

**Ad Hoc Committee on Healthcare (AHC) Meeting #10  
July 9-10, 2013**

**Review of 2012 Group A actions**

This report identifies code changes considered in the 2012 Group A Cycle for which the AHC had maintained a position and the final action was counter to the AHC position. These have been identified as a starting point in the development of code changes for the 2015 Group A Cycle.

**E25-12**

**E27-12**

**E34-12**

**E68-12**

**E71-12**

**E75-12**

**E83-12**

**E119-12**

**E120-12**

**E149-12**

**FS42-12**

**FS47-12**

**FS48-12**

**FS49-12**

**FS65-12**

**G71-12, Part I**

**G72-12**

**G74-12**

**G92-12**

**G200-12**

**FG3-11**

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**E25-12 – D (AHC: AS)**

**1006.1.1 (New) [IFC [B] 1006.1.1(New)]**

**Proposed Change as Submitted**

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

**Add new text as follows:**

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

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

**Reason:** This change permits the use of occupancy sensors which has been allowed in some jurisdictions. It also helps reduce energy as mandated by DOE. There are several proposals from the Adhoc Health Care Committee dealing with Section 1006. The proposals can be accepted individually, however, the proposals can work together.

This proposal is submitted by the ICC Ad Hoc Committee on 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 5 open meetings and over 80 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>.

**Cost Impact:** None

1006.1-E-Williams-Adhoc.docx

## **Public Hearing Results**

**Committee Action:**

**Disapproved**

**Committee Reason:** Allowance for automatic controls is needed as part of energy conservation and green building concerns. It is recognized that timers are used to turn on the lights to charge the photoluminescent stripes required in high-rises by Section 1024. However, there is a concern that there are currently no standards for testing or listing of these controls – specifically looking for a fail-safe device. These automatic controls should be limited to general means of egress lighting and not relied on for emergency means of egress lighting. This disapproval is consistent with E22 and E24.

**Assembly Action:**

**None**

## **Individual Consideration Agenda**

**This item is on the agenda for individual consideration because public comments were submitted.**

### *Public Comment 1:*

**John Williams, Adhoc Health Care – MOE study group, requests Approval as Modified by this Public Comment.**

**Replace the proposal with the following:**

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

#### **Exceptions:**

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

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

1. The controls shall be configured to provide the required illumination within each room or space while occupied.
2. Where provided, occupant sensors shall activate the required illumination ~~the occupancy sensor is activated by an occupant the area served is illuminated~~ for a minimum duration of 15 minutes.
4. 3. Where the automatic lighting controls fail, the controls shall fail in the on or operating state. ~~The occupancy sensors operate as fail safe devices when the occupancy sensor fails;~~
4. Occupant sensors shall not extinguish lighting ~~The means of egress is not required to have illumination to charge luminous egress path markings in accordance with Section 1024.5~~
3. 5. All designated emergency lighting luminaries in the means of egress path shall operate in the event of emergency system activation providing light levels in accordance with Section 1006.3. ~~The occupancy sensor operates as a fail safe device in the event of a power supply failure to the emergency lighting system required by Section 1006.3.~~
6. The automatic lighting controls shall be tested as a component of the emergency lighting equipment in accordance with the IFC Section 604.5.

**Commenter's Reason:** The revised proposal responded to the committee's comments. The testing section was added in Item 6. Item 5 refines how the emergency means of egress lighting if used. We refined other areas of the proposal to indicate the need to fail on and not interfere with any of the luminous marking system needs.

**Today's practice:**

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

**Change we would like to see with this proposal:**

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

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 7 open meetings and over 100 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>.

*Public Comment 2:*

**Wade Rudolph, CBET, CHFM, Sacred Heart Hospital representing Wisconsin Healthcare Engineers Association Codes & Standards Committee, requests Approval as Submitted**

The proposal as submitted by John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare should be accepted as proposed.

The rationale provided by the ICC Review committee substantiates that the proposal is acceptable for safe egress out of the building for almost 100% of the time, but is somehow not reliable for egress in a fire event. This logic does not make sense.

The concern that there is no current standard to test the devices is not valid, as the industry will create a test upon acceptance.

Hospitals are required to have illumination of means of egress and have invested a substantial amount of money into emergency generators, and emergency power distribution systems that have proven to be reliable in many situations. To require an additional luminous egress path markings is redundant. Hospitals already have normal power plus emergency power. The need for the markings is an expense that will add no more value to safe egress in the event of a fire.

Healthcare depends on emergency power systems to support life safety functions such as surgery, emergency services and the like, so to not consider this emergency power as a reliable source for egress illumination defies logic.

Healthcare costs are a major national concern. To increase construction costs with three required redundant systems is not good use of healthcare resources that should be allocated to the patient at the bedside.

I am submitting this request on behalf of the Wisconsin Healthcare Engineers Association Codes & Standards committee representing over 700 members in the State of Wisconsin.

Thank you for your time and consideration of my comments.

**E25-12**

Final Action:                      AS                      AM                      AMPC\_\_\_\_                      D

**E27-12 – D (AHC:AS)  
1006.2, 1024.5 (IFC [B] 1006.2, 1024.5)**

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

**Revise as follows:**

**1006.2 (IFC [B] 1006.2) Illumination level.** The *means of egress* illumination level shall not be less than 1 foot-candle (11 lux) at the walking surface. The *means of egress* illumination level shall not be less than 10 foot-candle (110 lux) at the walking surface where luminous egress path markings are required by Section 1024.1.

**Exception:** For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances to not less than 0.2 foot-candle (2.15 lux), provided that the required illumination is automatically restored upon activation of a premises' fire alarm system where such system is provided.

**1024.5 (IFC [B] 1024.5) Illumination.** Where *photoluminescent* exit path markings are installed they shall be provided with the minimum *means of egress* illumination required by Section ~~1006~~ 1006.2 for at least 60 minutes prior to periods when the building is occupied.

**Reason:** The change to Section 1006.2 is the light level needed to charge approved luminous markings. The change to 1024.5 is coordination with lighting levels required in 1006.2 and more specific pointer for this unique area.

This proposal is submitted by the ICC Ad Hoc Committee on 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 5 open meetings and over 80 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>.

**Cost Impact:** The code change proposal should not increase the cost of construction because compliance with the standard is already required by facility licensure requirements.

**E27-12**

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.2-E3-Williams-Adhoc.docx

**E27-12**

**Committee Action:**

**Disapproved**

**Committee Reason:** Only 1 footcandle is required to charge photoluminescent stripes on stairways as required by Section 1024. This issue is already addressed in E149.

**Assembly Action:**

**None**

**E34 – 12 AM (AHC:NP; MOE WG to review)**

**1006.3 (IFC [B] 1006.3)**

**Proponent:** Gene Boecker, Code Consultants, Inc., representing self ([geneb@codeconsultants.com](mailto:geneb@codeconsultants.com)); Maureen Traxler, City of Seattle Department of Planning and Development, representing City of Seattle Department of Planning and Development ([maureen.traxler@seattle.gov](mailto:maureen.traxler@seattle.gov))

**Revise as follows:**

**1006.3 (IFC [B] 1006.3) Emergency power for illumination.** The power supply for means of egress illumination shall normally be provided by the premises' electrical supply.

**1006.3.1 (IFC [B] 1006.3.1) Rooms and spaces.** In the event of power supply failure, in rooms and spaces that require two or more means of egress an emergency electrical system shall automatically illuminate all of the following areas:

1. ~~Aisles and unenclosed egress stairways in rooms and spaces that require two or more means of egress.~~
2. ~~Corridors, interior exit stairways and ramps and exit passageways in buildings required to have two or more exits.~~
3. Exit access stairways and ramps

**1006.3.2 (IFC [B] 1006.3.2) Buildings.** In the event of power supply failure, in buildings that require two or more means of egress, an emergency electrical system shall automatically illuminate all of the following areas:

1. Interior exit access stairways and ramps
2. Interior and exterior exit stairways and ramps
3. Exit passageways
3. ~~Exterior egress components at other than their levels of exit discharge until exit discharge is accomplished for buildings required to have two or more exits.~~
4. Interior exit discharge elements Vestibules and areas on the level of discharge used for exit discharge in accordance with, ~~as permitted in Section 1027.1, in buildings required to have two or more exits.~~
5. Exterior landings as required by Section 1008.1.6 for exit ~~discharge~~ doorways that lead directly to the exit discharge in buildings required to have two or more exits.

**1006.3.3 (IFC [B] 1006.3.3) Duration.** The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Section 2702.

~~1006.3.4~~ **1006.3.4 (IFC [B] 1006.3.4) Illumination level under emergency power.** *(no change)*

**Reason:** This proposal corrects a small glitch in the 2012 code, and is otherwise editorial. The glitch is that a space for which two means of egress are required might not have an aisle or corridors, for example a gymnasium or horse practice arena. Therefore, Section 1006.3 would not require emergency lighting. The provision that requires emergency lighting when two or more exits are required is moved out of the list so that all such spaces will have emergency lighting. In addition, the proposal updates the terminology used for stairways and ramps.

**Cost Impact:** None

**E34-12**

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1006.3.1(new)-E-Boecker-Traxler.doc

## E34-12

Committee Action:

Approved as Modified

Modify proposal as follows:

**1006.1 (IFC [B] 1006.1) Means of egress illumination.** Illumination shall be provided in the means of egress in accordance with Section 1006.2. Under emergency power, means of egress illumination shall comply with Section 1006.3.

**1006.1 (IFC [B] 1006.1) 1006.2 (IFC [B] 1006.2) Illumination required.** The *means of egress serving a room or space*, including the *exit discharge*, shall be illuminated at all times that the room or space building space served by the *means of egress* is occupied.

**Exceptions:** 1. Occupancies in Group U.

2. *Aisle accessways* in Group A.

3. *Dwelling units* and *sleeping units* in Groups R-1, R-2 and R-3.

4. *Sleeping units* of Group I occupancies.

**1006.2 (IFC [B] 1006.2) 1006.2.1 (IFC [B] 1006.2.1) Illumination level under normal power.**  
(no change to text)

**Committee Reason:** The modification is to put all of Section 1006 into a format consistent with the proposal for emergency egress lighting (Section 1006.3). This will help clarify and separate the requirements for egress lighting during typical lighting situations vs. egress lighting during emergencies when the building has lost normal power. The reformatting of Section 1006.3 for emergency means of egress lighting clarifies when the provisions are applicable and updates the terminology.

Assembly Action:

None

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## E68 – 12 – D (AHC:AS)

### 1008.1.9.6 (IFC [B] 1008.1.9.6)

**Proponent:** John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)

Revise as follows:

**1008.1.9.6 (IFC [B] 1008.1.9.6) ~~Special locking arrangements~~ Controlled egress doors in Group I-2.** ~~Approved special egress~~ Electric locks including electro-mechanical locks and electromagnetic locks shall be permitted to be locked in the means of egress in a Group I-2 occupancy where the clinical needs of persons receiving care require their containment. such locking. ~~Special egress locks~~ 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 Items 1 through 7~~8~~.

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall be installed to have the capability of being unlocked by a signal from 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 ~~special-controlled~~ egress lock before entering an *exit*.

5. The procedures for the ~~operation(s) of the unlocking of the doors system~~ shall be described and *approved* as part of the emergency planning and preparedness required by Chapter 4 of the *International Fire Code*.
6. All clinical staff shall have the keys, codes or other means necessary to operate the locking devices.
7. Emergency lighting shall be provided at the door.
8. The components of the door locking system shall be listed in accordance with UL 294.

**Exception:** Items 1 through 4 shall not apply to doors to areas where persons, which because of clinical needs, require restraint or containment as part of the function of a psychiatric treatment area.

**Reason:** Changes above illustrate BHMA's suggested revisions from the 2012 IBC incorporating the ICC AHC MOE work group's proposed revisions, and further BHMA revisions. Further revisions are recommended to Items 3 and 8. The further revisions are essentially editorial or help to clarify the intent.

Background: the Builders Hardware Manufacturers Association (BHMA) members have been observing the AHC and CTC meetings and activities with most interest in the potential code proposals that may have implications to the means of egress, and to doors and door hardware requirements.

The BHMA Codes and Government Affairs (CGA) committee met immediately after the Orlando ICC AHC meeting for a final look-see at the proposed AHC language. Many of the BHMA CGA members had reviewed the draft AHC MOE language individually without identifying concern or opportunities for improvement. But when together in Orlando, the BHMA members identified several opportunities for further revision to the AHC proposals.

We've captured our suggestions for additional considerations in this proposal. We're not wanting to circumvent the work of the AHC and CTC; that's why several of us have been attending the AHC and CTC meetings and phone calls. We just did not recognize some of the opportunities while reviewing the language individually, and only when the BHMA CGA committee got together for – what we thought would be – a quick final review, did we realize several concerns and opportunities for revisions.

**Cost Impact:** None.

**E68-12**

Public Hearing: Committee:	AS	AM	D
Assembly:	ASF	AMF	DF

1008.1.9.6-E-Woestman.doc

**E68-12**

**Committee Action:**

**Disapproved**

**Committee Reason:** The issues are addressed and coordinated in E67 with the modifications.

**Assembly Action:**

**None**

**E71 – 12 – D (AHC:AS)**  
**1008.1.9.7 (IFC [B] 1008.1.9.7)**

**Proponent:** John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)

**Revise as follows:**

**1008.1.9.7 (IFC [B] 1008.1.9.7) Delayed egress locks.** ~~Approved, listed,~~ Delayed egress ~~locks~~ locking systems, shall be permitted to be installed on doors serving any occupancy except Group A, E and H occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907. ~~The locking system shall be installed and operated provided that the doors unlock in~~ accordance with Items 1 through ~~67~~ below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an *exit*.

1. The delay electronics shall deactivate ~~doors unlock~~ upon actuation of the *automatic sprinkler system* or automatic fire detection system, allowing immediate, free egress.

2. ~~The doors unlock delay electronics shall deactivate upon loss of power controlling the lock or lock mechanism, allowing immediate free egress.~~
3. ~~The door locks delay electronics shall have the capability of being unlocked by a signal from deactivated at the fire command center and other approved locations.~~
4. ~~The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for 1 second to the release device. A force of not more than 15 pounds applied to the egress side release device for not more than 3 seconds shall initiate an irreversible process which shall allow egress in not more than 15 seconds. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. The door shall be set in motion when subjected to a force of not more than 30 pounds (133 N). The door shall be able to swing to a full open position when subjected to a force of not more than 15 pounds (67 N). Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only. 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.

5. A sign shall be provided on the door located above and within 12 inches (305 mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.
6. Emergency lighting shall be provided at the door.
7. The components of the door locking system shall be listed in accordance with UL 294.

**Reason:** Changes above illustrate BHMA's suggested revisions from the 2012 IBC incorporating the ICC AHC MOE work group's proposed revisions, and further BHMA revisions. Additional revisions are suggested to the main paragraph, Item 4 and Item 7.

Item 4 will benefit from a clarification of where and how the maximum 15 pound force is applied to initiate the delay "count down". Also in Item 4, the maximum force allowed to set the door in motion, and to swing to the full open position, comes from Section 1008.1.3. The other revisions are essentially editorial or help to clarify the intent.

Background: the Builders Hardware Manufacturers Association (BHMA) members have been observing the AHC and CTC meetings and activities with most interest in the potential code proposals that may have implications to the means of egress, and to doors and door hardware requirements.

The BHMA Codes and Government Affairs (CGA) committee met immediately after the Orlando AHC meeting for a final look-see at the proposed AHC language. Many of the BHMA CGA members had reviewed the draft AHC MOE language individually without identifying concern or opportunities for improvement. But when together in Orlando, the BHMA members identified several opportunities for further revision to the AHC proposals.

We've captured our suggestions for additional considerations in this proposal. We're not wanting to circumvent the work of the AHC and CTC; that's why several of us have been attending the AHC and CTC meetings and phone calls. We just did not recognize some of the opportunities while reviewing the language individually, and only when the BHMA CGA committee got together for – what we thought would be – a quick final review, did we realize several concerns and opportunities for revisions.

**Cost Impact:** None.

## E71-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.7 #1-E-Woestman.doc

## E71-12

**Committee Action:**

**Disapproved**

**Committee Reason:** The issues are addressed and coordinated in E70 with the modifications.

**Assembly Action:**

**None**

## E75 – 12 – D (AHC:AS) 1008.1.9.7 (IFC [B] 1008.1.9.7)

**Proponent:** John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)



**Revise as follows:**

**1008.1.9.7 (IFC [B] 1008.1.9.7) Delayed egress locks.** *Approved, listed, delayed egress locks locking systems,* shall be permitted to be installed on doors serving any occupancy except Group A, E, and H occupancies in buildings that are equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or an *approved* automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an *exit*.

1. The doors unlock upon actuation of the *automatic sprinkler system* or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from the fire command center.
4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for *1 second* to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released, by the application of force to the releasing device, relocking rearming shall be by manual means only.

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

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

**Exception:** Where approved, the installation of a sign is not required when the instructions compromise the safety of the residents in Group I occupancies.

6. Emergency lighting shall be provided at the door.

**Reason:** Changes above illustrate BHMA's suggested revisions from the 2012 IBC incorporating the ICC AHC MOE work group's proposed revisions, and further BHMA revisions. The further proposed revisions are essentially editorial and help to clarify the intent.

Background: the Builders Hardware Manufacturers Association (BHMA) members have been observing the AHC and CTC meetings and activities with most interest in the potential code proposals that may have implications to the means of egress, and to doors and door hardware requirements.

The BHMA Codes and Government Affairs (CGA) committee met immediately after the Orlando AHC meeting for a final look-see at the proposed AHC language. Many of the BHMA CGA members had reviewed the draft AHC MOE language individually without identifying concern or opportunities for improvement. But when together in Orlando, the BHMA members identified several opportunities for further revision to the AHC proposals.

We've captured our suggestions for additional considerations in this proposal. We're not wanting to circumvent the work of the AHC and CTC; that's why several of us have been attending the AHC and CTC meetings and phone calls. We just did not recognize some of the opportunities while reviewing the language individually, and only when the BHMA CGA committee got together for – what we thought would be – a quick final review, did we realize several concerns and opportunities for revisions.

**Cost Impact:** None.

**E75-12**

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.7 #2-E-Woestman.doc

## E75-12

Committee Action:

Disapproved

**Committee Reason:** The signage is necessary at doors with delayed egress locking systems for visitors within the Group I-1 facilities. Disapproval is consistent with committee action on E74-12.

Assembly Action:

None

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## E83 – 12 – D (AHC:AS)

### 1008.1.9.9 (IFC [B] 1008.1.9.9)

**Proponent:** John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA) (jwoestman@kellencompany.com)

**Revise as follows:**

**1008.1.9.9 (IFC [B] 1008.1.9.9) Electromagnetically locked egress doors.** Doors in the *means of egress* in buildings with an occupancy in Group A, B, E, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with ~~listed~~ hardware that incorporates a built-in switch and ~~meet the requirements below~~ are installed and operated in accordance with Items 1 through 6 below:

1. The ~~listed~~ hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
2. The ~~listed~~ hardware is capable of being operated with one hand.
3. Operation of the ~~listed~~ hardware directly interrupts the power to the electromagnetic lock and unlocks the door immediately.
4. Loss of power to the ~~listed~~ hardware automatically unlocks the door.
5. Where panic or *fire exit hardware* is required by Section 1008.1.10, operation of the ~~listed~~ panic or *fire exit hardware* also releases the electromagnetic lock.
6. The components of the door locking system shall be listed in accordance with UL 294.

**Reason:** Changes above illustrate BHMA's suggested revisions from the 2012 IBC incorporating the ICC AHC MOE work group's proposed revisions, and further BHMA revisions. After further review, BHMA members suggest leaving the name of the section as it is in the 2012 IBC. There is a slight change to Item 6 – 'the' instead of 'all'.

Background: the Builders Hardware Manufacturers Association (BHMA) members have been observing the AHC and CTC meetings and activities with most interest in the potential code proposals that may have implications to the means of egress, and to doors and door hardware requirements.

The BHMA Codes and Government Affairs (CGA) committee met immediately after the Orlando AHC meeting for a final look-see at the proposed AHC language. Many of the BHMA CGA members had reviewed the draft AHC MOE language individually without identifying concern or opportunities for improvement. But when together in Orlando, the BHMA members identified several opportunities for further revision to the AHC proposals.

We've captured our suggestions for additional considerations in this proposal. We're not wanting to circumvent the work of the AHC and CTC; that's why several of us have been attending the AHC and CTC meetings and phone calls. We just did not recognize some of the opportunities while reviewing the language individually, and only when the BHMA CGA committee got together for – what we thought would be – a quick final review, did we realize several concerns and opportunities for revisions.

**Cost Impact:** None.

### E83-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1008.1.9.9-E-Woestman.doc

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## E83-12

Committee Action:

Disapproved

**Committee Reason:** The issues are addressed and coordinated in E82 with the modifications.

**Assembly Action:**

**None**

## **E119-12 – D (AHC:AS)**

### **1017.3, 1017.5 (IFC [B] 1017.3, 1017.5 )**

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee

**Revise as follows:**

**1017.3 (IFC [B] 1017.3) Aisles in Groups B and M.** In Group B and M occupancies, the minimum clear *aisle* width shall be determined by Section 1005.1 for the *occupant load* served, but shall not be less than ~~36 inches (914 mm)~~ that required for corridors by Section 1018.2.

**Exception:** Nonpublic *aisles* serving less than 50 people and not required to be *accessible* by Chapter 11 need not exceed 28 inches (711 mm) in width.

**1017.5 (IFC [B] 1017.5) Aisles in other than assembly spaces and Groups B and M.** In other than rooms or spaces used for assembly purposes and Group B and M occupancies, the minimum clear *aisle* width shall be determined by Section 1005.1 for the *occupant load* served, but shall not be less than ~~36 inches (914 mm)~~ that required for corridors by Section 1018.2.

**Reason:** The change for aisles in IBC Sections 1107.3 and 1017.5 is for coordination with the new corridor width Table 1018.2 and the language for ramp width in Section 1010.6.1. Also, aisles, corridors and ramps are all using the same capacity numbers in Section 1005.3.2. Aisle used for movement of patient beds should also meet 96”.

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 5 open meetings and over 80 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>

This proposal is being co-sponsored by the ICC Code Technology Committee. The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as “areas of study”. Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/cc/ctc/index.html>. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

**Cost Impact:** None

### **E119-12**

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1017.3-E-WILLIAMS-ADHOC.doc

## **E119-12**

**Committee Action:**

**Disapproved**

**Committee Reason:** The committee preferred the text dealing with this issue in E118.

**Assembly Action:**

**None**

# E120 – 12 – D (AHC:AS)

## 1017.5 (IFC [B] 1017.5)

**Proponent:** Lynn W. Manley, Staff Architect, Illinois Department of Public Health (IDPH), Health Care Facilities and Programs (HCF&P) representing self (lynn.manley@illinois.gov)

**Revise as follows:**

**1017.5 (IFC [B] 1017.5) Aisles in hospitals, ambulatory care facilities and end stage renal dialysis units.** The clear aisle width for hospitals, ambulatory care facilities and end stage renal dialysis units shall be not less than 44 inches (1118 mm). The clear aisle width of areas where patient movement is by wheelchair shall be not less than 60 inches (1524 mm). The clear aisle width of areas where patient movement is by gurney or bed shall be not less than 72 inches (1829 mm).

**Exception:** For areas that do not provide patient access, patient treatment or means of egress for patients, the minimum clear aisle width shall be determined by Section 1005.1, based upon the occupant load served, but shall not be less than 36 inches (914 mm).

~~1017.5~~ **1017.6 (IFC [B] 1017.6) Aisles in other than assembly spaces and Groups B and M occupancies.** In other than rooms or spaces used for assembly purposes and Group B and M occupancies not falling within the purview of Section 1017.2, 1017.3 or 1017.5, the minimum clear aisle width shall be determined by Section 1005.1 for the occupant load served, but shall be not less than 36 inches (914 mm).

**Reason:** This change is proposed as a requirement for new construction. However, similar requirements may be proposed in the International Fire Code for existing facilities. The 36 inch and 44 inch dimensions are consistent with the requirements of NFPA 101 for the same occupancies. The 60 inch requirement is consistent with the minimum requirements of A.D.A. The 72 inch requirement is needed to provide space for patient movement by bed or gurney for means of egress but also for patient treatment where quick movement may be critical. The 72 inch clear dimension is really needed where aisles are provided for surgical suites, for emergency departments, intensive care units, etc. Most of these spaces are typically designed with 8'-0" aisles by experienced health care designers; however the aisles quickly become obstructed by furniture, equipment supplies and/or patients. The minimum 72" clear aisle dimension also provides space for patients during extreme emergency events.

This proposal is also intended to limit the use of aisles in new construction. Holding of patients or treatment of patients in aisles should not be permitted as the aisles are not designed for such and may violate several Medicare Requirements (Infection Control, Patient Privacy) along with NFPA 99. Patients should be held or treated in rooms, holding areas, niches or alcoves off of the aisles that are designed for patients and that have normal and emergency power electrical outlets and medical gas outlets that are required by NFPA 99)

**Cost Impact:** There is little of no additional cost for this requirement because it is consistent with current design practices. However, there is an additional cost to plan and provide additional space for the things that typically obstruct the aisle.

### E120-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1017.6 (NEW)-E-MANLEY.pdf.doc

## E120-12

**Committee Action:**

**Disapproved**

**Committee Reason:** The committee preferred the text dealing with this issue in E118. The language specific to hospitals needs to be clarified.

**Assembly Action:**

**None**

## E149 – 12 – AM (AHC:D) 1024.5 (IFC [B] 1024.5)

**Proponents:** Jack Bailey, One Lux Studio, representing The International Association of Lighting Designers (jbailey@oneluxstudio.com)

### Revise as follows:

**1024.5 (IFC [B] 1024.5) Illumination.** Where *photoluminescent* exit path markings are installed, they shall be provided with ~~the minimum means of egress illumination required by Section 1006~~ not less than 1 footcandle (11 lux) of illumination for at least 60 minutes prior to periods when the building is occupied.

**Reason:** Stating the required illumination level here makes the code easier to use, and also makes it clear that illumination requirements for photoluminescent exit path markings are unrelated to illumination requirements for human vision. Furthermore, many people are confused by the two separate illumination requirements in Section 1006 (a **minimum** of 1 footcandle under normal power conditions, and an **average** of 1 footcandle under emergency power conditions), so a simple, clear statement in Section 1024.5 is better.

**Cost Impact:** The code change proposal will not increase the cost of construction.

### E149-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

1024.5-E-Bailey.doc

## E149-12

### Committee Action:

**Approved as Modified**

### Modify proposal as follows:

**1024.5 (IFC [B] 1024.5) Illumination.** Where *photoluminescent* exit path markings are installed, they shall be provided with not less than 1 footcandle (11 lux) of illumination for at least 60 minutes prior to periods when the building is occupied and continuously during the building occupancy.

**Committee Reason:** The modification picks up language proposed in E28-12. The added language will clarify that not only must the lights turn on before occupancy, but stay on while the building is occupied. The 1 footcandle is adequate to charge photoluminescent stripes. This requirement also aligns with the UL standard for charging photoluminescent stripes as required in Section 1024.

### Assembly Action:

**None**

## FS42-12 – D (AHC:AMPC) 710.4

### **Proposed Change as Submitted**

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare

### Revise as follows:

**710.4 Continuity.** Smoke partitions shall extend from the top of the foundation or floor below to the underside of the floor or roof sheathing, deck or slab above or to the underside of the ceiling above where

the ceiling membrane is constructed to limit the transfer of smoke. A lay-in ceiling system that is designed to limit the transfer of smoke shall be permitted. Hold-down clips for such ceilings shall not be required where the ceiling tiles will resist an uplifting force of at least one pound per square foot of tile.

**Reason:** 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 5 open meetings and over 80 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>

Current interpretation of an allowable ceiling system is to be "monolithic." This type of ceiling is not feasible in a hospital setting, because main utility and ductwork lines run in the corridor to keep them out of patient care areas. This would facilitate the need for many access panels which compromise the smoke tight nature of the monolithic ceiling. The construction of the lay-in system would basically mean no open portions or gaps in the ceiling, either as an architectural feature or between items such as louvers. Normal ceiling fixtures such as lights, sprinkler heads, and diffusers and grills (as part of a fully ducted air system) can be considered part of the smoke tight system, as there is no opportunity for smoke to travel straight through them. A tight fitting lay-in grid is defined as one with no gaps in them, which is easily enforced via visual inspection and is therefore simply maintained.

The one pound per square foot weight can handle an updraft concerns because a facility equipped with QRS sprinklers will not generate enough heat to cause the updraft to move the tile. Hold-down clips in this instance would not be necessary, as the weight of the tile itself would be sufficient. Due to the need for access to above ceiling utilities, hold-down clips would interfere with maintenance and operations, which is why an updraft limitation is considered.

Since a fully ducted air handling system is required in the I-2 hospital occupancy, plenum ceilings that compromise the ceiling system are already prohibited.

**Cost Impact:** The code change proposal will not increase the cost of construction.

710.4-FS-Williams-AdHocHealthcare

## **Public Hearing Results**

**Committee Action:**

**Disapproved**

**Committee Reason:** The committee was concerned about enforceability of this proposal. For example, it is not clear how the minimum uplift force is measured. Further, it is not clear how the code official determines if a lay in ceiling limits the transfer of smoke. Lastly, the committee felt that this requirement should be limited to Group I-2 occupancies consistent with the proponent's reason statement.

**Assembly Action:**

**None**

## **Individual Consideration Agenda**

**This item is on the agenda for individual consideration because public comments were submitted.**

*Public Comment 1:*

**John Williams, CBO, Chair, representing ICC Ad Hoc Committee on Healthcare, requests Approval as Modified by this Public Comment.**

**Modify the proposal as follows:**

**710.4 Continuity.** Smoke partitions shall extend from the top of the foundation or floor below to the underside of the floor or roof sheathing, deck or slab above or to the underside of the ceiling above where the ceiling membrane is constructed to limit the transfer of smoke. In Group I-2 hospitals, a lay-in ceiling system that is designed to limit the transfer of smoke shall be permitted. Hold-down clips for such ceilings shall not be required where the ceiling tiles will resist an uplifting force of weigh at least one pound per square foot of tile.

**Commenter's Reason:** In response to the IBC-FS code development committee's concerns regarding this proposal, the terminology "Group I-2 hospitals" is being added in response to the concern of the committee that this code change be applicable to Group I-2 hospital occupancies only. Further to the committee's concerns, the enforceability of this proposal is accomplished by

simple visual inspection for any noticeable gaps in the ceiling membrane. Visual inspection can be done by routine maintenance rounds or even by any staff member in the area. Any gap around light fixtures, sprinkler heads, ducted air registers or similar would constitute breach of the membrane, and visual inspection can be accomplished without use of ladders, removing ceiling tiles, or opening access hatches.

Lay in ceiling assemblies meeting this requirement would be consistent with listed fire resistance rated floor and roof ceiling assemblies using lay-in ceilings as a component of the assembly. Enforcement of this provision including fire code maintenance inspections would be far less challenging than currently exists for the fire-resistance rated floor- and roof-ceiling assemblies which require a specific manufacturer's product for each of the assemblies that are listed by an approved testing facility. This proposal would allow any manufacturer's product to be used as long as it met the 1 pound per square foot criteria and other code requirements related to combustibility or flame spread. This is also supported by UL's BXUV Guide Information - Fire Resistance Ratings - ANSI/UL 263, Section III - FLOOR-CEILINGS AND ROOF-CEILINGS, Paragraph 10 which states "Hold down clips are required for assemblies incorporating ceiling panels weighing less than 1 lb per square foot."

The ceiling tile weight is also consistent with the findings of NBSIR 81-2444 Smoke Movement Through A Suspended Ceiling System (by John H Klote, 1982, NBS/VA), as noted on page 4 which states "[t]he ceiling tiles weighed 49.6 N/m<sup>2</sup> (1.00 lb/ft<sup>2</sup>). During plan review, a cut sheet of the desired ceiling tile (readily available from any manufacturer) can be included in the review package or the one pound per square foot criteria can be listed in the specifications. The NBSIR 81-2444 report also notes in its abstract and conclusions that "smoldering fires of the type examined in this test series are not significant problems in hospitals." This is even more true today because of the expanded use of non combustible materials in construction as well as bedding and other typically used items in the hospital.

This public comment is submitted by the ICC Ad Hoc Committee on 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 7 open meetings and over 100 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed code changes and public comments. All meeting materials and reports are posted on the AHC website at: <http://www.iccsafe.org/cs/AHC/Pages/default.aspx>

## *Public Comment 2:*

### **John Williams, CBO, Chair, representing ICC Ad Hoc Committee on Healthcare, requests Approval as Modified by this Public Comment.**

#### **Modify the proposal as follows:**

**710.4 Continuity.** Smoke partitions shall extend from the top of the foundation or floor below to the underside of the floor or roof sheathing, deck or slab above or to the underside of the ceiling above where the ceiling membrane is constructed to limit the transfer of smoke. In Group I-2 Condition 2, A-a lay-in ceiling system that is designed to limit the transfer of smoke shall be permitted. Hold-down clips for such ceilings shall not be required where the ceiling tiles will resist an uplifting force of at least one pound per square foot of tile.

**Commenter's Reason:** Code change FS42-12 is a technical change which included new text dealing with the acceptable use of lay-in ceiling systems to achieve smoke partition continuity. This public comment addresses the IBC-FS code development committee's suggestion that the revised text be applicable to only Group I-2 hospitals and is limited to the editorial coordination of terminology with approved Code change G257-12 which revised the terminology for Group I-2 occupancies into two use conditions, similar to the way the current code addresses Group I-3. In this case, hospitals fall under Group I-2, Condition 2. Since G257-12 deals only with terminology, this public comment is being submitted to FS42-12 in order to focus the attention only on the coordination of terminology issue.

This public comment is submitted by the ICC Ad Hoc Committee on 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 7 open meetings and over 100 workgroup calls which included members of the AHC as well as any interested party to discuss and debate the proposed code changes and public comments. All meeting materials and reports are posted on the AHC website at: <http://www.iccsafe.org/cs/AHC/Pages/default.aspx>

**Analysis:** Code change G257-12 was Approved as Modified at the Code Development Hearings and a public comment has not been submitted. Accordingly, it has been placed on the consent agenda.

Public Comment 3:

**Wade Rudolph, CBET, CHFM, Sacred Heart Hospital, representing Wisconsin Healthcare Engineers Association Codes & Standards Committee, requests Approval as Submitted.**

**Commenter's Reason:** The proposal as submitted by John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare should be accepted as proposed.

The rationale of the ICC committee to reject the proposal is invalid. Test methods can easily be developed to demonstrate compliance. For example a two foot by two foot ceiling tile is equal to 4 square feet. If four pounds of force are placed across the tile surface the tile would be required to stay in place.

The rationale of the ICC committee that the proposal should be restricted to I-2 occupancies has no basis. If the ceiling system works in an I-2 occupancy, why would it not be acceptable to use in a B or R occupancy?

The rationale for my supporting this comment is based on experience with an actual fire event at a clinic in Janesville, Wisconsin in the early 1990s. A family practice residency center was about to open on the south side of Janesville. As the final punch list was being completed, one evening, someone threw into one of the exam room through an outside window a bottle of comubsitbe liquid that was previously ignited. This obviously set the room of origin on fire. The fire consumed the cabinets, the carpet and the wall covering. The fire did not migrate above or past the two foot by 2 foot lay in acoustical ceiling tile in the ceiling of the room of origin. The room was properly constructed such that the fire eventually put itself out because the door from the room to the corridor was closed. There was no fire sprinkler system in this building.

In today's hospitals with quick respnse fire sprinkler systems, staff training to close door to the room of origin, and low hazards, there is no reason to believe that the ceiling tiles will not provide adquate protection against smoke transfer, provide heat containment ( to activate the fire alarm system) and will suffice for dispersal of water discharged from the fire sprinkler system.

Monolithithic ceilings are cost prohibitive to install, significantly increase risk of harm to pateints, and increase maintenance costs over the life of the buidling as plant operations and maintenance programs are working above ceilings every day making adjustments and repairs to the mechical ventilation, plumbing, electrical, and data systems. The disruption to patint care with monolithic ceiling is much greater than a lay in acoustical ceiling simply because areas are harder to access, take more time to complete repairs above ceiling, and increase risk of mold growth above the ceilings that are not acoustical because they mask leaks much longer than acoustical lay in tile.

I am submitting this request on behalf of the Wisconsin Healthcare Engineers Association Codes & Standards committee representing over 700 members in the State of Wisconsin.

Thank you for your time and consideration of my comments.

**FS42-12**

Final Action: AS AM AMPC\_\_\_ D

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**FS47-12 – D (AHC:AS)**

711.9

**Proposed Change as Submitted**

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare

**Revise as follows:**

**711.9 Smoke barrier.** Where *horizontal assemblies* are required to resist the movement of smoke by other sections of this code in accordance with the definition of *smoke barrier*, penetrations and joints in such *horizontal assemblies* shall be protected as required for *smoke barriers* in accordance with Sections 714.5 and 715.6. ~~Regardless of the number of stories connected by elevator shaft enclosures, doors located in elevator shaft enclosures that penetrate the horizontal assembly shall be protected in accordance by enclosed elevator lobbies complying with Section 713.14.1.~~ Openings through *horizontal assemblies* shall be protected by shaft enclosures complying with Section 713. *Horizontal assemblies* shall not be allowed to have unprotected vertical openings.

**Reason:** The reason for this change is to clarify the code. This code changes addresses text new in the 2009 IBC. The new text creates in effect a hidden requirement for elevator lobbies. We are proposing to clearly direct user of the code to Section 713.14.1 for the scoping language for elevator lobbies, as well as construction methods and any exceptions.

This proposal is submitted by the ICC Ad Hoc Committee on 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 5 open meetings and over 80 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>.

**Cost Impact:** None

**Analysis:** FS47 revises provisions for in elevator shaft enclosures. FS48 and FS49 delete these provisions. The committee needs to make its intent clear with respect to these provisions.

711.9-FS-Williams-Adhoc

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### **Public Hearing Results**

**Committee Action:**

**Disapproved**

**Committee Reason:** The committee preferred the actions taken on FS50-12. Further, the proponent requested disapproval based on the committee's actions on FS50-12.

**Assembly Action:**

**None**

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### **Individual Consideration Agenda**

**This item is on the agenda for individual consideration because a public comment was submitted.**

*Public Comment:*

**Wade Rudolph, CBET, CHFM, Sacred Heart Hospital, representing Wisconsin Healthcare Engineers Association Codes & Standards Committee, requests Approval as Submitted.**

**Commenter's Reason:** The requirement for elevator lobbies in healthcare occupancies does not add safety or improve egress capability in the event of evacuation. The requirement for the lobby on each floor will increase area requirements as well as expense of new construction.

Allow me to explain. When there is need to evacuate a hospital in a timely manner, the elevators are used for patients who are not ambulatory. This is the most expeditious way to evacuate patients. Putting another set of doors between the patients and the elevators will cause an additional unneeded barrier as the buildings already have two zones on each floor. Simply moving the bed through these doors will cause the doors to be held open so any protection will be lost during this time as well as slow down the evacuation effort. Hospital colleagues are trained to immediately evacuate horizontally to the next smoke zone. This movement of patients is quick and has been demonstrated to be very efficient. If anyone on the ICC committee has not seen this drill conducted, I would encourage them to visit their local hospital to have horizontal evacuation demonstrated to them.

If for some reason there is a rare need in a new facility (with the quick response sprinklers) to move vertically, the doors to the required lobby would prohibit smooth evacuation.

As healthcare is required to provide elevators for patient bed transfer, the size of the elevator lobby would be a significant addition of space to the foot print outside each elevator. The bed would need room to move the bed into the lobby, rotate to enter the elevator (in most cases two banks) such that a lobby would be required at least 195 square feet per floor for a two bank elevator that transports patients. This equates to approximately \$63,000 per floor for each two bank elevator.

The quick response sprinklers in hospitals (which are low hazard occupancies) have demonstrated that the fire will be contained in the room of origin such that the need for additional "safe" areas are not justified.

I am submitting this request for the ICC to reconsider its rejection on behalf of the Wisconsin Healthcare Engineers Association Codes & Standards Committee representing over 700 members in the State of Wisconsin.

Thank you for your time and consideration of my comments.

**Analysis:** FS47 revises provisions for in elevator shaft enclosures. FS50 deletes these provisions. The membership needs to make its intent clear with respect to these provisions.

**FS47-12**

Final Action:

AS

AM

AMPC\_\_\_\_\_

D

# FS48 – 12 – D (AHC:AS)

## 711.9

**Proponent:** Al Godwin, CBO, CPM, representing Aon Fire Protection Engineering (al.godwin@aon.com)

**Revise as follows:**

**711.9 Smoke barrier.** Where *horizontal assemblies* are required to resist the movement of smoke by other sections of this code in accordance with the definition of *smoke barrier*, penetrations and joints in such *horizontal assemblies* shall be protected as required for *smoke barriers* in accordance with Sections 714.5 and 715.6. ~~Regardless of the number of stories connected by elevator shaft enclosures, doors located in elevator shaft enclosures that penetrate the horizontal assembly shall be protected by enclosed elevator lobbies complying with Section 713.14.1.~~ Openings through *horizontal assemblies* shall be protected by shaft enclosures complying with Section 713. *Horizontal assemblies* shall not be allowed to have unprotected vertical openings.

**Reason:** This provision was added in the 2009 IBC under code change FS81-07/08. However, it is unclear if it overrides the exceptions of Section 713.14.1 associated with elevator lobbies.

The question that has to be asked is

“Do the Exceptions of Section 713.14.1 still apply?”

If the exceptions do not apply, then this one sentence overrules everything that has been built into the elevator lobby provisions over the past few years for occupancies with smoke barriers, such as I-2’s or ambulatory health care. And, no justification was presented.

Does this mean that:

1. all uses with a smoke barrier should not be allowed to exempt the ground floor from the elevator lobby provision of exception 1?
2. that the smoke partition option of exception 5 does not work?
3. that pressurization does not work?

If the exceptions do apply, then given that lobbies are only required when connecting more than 3 floors and with exception 4, the only buildings that this provision would apply to is:

1. two and three story non-sprinklered buildings with smoke barriers, and there shouldn't be any; and,
2. two and three story Group I-2 buildings.

What justification has been presented to show that these buildings are a problem?

**Cost Impact:** This code change proposal will not increase the cost of construction.

**Analysis:** FS47 revises provisions for in elevator shaft enclosures. FS48 and FS49 delete these provisions. The committee needs to make its intent clear with respect to these provisions.

### FS48-12

Public Hearing: Committee: AS AM D  
Assembly: ASF AMF DF

711.9-FS-GODWIN

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## FS48-12

**Committee Action:**

**Disapproved**

**Committee Reason:** The committee preferred the actions taken on FS50-12. Further, the proponent requested disapproval based on the committee’s actions on FS50-12.

**Assembly Action:**

**None**

# FS49 – 12 – D (AHC:AS)

## 711.9

**Proponent:** Sarah A. Rice, C.B.O., representing The Preview Group (srice@preview-group.com)

### Revise as follows:

**711.9 Smoke barrier.** Where horizontal assemblies are required to resist the movement of smoke by other sections of this code in accordance with the definition of smoke barrier, penetrations and joints in such horizontal assemblies shall be protected as required for smoke barriers in accordance with Sections ~~709 714.5 and 715.6. Regardless of the number of stories connected by elevator shaft enclosures, doors located in elevator shaft enclosures that penetrate the horizontal assembly shall be protected by enclosed elevator lobbies complying with Section 713.14.1. Openings through horizontal assemblies shall be protected by shaft enclosures complying with Section 713. Horizontal assemblies shall not be allowed to have unprotected vertical openings.~~

**Reason:** The current language of Section 711.9 contains provisions that are misplaced and are contradictory to other provisions in the IBC. In the Reason statement for the code change which brought this language into the code (FS81-07/08) the proponent states that "This code change proposal is intended to clarify the requirements for horizontal assemblies that are used to support smoke barrier walls such as in Group I-2 occupancies where smoke barriers are required to subdivide floors by Section 407.4." But Section 407.4 is NOT the only place in the code where smoke barriers are required, they are required also in Group I-3 occupancies.

When taken literally, the last 2 sentences totally negate the provisions found in Section 709; Smoke Barriers, and specifically the provisions found in Sections 709.5 through 709.8 which were developed to address openings, penetrations, joints and duct openings in smoke barriers – both vertical and horizontal. When looking at each of the individual sections, you find that there are multiple places where openings through horizontal assemblies are permitted to be protected by something other than a shaft enclosure.

This proposal seeks to remove the confusing language in Section 711.9 and rely rather on a simple reference to Section 709; Smoke Barriers which contains the provisions for addressing any "holes" made to smoke barriers.

2012 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 doors are installed across corridors, a pair of opposite-swinging doors without a center mullion shall be installed having vision panels with fire-protection-rated glazing materials in fire-protection-rated frames, the area of which shall not exceed that tested. The doors shall be close fitting within operational tolerances, and shall not have undercuts in excess of 3/4-inch, louvers or grilles. The doors shall have head and jamb stops, astragals or rabbets at meeting edges and shall be automatic-closing by smoke detection in accordance with Section 716.5.9.3. Where permitted by the door manufacturer's listing, positive-latching devices are not required.
2. In Group I-2 and ambulatory care facilities, horizontal sliding doors installed in accordance with Section 1008.1.4.3 and protected in accordance with Section 716.

709.6 Penetrations. Penetrations of smoke barriers shall comply with Section 714.

709.7 Joints. Joints made in or between smoke barriers shall comply with Section 715.

709.8 Ducts and air transfer openings. Penetrations in a smoke barrier by ducts and air transfer openings shall comply with Section 717.

Noticeably absent from the proponents Reason statement was justification for the sentence "Regardless of the number of stories connected by elevator shaft enclosures, doors located in elevator shaft enclosures that penetrate the horizontal assembly shall be protected by enclosed elevator lobbies complying with Section 713.14.1." Due to the prolonged adoption of the 2009 I-Codes in many jurisdictions, it has only recently come to light the impact of this provision, which is buried deep in the horizontal assembly section. This provision, if it were to be deemed viable should not be in the Section 711 at all but in Section 713.4.1 Elevator Lobbies.

The provision buried in Section 711.9 mandates that "Regardless of the number of stories connected by elevator shaft enclosures, doors located in elevator shaft enclosures that penetrate the horizontal assembly shall be protected by enclosed elevator lobbies complying with Section 713.14.1." Depending upon how you read the sentence it could be interpreted to say that this provisions overrides the "more than three stories" threshold found in Section 713.4.1 for when an elevator lobby is required –

Section 713.4.1 reads: it reads "713.14.1 Elevator lobby. An enclosed elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than three stories. The lobby enclosure shall separate the elevator shaft enclosure doors from each floor by fire partitions. In addition to the requirements in Section 708 for fire partitions, doors protecting openings in the elevator lobby enclosure walls shall also comply with Section 716.5.3 as required for corridor walls and penetrations of the elevator

lobby enclosure by ducts and air transfer openings shall be protected as required for corridors in accordance with Section 717.5.4.1. Elevator lobbies shall have at least one means of egress complying with Chapter 10 and other provisions within this code.”

No technical justification was ever given to validate changing the threshold found in Section 713.4.1 for elevator lobbies. This change deletes the provision from Section 711.9 in its entirety. The CTC Elevator Study Group has been studying the entire elevator lobby issue. Any drastic changes to the thresholds should come from that group.

For information purposes, the following is the Reason statement to FS81-07/08 “It is clear from the definition for “smoke barrier” that a smoke barrier can be a horizontal assembly. Furthermore, in order to provide for the continuity of the smoke protection for smoke compartments created by vertical smoke barriers to provide for relative safe areas for horizontal movement of patients in a fire emergency, it follows that the floors supporting those smoke barrier walls should also be able to resist the passage or movement of smoke through the assembly to maintain the appropriate level of protection for the occupants. Generally, occupants of Group I-2 occupancies are moved into a smoke barrier that is away from the area where the fire occurred so that they can remain until further moved as necessary or until the fire has been extinguished by the responding fire department. The provisions contained in this code change proposal we believe will provide the equivalent level of smoke protection to that of the smoke barrier for the horizontal assemblies that support the smoke barriers.”

**Cost Impact:** This proposal will not increase the cost of construction.

**Analysis:** FS47 revises provisions for in elevator shaft enclosures. FS48 and FS49 delete these provisions. The committee needs to make its intent clear with respect to these provisions.

### FS49-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

711.9-FS-RICE

## FS49-12

**Committee Action:**

**Disapproved**

**Committee Reason:** The committee preferred the actions taken on FS50-12. Further, the proponent requested disapproval based on the committee’s actions on FS50-12.

**Assembly Action:**

**None**

## FS65-12 – D (AHC: AS)

713.14.1

### **Proposed Change as Submitted**

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare

**Revise as follows:**

**713.14.1 Elevator lobby.** An enclosed elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than three *stories*. The lobby enclosure shall separate the elevator shaft enclosure doors from each floor by *fire partitions*. In addition to the requirements in Section 708 for *fire partitions*, doors protecting openings in the elevator lobby enclosure walls shall also comply with Section 716.5.3 as required for *corridor* walls and penetrations of the elevator lobby enclosure by ducts and air transfer openings shall be protected as required for *corridors* in accordance with Section 717.5.4.1. Elevator lobbies shall have at least one *means of egress* complying with Chapter 10 and other provisions within this code.

**Exceptions:**

1. Enclosed elevator lobbies are not required at the level(s) of *exit discharge*, provided the level(s) of *exit discharge* is equipped with an *automatic sprinkler system* in accordance with Section 903.3.1.1.

2. Elevators not required to be located in a shaft in accordance with Section 712.1 are not required to have enclosed elevator lobbies.
3. Enclosed elevator lobbies are not required where additional doors are provided at the hoistway opening in accordance with Section 3002.6. Such doors shall comply with the smoke and draft control door assembly requirements in Section 716.5.3.1 when tested in accordance with UL1784 without an artificial bottom seal.
4. Enclosed elevator lobbies are not required where the building is protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2. This exception shall not apply to the following:
  - 4.1 ~~Group I-2 occupancies~~
  - 4.12 Group I-3 occupancies; and
  - 4.23 Elevators serving floor levels over 75 feet above the lowest level of fire department vehicle access in high-rise buildings.
5. Smoke partitions shall be permitted in lieu of *fire partitions* to separate the elevator lobby at each floor where the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2. In addition to the requirements in Section 710 for smoke partitions, doors protecting openings in the smoke partitions shall also comply with Sections 710.5.2.2, 710.5.2.3, and 716.5.9 and duct penetrations of the smoke partitions shall be protected as required for *corridors* in accordance with Section 717.5.4.1.
6. Enclosed elevator lobbies are not required where the elevator hoistway is pressurized in accordance with Section 909.21. 7. Enclosed elevator lobbies are not required where the elevator serves only *open parking garages* in accordance with Section 406.5.

**Reason:** Previous to the 2009 version, the IBC did not require hospitals, nursing homes and boarding homes to provide elevator lobbies if the building was provided with fire sprinklers. Elevator lobbies serve no purpose on floors of facilities that “defend in place”. It is a long standing practice in healthcare to evacuate patients to the adjacent smoke compartment instead of evacuating them out of the building. Group I-2 provides smoke compartmentation for an added level of protection against the spread of smoke through the building. Floors are separated into at least two smoke compartments by rated construction and provide passive protection in addition to the active protection of a sprinkler system. These compartments in effect serve the same purpose as an elevator lobby.

The addition of elevator lobbies in these facilities could complicate the movement of patients to the adjacent smoke compartment by adding doors that bedridden patients must be transferred through. While alternatives to elevator lobbies exist, all increase construction cost for facility type who have a good fire record.

This proposal is submitted by the ICC Ad Hoc Committee on 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 5 open meetings and over 80 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>.

**Cost Impact:** None

713.14.1-FS-Williams-Adhoc

### **Public Hearing Results**

**Committee Action:**

**Disapproved**

**Committee Reason:** The committee disapproved this change for several reasons as follows: Exempting I-2 from lobby requirements would put too much reliance on the fire suppression system; vertical movement of smoke in an I-2 is a hazard; no limitation on the number of elevators that do not need lobby protection is not substantiated; and Groups I-2 and I-3 are similar in that occupants are not leaving the building in an emergency and therefore should be afforded the same protection (lobbies).

**Assembly Action:**

**None**

### **Individual Consideration Agenda**

**This item is on the agenda for individual consideration because a public comment was submitted.**

*Public Comment:*

**Wade Rudolph, CBET, CHFM, Sacred Heart Hospital, representing Wisconsin Healthcare Engineers Association Codes & Standards Committee, requests Approval as Submitted.**

**Commenter's Reason:** The reasons for rejection of this proposal are not valid. The first reason regarding too much reliance on the fire suppression system is not valid. In our hospitals the fire suppression systems are extremely oversized for a one or two head event (which is more than what is needed). The amount of water that can be delivered has demonstrated to be more than efficient to extinguish the low hazard fires in hospitals.

The committee's statement to justify the rejection of the proposal stating that the patients are not leaving the building in an emergency is false. There have been many documented emergency evacuations of hospitals due to weather and fire events that dispell this logic. Hospitals do plan evacuation drills and understand that elevator lobbies will add another barrier to efficient transfer of patients.

The requirement for elevator lobbies in healthcare occupancies does not add safety or improve egress capability in the event of evacuation. The requirement for the lobby on each floor will increase area requirements as well as expense of new construction.

Allow me to explain. When there is need to evacuate a hospital in a timely manner, the elevators are used for patients who are not ambulatory. This is the most expeditious way to evacuate patients. Putting another set of doors between the patients and the elevators will cause an additional unneeded barrier as the buildings already have two zones on each floor. Simply moving the bed through these doors will cause the doors to be held open so any protection will be lost during this time as well as slow down the evacuation effort. Hospital colleagues are trained to immediately evacuate horizontally to the next smoke zone. This movement of patients is quick and has been demonstrated to be very efficient. If anyone on the ICC committee has not seen this drill conducted, I would encourage them to visit their local hospital to have horizontal evacuation demonstrated to them.

If for some reason there is a rare need in a new facility (with the quick response sprinklers) to move vertically, the doors to the required lobby would prohibit smooth evacuation.

As healthcare is required to provide elevators for patient bed transfer, the size of the elevator lobby would be a significant addition of space to the foot print outside each elevator. The bed would need room to move the bed into the lobby, rotate to enter the elevator (in most cases two banks) such that a lobby would required at least 195 square feet per floor for a two bank elevator that transports patients. This equates to approximately \$63,000 per floor for each two bank elevator.

The quick response sprinklers in hospitals (which are low hazard occupancies) have demonstrated that the fire will be contained in the room of origin such that the need for additional "safe" areas are not justified.

I am submitting this request for the ICC to reconsider its rejection on behalf of the Wisconsin Healthcare Engineers Association Codes & Standards Committee representing over 700 members in the State of Wisconsin.

Thank you for your time and consideration of my comments.

**FS65-12**

Final Action:                      AS                      AM                      AMPC\_\_\_\_                      D

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**G71-12, Part I – AS (AHC:D)**

**407.4.2, 407.4.3.3, 407.4.3.4, 407.4.3.5, 407.5, 408.6.1, 408.8.1, 422.3**

**Proposed Change as Submitted**

**Proponent:** Philip Brazil, PE, Reid Middleton, Inc., representing Washington Association of Building Officials, Technical Code Development (pbrazil@reidmiddleton.com)

**THIS IS A 3 PART PROPOSAL AND ALL THREE PARTS ARE ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.**

**PART I – IBC MEANS OF EGRESS**

**Revise as follows:**

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

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

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

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

**407.5 Smoke barriers.** *Smoke barriers* 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 m<sup>2</sup>) and the ~~travel~~ distance of travel from any point in a *smoke compartment* to a *smoke barrier* door shall be not greater than 200 feet (60 960 mm). The *smoke barrier* shall be in accordance with Section 709.

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

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

**422.3 Smoke compartments.** Where the aggregate area of one or more *ambulatory care facilities* is greater than 10,000 square feet (929 m<sup>2</sup>) 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 m<sup>2</sup>). The ~~travel~~ distance of travel from any point in a *smoke compartment* to a *smoke barrier* door shall be not greater than 200 feet (60 960 mm). The *smoke barrier* shall be installed in accordance with Section 709 with the exception that *smoke barriers* shall be continuous from outside wall to an outside wall, a floor to a floor, or from a *smoke barrier* to a *smoke barrier* or a combination thereof.

**Reason:** The change from “travel distance” to “distance of travel” more clearly distinguishes between “exit access travel distance” as specified in Section 1016 and a travel distance that is other than an exit access travel distance for which the provisions of Section 1016 do not apply. Note that Section 1016.3 specifies the measurement of exit access travel distance as being from “the most remote point within a story along the natural and unobstructed path of horizontal and vertical egress travel to the entrance to an exit,” except for open parking garages and outdoor facilities with open access components where it is measured as specified therein. The sections in this proposal, however, specify the measurement of travel distance between points within the exit access (i.e., to an exit access door in Sections 407.4.2, 407.4.3.3, 407.4.3.4 and 407.4.3.5.3; to a smoke barrier door in Sections 407.5, 408.6.1 and 422.3; to an extinguisher in Section 906.2 and Tables 906.3(1) and 906.3(2); etc.).

Changing from “travel distance” to “distance of travel” in these cases is considered to be clarifying and does not change the meaning or the intent of the language. The changes will also be consistent with “distance of travel” in 2012 IBC Sections 402.8.3, 402.8.5 and 415.10.3.3. The other change in Section 2902.5 is grammatical. Based on our analysis of the 2012 IBC, all instances of “travel distance” in the 2012 IBC where a change to “distance of travel” is warranted are included in this proposal.

**Cost Impact:** The code change proposal will not increase the cost of construction.

407.4.2-G-BRAZIL

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## **Public Hearing Results**

All three parts of this code change was heard by the IBC Means of Egress code development committee.

### **PART I – IBC MEANS OF EGRESS**

**Committee Action:**

**Approved as Submitted**

**Committee Reason:** The proposal clarifies within Group I-2, Group I-3 and ambulatory care facilities where a distance is not ‘exit

access travel distance' as the term is used in Section 1016, but is a distance utilized for other elements.

**Assembly Action:** \_\_\_\_\_ **None**

**Individual Consideration Agenda**

**This item is on the agenda for individual consideration because a public comment was submitted.**

*Public Comment:*

**John Williams, Adhoc Health Care – MOE study group, requests Disapproval.**

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

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 7 open meetings and over 100 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>

**G71-12, Part I**

Final Action:                      AS                      AM                      AMPC \_\_\_\_\_                      D

**NOTE: PART II AND III REPRODUCED FOR INFORMATIONAL PURPOSES ONLY – SEE ABOVE**

**PART II – IFC**

**906.2, Table 906.3(1), Table 906.3(2), 907.2.6, 907.2.10.1 (IBC [F] 906.2, Table 906.3(1), Table 906.3(2), 907.2.6, 907.2.10.1)**

**PART III – IPC**

**403.3, 403.3.4, 403.5 (IBC [P] 2902.3.2, 2902.3.3, 2902.5)**

**PART II – IFC**

**Revise as follows:**

**IFC 906.2 (IBC [F] 906.2) General requirements.** Portable fire extinguishers shall be selected and installed in accordance with this section and NFPA 10.

**Exceptions:**

1. The travel distance of travel to reach an extinguisher shall not apply to the spectator seating portions of Group A-5 occupancies.
2. In Group I-3, portable fire extinguishers shall be permitted to be located at staff locations.

**TABLE 906.3(1) [IBC [F] TABLE 906.3(1)]  
FIRE EXTINGUISHERS FOR CLASS A FIRE HAZARDS**

	<b>LIGHT (low) HAZARD OCCUPANCY</b>	<b>ORDINARY (moderate) HAZARD OCCUPANCY</b>	<b>EXTRA (high) HAZARD OCCUPANCY</b>
Minimum Rated Single Extinguisher	2-A <sup>c</sup>	2-A	4-A <sup>a</sup>
Maximum Floor Area per Unit of A	3,000 square feet	1,500 square feet	1,000 square feet
Maximum Floor Area for Extinguisher <sup>b</sup>	11,250 square feet	11,250 square feet	11,250 square feet
Maximum Travel Distance of Travel to Extinguisher	75 feet	75 feet	75 feet

*(Portions to table not shown remain unchanged)*

**TABLE 906.3(2) [IBC [F] TABLE 906.3(2)]**



**FIRE EXTINGUISHERS FOR FLAMMABLE OR COMBUSTIBLE LIQUIDS  
WITH DEPTHS LESS THAN OR EQUAL TO 0.25 INCH**

TYPE OF HAZARD	BASIC MINIMUM EXTINGUISHER RATING	MAXIMUM TRAVEL DISTANCE OF TRAVEL TO EXTINGUISHERS (feet)
Light (Low)	5-B	30
	10-B	50
Ordinary (Moderate)	10-B	30
	20-B	50
Extra (High)	40-B	30
	80-B	50

(Portions to table not shown remain unchanged)

**907.2.6 (IBC [F] 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:**

- 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 such stations are visible and continuously accessible and that ~~travel~~ the distances of travel required in Section 907.4.2.1 are not exceeded.
- 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.

**907.2.10.1 (IBC [F] 907.2.10.1) Manual fire alarm system.** A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-4 occupancies.

**Exceptions:**

- A manual fire alarm system is not required in buildings not more than two *stories* in height where all individual *sleeping units* and contiguous *attic* and crawl spaces to those units are separated from each other and public or common areas by at least 1-hour *fire partitions* and each individual *sleeping unit* has an *exit* directly to a *public way, egress court or yard*.
- Manual fire alarm boxes are not required throughout the building when the following conditions are met:
  - The building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2;
  - The notification appliances will activate upon sprinkler waterflow; and
  - At least one manual fire alarm box is installed at an *approved* location.
- Manual fire alarm boxes in resident or patient sleeping areas shall not be required at *exits* where located at all nurses' control stations or other constantly attended staff locations, provided such stations are visible and continuously accessible and that ~~travel~~ the distances of travel required in Section 907.4.2.1 are not exceeded.

**PART III – IPC**

**Revise as follows:**

**403.3 (IBC [P] 2902.3.2) Location of toilet facilities in occupancies other than malls.** In occupancies other than covered and open mall buildings, the required *public* and employee toilet facilities shall be located not more than one story above or below the space required to be provided with toilet facilities, and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m).

**Exception:** The location and maximum ~~travel~~ distances of travel to required employee facilities in factory and industrial occupancies are permitted to exceed that required by this section, provided that the location and maximum ~~travel~~ distance of travel are *approved*.

**403.3.4 (IBC [P] 2902.3.3) Location of toilet facilities in malls.** In covered and open mall buildings, the required *public* and employee toilet facilities shall be located not more than one story above or below the space required to be provided with toilet facilities, and the path of travel to such facilities shall not exceed a distance of 300 feet (91 440 mm). In mall buildings, the required facilities shall be based on total square footage within a covered mall building or within the perimeter line of an open mall building, and facilities shall be installed in each individual store or in a central toilet area located in accordance with this section. The maximum ~~travel~~ distance of travel to central toilet facilities in mall buildings shall be measured from the main entrance of any store or tenant space. In mall buildings, where employees' toilet facilities are not provided in the individual store, the maximum ~~travel~~ distance of travel shall be measured from the employees' work area of the store or tenant space.

**403.5 (IBC [P] 2902.5) Drinking fountain location.** Drinking fountains shall not be required to be located in individual tenant spaces provided that public drinking fountains are located within a ~~travel~~ distance of travel of 500 feet of the most remote location in the tenant space and not more than one story above or below the tenant space. Where the tenant space is in a covered or open mall, such distance shall not exceed 300 feet. Drinking fountains shall be located on an accessible route.

**Reason:** The change from “travel distance” to “distance of travel” more clearly distinguishes between “exit access travel distance” as specified in Section 1016 and a travel distance that is other than an exit access travel distance for which the provisions of Section 1016 do not apply. Note that Section 1016.3 specifies the measurement of exit access travel distance as being from “the most remote point within a story along the natural and unobstructed path of horizontal and vertical egress travel to the entrance to an exit,” except for open parking garages and outdoor facilities with open access components where it is measured as specified therein. The sections in this proposal, however, specify the measurement of travel distance between points within the exit access (i.e., to an exit access door in Sections 407.4.2, 407.4.3.3, 407.4.3.4 and 407.4.3.5.3; to a smoke barrier door in Sections 407.5, 408.6.1 and 422.3; to an extinguisher in Section 906.2 and Tables 906.3(1) and 906.3(2); etc.).

Changing from “travel distance” to “distance of travel” in these cases is considered to be clarifying and does not change the meaning or the intent of the language. The changes will also be consistent with “distance of travel” in 2012 IBC Sections 402.8.3, 402.8.5 and 415.10.3.3. The other change in Section 2902.5 is grammatical. Based on our analysis of the 2012 IBC, all instances of “travel distance” in the 2012 IBC where a change to “distance of travel” is warranted are included in this proposal.

**Cost Impact:** The code change proposal will not increase the cost of construction.

**PART II – IFC**

**Committee Action:**

**Approved as Submitted**

**Committee Reason:** The proposal clarifies where a distance is not ‘exit access travel distance’ as the term is used in Section 1016, but is a distance utilized for other types of elements. The IFC deals with distance of travel to items such as fire extinguishers and fire alarm pulls.

**Assembly Action:**

**None**

**PART III – IPC**

**Committee Action:**

**Approved as Submitted**

**Committee Reason:** The proposal clarifies where a distance is not ‘exit access travel distance’ as the term is used in Section 1016, but is a distance utilized for other types of elements. The IPC deals with distance of travel to items such as toilet rooms and drinking fountains.

**Assembly Action:**

**None**

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## **G72 – 12 –AS (AHC:D)**

### **407.4.3, 407.4.3.5 (NEW)**

**Proponent:** John Woestman, Kellen Company, representing Builders Hardware Manufacturers Association (BHMA)

**THIS PROPOSAL IS ON THE AGENDA OF THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THE IBC MEANS OF EGRESS CODE DEVELOPMENT COMMITTEE.**

**Revise as follows:**

**407.4.3 Group I-2 care suites.** *Care suites* in Group I-2 shall comply with Section 407.4.3.1 through 407.4.3.4 407.4.3.5 and either Section 407.4.3.5 407.4.3.6 or 407.4.3.6 407.4.3.7.

**407.4.3.5 Doors within care suites.** Doors within 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 1008.1.2.
2. Power-operated doors permitted in accordance with Exception 7 to Section 1008.1.2.
3. Means of egress doors complying with Section 1008.

*(Renumber subsequent sections)*

**Reason:** This code proposal is intended to help improve the code by identifying what is permitted for doors installed within Group I-2 care suites.

Within care suites, patient rooms and treatment rooms are generally not required by the IBC to have doors. However, for clinical needs (infection control, privacy, confidentiality, etc.), doors are commonly required within care suites to patient rooms or treatment rooms.

BHMA members are experiencing varying interpretations and code enforcement actions for the doors installed within Group I-2 care suites. The IBC may be considered less than explicitly clear as to what is specifically required, or allowed, for doors installed within Group I-2 care suites.

We realize, from a technical perspective, this proposed language does not add new requirements to the code. We also realize a user of the IBC could determine what is required and what is not required – and, by default, what is allowed – for doors installed within I-2 care suites. Examples: a door installed in a fire-resistance rated wall would need to be fire-resistance rated (however, doors within I-2 care suites are rarely required to be fire-resistance rated). Similar for smoke partitions. Most doors and doorways in I-2 care suites need to meet egress and accessibility requirements, which is usually a non-issue as these doors and doorways are configured for patient movement by wheelchair and hospital bed.

Unfortunately, BHMA members are experiencing differences in interpretation and application of the code (example: not approving manually operated horizontal sliding doors serving patient sleeping rooms in a care suite) making it difficult to confidently assist building owners, architects, contractors, and other stakeholders with their projects.

With this proposal, we're attempting to provide appropriate guidance as to what is permitted for doors installed within Group I-2 care suites.

**Cost Impact:** The proposed changes will not increase the cost of construction.

### G72-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

407.4.3.7 (NEW)-G-WOESTMAN

## G72-12

**This code change was heard by the IBC Means of Egress code development committee.**

**Committee Action:**

**Approved as Submitted**

**Committee Reason:** The allowance for horizontal sliding doors, manual or automatic, are needed within care suites in Group I-2 for infection controls and patient access. Allowing these types of doors would not reduce life/safety within these areas for staff or patients. However, the committee felt that Section 407.4.3.5, Exception 3 was redundant and should be deleted. There was also a concern that 'care suites' might be interpreted as areas outside of Group I-2 hospitals.

**Assembly Action:**

**None**

## G74 – 12

### 407.4.3.2

**Proponent:** Lennon Peake, P.E., Koffel Associates, Inc., representing self (lpeake@koffel.com)

**Revise as follows:**

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

**Reason:** The existing language only references that care suites must be separated from other portions of the building and could be interpreted that care suites are not required to be separated from each other. The intent of the proposal is to clarify that care suites must be separated from other care suites by a smoke partition especially since Paragraph 407.4.3.1 permits egress through an adjoining suite.

**Cost Impact:** There is no cost impact as a result of this proposal as it is intended to clarify existing requirements.

### G74-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

407.4.3.2-G-PEAKE

## G74-12

**Committee Action:**

**Approved as Submitted**

**Committee Reason:** The proposal was approved based upon the proponent's reason.

**Assembly Action:**

**None**

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## **G92-12 – D (AHC: AS)**

### **422.3**

### **Proposed Change as Submitted**

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare

**Revise as follows:**

**422.3 Smoke compartments.** Where the aggregate area of one or more *ambulatory care facilities* is greater than 10,000 square feet (929 m<sup>2</sup>) 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~~ 40,000 square feet (~~2092 m<sup>2</sup>~~ 3719 m<sup>2</sup>). The 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:** 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, 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 5 open meetings and over 80 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>.

#### **Intent and Summary**

This code change addresses outdated code material. Historically, smoke compartment size has been driven by the allowable travel distance within the smoke compartment. Past code changes have increased the travel distance without a corresponding change in smoke compartment size. Secondly, the size of the functional patient areas has increased, but the occupant load has remained the same or has been reduced. Therefore, we are asking for an increase in smoke compartment size to accommodate the operational needs of these facilities.

A summary of the history of smoke compartment requirements is as follows:

- October 1984 BCMC – No area limitations. Maximum length and width equals 150 feet.
- 1987 BOCA – 610.5 – No area limitations. Maximum length and width equals 150 feet
- 1992 BOCA Supplement – 610.4 – 22,500 square feet, with maximum travel distance of 150 feet.
- Code Change No. B20-95 – 22,500 square feet, with maximum travel distance proposed to be increased to 200 feet.
- 1996 BOCA – 409.4 - 22,500 square feet, with maximum travel distance of 200 feet.
- 2000 IBC – 407.4 - 22,500 square feet, with maximum travel distance of 200 feet.

Originally, there was no limit to smoke compartment size, other what was imposed by travel distance. The 22,500 square foot requirement was based on the old travel distance requirement of 150 feet, and used it to extrapolate an area (150ft x150ft = 22,500 square feet). This proposal uses the same logic and applies the current 200 foot travel distance maximum (200ft x200ft), resulting in a 40,000 square foot smoke compartment. This proposal would maintain the existing requirement that each floor be divided into two smoke compartments. Practically the requirement for 200' travel distance within smoke compartments will still drive smaller smoke compartment sizes in some cases.

The application of the smoke compartment size for Ambulatory Care facilities was taken from the hospital requirement in Section 407. There was no specific reason given for using 22,500 square feet as a threshold other than mirroring the hospital requirement.

When studying the contemporary sizes of functions within ambulatory surgery areas, the area provided has increased. Attached is a study of space programs which compare the 2010 Guideline requirements with the 1996-97 Guidelines. In short, today's ambulatory surgery facility takes more square footage to care for the same amount of patients. These programs demonstrate the need to increase to 40,000 square foot smoke compartment. See program analysis at the following link. <http://www.iccsafe.org/cs/AHC/Pages/WG-General.aspx>

**Cost impact:** This proposal will help to decrease the cost of construction. Increasing the compartment size will reduce the number of smoke and fire dampers and lifetime maintenance costs could proportionally decrease.

422.3-G-WILLIAMS-ADHOC.doc

### Public Hearing Results

**Committee Action:**

**Disapproved**

**Committee Reason:** This proposal was disapproved based upon the previous action on G76-12. The main focus of the concern focused upon occupant load, travel distance and refuge areas.

**Assembly Action:**

**None**

### Individual Consideration Agenda

**This item is on the agenda for individual consideration because a public comment was submitted.**

*Public Comment:*

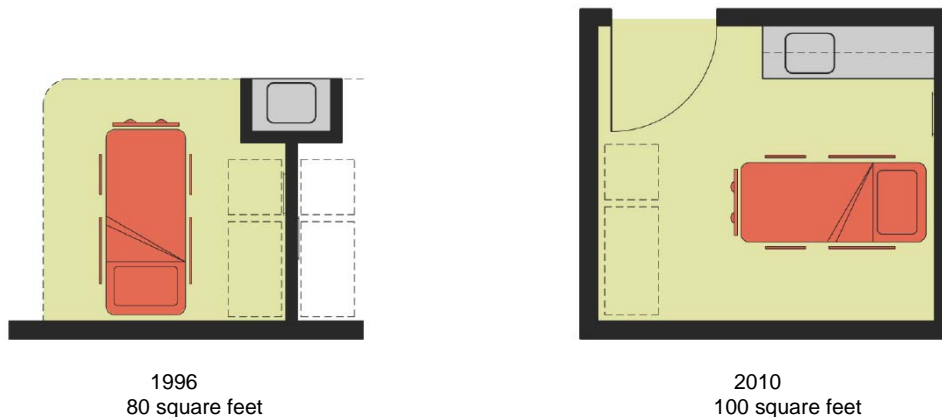
**John Williams, Adhoc Health Care – MOE study group, requests Approval as Submitted.**

**Commenter's Reason:** This public comment is being submitted to respond to the concerns of the General Committee.

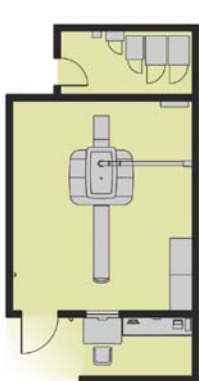
To clarify the practical application of smoke compartments in ambulatory healthcare facilities, they are routinely unable to consistently be maximized at the current 22,500 square feet. Due to programmatic concerns, the average compartment is between 14,000 and 18,000 square feet. When planning space, and the 22,500 square foot limit is reached, the programmatic needs of the functional area are subdivided to respond to the required limit. For example, an emergency department (which are increasingly appearing in an ambulatory setting) with 50 bays, which may be able to exist in a 28,000 square foot area with proper staffing, would be divided into two areas of 14,000 square feet to satisfy the code requirement, sacrificing needed visual by installing the barrier down the middle.

The reason that our sample ED can exist in 28,000 square feet is because other regulatory issues cause the spaces to be larger. Exam bays have gone from 80 square feet to 100 square feet, imaging rooms have gone from 120 square feet to 180 square feet because the equipment and their servers have gotten bigger, and new medical/surgical rooms are mandated to have one bed in them, when two beds was acceptable prior to these new regulations. As these requirements have caused spaces to become larger, the smoke zone size has not followed in kind. What used to fit comfortably within the 22,500 square foot area can no longer fit, while treating the same number of patients and accommodating the same number of staff.

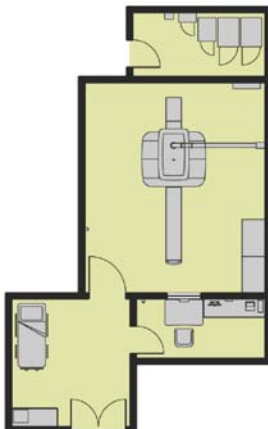
The same logic caused the need for larger suite sizes, which was recommended for approval in this code cycle. The supporting programming documentation was intended to describe and compare how the same spaces have grown as described above. Below are graphic representations of examples of spaces that have grown, and demonstrate that the same number of occupants are working and being treated in the space as before, which does not increase the occupant load.



The sketch above describes a typical emergency room patient bay configuration. What used to be able to be constructed in 80 square feet now requires 100 square feet.



1996 Guideline



2010 Guideline

Similarly, the sketch above shows a typical MRI suite. In past years, the zoning of the equipment space was more flexible. The requirement is now based on the American College of Radiology’s “Guidance Document for Safe MR Practices,” 2007 version, page 3, Figure 1. The four-zone approach requires the use of more buffer spaces, increasing the square footage needed to configure the suite.

In terms of occupant load, increasing the square foot per occupant would have no effect. All aspects of egress are set via travel distance and functional need to move beds and stretchers through the facility doors and corridors. For example, corridors are required to be 96 inches, doors a minimum of 32 inches, etc. If these widths were calculated from the occupancy load, they would be drastically smaller, which serves no functional purpose and are not desired. Increasing the square foot per occupant only makes this discrepancy greater.

The previously submitted packages also demonstrate various functional programs within the ambulatory care facility, with compliant space requirements. For example, an MRI suite typically built in an outpatient setting has increased from about 800 square feet to about 1,400 square feet, due to the zoning. This demonstrates that an ambulatory facility would not go to maximize the compartment size, as is the case now, but to allow the functional and staffing considerations drive the size of the compartment, and not for the sake of the 22,500 number.

The varying size of the program square footages also make it difficult to establish an incremental smoke zone size, as suggested by the committee at the Code Action Hearings. This leads us to the logical next step of using the currently allowed 200 foot travel distance to exits as the limiting factor for the zone size. This is not the primary reason for seeking the increase in smoke size, but the figure that makes the most sense given where the original 22,500 was derived: from the 150 smoke zone distance as described in the original reason statement. For support of the concept that the travel distance set the original smoke zone size, please see IEBC, paragraph 803.3.1, allows unlimited travel distance in buildings of 150 feet by 150 feet.

Therefore, using 200 foot travel distance as the basis for the zone increase is the most logical approach to allow the needed planning flexibility to maximize visual to patients, and have staffing and care delivery set the size of the compartment in the building.

This proposal is submitted by the ICC Ad Hoc Committee on 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 5 open meetings and over 80 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>.

The AHC is proposing a revision to address some of the oversights in the I-Codes of long-standing and operational requirements for hospitals and healthcare facilities that has not been specifically addressed. The requirements being proposed in this code change have been long-standing provisions of the construction and operational requirements for healthcare facilities.

**Cost impact:** This proposal will help to decrease the cost of construction. Increasing the compartment size will reduce the number of smoke and fire dampers and lifetime maintenance costs could proportionally decrease.

**G92-12**

Final Action:                      AS                      AM                      AMPC \_\_\_\_                      D

## G200 – 12 – D (AHC:AS) 3304.8 (NEW), 3311.3 (NEW)

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

**Add new text as follows:**

**3304.8 Group I-2.** For buildings employing a *defend in place* method in Group I-2 occupancies, an on-site fire watch shall be provided in accordance with the Section 901.7 of the *International Fire Code*.

**3311.3 Group I-2.** Temporary construction within corridors serving bed or stretcher movement in Group I-2 occupancies shall not reduce the corridor width to less than 60 inches.

**Reason:** 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, 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 5 open meetings and over 80 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>.

This change clarifies the code. Facilities that must remain operational during due to the critical nature of the service that they provide it is not feasible to evacuate the building for renovations. Healthcare facilities are routinely preplanning construction projects as to how the project will affect various fire and life safety functions and features in the building during the project.

However, this section reminds the plan reviewer to coordinate with the fire official for planned shut downs of fire safety equipment and provides an opportunity for the AHJ's to determine the appropriate interim life safety measures to ensure continued operation.

Temporary construction barriers are an operational necessity to contain construction dust, provide infection control, and prevent public entry into potentially hazardous areas. These barriers are required by facility infection control staff, industrial hygienists and other regulatory agencies. A new section of code is added to clarify that temporary construction may not reduce the corridor width to less than 60 inches where bed or stretcher movement is used. This temporary condition will allow for reasonable infection control protection and maintain an appropriate corridor width.

**Cost Impact:** This proposal will not increase the cost construction. This change is consistent with existing federal certification requirements.

### G200-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

3304.8-G-WILLIAMS-ADHOC.doc

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## G200-12

**Committee Action:**

**Disapproved**

**Committee Reason:** The proposal was disapproved based upon the request of the proponent. Also there was concern that these type of provisions are better located within the IFC and the width of 60 inches was questioned.

**Assembly Action:**

**None**

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## FG3-12, Part I – D (AHC:AS) 303.3.1 (New); IMC: 901.5 (New), 901.6 (New)

### **Proposed Change as Submitted**

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

**THIS IS A 2 PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE IFGC COMMITTEE AS 2 SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDERS FOR THIS COMMITTEE.**

## **PART I – IFGC**

**Add new text as follows:**

**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 908.7 of the IBC.

**Reason:** This proposal is submitted by the ICC Ad Hoc Committee on 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 5 open meetings and over 80 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>.

The AHC is proposing a revision to address some of the oversights in the I-Codes of long-standing and operational requirements for hospitals and healthcare facilities that has not been specifically addressed. The requirements being proposed in this code change have been long-standing provisions of the construction and operational requirements for healthcare facilities.

**Justification:** 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.



**Cost Impact:** No increase to the cost of construction for these facilities is associated with these code changes. This change is consistent with existing federal certification requirements.

303.3.1-FG-Williams-Adhoc

## **Public Hearing Results**

**PART I – IFGC  
Committee Action:**

**Disapproved**

**Committee Reason:** The proposed text refers to section 303 which would allow unvented heaters to be installed in such occupancies. Unvented heaters do not belong in such spaces.

**Assembly Action:**

**None**

## **Individual Consideration Agenda**

**This item is on the agenda for individual consideration because public comments were submitted.**

### *Public Comment 1:*

**John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care, requests Approval as Submitted.**

**Commenter's Reason;** The addition of these code requirements into the I-Code are critical to limit fuel gas burning and restrict solid fuel gas burning decorative fire places and equipment in I-2 institutional occupancies. These code change proposals are being put forward by the Adhoc healthcare committee and have been coordinated with the ICC CTC-Care committee; industry representatives on our ahc spoke unanimously that the safety and fire hazards associated with these devices in a healthcare occupancy are a serious hazard and request that the code officials vote to overturn the committee decision.

The committee discussions during the initial action hearings and the report of hearings indicates that the reasons that the committee denied this proposals are the reasons that we are requesting approval as submitted. Unfortunately, our committee members were not in the room to speak to the committee and to clarify that we are requesting limitations and restrictions, not the allowance for these elements in the I-2 occupancy healthcare environments.

Please overturn the committee decision and support approval as submitted for these necessary code requirements and provisions.

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.

This proposal is submitted by the ICC Ad Hoc Committee on 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 5 open meetings and over 80 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>.

The AHC is proposing a revision to address some of the oversights in the I-Codes of long-standing and operational requirements for hospitals and healthcare facilities that has not been specifically addressed. The requirements being proposed in this code change have been long-standing provisions of the construction and operational requirements for healthcare facilities.

**Cost Impact:** No increase to the cost of construction for these facilities is associated with these code changes. This change is consistent with existing federal certification requirements.

### *Public Comment 2:*

### **Wade Rudolph, CBET, CHFM, Sacred Heart Hospital, representing Wisconsin Healthcare Engineers Association Codes & Standards Committee, requests Approval as Submitted.**

**Commenter's Reason:** The proposal as submitted by John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare should be accepted.

The ICC IFGC committee logic is invalid as the proposal specifically limits all fireplaces to be vented to the outdoors so an unvented system would not be allowed. The IMC committee did not provide a valid reason for rejection other than refer to the IFGC committee which had flawed conclusions as a basis for rejection.

This proposal does have merit in providing great guidance for facilities that would like to make our healthcare institutions not look and feel so "industrial".

I am submitting this request on behalf of the Wisconsin Healthcare Engineers Association Codes & Standards committee representing over 700 members in the State of Wisconsin.

Thank you for your time and consideration of my comments.

### **FG3-12, Part I**

Final Action:                      AS                      AM                      AMPC\_\_\_\_\_                      D

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## **FG3-12, Part II**

### **303.3.1 (New); IMC: 901.5 (New), 901.6 (New)**

#### **Proposed Change as Submitted**

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care

**THIS IS A 2 PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE IFGC COMMITTEE AS 2 SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDERS FOR THIS COMMITTEE.**

### **PART II – IMC**

**Add new text as follows:**

**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.

**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:** This proposal is submitted by the ICC Ad Hoc Committee on 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 5 open meetings and over 80 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>.

The AHC is proposing a revision to address some of the oversights in the I-Codes of long-standing and operational requirements for hospitals and healthcare facilities that has not been specifically addressed. The requirements being proposed in this code change have been long-standing provisions of the construction and operational requirements for healthcare facilities.

**Justification:** 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.

**Cost Impact:** No increase to the cost of construction for these facilities is associated with these code changes. This change is consistent with existing federal certification requirements.

303.3.1-FG-Williams-Adhoc

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## **Public Hearing Results**

### **PART II – IMC**

#### **Committee Action:**

**Disapproved**

**Committee Reason:** Disapproval is consistent with the action taken on Part I. The referenced Section 303.3.1 would not exist

#### **Assembly Action:**

**None**

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## **Individual Consideration Agenda**

**This item is on the agenda for individual consideration because public comments were submitted.**

### *Public Comment 1:*

#### **John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care, requests Approval as Submitted.**

**Commenter's Reason:** The addition of these code requirements into the I-Code are critical to limit fuel gas burning and restrict solid fuel gas burning decorative fire places and equipment in I-2 institutional occupancies. These code change proposals are being put forward by the Adhoc healthcare committee and have been coordinated with the ICC CTC-Care committee; industry representatives on our ahc spoke unanimously that the safety and fire hazards associated with these devices in a healthcare occupancy are a serious hazard and request that the code officials vote to overturn the committee decision.

The committee discussions during the initial action hearings and the report of hearings indicates that the reasons that the committee denied this proposals are the reasons that we are requesting approval as submitted. Unfortunately, our committee

members were not in the room to speak to the committee and to clarify that we are requesting limitations and restrictions, not the allowance for these elements in the I-2 occupancy healthcare environments.

Please overturn the committee decision and support approval as submitted for these necessary code requirements and provisions.

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.

This proposal is submitted by the ICC Ad Hoc Committee on 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 5 open meetings and over 80 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>.

The AHC is proposing a revision to address some of the oversights in the I-Codes of long-standing and operational requirements for hospitals and healthcare facilities that has not been specifically addressed. The requirements being proposed in this code change have been long-standing provisions of the construction and operational requirements for healthcare facilities.

**Cost Impact:** No increase to the cost of construction for these facilities is associated with these code changes. This change is consistent with existing federal certification requirements.

### *Public Comment 2:*

### **Wade Rudolph, CBET, CHFM, Sacred Heart Hospital, representing Wisconsin Healthcare Engineers Association Codes & Standards Committee, requests Approval as Submitted.**

**Commenter's Reason:** The proposal as submitted by John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare should be accepted.

The ICC IFGC committee logic is invalid as the proposal specifically limits all fireplaces to be vented to the outdoors so an unvented system would not be allowed. The IMC committee did not provide a valid reason for rejection other than refer to the IFGC committee which had flawed conclusions as a basis for rejection.

This proposal does have merit in providing great guidance for facilities that would like to make our healthcare institutions not look and feel so "industrial".

I am submitting this request on behalf of the Wisconsin Healthcare Engineers Association Codes & Standards committee representing over 700 members in the State of Wisconsin.

Thank you for your time and consideration of my comments.

### **FG3-12, Part II**

Final Action:                      AS                      AM                      AMPC \_\_\_\_\_                      D

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