as well as also allow this for jails (even if the proposal for resident participation is not approved).

The exception for severe weather is stated only for Group I-1, in Section 403.8.1.7. However, Table 405 foot note a, allows the fire department to make a similar call for Ambulatory Care, Group E, all Group I-1 and R-4. It seems more appropriate just to make a general statement in Section 405.2 since the fire department could always make this call for any drill.

Note: If both exceptions to 403.8.2.3 are removed (exception 2 is addressed under a different proposal), the whole section is redundant text and should be removed.

Proposal 9

Patient/Resident participation

Ambulatory care

~~**403.3.4 Emergency evacuation drills.** Emergency evacuation drills shall comply with Section 405.~~
~~**Exception:** The movement of patients to safe areas or to the exterior of the building is not required.~~

Group I-1

~~**403.8.1.6 Resident participation in drills.** Emergency evacuation drills shall involve the actual evacuation of residents to a selected assembly point and shall provide residents with experience in exiting through all required exits. All required exits shall be used during emergency evacuation drills.~~

Group I-2

403.8.2.3 Emergency evacuation drills. Emergency evacuation drills shall comply with Section 405.

Exception~~s~~:

~~1. The movement of patients to safe areas or to the exterior of the building is not required.~~
~~2.~~ Where emergency evacuation drills are conducted after visiting hours or where patients or

residents are expected to be asleep, a coded announcement shall be an acceptable alternative to audible alarms.

Group I-3

Group R-4

~~**403.10.2.1 Resident participation in drills.** Emergency evacuation drills shall involve the actual evacuation of residents to a selected assembly point and shall provide residents with experience in exiting through all required exits. All required exits shall be used during emergency evacuation drills.~~

~~**Exception:** Actual exiting from emergency escape and rescue windows shall not be required. Opening the emergency escape and rescue window and signaling for help shall be an acceptable alternative.~~

SECTION 405
EMERGENCY EVACUATION DRILLS

405.1 General. Emergency fire and evacuation drills complying with Sections 405.2 through ~~405.9~~ 405.10 shall be conducted not less than annually where fire safety and evacuation plans are required by Section 403 or where required by the *fire code official*. Drills shall be designed in cooperation with the local authorities.

405.2. Occupant participation. Emergency fire and evacuation drills shall involve the actual evacuation of occupants to a selected assembly point and shall provide occupants with experience in exiting through all required exits. All required exits shall be used during emergency evacuation drills.

Exceptions:

1. In Group B Ambulatory Care Facilities and Group I-2, Condition 2, the movement of patients to a safe area or to the exterior of the building is not required.
2. In Group I-1, Condition 2 and Group I-2, Condition 2 and where a defend-in-place response is permitted, the assembly point for residents is permitted to be within an adjacent smoke compartment.
3. In Group R-4, actual exiting from emergency escape and rescue openings shall not be required. Opening the emergency escape and rescue opening and signaling for help shall be an acceptable alternative.
4. In Group I-3, Conditions 2 through 5 where a defend-in-place response is permitted, the assembly point for detainees is permitted to be within an adjacent smoke compartment.
5. In Group I-3, Conditions 2 through 5, movement of detainees is not required to an assembly point is not required where there are security concerns.

Renumber subsequent sections.

Reason: The requirements for drills in Section 405 never really say where you move to during a drill. It is only implied in IFC 405.8 when it mentions accountability at assembly points.

How to leave and get to an assembly point is stated for Group I-1 and R-4, but does not recognize the new requirements for smoke compartments in Group I-1, Condition 2. It is implied by the exceptions in ambulatory care and Group I-2 that drills are for moving to smoke compartments by having exception for movement of patients in beds. This should be stated at the beginning of the drill requirements for all facilities.

The exceptions for drills should be in the drill section specifically. The exceptions could stay in the specific requirements, but only if Section 405 included a description of what was supposed to happen for drills, otherwise the reference to Section 405 does not make sense.

Exception 4 ad 5 are in recognition of detainee participation in drills for jails.

Note: If both exceptions to 403.8.2.3 are removed (exception 1 is addressed under a different proposal), the whole section is redundant text and should be removed.

Proposal 10

Lock down plans

~~**404.2.3.2 Drills.** Lockdown plan drills shall be conducted in accordance with the approved plan. Such drills shall not be substituted for fire and evacuation drills required by Section 405.2.~~

404.3 Maintenance. Fire safety and evacuation plans and lockdown plans shall be reviewed or updated annually or as necessitated by changes in staff assignments, occupancy or the physical arrangement of the building.

404.4 Availability. Fire safety and evacuation plans and lockdown plans shall be available in the workplace for reference and review by employees, and copies shall be furnished to the fire code official for review on request.

404.4.1 Distribution. The fire safety and evacuation plans and lockdown plans shall be distributed to the tenants and building service employees by the owner or owner's agent. Tenants shall distribute to their employees applicable parts of the fire safety plan and lockdown plans affecting the employees' actions in the event of a fire or other emergency.

SECTION 405
EMERGENCY ~~EVACUATION~~ DRILLS

405.1 General. Emergency fire and evacuation drills complying with Sections 405.2 through 405.9 shall be conducted not less than annually where fire safety and evacuation plans are required by Section 403 or where required by the *fire code official*. Lockdown plan drills shall be conducted in accordance with the approved plan. Such drills shall not be substituted for fire and evacuation drills required by Section 405.2. Drills shall be designed in cooperation with the local authorities.

Reason: A hospital can have lock down plans related to a possible infant or child abduction. There are similar situation where there are concerns patient's wandering or leaving the facility – such as dementia, addition recovery or psychiatric wards.

The current list of information seems appropriate for lock down plans in hospitals. However, it was noted that the requirements were not carried through into the provisions for maintenance, availability, distribution and drills.

Section 405 is labeled emergency evacuation drills, but does not mention the drills required for lockdowns – which, while they may start with locking-down, still include eventual directed evacuation. The last section of the lock-down plans, which mentions drills, is moved to the general section under emergency drills to clarify this.

Proposal 11

Alarms

907.2.6 Group I. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group I occupancies. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be provided in accordance with Sections 907.2.6.1, 907.2.6.2 and 907.2.6.3.3.

Exceptions:

1. Manual fire alarm boxes in *sleeping units* of Group I-1 and I-2 occupancies shall not be required at *exits* if located at all care providers' control stations or other constantly attended staff locations, provided that such manual fire alarm boxes are visible and provided with *ready access*, and the distances of travel required in Section 907.4.2.1 are not exceeded.
2. Occupant notification systems are not required to be activated where private mode signaling installed in accordance with NFPA 72 is *approved* by the *fire code official* and staff evacuation responsibilities are included in the fire safety and evacuation plan required by Section 404.

907.5.2 Alarm notification appliances. Alarm notification appliances shall be provided and shall be *listed* for their purpose.

907.5.2.1 Audible alarms. Audible alarm notification appliances shall be provided and emit a distinctive sound that is not to be used for any purpose other than that of a fire alarm.

Exceptions:

1. Audible alarm notification appliances are not required in critical care areas of Group I-2, Condition 2 occupancies that are in compliance with Section 907.2.6, Exception 2.
2. A visible alarm notification appliance installed in a nurses' control station or other continuously attended staff location in a Group I-2, Condition 2 suite shall be an acceptable alternative to the installation of audible alarm notification appliances throughout the suite or unit in Group I-2, Condition 2 occupancies that are in compliance with Section 907.2.6, Exception 2.
3. Where provided, audible notification appliances located in each enclosed occupant evacuation elevator lobby in accordance with Section 3008.9.1 of the *International Building Code* shall be connected to a separate notification zone for manual paging only.

907.5.2.2 Emergency voice/alarm communication systems. Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler waterflow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving *approved* information and directions for a general or staged evacuation in accordance with the building's fire safety and evacuation plans required by Section 404. In high-rise buildings, the system shall operate on at least the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided as follows:

1. Elevator groups.
2. *Interior exit stairways*.
3. Each floor.
4. *Areas of refuge* as defined in Chapter 2.

Exception: In Group I-1 and I-2 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

907.5.2.3 Visible alarms. Visible alarm notification appliances shall be provided in accordance with Sections 907.5.2.3.1 through 907.5.2.3.3.

Exceptions:

1. Visible alarm notification appliances are not required in *alterations*, except where an existing fire alarm system is upgraded or replaced, or a new fire alarm system is installed.
2. Visible alarm notification appliances shall not be required in *exits* as defined in Chapter 2.
3. Visible alarm notification appliances shall not be required in elevator cars.
4. Visual alarm notification appliances are not required in critical care areas of Group I-2, Condition 2 occupancies that are in compliance with Section 907.2.6, Exception 2.
5. A visible alarm notification appliance installed in a nurses' control station or other continuously attended staff location in a Group I-2, Condition 2 suite shall be an acceptable alternative to the installation of visible alarm notification appliances throughout the suite or unit in Group I-2, Condition 2 occupancies that are in compliance with Section 907.2.6, Exception 2.

Reason: There should be an exception for both visible and audible alarms in hospitals. Current text is only audibles.
The current exception says no audible alarms within a suite. What about outside suites? Use 'unit'?
The emergency/voice alarm has an exception for Group I-1 and I-2 – does this match audible and visible alarm exceptions?

K741

Subject: Smoking
Work Group: F/FS
Committee member: Jeff O'Neill

Revise section as follows:

IFC SECTION 310
SMOKING

IFC 310.1 General. The smoking or carrying of a lighted pipe, cigar, cigarette or any other type of smoking paraphernalia or material is prohibited in the areas indicated in Sections 310.2 through 310.8.

IFC 310.2 Prohibited areas. Smoking shall be prohibited where conditions are such as to make smoking a hazard, and in spaces where flammable or combustible materials are stored or handled.

Exception: In Group I-2 occupancies, patients shall be permitted to smoke in designated patient care areas, based on clinical needs of the patient.

IFC 310.2.1 Group I-2. In Group I-2 occupancies smoking shall be prohibited in patient care areas, or where oxygen is used, stored or handled.

IFC 310.3 "No Smoking" signs. The *fire code official* is authorized to order the posting of "No Smoking" signs or the international symbol for no smoking in a conspicuous location in each structure or location in which smoking is prohibited. The content, lettering, size, color and location of required "No Smoking" signs shall be *approved*.

Exception: ~~In Group I-2 occupancies where smoking is prohibited~~ No Smoking" signs are not required in interior locations of the facility where signs are displayed at all major entrances into the facility

IFC 310.4 Removal of signs prohibited. A posted "No Smoking" sign shall not be obscured, removed, defaced, mutilated or destroyed.

IFC 310.5 Compliance with "No Smoking" signs. Smoking shall not be permitted nor shall a person smoke, throw or deposit any lighted or smoldering substance in any place where "No Smoking" signs are posted.

IFC 310.6 Ash trays. Where smoking is permitted, suitable noncombustible ash trays or match receivers shall be provided on each table and at other appropriate locations. In Group I-2 occupancies, non-combustible, metal containers with self-closing covers, shall be provide in areas where smoking is permitted.

IFC 310.7 Burning objects. Lighted matches, cigarettes, cigars or other burning object shall not be discarded in such a manner that could cause ignition of other combustible material.

IFC 310.8 Hazardous environmental conditions. Where the *firecode official* determines that hazardous environmental conditions.

REASON: The signage exception from the 2015 cycle is moved to a dedicated paragraph for I-2 occupancies. Certain allowances for smoking by patients or residents are added to the K-Tag, so breaking out the occupancy into its own paragraph makes sense. Psychiatric allowances are also needed to manage smoking, particularly among behavioral health addiction patients.

The addition to paragraph 310.6 is a general statement from the Business Occupancy section of the LSC to allow for containers to dispose of ashes. This broadens the scope beyond the Health Care committee, so recommend presenting to the Fire CAC.

Cost Impacts:

K791

Subject: Safeguard during construction for means of egress
Work Group: F/FS
Committee member: O'Neill

Add new section as follows:

IBC 3310.2.1 [IFC 3311.3 Protection of means of egress. Where alterations or additions are made to a portion of occupied Group I-2 existing buildings, required *means of egress* shall be protected by a one-hour smoke partition separating the construction area from the means of egress.

Notes 8-31-2017: Limit to I-2. Change to reference to NFPA 241?
BCAC Notes 10-4-2017: Should this be alterations/additions vs. renovations? Only trigger this if the rest of the building is occupied. Use "separation" of means of egress instead of "enclosure". Possible exception for repairs or maintenance? Separation is fire barrier, fire partition, smoke partition, smoke barrier? Including opening protectives?

Reason: This change seeks to modify construction considerations to include 1-hour separation from the construction zone to the occupied area, per federal standard.

Cost Impact: This change will not significantly add cost, since it is a current standard that is already followed by I-2 occupancies.

K909 & K924

Subject: medical gas systems
Work Group:MEP
Committee member: Flannery

10-5-2017: Possible co-sponsorship with FCAC. 10-5-2017: Show to PMGCAC

Add new/Revise section as follows:

IFC 5306.5 Medical gas systems and equipment**.** Medical gas systems and equipment ~~including, but not limited to, distribution piping, supply manifolds, connections, pressure regulators and relief devices and valves,~~ shall be installed, tested and labeled in accordance with NFPA 99 and the general provisions of this chapter. Existing medical gas systems and equipment shall be maintained in accordance with the maintenance, inspection and testing provisions of NFPA 99 for medical gas systems and equipment.

IPC SECTION 1202
MEDICAL GASES

IPC [F] 1202.1 Nonflammable medical gases. Nonflammable medical gas systems, inhalation anesthetic systems and vacuum piping systems shall be ~~designed~~ ~~and~~ installed, tested and labeled in accordance with NFPA 99.
Exceptions:
1. This section shall not apply to portable systems or cylinder storage.
2. Vacuum system exhaust terminations shall comply with the *International Mechanical Code*.

10-3-2017: Covering all aspects of the system. Coordinate between the IPC and the IFC. Coordinate with federal requirements for health care facilities.

Reason:
Cost Impacts: None for certified facilities.

K913

Subject: Wet Procedure location
Work Group:MEP
Committee member: Zannoni

Add new/Revise section as follows:

IFC 604.3 Health care facilities. In Group I-2 facilities,Group B ambulatory care facilities and outpatient clinics, the electrical systems shall be maintained and tested in accordance with NFPA99.

Reason:
Cost Impacts:

11-16-2018: FCAC had concern about reference to NFPA 70 to imply that other buildings did not have to comply. CHC did not want to expend scope of NFPA 70 to all buildings, so proposed to take out NFPA 70 reference since you get that from NFPA 99.

K918

Subject
Work Group:MEP
Committee member: Peglow

IFC 1203.4 Maintenance. Emergency and standby power systems shall be maintained in accordance with NFPA 110 and NFPA 111 such that the system is capable of supplying service within the time specified for the type and duration required.

IFC 1203.4.1 Group I-2 and ambulatory care facilities**.** In Group I-2 and ambulatory care facilities occupancies, emergency and standby power systems shall be maintained in accordance with NFPA 99.

IFC 1203.4.2 Schedule. Inspection, testing and maintenance of emergency and standby power systems shall be in accordance with an approved schedule established upon completion and approval of the system installation.

IFC 1203.4.3 Records. Records of the inspection, testing and maintenance of emergency and standby power systems shall include the date of service, name of the servicing technician, a summary of conditions noted and a

detailed description of any conditions requiring correction and what corrective action was taken. Such records shall be maintained.

IFC 1203.4.4 Switch maintenance. Emergency and standby power system transfer switches shall be included in the inspection, testing and maintenance schedule required by Section 1203.4.2. Transfer switches shall be maintained free from accumulated dust and dirt. Inspection shall include examination of the transfer switch contacts for evidence of deterioration. When evidence of contact deterioration is detected, the contacts shall be replaced in accordance with the transfer switch manufacturer's instructions.

IFC 1203.5 Operational inspection and testing. Emergency power systems, including all appurtenant components, shall be inspected and tested under load in accordance with NFPA 110 and NFPA 111.

> **Exception:** Where the emergency power system is used for standby power or peak load shaving, such use shall be recorded and shall be allowed to be substituted for scheduled testing of the generator set, provided that appropriate records are maintained.

IFC 1203.5.1 Group I-2 and Group B ambulatory care facilities. In Group I-2 occupancies and Group B ambulatory care facilties, emergency and standby power systems shall be inspected and tested under load in accordance with NFPA 99.

IFC 1203.5.2 Transfer switch test. The test of the transfer switch shall consist of electrically operating the transfer switch from the normal position to the alternate position and then return to the normal position.

IFC 1203.6 Supervision of maintenance and testing. Routine maintenance, inspection and operational testing shall be overseen by a properly instructed individual.

Reason: statement CMS statement of conditions participation.

Cost: Ambulatory care facilities consistently perform these test today so there is no additional cost to maintain according to NFPA 99, 110 and 111.

K920

Subject: Power strip
Work Group: F/FS
Committee member: Flannery

Add new/Revise section as follows:

IFC 604.4 Multiplug adapters. Multiplug adapters, such as cube adapters, unfused plug strips or any other device not complying with NFPA 70 shall be prohibited.

IFC 604.4.1 Power tap design. Relocatable power taps shall be of the polarized or grounded type, equipped with overcurrent protection, and shall be *listed* in accordance with UL 1363.

IFC 604.4.2 Power taps in Group I-2, Condition 2. In Group I-2, Condition 2 facilities, power strips shall comply with one of the following:

1. Power strips providing power to patient care-related electrical equipment must be Special Purpose Relocatable Power Taps (SPRPT) listed in accordance with UL 1363A or UL 60601-1.
2. Power strips providing power to non- patient-care-related electrical equipment must be Relocatable Power Taps (RPT) listed in accordance with UL 1363.

IFC 604.4.3 Power Taps in Group I-2, Condition 1. In Group I-2, Condition 1 facilities, in resident rooms using line-operated patientcare-related electrical equipment, power strips in the patient care vicinity must be Special Purpose Relocatable Power Taps (SPRPT) listed in accordance with UL 1363A or UL 60601-1.

Chapter 80:
10-3-2017: UL 1363A and UL 60601-1 are new standards. UL1363 is already in the codes. Ask Ed about getting copies of UL standards.

Reason:
Cost Impacts:

K925

Subject: Respiratory Therapy Sources of Ignition

Work Group: F/FS
Committee member: Flannery

Add new/Revise section as follows:

IFC 5003.7.4 Respiratory therapy. In Group I-2 and ambulatory care facilities, within areas with respiratory therapy services, sources of ignition shall be regulated in accordance with NFPA 99.

Reason:
Cost Impacts:

Notes 11-16-2017: State in reason where in NFPA 99 and what you want fire officials to look at.

K926

Subject: Gas Equipment Qualifications and Training of Personnel

Work Group: MEP
Committee member: Flannery

Add new/Revise section as follows:

SECTION 5306
MEDICAL GASES

IFC 5306.1 General. Medical gases at health care-related facilities intended for patient or veterinary care shall comply with Sections 5306.2 through 5306.5 in addition to other requirements of this chapter and Section 427 of the *International Building Code*.

IFC 5306.1.1 Training. Personnel who handle medical gases and associated equipment and cylinders shall be trained on the use, safe handling and associated hazards.

Reason:
Cost Impacts:

K928

Subject: transfilling
Work Group: MEP
Committee member: Zanonni

Add new section as follows:

IFC 5306.5 Medical gas systems and equipment. Medical gas systems including, but not limited to, distribution piping, supply manifolds, connections, pressure regulators and relief devices and valves, and associated equipment shall be installed in accordance with NFPA 99 and the general provisions of this chapter. Existing medical gas systems and associated equipment shall be used and maintained in accordance with the use, maintenance, inspection and testing provisions of NFPA 99 for medical gas systems and gas equipment.

Reason:
Cost Impacts:

Notes 11-14-2016: Look at what is in IBC Section 427. Should any of this also be there?

K933

FIRE LOSS PREVENTION IN GROUP I - 2-CONDITION 2 OPERATING ROOMS
Work Group: F/FS
Committee member: Jeff O'Neill

Add new section as follows:

IFC 403.8.2.4 Fire loss prevention in operating rooms. Fire protection features and procedures for surgical operating rooms shall comply with NFPA 99, Section 15.13.

Reason: Adding a reference to NFPA 99 for fire loss prevention in operating rooms ensure capturing the intent of the concepts to be used in this setting. Operating rooms are subject to potential fires if flammable materials are exposed to accelerants ignited by cautery or surgical procedures. NFPA 99 is the standard for systems and procedures to be used in I-2, Condition 2 hospitals. Chapter 4 of the IFC is the appropriate location to address fire prevention in this setting. This code change is proposed to align with federal standards.

Cost Impacts: this code change will not increase costs, because hospitals already are required to comply with this standard as set forth by federal standards.

BCAC Note 10-4-2017: What is a 'fire protection features' specifically?

P1

Subject: Assisted toileting
Work Group:

Committee member: Carpenter/Caulkins

10-3-2017: Paarlberg to provide technical criteria for assisted shower. Caulkins has provided reasons for proposal once split into different parts.
11-17-2017: Two options for scoping – 1107 or 1109. See scoping option for 1109 at end of proposal.
11-30-2017: Decide to go with scoping in 1109.
12-8-2017: Maggie, Amy, Wayne and Henry were on call with Marsha Mazz. Suggested moving exceptions to 1107 and a portion of Accessible units.

Assisted Toileting in I-2 and I-1

The code needs to recognize that older adults have limited upper body strength and while they do need assistance (grab bars) when transferring on/off the toilet the standard grab bar configuration does not work for them. Research has proven that the use of fold-down grab bars on both sides of the toilet is safer and easier for older adults who transfer independently. In addition, residents in care settings who need staff assistance to transfer on/off the toilet need more space between the toilet and the wall to enable a staff person (or two) to fully assist a person without risk of injury to the caregiver. In addition, the additional space at the toilet also allows for better access with a lifting device.

The Mayer-Rothschild Foundation has completed research that gives ideal dimensions for grab bars and toilet spacing. The research was completed too late to be considered for inclusion in the most recent ANSI A117.1. Instead of waiting for the next cycle and for its subsequent adoption into the I-codes, it was suggested that I add something into the scoping of IBC.

1107.5 Group I. *Accessible units* and *Type B units* shall be provided in Group I occupancies in accordance with Sections 1107.5.1 through 1107.5.5.

1107.5.1 Group I-1. *Accessible units* and *Type B units* shall be provided in Group I-1 occupancies in accordance with Sections 1107.5.1.1 ~~and 1107.5.1.2~~ through 1107.5.1.3.

1107.5.1.1 Accessible units in Group I-1, Condition 1. In Group I-1, Condition 1, at least 4 percent, but not less than one, of the *dwelling units* and *sleeping units* shall be *Accessible units*.

Exceptions:

1. Within toilet rooms or bathrooms designed for assisted toileting and serving not more than 50 percent of the Accessible patient dwelling units or sleeping units, water closets shall not be required to comply with ICC A117.1 where water closets comply with Section 1109.2.2.
2. Within toilet rooms or bathrooms designed for assisted bathing and serving not more than 50 percent of the Accessible patient dwelling units or sleeping units, roll-in-type showers shall not be required to comply with ICC A117.1 where roll-in-type showers comply with Section 1109.2.3.

1107.5.1.2 Accessible units in Group I-1, Condition 2. In Group I-1, Condition 2, at least 10 percent, but not less than one, of the *dwelling units* and *sleeping units* shall be *Accessible units*.

Exceptions:

1. Within toilet rooms or bathrooms designed for assisted toileting and serving not more than 50 percent of the Accessible patient dwelling units or sleeping units, water closets shall not be required to comply with ICC A117.1 where water closets comply with Section 1109.2.2.

2. Within toilet rooms or bathrooms designed for assisted bathing and serving not more than 50 percent of the Accessible patient dwelling units or sleeping units, roll-in-type showers shall not be required to comply with ICC A117.1 where roll-in-type showers comply with Section 1109.2.3.

~~1107.5.1.2~~ **1107.5.1.3 Type B units.** In structures with four or more *dwelling units* or *sleeping units intended to be occupied as a residence*, every *dwelling unit* and *sleeping unit intended to be occupied as a residence* shall be a *Type B unit*.

Exception: The number of *Type B units* is permitted to be reduced in accordance with Section 1107.7.

1107.5.2 Group I-2 nursing homes. *Accessible units* and *Type B units* shall be provided in nursing homes of Group I-2, Condition 1 occupancies in accordance with Sections 1107.5.2.1 and 1107.5.2.2.

1107.5.2.1 Accessible units. At least 50 percent but not less than one of each type of the *dwelling units* and *sleeping units* shall be *Accessible units*.

Exceptions:

1. Within toilet rooms or bathrooms designed for assisted toileting and serving not more than 90 percent of the Accessible patient dwelling units or sleeping units, water closets shall not be required to comply with ICC A117.1 where water closets comply with Section 1109.2.2.
2. Within toilet rooms or bathrooms designed for assisted bathing and serving not more than 90 percent of the Accessible patient dwelling units or sleeping units, roll-in-type showers shall not be required to comply with ICC A117.1 where roll-in-type showers comply with Section 1109.2.3.

1107.5.2.2 Type B units. In structures with four or more *dwelling units* or *sleeping units intended to be occupied as a residence*, every *dwelling unit* and *sleeping unit intended to be occupied as a residence* shall be a *Type B unit*.

Exception: The number of *Type B units* is permitted to be reduced in accordance with Section 1107.7.

1107.5.3 Group I-2 hospitals. *Accessible units* and *Type B units* shall be provided in general-purpose hospitals, psychiatric facilities and detoxification facilities of Group I-2, Condition 2 occupancies in accordance with Sections 1107.5.3.1 and 1107.5.3.2.

1107.5.3.1 Accessible units. At least 10 percent, but not less than one, of the ~~*dwelling units* and~~ *sleeping units* shall be *Accessible units*.

Exceptions:

1. Entry doors to *Accessible* ~~*dwelling units* or~~ *sleeping units* shall not be required to provide the maneuvering clearance beyond the latch side of the door where the door provides a clear width of not less than 41-1/2 inches (1054 mm).
2. Within toilet rooms or bathrooms designed for assisted toileting and serving not more than 50 percent of the Accessible patient sleeping units, water closets shall not be required to comply with ICC A117.1 where water closets comply with Section 1109.2.2.
3. Within toilet rooms or bathrooms designed for assisted bathing and serving not more than 50 percent of the Accessible patient sleeping units, roll-in-type showers shall not be required to comply with ICC A117.1 where roll-in-type showers comply with Section 1109.2.3.

1107.5.3.2 Type B units. In structures with four or more ~~*dwelling units* or~~ *sleeping units intended to be occupied as a residence*, every ~~*dwelling unit* and~~ *sleeping unit intended to be occupied as a residence* shall be a *Type B unit*.

Exception: The number of *Type B units* is permitted to be reduced in accordance with Section 1107.7.

1107.5.4 Group I-2 rehabilitation facilities. In hospitals and rehabilitation facilities of Group I-2, Condition 2 occupancies that specialize in treating conditions that affect mobility, or units within either that specialize in treating conditions that affect mobility, 100 percent of the *dwelling units* and *sleeping unit*s shall be *Accessible units*.

Exceptions:

1. Within toilet rooms or bathrooms designed for assisted toileting and serving not more than 50 percent of the Accessible patient dwelling units or sleeping units, water closets shall not be required to comply with ICC A117.1 where water closets comply with Section 1109.2.2.
2. Within toilet rooms or bathrooms designed for assisted bathing and serving not more than 50 percent of the Accessible patient dwelling units or sleeping units, roll-in-type showers shall not be required to comply with ICC A117.1 where roll-in-type showers comply with Section 1109.2.3.

1107.5.5 Group I-3. *Accessible units* shall be provided in Group I-3 occupancies in accordance with Sections 1107.5.5.1 through 1107.5.5.3.

1107.5.5.3 Medical care facilities. Patient *sleeping unit*s or cells required to be *Accessible units* in medical care facilities shall be provided in addition to any medical isolation cells required to comply with Section 1107.5.5.2.

Exceptions:

1. Within toilet rooms or bathrooms designed for assisted toileting and serving not more than 50 percent of the Accessible patient dwelling units or sleeping units, water closets shall not be required to comply with ICC A117.1 where water closets comply with Section 1109.2.2.
2. Within toilet rooms or bathrooms designed for assisted bathing and serving not more than 50 percent of the Accessible patient dwelling units or sleeping units, roll-in-type showers shall not be required to comply with ICC A117.1 where roll-in-type showers comply with Section 1109.2.3.

1109.2 Toilet and bathing facilities. Each toilet room and bathing room shall be *accessible*. Where a floor level is not required to be connected by an *accessible route*, the only toilet rooms or bathing rooms provided within the facility shall not be located on the inaccessible floor. Except as provided for in Sections ~~1109.2.2~~ 1109.2.4 and ~~1109.2.3~~ 1109.2.5, at least one of each type of fixture, element, control or dispenser in each accessible toilet room and bathing room shall be *accessible*.

Exceptions:

1. Toilet rooms or bathing rooms accessed only through a private office, not for *common* or *public use* and intended for use by a single occupant, shall be permitted to comply with the specific exceptions in ICC A117.1.
2. This section is not applicable to toilet and bathing rooms that serve *dwelling units* or *sleeping units* that are not required to be *accessible* by Section 1107.
3. Where multiple single-user toilet rooms or bathing rooms are clustered at a single location, at least 50 percent but not less than one room for each use at each cluster shall be *accessible*.
4. Where no more than one urinal is provided in a toilet room or bathing room, the urinal is not required to be *accessible*.
5. Toilet rooms or bathing rooms that are part of critical care or intensive care patient sleeping rooms serving *Accessible units* are not required to be *accessible*.
6. Toilet rooms or bathing rooms designed for bariatrics patients are not required to comply with the toilet room and bathing room requirement in ICC A117.1. The *sleeping units* served by bariatrics toilet or bathing rooms shall not count toward the required number of *Accessible sleeping units.*
7. Where permitted in Section 1107, toilet rooms or bathrooms serving Accessible units and designed for assisted toileting or bathing shall be permitted to comply with Sections 1109.2.2 and 1109.2.3.

8.~~7.~~ Where toilet facilities are primarily for children's use, required *accessible* water closets, toilet compartments and lavatories shall be permitted to comply with children's provision of ICC A117.1.

1109.2.1 Family or assisted-use toilet and bathing rooms *(No change to text)*

1109.2.2 Water closets designed for assisted toileting**.** Water closets designed for assisted toileting shall comply with Section 1109.2.2.1 through 1109.2.2.6.

1109.2.2.1 Location. The centerline of the water closet shall be 24 inches (610 mm) minimum and 26 inches maximum (660 mm) from one side of the required clearance.

1109.2.2.2 Clearance. Clearance around the water closet shall comply with Section 1109.2.2.2.1 through 1109.2.2.2.3

1109.2.2.2.1 Clearance width. Clearance around a water closet shall be 66 inches (1675 mm) minimum in width, measured perpendicular from the side of the clearance that is 24 inches (610 mm) minimum and 26 inches (660 mm) maximum from the water closet centerline.

1109.2.2.2.2 Clearance Depth. Clearance around the water closet shall be 78 inches (1980 mm) minimum in depth, measured perpendicular from the rear wall

1109.2.2.2.3 Clearance Overlap. The required clearance around the water closet shall be permitted to overlap the water closet, associated grab bars, paper dispensers, sanitary napkin receptacles, coat hooks, shelves, accessible routes, clear floor space at other fixtures and the turning space. No other fixtures or obstructions shall be within the required water closet clearance.

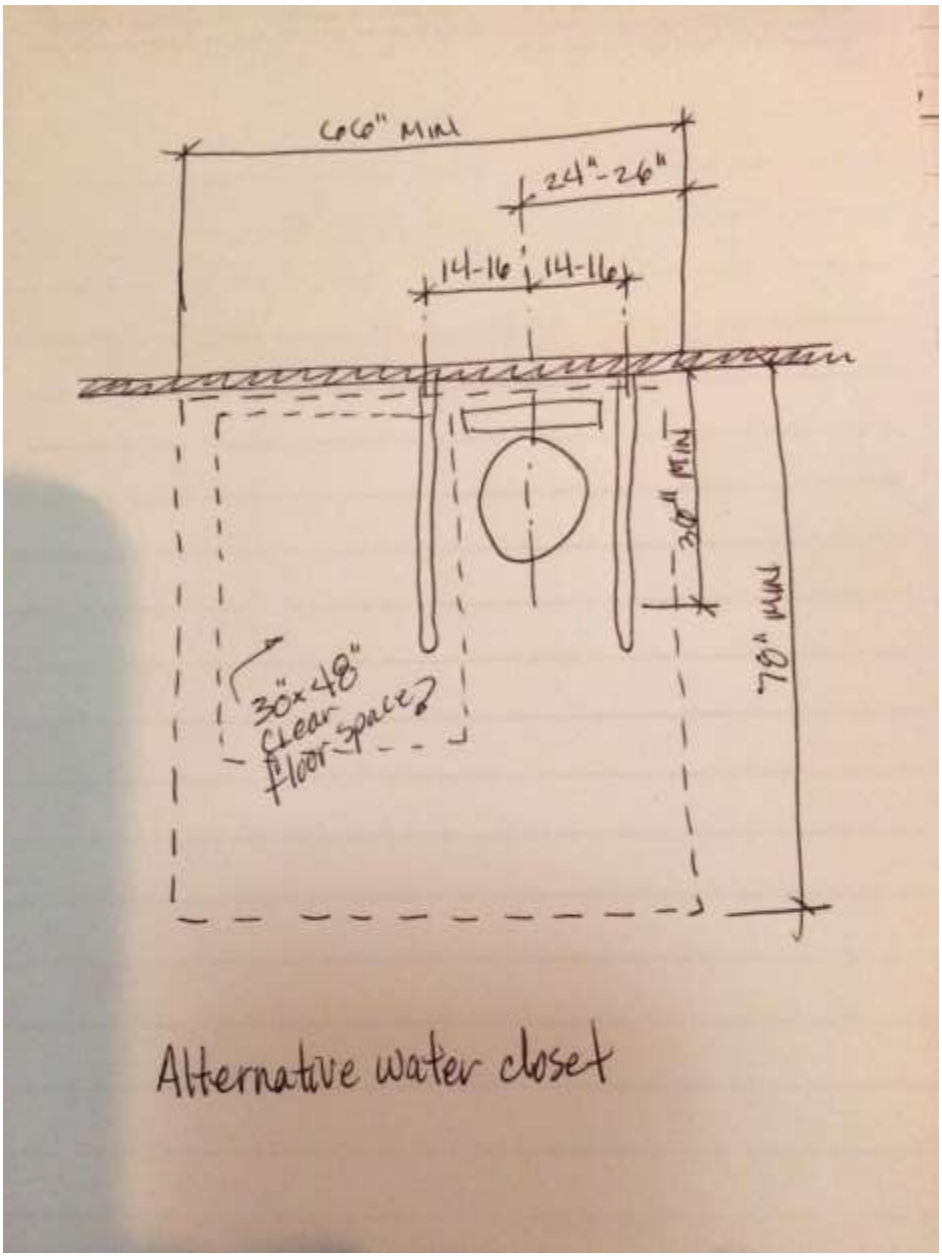
1109.2.2.3 Height. The height of the water closet seats shall comply with ICC A117.1 Section 604.4.

1109.2.2.4 Swing–up Grab Bars. The swing-up grab bars shall comply with ICC A117.1 Sections 609.2 and 609.8. Swing–up grab bars shall be provided on both sides of the water closet and shall comply with all of the following:

1. The centerline of the grab bar shall be 14 inches minimum to 16 inches (356 to 405 mm) maximum from the centerline of the water closet
2. The length of the grab bar is 36 inches (915 mm) minimum in length, measured from the wall to the end of the grab bar
3. The top of the grab bar in the down position is 30 inches (760 mm) minimum and 34 inches (865 mm) maximum above the floor.

1109.2.2.5 Flush controls: Flush controls shall comply with ICC A117.1 Section 604.6.

1109.2.2.6 Dispensers. Toilet paper dispensers shall be mounted on at least one of the swing-up grab bars and the outlet of the dispenser shall be located at 24 inches (610 mm) minimum to 36 inches (915 mm) maximum from the rear wall.



1109.2.3 Standard roll-in-type shower compartment designed for assisted bathing. Standard roll-in-type shower compartments designed for assisted bathing shall comply with Section 1109.2.3.1 through 1109.2.3.8.

1109.2.3.1 Size. Standard roll-in-type shower compartments shall have a clear inside dimension of 60 inches (1525 mm) minimum in width and 30 inches (760 mm) minimum in depth, measured at the center point of opposing sides. An entry 60 inches (1525 mm) minimum in width shall be provided.

1109.2.3.2 Clearance. A clearance of 60 inches (1525 mm) minimum in length adjacent to the 60-inch (1525 mm) width of the open face of the shower compartment, and 30 inches (760 mm) minimum in depth, shall be provided.

Exceptions:

1. A lavatory complying with Section 606 shall be permitted at one end of the clearance.

2. Where the shower compartment exceeds minimum sizes, the clear floor space shall be placed adjacent to the grab bars and 30 inches minimum from the back wall.

1109.2.3.3 Grab bars. Grab bars shall comply with ICC Section 609 and shall be provided in accordance with Section 1109.2.3.3.1 and 1109.2.3.3.2. In standard roll-in type shower compartments, grab bars shall be provided on three walls. Where multiple grab bars are used, required horizontal grab bars shall be installed at the same height above the floor. Grab bars can be separate bars or one continuous bar.

1109.2.3.3.1 Back-wall grab bar. The back-wall grab bar shall extend the length of the back wall and extend within 6 inches (150 mm) maximum from the two adjacent side walls.

Exception: The back wall grab bar shall not be required to exceed 48 inches (1220 mm) in length. The rear grab bar shall be located with one end within 6 inches maximum of a side wall with a grab bar complying with Section 1109.2.3.3.2.

1109.2.3.3.2 Side-wall grab bars. The side wall grab bars shall extend the length of the wall and extend within 6 inches (150 mm) maximum from the adjacent back wall.

Exceptions:

1. The side-wall grab bar shall not be required to exceed 30 inches (760 mm) in length. The side grab bar shall be located with one end within 6 inches maximum of the back wall with a grab bar complying with Section 1109.2.3.3.1.
2. Where the side walls are located 72 inches (1830 mm) or greater apart, a grab bar is not required on one of the side-walls.

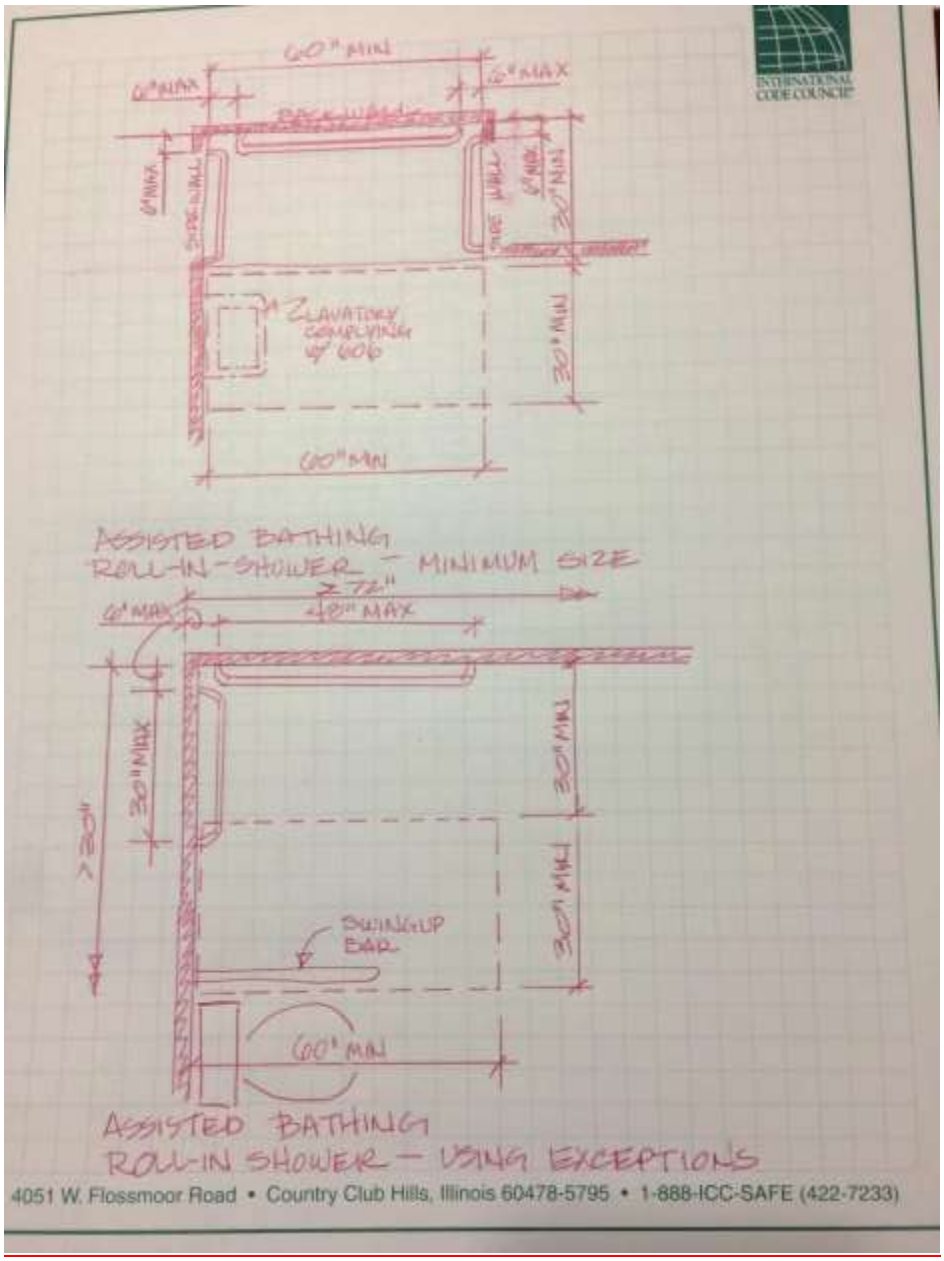
1109.2.3.4 Controls and hand showers. In standard roll-in-type showers, the controls and hand shower shall be located 38 inches (965 mm) minimum and 48 inches (1220 mm) maximum above the shower floor.

1109.2.3.5. Hand showers. Hand showers shall comply with ICC A117.1 Section 608.5.

1109.2.3.6 Thresholds. Thresholds shall comply with ICC A117.1 Section 608.6.

1109.2.3.7 – Shower enclosures. Shower compartment enclosures for shower compartments shall comply with ICC A117.1 Section 608.7.

1109.2.3.8 Water temperature. Water temperature shall comply with ICC A117.1 Section 608.8.



1109.2.4 ~~1109.2.2~~ Water closet compartments. (No change to text)

1109.2.5 ~~1109.2 3~~ Lavatories (No change to text)

Reason: Provided by Maggie for split proposal. See file.
Cost Impacts:

P2

Subject – water supply
Work Group:
Committee member: Williams

10-5-2017: Show to PMGCAC

Add new/Revise section as follows:

IPC 609.2 Water service for Group I-2, Condition 2. ~~Hospitals~~ Group I-2, Condition 2 facilities shall have a minimum of two water service pipes, sized such that with the loss of the largest service pipe, the remaining service pipes will meet the water demand for the entire facility ~~installed in such a manner so as to minimize the potential for an interruption of the supply of water in the event of a water main or water service pipe failure~~. Each water service shall have a shut off valve in the building and a shut off valve at the utility-provided point of connection to the water main or other source of potable water.

Reason:
Cost Impacts:

P3

Subject: Oxodized gases
Work Group:MEP/Fire
Committee member: O'Neill

Add new/Revise section as follows:

IFC 5003.8.3 Control Areas

IFC 5003.8.3.1 Construction requirements. *Control areas* shall be separated from each other by *fire barriers* constructed in accordance with Section 707 of the *International Building Code* or *horizontal assemblies* constructed in accordance with Section 711 of the *International Building Code*, or both.

> **Exception:** In Group I-2 occupancies, control areas shall be permitted to be separated by smoke barriers complying with Section 709 of the the IBC. ~~Control areas in Group I-2 occupancies shall not exceed the allowable area for smoke compartments in accordance with the IBC.~~

IFC 5003.8.3.2 Percentage of maximum allowable quantities. The percentage of maximum allowable quantities of hazardous materials per *control area* allowed at each story within a building shall be in accordance with Table 5003.8.3.2.

> **Exception:** In Group I-2 occupancies and Group B ambulatory care facilities, a maximum aggregate quantity of 3,000 cubic feet of oxidizing medical gases in portable containers each with a capacity of 25 cubic feet (708 L) or less shall be permitted in a single smoke compartment. The maximum number of control areas per story shall not exceed the number of smoke compartments provided per story.

Add a footnote to IFC Table 5003.1.1(1) to be applied to the Oxidizing gas cell in the MATERIAL column as follows:

Oxidizer	4 3[k] 2 1	H-1 H-2 or H-3 H-3 NA	1[g] 10[d, e] 250[d, e] 4,000[e, f]	(1)[e, g] (10)[d, e] (250)[d, e] (4,000)[e, f]	NA	0.25[g] 2[g] 250[g] 4,000[g]	(0.25)[g] (2)[g] (250)[g] (4,000)[g]	NA	0.25[g] 2[g] 50[g] 1,000[g]	(0.25)[g] (2)[g] (50)[g] (1,000)[g]
Oxidizing gas	Gaseous Liquefied	H-3	NA	NA (150)[d, e]	1,500[d, e] NA	NA	NA (150)[d, e]	1,500[d, e] NA	NA	NA
Pyrophoric	NA	H-2	4[e, g]	(4)[e, g]	50[e, g]	1[g]	(1)[g]	10[e, g]	0	0

r. In Group I-2 occupancies and Group B ambulatory care facilities, medical gas and oxidizing gases used for patient care in portable containers and in immediate use shall not contribute to the maximum allowable quantities or hazardous materials in a building.

Add an exception to Section 5306.2 as follows:

5306.2 Interior supply location. Medical gases shall be located in areas dedicated to the storage of such gases without other storage or uses. Where containers of medical gases in quantities greater than the permit amount are located inside buildings, they shall be in a 1-hour exterior room, a 1-hour interior room or a gas cabinet in accordance with Section 5306.2.1, 5306.2.2 or 5306.2.3, respectively. Rooms or areas where medical gases are stored or used in quantities exceeding the *maximum allowable quantity per control area* as set forth in Section 5003.1 shall be in accordance with the *International Building Code* for high-hazard Group H occupancies.

Exception: Medical gases in portable containers complying with Section 5003.8.3 shall not be required to be stored within dedicated storage rooms.

Reason:
The purpose of this code change is to align high-rise requirements for storage of gases in high-rise I-2 occupancies. The current Fire Code requires higher-levels to conform to H-occupancy requirements. This code seeks to align protection requirements to what have been maintained in high-rise hospitals, rather than change the MAQ's.

Compressed oxidizing gases, including oxygen and nitrous oxide, are required for patient treatment in nearly all acute care hospitals and most outpatient surgical centers for a variety of purposes. While such health care facilities have bulk oxygen systems that include piped medical gas systems within the facilities, portable cylinders are necessary to supply specific types of patient care equipment and for mobile use of patients. The gas supply must be transportable. In addition, cylinders allow the gas pressure to be regulated whereas medical gas systems are at a constant pressure.
The IFC limits hazardous materials outside of Group H occupancies to quantities that have been deemed acceptable for the primary occupancy. Where the maximum allowable quantity (MAQ) is exceeded, the area is required to be protected as a Group H high hazard occupancy. In the case of oxidizing gases, the area would be classified as a Group H-3 occupancy.
One of the most common types of compressed gas cylinders in health care facilities is the E-size cylinder. A full E-size cylinder contains approximately 23-25 cubic feet of compressed oxygen. Thus, a maximum of 12 E-size cylinders would be permitted on the 11th floor of a building. Assuming that a reserve cylinder is provided, two cylinders per patient, compressed oxygen could be provided for up to six patients. For the vast majority of high-rise hospitals and medical centers, the limitation of 12 E-size cylinders on the upper stories would severely limit patient care. Many existing health care facilities may be in non-compliance with IFC requirements.

The 2012 edition of NFPA 99 has been adopted and is enforced by the Centers for Medicaid and Medicare Services (CMS), The Joint Commission (TJC) among accreditation agencies, and State Agencies. Thus, NFPA 99 is a mandatory code with respect to Federal regulations. Health care facilities are required to comply with the provisions of NFPA 99 and are subject to severe penalties for non-

compliance. A link to NFPA 99 already exists in the IFC through the provisions for medical gas system installations. Health care facilities are surveyed for compliance with NFPA codes and standards at least once every three years and often more frequently to ensure continued compliance.

Unlike the IFC, NFPA 99 does not prescribe limitations based on the location of the compressed medical oxidizing gases in the building. The NFPA 99 limits for storage of medical oxidizing gases are based on the following thresholds:

- 300 cubic feet or less;
- More than 300 cubic feet but not more than 3,000 cubic feet;
- More than 3,000 cubic feet.

The proposed code changes seek to revise the IFC to be more consistent with the federally mandated code requirements while maintaining the control area concept thereby permitting a vast number of health care facilities to comply with the IFC.

CONTROL AREAS

Add an exception to Section 5003.8.3.1 as follows:

Exception: In Group I-2 occupancies, control areas shall be permitted to be separated by smoke barriers complying with the IBC. Control areas in Group I-2 occupancies shall not exceed the allowable area for smoke compartments in accordance with the IBC.

[This will permit existing requirements for smoke compartment construction to serve as barriers for control areas]

Add an exception to Section 5003.8.3.2 as follows:

Exception: In Group I-2 occupancies and Group B ambulatory care facilities, a maximum aggregate quantity of 3,000 cubic feet of oxidizing medical gases in portable containers each with a capacity of 25 cubic feet (708 L) or less shall be permitted in a single smoke compartment. The maximum number of control areas per story shall not exceed the number of smoke compartments provided per story.

[25 cubic feet is roughly the capacity of an E cylinder, which is the largest portable cylinder on the market and the most common cylinder found in hospitals. Larger cylinders would be expected to be in a med gas room on a lower floor. This will permit up to 3,000 cubic feet of oxygen, or 120 E size cylinders, per smoke compartment regardless of the location of the smoke compartment in the building.]

MAXIMUM ALLOWABLE QUANTITIES

Add a footnote to Table 5003.1.1(1) to be applied to the Oxidizing gas cell in the MATERIAL column as follows:

Oxidizer	4 3[k] 2 1	H-1 H-2 or H-3 H-3 NA	1[g] 10[d, e] 250[d, e] 4,000[e, f]	(1)[e, g] (10)[d, e] (250)[d, e] (4,000)[e, f]	NA	0.25[g] 2[g] 250[g] 4,000[f]	(0.25)[g] (2)[g] (250)[g] (4,000)[f]	NA	0.25[g] 2[g] 50[g] 1,000[f]	(0.25)[g] (2)[g] (50)[g] (1,000)[f]
Oxidizing gas	Gaseous Liquefied	H-3	NA	NA (150)[d, e]	1,500[d, e] NA	NA	NA (150)[d, e]	1,500[d, e] NA	NA	NA
Pyrophoric	NA	H-2	4[e, g]	(4)[e, g]	50[e, g]	1[g]	(1)[g]	10[e, g]	0	0

r. In Group I-2 occupancies and Group B ambulatory care facilities, medical gas systems and oxidizing gases used for patient care in accordance with Section 5306.5 shall not contribute to the maximum allowable quantities or hazardous materials in a building.

MED GAS ROOM

Reason:
Cost Impacts:

P4

Subject: flex duct
Work Group: Fire/Fire Safet
Committee member: Flannery

Add new/Revise section as follows:

717.5.5 Smoke barriers. A listed smoke damper designed to resist the passage of smoke shall be provided at each point a duct or air transfer opening penetrates a smoke barrier. Smoke dampers and smoke damper actuation methods shall comply with Section 717.3.3.2.

Exceptions:

1. Smoke dampers are not required where the openings in ducts are limited to a single smoke compartment and the ducts are constructed of steel.
2. Smoke dampers are not required in smoke barriers required by Section 407.5 for Group I-2, Condition 2—where the HVAC system is fully ducted in accordance with Section 603 of the International Mechanical Code and where buildings are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and equipped with quick-response sprinklers in accordance with Section 903.3.2.

717.5.2 Fire barriers. Ducts and air transfer openings of fire barriers shall be protected with listed fire dampers installed in accordance with their listing. Ducts and air transfer openings shall not penetrate enclosures for interior exit stairways and ramps and exit passageways, except as permitted by Sections 1023.5 and 1024.6, respectively.

Exception: Fire dampers are not required at penetrations of fire barriers where any of the following apply:

1. Penetrations are tested in accordance with ASTM E119 or UL 263 as part of the fire-resistance-rated assembly.
2. Ducts are used as part of an approved smoke control system in accordance with Section 909 and where the use of a fire damper would interfere with the operation of a smoke control system.
3. Such walls are penetrated by ducted HVAC systems, have a required fire-resistance rating of 1 hour or less, are in areas of other than Group H and are in buildings equipped throughout with

an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. For the purposes of this exception, a ducted HVAC system shall be a duct system for conveying supply, return or exhaust air as part of the structure's HVAC sys-tem. Such a duct system shall be constructed of sheet steel not less than No. 26 gage thickness and shall be continuous from the air-handling appliance or equipment to the air outlet and inlet terminals.

Reason:
Hi folks, refresh my memory here. Didn't we try to address the fire barrier, fire damper exception in the last IBC cycle? I thought we were going to try to define what a "fully ducted" system meant. When I look at the 2018 language it looks like we got it in the smoke barrier section, but not the fire barriers.

Cost Impacts:

P5

Subject: Return air
Work Group: MEP
Committee member: John Williams

IBC 1020.5 Air movement in corridors. *Corridors* shall not serve as supply, return, exhaust, relief or ventilation air ducts.

Exceptions:

1. Use of a *corridor* as a source of makeup air for exhaust systems in rooms that open directly onto such *corridors*, including toilet rooms, bathrooms, dressing rooms, smoking lounges and janitor closets, shall be permitted, provided that each such *corridor* is directly supplied with outdoor air at a rate greater than the rate of makeup air taken from the *corridor*.
2. Where located within a *dwelling unit*, the use of *corridors* for conveying return air shall not be prohibited.
3. Where located within tenant spaces of 1,000 square feet (93 m^2) or less in area, utilization of *corridors* for conveying return air is permitted.
4. ~~Incidental~~ Transfer air movement required to maintain pressurization differences ~~from pressurized rooms~~ within health care facilities in accordance with Section 407.1 of the *International Mechanical Code*~~, provided that the *corridor* is not the primary source of supply or return to the room~~.

Reason:
Cost impact:

P6

Subject:
Work Group: G/MOE
Committee member:

IBC 508.3.1.2 Group I-2, Condition 2 occupancies. Where one of the nonseparated occupancies is Group I-2, Condition 2, the most restrictive requirements of Sections 407, 509 and 712 shall apply throughout the fire area containing the Group I-2 occupancy. The most restrictive requirements of Chapter 10 shall apply to the path of egress from the Group I-2, Condition 2 occupancy up to and including the exit discharge.

Subject: RE: Healthcare committee question

Section 508.3.1.2 is in the section of the code where mixed occupancies in the same building are NOT SEPARATED from each other. Therefore the whole building can be a single fire area. If the intent is to allow someone to create multiple fire areas to separate uses, then you have defeated Section 508.3 and moved the building into Section 508.4 – SEPARATED occupancies.

> **508.3.1.2 Group I-2, Condition 2 occupancies.** Where one of the nonseparated occupancies is Group I-2, Condition 2, the most restrictive requirements of Sections 407, 509 and 712 shall apply throughout the fire area containing the Group I-2 occupancy. The most restrictive requirements of Chapter 10 shall apply to the path of egress from the Group I-2, Condition 2 occupancy up to and including the exit discharge.

Please note the language of 508.3.1, below. It contains these key provisions:

1. The non-separated occupancies shall be individually classified.
2. The requirements of the code apply to each area based on the occupancy classification of that area.

What does this mean for a 'hospital'? Patient rooms, treatment areas, exam areas, nurse stations, medication rooms, dirty linen rooms, etc are going to be classified as I-2. Administrative offices are going to be classified as Group B. The cafeteria is going to be a Group A-2 occupancy. The Parking garage will be classified as Group S. Section 407 applies to Group I-2 occupancies. Where table 509 says Something applies to I-2 (waste and linen; storage; padded patient rooms) those apply to things that are part of your I-2 occupancy. It doesn't apply to the storage room in the administrative group B offices. Section 712 specifies how vertical openings can be addressed. Some of those options are not available to Group I-2. If a first floor contains group B offices and a Group A-2 cafeteria and then the second floor contains I-2 uses – a vertical opening between those two floors will have to comply with the most restrictive – meaning those options not allowed for I-2 occupancies wouldn't be allowed to be used.

Please note that if you have non-separated occupancies, Chapter 9 will require sprinklers to be provided throughout the fire area if any of the occupancies has to be sprinklered. Section 508.3.1.2 accomplishes nothing.

If the hospital including offices and cafeteria is in a single fire area, then it would appear that this section is trying to impose I-2 provisions on other occupancies. Now, it would appear that the food storage in the cafeteria and the records storage in the Group B office area will have to be in surrounded by one hour construction.

If the intent of the Chapter 10 most restrictive clause is intended to impose I-2 requirements in non-I-2 areas, the results may be those listed below. But since you've not made a similar requirement for buildings using Separated occupancies (Section 508.4) the intent fails.

> **1003.5 Elevation change. Excerpt** Throughout a story in a Group I-2 occupancy, any change in elevation in portions of the *means of egress* that serve nonambulatory persons shall be by means of a *ramp* or sloped walkway.
>
> **1005 – egress sizing**. –
>
> Comment: Once a capacity is determined, you have to continue to serve that capacity for the rest of the system – nothing gained by 508.3.1.2.
>
> **1005.7.2 Other projections.** *Handrail* projections shall be in accordance with the provisions of Section 1014.8. Other nonstructural projections such as trim and similar decorative features shall be permitted to project into the required width not more than 11/2 inches (38 mm) on each side.
>
> **Exception:** Projections are permitted in corridors within Group I-2 Condition 1 in accordance with Section 407.4.3.

Comment: Section 407.4.3 allows a greater projection for I-2. Therefore the most restrictive provision for projections is the 1-1/2 inch – I-2 could lose this exception based on the most restrictive text.

Section 1006.1 and Table 1006.1 says I-2 spaces over 10 occupants have to have 2 exits. For Group A and B it is 49.

Comment: Imposing the most restrictive imposes multiple exit pathways out of small Group B and A occupancy spaces.

1009.8 Two-way communication. A two-way communication system complying with Sections 1009.8.1 and 1009.8.2 shall be provided at the landing serving each elevator or bank of elevators on each accessible floor that is one or more stories above or below the *level of exit discharge*.
Exceptions: 6. Two-way communication systems are not required in Group I-2 or I-3 facilities.

Comment: As the more restrictive requirement is to require 2 way communication, I-2 would lose the exception under 508.3.1.2.

1010.1.1 Size of doors. Excerpt In Group I-2, doors serving as *means of egress* doors where used for the movement of beds shall provide a minimum clear opening width of 411/2 inches (1054 mm).

Comment: This would impose the movement of bed door width where beds are being moved through such spaces as the offices and cafeteria….. Realistically – if the I-2 egress path is through other occupancies, most designers and most building officials will impose the greater corridor and door widths. Section 508.3.1.2 would cement it.

1017.2 – Travel distance.

Comment: Exit access travel distance will be reduced for Group A and B occupancies.

1019.4 Group I-2 and I-3 occupancies. In Group I-2 and I-3 occupancies, floor openings between stories containing *exit access stairways* or *ramps* are required to be enclosed with a shaft enclosure constructed in accordance with Section 713.

Comment: 1019.4 will be imposed on all occupancies in the same fire area as the I-2.

1026.1 Horizontal exits. *Horizontal exits* serving as an *exit* in a *means of egress* system shall comply with the requirements of this section. A *horizontal exit* shall not serve as the only *exit* from a portion of a building, and where two or more *exits* are required, not more than one-half of the total number of *exits* or total *exit* minimum width or required capacity shall be *horizontal exits*.
Exceptions:
1. *Horizontal exits* are permitted to comprise two-thirds of the required *exits* from any building or floor area for occupancies in Group I-2.

Comment: Under 508.3.1.2 the less restrictive exception for I-2 will be lost.

Section 1028 – Exit discharge –

Comment: There are no unique requirements for I-2. Therefore the text in 508.3.1.2 is meaningless at best; confusing at worst. People will be trying to find that I-2 discharge requirement and there is none to be found.

Conclusion: Section 508.3.1.2 is redundant with the provisions of 508.3.1. If it is used to separate occupancies (separate fire areas) so that I-2 provisions aren't imposed on other occupancies, then Section 508.3.1.2 won't affect separated occupancies under Section 508.4. I could impose unnecessary construction in office areas and cafeterias, etc that aren't Group I-2. But the biggest problem is egress – by saying the most restrictive you gain corridor and door width in other occupancies 'where bed movement is needed', but you have risked losing a collection of I-2 exceptions because they aren't the most restrictive. There are no distinct exit discharge requirements for I-2 – so why is it mentioned. This provision needs to be deleted – or rewritten to say exactly what you mean. For example: Corridor width required for movement of patient beds shall apply throughout a building from Group I-2 occupancy portions to and including exit discharge. (that is a horrible sentence, but I think the point is made.) Call out those requirement you wish – and put them in the appropriate locations – don't bury them in the mixed occupancy provisions.

508.3 Nonseparated occupancies. Buildings or portions of buildings that comply with the provisions of this section shall be considered as nonseparated occupancies.

508.3.1 Occupancy classification. Nonseparated occupancies shall be individually classified in accordance with Section 302.1. The requirements of this code shall apply to each portion of the building based on the occupancy classification of that space. In addition, the most restrictive provisions of Chapter 9 that apply to the nonseparated occupancies shall apply to the total nonseparated occupancy area.

508.4 Separated occupancies. Buildings or portions of buildings that comply with the provisions of this section shall be considered as separated occupancies.

508.4.1 Occupancy classification. Separated occupancies shall be individually classified in accordance with Section 302.1. Each separated space shall comply with this code based on the occupancy classification of that portion of the building. The most restrictive provisions of Chapter 9 that apply to the separate occupancies shall apply to the total nonfire-barrier-separated occupancy areas. Occupancy separations that serve to define fire area limits established in Chapter 9 for requiring a fire protection system shall also comply with Section 901.7.

508.4.2 Allowable building area. In each *story*, the *building area* shall be such that the sum of the ratios of the actual *building area* of each separated occupancy divided by the allowable *building* area of each separated occupancy shall not exceed 1.

508.4.3 Allowable building height and number of stories. Each separated occupancy shall comply with the *building height limitations* and *story* limitations based on the type of construction of the building in accordance with Section 503.1.

> **Exception:** Special provisions of Section 510 shall permit occupancies at *building heights* and number of *stories* other than provided in Section 503.1.

508.4.4 Separation. Individual occupancies shall be separated from adjacent occupancies in accordance with Table 508.4.

508.4.4.1 Construction. Required separations shall be *fire barriers* constructed in accordance with Section 707 or *horizontal assemblies* constructed in accordance with Section 711, or both, so as to completely separate adjacent occupancies.