

AHC Meeting #13
Draft code changes for Hospitals
IBC/IFC/IEBC/IPC/IMC

In process – 9/4/2014

Proposal 1 –

Proponent: Adhoc Health

1013.6.3 Power source. Exit signs shall be illuminated at all times. To ensure continued illumination for a duration of not less than 90 minutes in case of primary power loss, the sign illumination means shall be connected to an emergency power system provided from storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Chapter 27. Group I-2 Condition 2 exit sign illumination shall not be provided by unit equipment battery only.

Exceptions:

1. Approved exit sign illumination means that provide continuous illumination independent of external power sources for a duration of not less than 90 minutes, in case of primary power loss, are not required to be connected to an emergency electrical system.
2. ~~Group I-2 Condition 2 exit sign illumination shall not be provided by unit equipment battery only.~~

Reason: This exception is a requirement for Group I-2 that exceeds the base paragraph requirements. It is proposed to be moved to the main paragraph to make it a requirement. As an exception it would be a choice. This requirement was added by E103-12 AMPC.

Proposal 2 –

Proponent: Adhoc Health

Table 1020.2
MINIMUM CORRIDOR WIDTH

Occupancy	Minimum Width (inches)
Any facilities 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 an-occupant load of 100 or more	72
In corridors and areas serving stretcher traffic in occupancies where patients receive outpatient medical care, that causes the patient to be incapable of self-preservation <u>ambulatory care facilities</u>	72
Group I-2 in areas where required for bed movement	96

Proposal 3 –

Proponent: Adhoc Health and CTC Care

SECTION 407 GROUP I-2

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

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 exit access travel distance~~ within the suite.

Exception: The ~~distance of exit access travel distance~~ 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.

407.5 Smoke barriers. *Smoke barriers* shall be provided to subdivide every *story* used by persons receiving care, treatment or sleeping and to divide other *stories* with an *occupant load* of 50 or more persons, into no fewer than two *smoke compartments*. Such stories shall be divided into *smoke compartments* with an area of not more than 22,500 square feet (2092 m²) in Group I-2, Condition 1, and not more than 40,000 square feet (3716 m²) in Group I-2, Condition 2, and the ~~distance of exit access travel distance~~ from any point in a *smoke compartment* to a *smoke barrier door* shall be not greater than 200 feet (60 960 mm). The *smoke barrier* shall be in accordance with Section 709.

SECTION 420 GROUPS I-1, R-1, R-2, R-3 AND R-4

420.4 Smoke barriers in Group I-1, Condition 2. Smoke barriers shall be provided in Group I-1, Condition 2, to subdivide every story used by persons receiving care, treatment or sleeping and to provide other stories with an occupant load of 50 or more persons, into no fewer than two smoke compartments. Such stories shall be divided into smoke compartments with an area of not more than 22,500 square feet (2092 m²) and the ~~distance of exit access travel distance~~ from any point in a smoke compartment to a smoke barrier door shall not exceed 200 feet (60 960 mm). The smoke barrier shall be in accordance with Section 709.

SECTION 422 AMBULATORY CARE FACILITIES

422.3 Smoke compartments. Where the aggregate area of one or more *ambulatory care facilities* is greater than 10,000 square feet (929 m²) on one *story*, the *story* shall be provided with a *smoke barrier* to subdivide the *story* into no fewer than two *smoke compartments*. The area of any one such *smoke compartment* shall be not greater than 22,500 square feet (2092 m²). The ~~distance of exit access travel distance~~ from any point in a *smoke compartment* to a *smoke barrier door* shall be not greater than 200 feet (60 960 mm). The *smoke barrier* shall be

installed in accordance with Section 709 with the exception that *smoke barriers* shall be continuous from outside wall to an outside wall, a floor to a floor, or from a *smoke barrier* to a *smoke barrier* or a combination thereof.

Reason: *The purpose of this proposal is to correct the terminology in Group I-2 criteria in Section 407 and Ambulatory Care facilities in Section 422.*

Code change G71-12 was a change for multiple sections in the IBC, IFC and IPC where the term 'travel distance' was changed to 'distance of travel'; with the intent to use a different term when the distance being measured was not exit access travel distance. For Section 407, this change was incorrect. Code change G57-12 added 'exit access' in front of travel distance where appropriate.

Same error for Group I-3 – Talk to Bob Davidson and Vickie Lovell

408.5.1 Floor openings. Openings in floors within a *housing unit* are permitted without a *shaft enclosure*, provided all of the following conditions are met:

1. The entire normally occupied areas so interconnected are open and unobstructed so as to enable observation of the areas by supervisory personnel;
2. *Means of egress* capacity is sufficient for all occupants from all interconnected *cell tiers* and areas;
3. The height difference between the floor levels of the highest and lowest *cell tiers* shall not exceed 23 feet (7010 mm); and
4. Egress from any portion of the *cell tier* to an *exit* or *exit access* door shall not require **exit access** travel on more than one additional floor level within the *housing unit*.

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

The ~~distance of exit access travel distance~~ to a door in a *smoke barrier* from any point in a room shall be not greater than 200 feet (60 960 mm).

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

Air traffic – (Maybe CTC Open stairway committee)

412.3.3 Exit access. From observation levels, airport traffic control towers shall be permitted to have a single means ~~of exit access egress with an for a distance of exit access travel distance~~ not greater than 100 feet (30 480 mm). Exit access stairways from the observation level need not be enclosed.

SECTION 415

GROUPS H-1, H-2, H-3, H-4 AND H-5

[F] 415.11.3.3 Means of egress. The ~~distance of exit access travel distance~~ from any point in a *service corridor* to an *exit*, *exit access corridor* or door into a *fabrication area* shall be not greater than 75 feet (22 860 mm). Dead ends shall be not greater than 4 feet (1219 mm) in length. There shall be not less than two *exits*, and not more than one half of the required *means of*

egress shall require travel into a *fabrication area*. Doors from *service corridors* shall swing in the direction of egress travel and shall be *self-closing*.

Proposal 4 –

Rooms open to the rated corridor in patient care or sleeping areas – This is what is in the code now. Where can we add?

Proponent: Adhoc Health

407.2 Corridors continuity and separation. *Corridors* in occupancies in Group I-2 shall be continuous to the *exits* and shall be separated from other areas in accordance with Section 407.3 except spaces conforming to Sections 407.2.1 through 407.2.4.

407.2.1 Waiting and similar areas. Waiting areas, and similar shared public spaces, group meeting or multipurpose therapeutic spaces constructed as required for *corridors* shall be permitted to be open to a *corridor*, only where all of the following criteria are met:

1. The spaces are not occupied as care recipient's sleeping rooms, treatment rooms, incidental uses in accordance with Section 509, or hazardous uses.
2. The open space is protected by an automatic fire detection system installed in accordance with Section 907.
3. The *corridors* onto which the spaces open, in the same *smoke compartment*, are protected by an automatic fire detection system installed in accordance with Section 907, or the *smoke compartment* in which the spaces are located is equipped throughout with quick-response sprinklers in accordance with Section 903.3.2.
4. The space is arranged so as not to obstruct access to the required *exits*.

Reason:

- Clarifies what is meant by "similar spaces"
- Would allow spaces such as family gathering areas, child play areas in children's wards, conservatories/game rooms/social interaction areas in long term recovery areas.
- Hospitals no longer allow smoking, so fire risk in these areas is minimal
- By being open to the corridor, if there is an issue, it will be more quickly recognized
- Mirrors what is permitted in a nursing home environment – home atmosphere

Proposal 5 –

Propose deletion of glow in the dark stripes because of the defend in place (talked to Dave Colgate) – saving with lights, maintenance of stripes

Proponent: Adhoc Health and CTC Care

SECTION 1025 LUMINOUS EGRESS PATH MARKINGS

1025.1 General. *Approved* luminous egress path markings delineating the exit path shall be provided in *high-rise buildings* of Group A, B, E, + I-1, I-3, M, and R-1 occupancies in accordance with Sections 1025.1 through 1025.5.

Exception: Luminous egress path markings shall not be required on the *level of exit discharge* in lobbies that serve as part of the exit path in accordance with Section 1028.1, Exception 1.

Reason: *Hospitals and nursing homes have trained staff that operate with a defend-in-place strategy for fires. The emergency generators are continually monitored and maintained, so the change of the emergency egress lighting required in the means of egress (Section 1008) failing is extremely minimal. Requiring egress path marking in the stairways in high-rise hospitals and nursing homes is a redundant feature that is costly and unnecessary. This is not only the initial cost of the stripes, but the cost of keeping the lights on in the stairways 24-7 to keep the stripes charged.*

While there could be a day care in a high rise building, there is no justification for the presence of a small Group I-4 in a building to require photoluminescent stripes throughout. This appears to have been just lumped in with Group I.

Perhaps additional clarification is needed for mixed use buildings and when luminous egress path markings should be required, however, that is outside the scope of the Adhoc health and CTC Care committees, so nothing is proposed at this time.

Note: Group I-3 is also defend in place – can we get someone else to take it out for them. Bob Davidson or Vickie Lovell

Proposal 6 –

Propose deletion of two-way communication at elevator lobbies (already have assisted evacuation for everyone, so don't need to call).

Proponent: Adhoc Health and CTC Care

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:

1. Two-way communication systems are not required at the landing serving each elevator or bank of elevators where the two-way communication system is provided within *areas of refuge* in accordance with Section 1009.6.5.
2. Two-way communication systems are not required on floors provided with *ramps* conforming to the provisions of Section 1012.
3. Two-way communication systems are not required at the landings serving only service elevators that are not designated as part of the accessible *means of egress* or serve as part of the required *accessible route* into a facility.
4. Two-way communication systems are not required at the landings serving only freight elevators.
5. Two-way communication systems are not required at the landing serving a private residence elevator.
- 6. Two-way communication systems are not required in Group I-2 facilities.**

Reason: *A two way communication system is required to allow for persons with disabilities to contact emergency responders. In Group I-2 facilities the strategy for emergencies is defend in place, with trained staff. Most of the patients will be considered persons with disabilities, and their safety will be addressed through the fire and safety evacuation plans with staff assistance.*

Therefore, the need for the two way communication system is addressed by an alternative means and would not be used in these types of facilities.

It is important to note that this is not the two way communication system typically utilized by the fire department. That system is defined in the IFC.

Note: Same argument for Group I-3, plus vandalism possibilities. Bob Davidson or Vickie Lovell

Proposal 7 –

Proponent: Adhoc Health

407.5 Smoke barriers. *Smoke barriers* shall be provided to subdivide every *story* used by persons receiving care, treatment or sleeping and to divide other *stories* with an *occupant load* of 50 or more persons, into no fewer than two *smoke compartments*.

407.5.1. Smoke compartment size. In Group I-2, Condition 1, such stories shall be divided into *smoke compartments* with an area of not more than 22,500 square feet (2092 m²) ~~in Group I-2, Condition 1, and not more than 40,000 square feet (3716 m²) in Group I-2, Condition 2, and~~ the distance of

407.5.2 Exit access travel distance. Exit access travel distance from any point in a *smoke compartment* to a *smoke barrier* door shall be not greater than 200 feet (60 960 mm). The *smoke barrier* shall be in accordance with Section 709.

(Renumber Section 407.5.1 through 407.5.3.)

Reason: Delete square footage of smoke areas as part of coordination with NFPA 101. CTC Care does not want to participate.

Proposal 8 –

Proponent: Adhoc Health

1010.1.9.7 Delayed egress. Delayed egress locking systems shall be permitted to be installed on doors serving any occupancy except Group A, E and H 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. The 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 *fire 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.

Exception: In Group I-1, 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 the combined delay does not exceed 30 seconds.

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 or the sign shall read: ALARM WILL SOUND. TO OPEN DOOR, PUSH FOR 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 or the sign shall read: ALARM WILL SOUND. TO OPEN DOOR, PULL FOR 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.

Reason:

- *Add Group I-1 (custodial care) to Exception in Item 5, to allow two delayed egress systems?*
- *Address words on required signage for the situation where there's a delay (up to 3 sec) in the initiation of the irreversible delay. This is intended to reduce nuisance tripping of the delayed egress, such as in Alzheimer's units. Hardware may generate an alarm when hardware is first operated (pushed) and then the tone of the alarm changes when the activation delay is over and the irreversible process is started.*

Proposal 9 – K21

Proponent: Adhoc Health

IBC 407.x Automatic closing doors. Where automatic closing doors are permitted by 716.5.9.3, in Group I-2, the automatic closing shall activate in accordance with Section 716.5.9.4

IBC 716.5.9.4 Group I-2 occupancies. Automatic-closing doors in Group I-2 exits, smoke barriers or fire barriers surrounding incidental uses shall automatically close upon any of the following conditions:

1. Activation of the fire alarm system;
2. Actuation of smoke detectors installed in accordance with 907.3;
3. Loss of power to the smoke detector or hold-open device
4. Activation of the automatic sprinkler system.

Doors that are automatic closing in Group I-2 shall not have more than a 10-second delay before the door starts to close after the fire alarm system, smoke detector, or sprinkler system s activated.

IFC 1105.5.x Group I-2 occupancies. Automatic-closing doors and hold opens in Group I-2 exits, smoke barriers or fire barriers surrounding incidental uses shall automatically close upon any of the following conditions:

1. Activation of the manual fire alarm system;
2. Actuation of smoke detectors installed in accordance with 907.3;
3. Activation of an automatic sprinkler system.

Reason: From John Williams - After reading it more closely and the context of adjacent sections, I came up with a second pass. Here is my thought process:

I tried to avoid using permissive language (shall be permitted to) and phrase the section in the form of a requirement. 716.5.9 requires that fire doors be self or automatic closing in accordance with this section. 716.5.9.2 starts to define what automatic closing doors are by referencing NFPA 80 and saying that they must be self closing. The next section 716.5.9.3 sets up the typical scenario that you can use to install automatic closing doors activated by smoke detection (only). I THINK that the term “automatic closing doors” in the context of this section includes doors on hold opens. It never says “hold open” but it seems like it talking about that – John Woestman, is this how you interpret this section?

If so, I changed the language to set up minimum criteria for how these devices are to be used. I shortened “exit passageways, stairway enclosures, horizontal exit,” to the term “exits.” I don’t think this creeps the scope. I used “fire alarm system” as opposed to manual fire alarm system to be inclusive of ANY activation of the system. Also I included “loss of power to the smoke detector or hold open device” and the 10 second delay to be consistent with 716.5.9.2.

Proposal 10 –

Proponent: Adhoc Health

**TABLE 1604.5
RISK CATEGORY OF BUILDINGS AND OTHER STRUCTURES**

RISK CATEGORY	NATURE OF OCCUPANCY
III	Group I-2, <u>Condition 1</u> occupancies with an occupant load of 50 or more resident care recipients <u>Group I-2, Condition 2 occupancies</u> but not having <u>emergency</u> surgery or emergency treatment facilities.
IV	Group I-2, <u>Condition 2</u> occupancies having <u>emergency</u> surgery or emergency treatment facilities.

(Portions of table not shown remain unchanged)

Reason: Clarification for which facilities this should apply to. Ambulatory care facilities or Group I-2 that only offer elective surgery should not be Category IV facilities.

Proposal 11 –

Proponent: Adhoc Health

IMC [BF] 607.5.2 Fire barriers. Ducts and air transfer openings that penetrate 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, of the *International Building Code*.

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 E 119 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 513 and where the fire damper would interfere with the operation of the 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 of the *International Building Code*. For the purposes of this exception, a ducted HVAC system shall be a duct system for the structure's HVAC system. Such a duct system shall be constructed of sheet steel not less than 26 gage [0.0217 inch (0.55 mm)] thickness and shall be continuous from the air-handling *appliance* or *equipment* to the air outlet and inlet terminals.

IBC 717.5.2 Fire barriers. Ducts and air transfer openings of *fire barriers* shall be protected with *approved 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 E 119 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 system. 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: This is on the MCAC list. No text developed at this time.

Proposal 12 – K18, K21

Proponent: Adhoc Health

1031.2 Reliability. Required *means of egress systems including exit accesses, exits and exit discharges* shall be maintained as required by this code and shall be continuously maintained free from obstructions or impediments to full instant use in the case of fire or other emergency

where the building area served by the *means of egress* is occupied. An *exit* or *exit passageway* shall not be used for any purpose that interferes with a *means of egress*.

Reason: From John Woestman

Follow-up to discussion earlier today regarding KTags K18 and K21 (and perhaps others) . . . Here's a suggestion for revising IFC 1031.2 regarding the function and operation of all the components that comprise the means of egress (or means of egress systems).

There are numerous areas where the IFC requires something to be maintained . . . maintained to function as intended . . . maintained fire rating . . . maintained smoke barrier . . . etc. Thus, we'd not want language here that could be interpreted as somehow limiting.

Proposal 13 –

Proponent: Adhoc Health

407.5.2 Independent egress. *A means of egress shall be provided from each smoke compartment created by smoke barriers without having to return through the smoke compartment from which means of egress originated. This means of egress shall be provided from each smoke compartment created by smoke barriers without having to return through the smoke compartment of potential fire origin.*

-OR-

407.5.2 Independent egress. *A means of egress shall be provided from each smoke compartment created by smoke barriers without having to return through the smoke compartment from which means of egress originated. The means of egress shall provide access to not less than two exits in the smoke compartment or in adjacent smoke compartments. Access to these two exits shall not pass through the same adjacent smoke compartment .*

Reason: From John Williams

The first concept is based on the current CMS rules, the second is based on a very similar concept in the proposed rules. Either way it deals with what I think of as “dead-end” smoke compartments. IN the scenarios that I can think of, they both do the same thing.

Proposal 14 –

Proponent: Adhoc Health

Add new text as follows:

808.1 Wastebaskets and linen containers in Group I-1, I-2 and I-3 occupancies. Wastebaskets, linen containers and other waste containers, including their lids, located in Group I-1, I-2 and I-3 occupancies shall be constructed of noncombustible materials or of materials that meet a peak rate of heat release not exceeding 300 kW/m² when tested in accordance with ASTM E 1354 at an incident heat flux of 50 kW/m² in the horizontal orientation. Metal wastebaskets and other metal waste containers with a capacity of 20 gallons (75.7 L) or

more shall be *listed* in accordance with UL 1315 and shall be provided with a noncombustible lid. Portable containers exceeding 32 gallons (121 L) shall be stored in an area classified as a waste and linen collection room and constructed in accordance with Table 509 of the *International Building Code*.

808.1.1 Wastebaskets and linen containers in Group I-2 Condition 2

occupancies. Stationary wastebaskets, linen containers and other waste containers, including their lids, located in Group I-2 Condition 2 occupancies shall comply with Section 808.1 and shall not exceed an individual capacity of 32 gallons (121.12 L). The average capacity density of containers located in an individual room or space shall not be greater than 0.5 gal/ft² (20.4 L/m²). The maximum allowable container capacity for each 64 square feet (5.9 m²) of room area shall be 32 gallons (121.12 L).

Reason: This proposal will provide correlation with NFPA 101-2012, Section 19.7.5.7.1, which contains similar provisions for healthcare occupancies. This proposal will also provide correlation with current CMS licensure inspection requirements.

In the hospital setting, there is a great need for containers to handle a wide range of waste material. On the patient bed unit, hampers containing soiled linen, regulated medical waste, and infectious waste are needed to be placed in rooms in a safe manner. In a clerical setting, there is paper with sensitive medical information that needs to be specially handled and destroyed, which requires separate waste containers. This standard seeks to regulate the concentration of these materials so as not to create a hazard that goes beyond the active and passive fire containment systems in place in the hospital. The recommended size and space concentration are based on current federal standards, which are already being followed by hospitals.

This proposal is submitted by the ICC Ad Hoc Committee for Healthcare (AHC). The AHC was established by the ICC Board of Directors to evaluate and assess contemporary code issues relating to hospitals and ambulatory healthcare facilities. The AHC is composed of building code officials, fire code officials, hospital facility engineers, and state healthcare enforcement representatives. The goals of the committee are to ensure that the ICC family of codes appropriately addresses the fire and life safety concerns of a highly specialized and rapidly evolving healthcare delivery system. This process is part of a joint effort between ICC and the American Society for Healthcare Engineering (ASHE), a subsidiary of the American Hospital Association, to eliminate duplication and conflicts in healthcare regulation. Since its inception in April, 2011, the AHC has held X open meetings and over XXX workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed changes. All meeting materials and reports are posted on the AHC website at: <http://www.iccsafe.org/cs/AHC/Pages/default.aspx>

Proposal 15 –

Proponent: Adhoc Health

IFGC 303.3.1 Fireplaces and decorative appliances in Group I-2 occupancies. In addition to the requirements of Section 303.3, fuel gas-fired fireplaces and decorative appliances in Group I-2 occupancies shall not be located in sleeping rooms, storage closets, surgical rooms, toilet rooms and bathrooms located in the patient sleeping or dwelling units. Fuel gas-fired fireplaces and decorative appliances are permitted in other

areas that open into such rooms or spaces only where the installation complies with all of the following:

1. Combustion air is taken directly from the outdoors.
2. Flue gases are discharged directly to the outdoors.
3. Appliance combustion chambers are separated from the environmental air on the interior of the building.
4. Appliances shall automatically shut down and stop fuel flow upon any of the following events:
 - 4.1 when temperatures exceed the appliance listing.
 - 4.2 when there is failure to ignite
 - 4.3 upon activation of the fire alarm system
5. Appliance controls are located in an approved restricted or locked location.
6. A carbon monoxide detector with a local alarm shall be provided and installed in accordance with Section 915 of the IBC.

Reason: *The language proposed in the IFGC prescribes the limitations and conditions to provide the necessary safety and limitations of hazards found within the healthcare environments to the fire and ignition sources inherent to all fireplaces and gas-fired appliances. Combustion air is restricted from being drawn from a healthcare environment for more than the last decade. It is standard practice and operational procedure to control the ignition sources in these occupancies that can contain combustible, flammable (and sometimes even explosive) material. Fire risks need to be limited to the maximum extent feasible and specific requirements for these facilities are not currently or completely addressed in the I-Codes. The physical separation of the combustion chambers of fireplaces and gas-fired equipment is required to separate and provide a barrier between the ignition sources and the environmental air within healthcare occupancies. All combustion air is required to be taken directly from the exterior of the building with one exception that is already provided for in IFGC Section 303.3.*

The solid fuel burning fireplaces and appliances (decorative or heating) present open flames that cannot otherwise be controlled or extinguished like similar gas-fired appliances. The attention to and the tending of the open flames from solid fuel burning appliances require the opening any surrounding compartment while the flames and ignition sources are present; thereby, exposing the I-2 environment (within the patient smoke compartment) to the ignition sources. When gas-fired appliances are utilized, the ability to completely control the fuel source and all open flames and ignition sources is possible and does not require exposure to or tending of solid fuel burning materials. The AHC committee is recommending the restriction of solid-fuel burning fireplaces and appliances in the I-2 occupancy.

Future submissions to proposals to the IFC are being drafted to clarify, restrict and limit the ignition source hazards in healthcare occupancies that will reference these requirements being proposed in the IBC, IMC AND IFGC. The code sections that address the installation of fuel gas-fire fireplaces and appliances will also provide

alternative means for compliance for existing facilities. Given the hazards present with these appliances in the I-2 Occupancies, the proposed IFC requirements will be 'retro-active' requirements for healthcare occupancies (I-2); please note, these are not new requirements for the I-2 Occupancy facilities but are needed in the I-Codes for coordination of the long-standing provision of the construction and operational requirements for healthcare facilities.

Proposal 16 –

Proponent: Adhoc Health

IMC 901.5 Fuel gas-fired Fireplaces and appliances in Group I-2. Fuel gas-fired fireplaces and decorative appliances located within smoke compartments containing patient sleeping rooms and surgical rooms in Group I-2 occupancies shall be installed in accordance with Section 303.3.1 of the IFGC.

IMC 901.6 Solid fuel-burning fire places and appliances in Group I-2. Solid fuel-burning fireplaces and appliances shall not be located in Group I-2 occupancies.

Exception: Solid fuel-burning fireplaces and appliances shall not be prohibited in Group I-2 nursing homes provided that they are not located in smoke compartments that contain patient sleeping rooms.

Reason:

Proposal 17 – K11

Proponent: Adhoc Health

IFC 1105.3 Separation. The provisions of Section 1105 shall apply to the entire building unless that portion of the building is separated from the remainder of the building with fire barriers constructed in accordance with Section 708 or horizontal assemblies constructed in accordance with Section 711. Such barriers shall have a fire-resistance rating in accordance with *International Building Code Section 508.3.2*. An automatic sprinkler system shall be provided as required in accordance with Section 1103.5.3 or Section 1105.8, as applicable.

IFC 1105.8 Group I-2 automatic sprinkler system. An *automatic sprinkler system* installed in accordance with Section 903.3.1.1 shall be provided throughout the story where existing the Group I-2 occupancy is located fire areas. The sprinkler system shall be provided throughout the floor where the Group I-2 occupancy is located, and in on all floors stories between the Group I-2 occupancy and the *level of exit discharge*.

Exception: Where the building complies with Section 1103.5.3.

Reason: *This proposal addresses K11 that requires Separation between compliant I-2 occupancies and those that do not comply with I-2 occupancies. The revision of Section 1105.8 was to be consistent with the language in Section 1103.5.3 requiring retroactive sprinkler systems in Group I-2 division 2 occupancies.*

Proposal 18

Proponent: Adhoc Health

IFC 5003.9 General safety precautions. General precautions for the safe storage, handling or care of hazardous materials shall be in accordance with Sections 5003.9.1 through ~~5003.9.10~~ 5003.9.11.

IFC 5003.9.11 Emergency showers and eyewash stations. In Group I-2 Condition 2, where the eyes or body of any a person are is at risk for exposure to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body emergency showers or eyewash stations shall be provided within the work area for immediate emergency use. The emergency showers and eyewash stations shall be installed in accordance with the *International Plumbing Code*.

Commenter's Reason: *How to install these systems is already in the IPC. The IFC does address hazards, so this trigger should be in the IFC. The modification is striking language that could be considered subjective.*

Proposal 19-K27

Proponent: Adhoc Health

IFC 1105.6 Smoke compartments. Smoke compartments shall be provided in existing Group I-2 Condition 2, in accordance with Sections 1105.6.1 through 1105.6.4.

IFC 1105.6.1 Design. . . .

IFC 1105.6.2 Smoke barriers. . . .

IFC 1105.6.3 Opening protectives. Openings in smoke barriers shall be protected in accordance with Section 716 of the *International Building Code*. Opening protectives shall have a minimum fire-protection-rating of 1/3 hour.

Exceptions:

1. Existing wired glass vision panels in doors shall be permitted to remain.
2. Existing non-labeled protection plates shall be permitted to remain.

IBC 709.5 Openings. Openings in a *smoke barrier* shall be protected in accordance with Section 716.

Exceptions:

1. In Group I-2 and *ambulatory care facilities*, where a pair of opposite-swinging doors are installed across a corridor in accordance with Section 709.5.1, the 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.
2. In Group I-1 Condition 2, Group I-2 and *ambulatory care facilities*, horizontal sliding doors installed in accordance with Section 1010.1.4.3 and protected in accordance with Section 716.

Reason: *Smoke barrier doors are typically installed across corridors and patient treatment areas. These doors see a very high volume of gurney and bed traffic, as well as carts, wheeled equipment and transport devices. As a result they are often damaged. This proposal would allow the installation of a non-labeled protective plate, usually made of steel or other resilient material, to be installed on these doors to protect them from excessive wear and damage. Due to the size of equipment being wheeled through, these protective plates need to be allowed to be greater than 48" high. Currently NFPA 80 would require that the protective plates on rated doors be limited to 48" and that they be labeled. The doors in smoke barriers do not function as true fire doors. This section contains many special directives and requirements exempting smoke barriers doors from meeting fire door requirements. This code change follows with the established intent of this section. Smoke barriers are intended to be substantial construction and providing protective plates provides additional protection to the doors keeping the original construction free from damage thus in a more substantial manner. They do not provide the same fire resistance rating as a true 1 hour fire barrier.*

Proposal 20

Proponent: Adhoc Health

[BE] 1008.2.2 Exit discharge. In Group I-2 occupancies where two or more *exits* are required, on the exterior landings required by Section 1010.6.1, means of egress illumination levels for the *exit discharge* shall be provided such that failure of any single lighting unit (bulb or ballast) shall not reduce the illumination level at the landing to less than 1 footcandle (11 lux).

[BE] 1008.3.5 Illumination level under emergency power. Emergency lighting facilities shall be arranged to provide initial illumination that is not less than an average of 1 footcandle (11 lux) and a minimum at any point of 0.1 footcandle (1 lux) measured along the path of egress at floor level. Illumination levels shall be permitted to decline to 0.6 footcandle (6 lux) average and a minimum at any point of 0.06 footcandle (0.6 lux) at the end of the emergency lighting time duration. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded. In Group I-2 occupancies, failure of any single lighting unit (bulb or ballast) shall not reduce the illumination level to less than 0.2 foot-candle (2.2 lux).

Reason: Better define what constitutes a failure of a lighting unit.

Proposal 21- K11

Proponent: Adhoc Health

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. Where nonseparated occupancies occur in a *high-rise building*, the most restrictive requirements of Section 403 that apply to the nonseparated occupancies shall apply throughout the *high-rise building*.

Reason: IBC Section 508.3.1 (or 508.3.1.1) needs potential language for non-separated that full compliance with I-2 requirements is required – otherwise separate in accordance with Table 508.4. Use high rise language to get full I-2 requirements in nonseparated use.

Proposal 22- K40

Proponent: Adhoc Health

1104.7 Size of doors. The minimum width of each door opening shall be sufficient for the *occupant load* thereof and shall provide a clear width of not less than 28 inches (711 mm). Where this section requires a minimum clear width of 28 inches (711 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 28 inches (711 mm). ~~In ambulatory care facilities, doors serving as means of egress from patient treatment rooms or patient sleeping rooms shall provide a clear width of not less than 32 inches (813 mm). In Group I-2, means of egress doors where used for the movement of beds shall provide a clear width not less than 41 1/2 inches (1054 mm).~~ The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. The height of door openings shall be not less than 80 inches (2032 mm).

Exceptions:

1. The minimum and maximum width shall not apply to door openings that are not part of the required *means of egress* in occupancies in Groups R-2 and R-3.
2. Door openings to storage closets less than 10 square feet (0.93 m²) in area shall not be limited by the minimum width.
3. Width of door leaves in revolving doors that comply with Section 1010.1.1 shall not be limited.
4. Door openings within a *dwelling unit* shall be not less than 78 inches (1981 mm) in height.
5. Exterior door openings in *dwelling units*, other than the required *exit* door, shall be not less than 76 inches (1930 mm) in height.
6. *Exit access* doors serving a room not larger than 70 square feet (6.5 m²) shall be not less than 24 inches (610 mm) in door width.
7. Door closers and door stops shall be permitted to be 78 inches (1980 mm) minimum above the floor.

1104.7.1 Group I-2. In Group I-2, *means of egress* doors where used for the movement of beds shall provide a clear width not less than 41.5 inches (1054 mm) and doors serving as means of egress doors from patient treatment rooms shall provide a clear width not less than 32 inches (xx mm).

1104.7.2 Ambulatory Care. In ambulatory care facilities, doors serving as *means of egress* from patient treatment rooms shall provide a clear width of not less than 32 inches (813 mm).

Reason: *Created separate sections to increase clarity.*

Exit access doors and exit doors used by health care occupants are of the swinging type and are at least 32 inches in clear width.

Ambulatory Care does not have sleeping rooms.

Proposal 23- K44

Proponent: Adhoc Health

1026.4.1 Capacity. The capacity of the refuge area shall be computed based on a *net floor area* allowance of 3 square feet (0.2787 m²) for each occupant to be accommodated therein.

Exceptions: The *net floor area* allowable per occupant shall be as follows for the indicated occupancies:

1. Six square feet (0.6 m²) per occupant for occupancies in Group I-3.
2. For Group I-2, refuge areas serving patient treatment and sleeping areas, provide Fifteen square feet (1.4 m²) per occupant for ambulatory patient occupancies in Group I-2.
3. For Group I-2, refuge areas serving patient treatment and sleeping areas, provide Thirty square feet (2.8 m²) per occupant for nonambulatory patient occupancies in Group I-2.
4. For Group I-2, refuge areas shall comply with the following:
 - 4.1 Fifteen square feet per ambulatory patients for areas serving patient treatment or sleeping rooms (Group I-2, Condition 1).
 - 4.2 Thirty square feet for patients being moved in bed (Condition I-2, Condition 2) for areas serving sleeping and treatment rooms.
 - 4.3 Six square feet per occupant for areas not serving sleeping or treatment rooms.

Reason: Note: No clear solution – consider nursing homes – discuss options

Possible conflict with 1026.4.1 (2) LSC allows 3 NSF based on 7.2.4.2.4 and 19.2.2.5.1.1. but IFC requires 15 SF per above

Proposal 24- K55

Proponent: Adhoc Health

[BE] 1030.1 General. In addition to the *means of egress* required by this chapter, provisions shall be made for *emergency escape and rescue openings* in Group R-2 occupancies in accordance with Tables 1006.3.2(1) and 1006.3.2(2) and Group R-3 occupancies. Basements and sleeping rooms below the fourth story above *grade plane* shall have at least one exterior *emergency escape and rescue opening* in accordance with this section. Where basements contain one or more sleeping rooms, *emergency escape and rescue openings* shall be required in each sleeping room, but shall not be required in adjoining areas of the basement. Such openings shall open directly into a *public way* or to a *yard* or *court* that opens to a *public way*.

Exceptions:

1. Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have *emergency escape and rescue openings*.
2. *Emergency escape and rescue openings* are not required from basements or sleeping rooms that have an *exit* door or *exit access* door that opens directly into a *public way* or to a *yard*, *court* or exterior exit balcony that opens to a *public way*.
3. Basements without *habitable spaces* and having not more than 200 square feet (18.6 m²) in floor area shall not be required to have *emergency escape and rescue openings*.

1203.5 Natural ventilation. Natural *ventilation* of an occupied space shall be through windows, doors, louvers or other openings to the outdoors. The operating mechanism for such openings shall be provided with ready access so that the openings are readily controllable by the building occupants.

Reason: 1203.5 or 1030 – not clear if this is ventilation of emergency escape

Due to the current state of unknown with CMS adoption and the 2012 edition of LSC I recommend that we hold on this and not propose any change at this time.

Proposal 25-K144

Proponent: Adhoc Health

604.4 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.

604.4.1 Group I-2 Condition 2. In Group I-2 Condition 2, Emergency and standby power systems shall also be maintained in accordance with NFPA 99.

604.5 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.

604.5.1 Group I-2 Condition 2. In Group I-2 Condition 2, Emergency and standby power systems shall also be inspected and tested under load in accordance with NFPA 99.

Reason: Generators are inspected weekly and exercised under load for 30 minutes per month and shall be in accordance with NFPA 99.

2012 IPC – possible changes for Adhoc Health Care

Proposal 1

422.1 Scope. This section shall govern those aspects of health care plumbing systems that differ from plumbing systems in other structures. Health care plumbing systems shall conform to the requirements of this section in addition to the other requirements of this code. The provisions of this section shall apply to the special devices and equipment installed and maintained in the following *occupancies*: ~~nursing homes, homes for the aged, orphanages, infirmaries, first aid stations, psychiatric facilities, clinics, professional offices of dentists and doctors, mortuaries, educational facilities, surgery, dentistry, research and testing laboratories, establishments manufacturing pharmaceutical drugs and medicines, and other structures with similar apparatus and equipment classified as plumbing.~~ Group I-1, Group I-2, Group B ambulatory care facilities and research and testing laboratories, and Group F facilities manufacturing pharmaceutical drugs and medicines.

713.1 Scope. This section shall govern those aspects of health care plumbing systems that differ from plumbing systems in other structures. Health care plumbing systems shall conform to this section in addition to the other requirements of this code. The provisions of this section shall apply to the special devices and equipment installed and maintained in the following *occupancies*: ~~nursing homes; homes for the aged; orphanages; infirmaries; first aid stations; psychiatric facilities; clinics; professional offices of dentists and doctors; mortuaries; educational facilities; surgery, dentistry, research and testing laboratories; establishments manufacturing pharmaceutical drugs and medicines; and other structures with similar apparatus and equipment classified as plumbing.~~ Group I-1, Group I-2, Group B ambulatory care facilities and research and testing laboratories, and Group F facilities manufacturing pharmaceutical drugs and medicines.

Reason: Removal of laundry list. The last phrase is not needed – it is vague and similar facilities are already addressed in the classification of groups.

Proposal 2

422.3 Protection. ~~All devices, appurtenances, appliances and apparatus intended to serve some special function, such as sterilization, distillation, processing, cooling, or storage of ice or foods, and that connect to either the water supply or drainage system, shall be provided with protection against backflow, flooding, fouling, contamination of the water supply system and stoppage of the drain.~~

Reason: This section is not needed. The issue for all fixtures is already address in the backflow protection in Section 608.

Proposal 3

422.4 Materials. Fixtures designed for therapy, special cleansing or disposal of waste materials, ~~combinations of such purposes, or any other special purpose,~~ shall be of smooth, impervious, corrosion-resistant materials and, ~~where subjected to temperatures in excess of 180°F (82°C), shall be capable of withstanding, without damage, higher temperatures.~~

Reason: The phrase “combination of such purposes” is already addressed in the list and not needed. The phrase “or any other special purpose” is too broad. There are hundreds of specialty sinks throughout health care facilities. The phrase “and, where subjected to temperatures in excess of 180°F (82°C), shall be capable of withstanding, without damage, higher temperatures” is also proposed to be deleted. It does not provide any limits on how high of a temperature the fixture has to be designed for. In addition, water in excess of 180 degrees would not be found in a fixture as described in the list of what this section is applicable to. Temperatures in excess of 180 degrees would burn skin, so this is only within sealed systems.

Proposal 4

~~**422.5 Access.** Access shall be provided to concealed piping in connection with special fixtures where such piping contains steam traps, valves, relief valves, check valves, vacuum breakers or other similar items that require periodic inspection, servicing, maintenance or repair. Access shall be provided to concealed piping that requires periodic inspection, maintenance or repair.~~

~~**422.9.1 Sterilizer piping.** Access for the purposes of inspection and maintenance shall be provided to all sterilizer piping and devices necessary for the operation of sterilizers.~~

Reason: This section is special requirements. All plumbing is required to have access for inspections, maintenance and repairs.

Proposal 5

422.6 Clinical sink Bed pan washers. A clinical sink bed pan washers shall have an integral trap in which the upper portion of a visible trap seal provides a water surface. The fixture shall be designed so as to permit complete removal of the contents by siphonic or blowout action and to reseal the trap. A flushing rim shall provide water to cleanse the interior surface. The fixture shall have the flushing and cleansing characteristics of a water closet.

422.7 Prohibited usage of clinical sinks bed pan washers and service sinks. A clinical sink bed pan washers serving a soiled utility room shall not be considered as a substitute for, or be utilized as, a service sink. A service sink shall not be utilized for the disposal of urine, fecal matter or other human waste.

713.2 Bedpan washers and clinical sinks. ~~Bedpan washers and clinical sinks shall connect to the drainage and vent system in accordance with the requirements for a water closet. Bedpan washers shall also connect to a local vent.~~

Reason: Change in terminology would be better understood in the industry. Clinical sink is too broad a term. The last sentence in 713.2 is not needed. It is covered by the 1st sentence. 713.2 appears to indicate that a bedpan washer and a clinical sink are different items, but 422.6 and 422.7 is just clinical sinks but has requirements for bed pan washers.

Proposal 6

422.8 Ice prohibited in soiled utility room. Machines for ~~manufacturing~~ producing ice, or any device for the ~~handling~~ or storage of ice, shall not be located in a soiled utility room.

Reason: Manufacturing is too large of a scale for anything provided in a health care environment. "Handling" should be deleted because this could be read to not allow pitchers that hold ice to be brought to the soiled linen room to clean.

Proposal 7

422.10 Special elevations. ~~Control valves, vacuum outlets and devices protruding from a wall of an operating, emergency, recovery, examining or delivery room, or in a corridor or other location where patients are transported on a wheeled stretcher, shall be located at an elevation that prevents bumping the patient or stretcher against the device.~~

Reason: Clinical needs must determine the location of control valves, vacuum outlets and other plumbing control devices. The chance that a patient or stretcher could accidentally bump them is too broad for consistent interpretation.

Proposal 8

713.4 Vacuum system station. Ready access shall be provided to vacuum system station ~~receptacles~~ inlets. ~~Such receptacles shall be built into cabinets or recesses and shall be visible.~~

Reason: The proper term is 'inlet', not 'receptacles'. It is a conflict to both require being built into a cabinet and visible. The inlets cannot be recessed because it would be too hard to connect with patient equipment.

Proposal 9

713.5 Bottle system. Vacuum (fluid suction) systems intended for collecting, removing and disposing of blood, pus or other fluids by the bottle system shall be provided with receptacles equipped with an overflow prevention device at each vacuum outlet station.

713.6 Central disposal system equipment. All central vacuum (fluid suction) systems shall provide continuous service. Systems equipped with collecting or control tanks shall provide for draining and cleaning of the tanks while the system is in operation. In hospitals, the system shall be connected to the emergency power system. The exhausts from a vacuum pump serving a vacuum (fluid suction) system shall discharge separately to open air above the roof.

713.7 Central vacuum or disposal systems. Where the waste from a central vacuum (fluid suction) system of the barometric-lag, collection-tank or bottle-disposal type is connected to the drainage system, the waste shall be directly connected to the sanitary drainage system through a trapped waste.

713.7.1 Piping. The piping of a central vacuum (fluid suction) system shall be of corrosion-resistant material with a smooth interior surface. A *branch* shall not be less than ½ inch (12.7 mm) nominal pipe size for one outlet and shall be sized in accordance with the number of vacuum outlets. A main shall not be less than 1-inch (25 mm) nominal pipe size. The pipe sizing shall be increased in accordance with the manufacturer's instructions as stations are increased.

713.7.2 Velocity. The velocity of airflow in a central vacuum (fluid suction) system shall be less than 5,000 feet per minute (25 m/s).

Reason: *No proposal at this time.*