

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

## Combined Work Group Report Group B Public Comment Drafts

This report is based on jointly held conference calls of all the AHC Work Groups. Code changes with an (\*) indicate AHC sponsored code changes. Code changes with an (\*\*) indicate joint CTC and AHC sponsored code changes. This report is intended to serve as the agenda for the AHC in order to develop public comments (due July 15<sup>th</sup>), if any, for the upcoming 2013 Group B Public Comment Hearings. THIS REPORT ONLY INCLUDES THOSE CODE CHANGES FOR WHICH THE AHC HAS TAKEN A POSITION ON A CODE CHANGE.

\*\*F111-D  
F109-AM  
\*F212 Part I and II – D  
\*F218-D  
F219-D  
\*F295-D  
F360-AM  
\*\*EB33 - D

A separate report of code changes which identifies action taken at the Committee Action Hearing which differs from the AHC position is also compiled for review by the full AHC.

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### **F111 – 13 - D**

**(IBC [F] 202); 807.1 (IBC [F] 806.1), 807.4, 807.4.1, 807.4.3.1, 807.4.4, 807.4.4.1, 807.4.5(New)**

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care (john.williams@doh.wa.gov) and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee (cbaldassarra@RJAGroup.com)

**Revise as follows:**

#### **SECTION 202 (IBC [F] 202) GENERAL DEFINITIONS**

**DECORATIVE MATERIALS.** All materials applied over the building *interior finish* for decorative, acoustical or other effect (~~such as including but not limited to~~ curtains, draperies, fabrics, streamers and surface coverings), and all other materials utilized for decorative effect (~~such as including but not limited to, photographs, paintings, bulletin boards, artwork, posters,~~ batting, cloth, cotton, hay, stalks, straw, vines, leaves, trees, moss and similar items), including foam plastics and materials containing foam plastics. Decorative materials do not include floor coverings, ordinary window shades, *interior finish* and materials 0.025 inch (0.64 mm) or less in thickness applied directly to and adhering tightly to a substrate.

#### **SECTION 807**

## DECORATIVE MATERIALS OTHER THAN DECORATIVE VEGETATION IN NEW AND EXISTING BUILDINGS

**IFC 807.1 (IBC [F] 806.1) General requirements.** In occupancies in Groups A, E, ~~I-4~~ and R-1 and dormitories in Group R-2, curtains draperies, hangings and other combustible decorative materials suspended from walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with section 807.2 or be noncombustible.

### Exceptions:

1. Curtains, draperies, hangings and other combustible decorative materials suspended from walls of *sleeping units* and *dwelling units* in dormitories in Group R-2 ~~protected~~ equipped by an *approved automatic sprinkler system* installed in accordance with Section 903.3.1 and such materials are limited to not more than 50 percent of the aggregate area of walls.
2. Decorative materials, including, but not limited to, photographs and paintings in dormitories in Group R-2 where such materials are of limited quantities such that a hazard of fire development or spread is not present.

In Groups I-1 and I-2, curtains, draperies, hangings and other combustible decorative materials suspended from walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 or be noncombustible unless the decorative materials, including, but not limited to, photographs and paintings, are of such limited quantities that a hazard of fire development or spread is not present.

In Group I-3, combustible decorative materials are prohibited.

Fixed or movable walls and partitions, paneling, wall pads and crash pads applied structurally or for decoration, acoustical correction, surface insulation or other purposes shall be considered *interior finish* if they cover 10 percent or more of the wall or of the ceiling area, and shall not be considered *decorative materials* or furnishings.

In Group B and M occupancies, fabric partitions suspended from the ceiling and not supported by the floor shall meet the flame propagation performance criteria in accordance with Section 806.2 and NFPA 701 or shall be noncombustible.

**IFC 807.4 Occupancy-based requirements.** In occupancies specified ~~in Group A, E and I-4 day care facilities, combustible decorative materials other than decorative vegetation~~ shall comply with Sections 807.4.1 through ~~807.4.4.2~~ 807.4.5.4.

**IFC 807.4.1 General.** All of the following requirements shall apply to all Group A, ~~and E occupancies and Group I-4 day care facilities~~ occupancies regulated by Sections 807.4.2 through 807.4.4:

1. ~~Explosive or highly flammable materials:~~ Furnishings or decorative materials of an explosive or highly flammable character shall not be used.
2. ~~Fire-retardant coatings:~~ Fire-retardant coatings in existing buildings shall be maintained so as to retain the effectiveness of the treatment under service conditions encountered in actual use.
3. ~~Obstructions:~~ Furnishings or other objects shall not be placed to obstruct *exits*, access thereto, egress there from or visibility thereof.

**807.4.2 Group A.** (No change)

**807.4.2.1 Foam plastics.** (No change)

**807.4.2.2 Motion picture screens.** (No change)

**807.4.2.3 Wood use in Group A-3 places of religious worship.** (No change)

**807.4.3 Group E.** (No change)

**807.4.3.1 Storage in corridors and lobbies.** Clothing and personal effects shall not be stored in *corridors* and lobbies.

**Exceptions:**

1. *Corridors* protected by an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1.
2. *Corridors* protected by an *approved* smoke detection system installed in accordance with Section 907.
3. Storage in metal lockers, provided the minimum required egress width is maintained.

**807.4.3.2 Artwork.** (No change to current text)

**807.4.4 Group I-4, day care facilities.** Group I-4 occupancies shall comply with the requirements in Sections 807.4.4.1 and 807.4.4.2 ~~shall apply to day care facilities classified in Group I-4.~~

**807.4.4.1 Storage in corridors and lobbies.** Clothing and personal effects shall not be stored in *corridors* and lobbies.

**Exceptions:**

1. *Corridors* protected by an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1.
2. *Corridors* protected by an *approved* smoke detection system installed in accordance with Section 907.
3. Storage in metal lockers, provided the minimum required egress width is maintained.

**807.4.4.2 Artwork.** Artwork and teaching materials shall be limited on the walls of *corridors* to not more than 20 percent of the wall area.

**IFC 807.4.5 Groups I-1 and I-2.** In Groups I-1 and I-2 occupancies, *combustible decorative materials* shall comply with Sections 807.4.5.1 through 807.4.5.4

**IFC 807.4.5.1 Group I-1 and Group I-2 Condition 1 within units.** In Group I-1 and Group I-2 Condition 1 occupancies, *equipped throughout by an approved automatic sprinkler system* installed in accordance with Section 903.3.1, *within sleeping units and dwelling units, combustible decorative materials are limited to not more than 50 percent of the aggregate wall area.*

**IFC 807.4.5.2 In Group I-1 and Group I-2 Condition 1 for areas other than within units.** In Group I-1 and Group I-2 Condition 1 occupancies, *equipped throughout by an approved automatic sprinkler system* installed in accordance with Section 903.3.1, *combustible decorative materials in areas other than within dwelling and sleeping units are limited to not more than 30 percent of the aggregate wall area.*

**IFC 807.4.5.3 In Group I-2 Condition 2.** In Group I-2 Condition 2 occupancies, *equipped throughout by an approved automatic sprinkler system* installed in accordance with Section 903.3.1, *the combustible decorative materials are limited to not more than 30 percent of the aggregate wall area.*

**IFC 807.4.5.4 Other areas in Groups I-1 and I-2.** In Group I-1 and I-2 occupancies, *in areas not equipped throughout by an approved automatic sprinkler system, the combustible decorative materials, shall be of such limited quantities that a hazard of fire development or spread is not present.*

**Reason:** The intent of this proposal is to create consistent language for the Group I-1, I-2, and I-4 language for flame resistant curtains complying with NFPA 701 and the appropriate amount of paper permitted in these environments. The format for Group I-2 is consistent with how education and day care are currently addressed.

807.1 –The change from Group I-1 to I-4 in the first line is because I-1, I-2 and I-3 are addressed later in the section. For Group I-1 and I-2, the language is revised so it is clear what materials must comply with NFPA 701. Allowances for other decorative materials in Group I-1 and I-2 will be addressed in a new Section 807.4.5.

In the remainder of revised sections, the changes are editorial clean ups for consistent use of language and current terminology.

- 807.4 is revised to include the provisions added for Group I-1 and I-2.
- 807.4.1 is revised to remove redundant language.
- 807.4.3.1 is revised for consistent language with the referenced Section 907
- 807.4.4 is revised to remove redundant language.
- 807.4.4.1 is revised for consistent language with the referenced Section 907

807.4.5 is new text to address Group I-1 and I-2 facilities.-

Residents/patients in health care facilities increasingly seek to make their stay be comfortable and maintain connections with family and community. Part of this process may include decorating their bedrooms with personal décor from their homes, pictures drawn by their grandchildren, get well cards and other such items. The code currently calls for any combustible decorations to meet the flame spread requirements of NFPA 701, and a report must be provided to the code official. However, it is not practical nor routinely possible for every construction paper drawing or greeting card to be tested to NFPA 701 or to be treated with a flame retardant coating.

However, Section 407.2.1 of the code allows waiting or similar areas to be open to corridors. These types of spaces typically have magazines, bulletin boards with paper notices tacked to them, and other combustible items, not treated with flame retardants nor tested to NFPA 701. We submit that by allowing a specified percentage of un-treated, combustible decorative materials, in fully sprinkled Group I-1 and I-2 buildings, we do not exceed the “ordinary occupancy” classification outlined in NFPA 13, nor to do we increase the fire loading above what is currently permitted. What this proposal does do, though, is provide consistent language to aid enforcement, and provides a guide to providers to determine compliance within their facilities. This should eliminate the haphazard and inconsistent application of these provisions in facilities nationwide. A brief outline of the new provisions are as follows:

Section 807.4.5.1 - Group I-1 and I-2 Condition 1 buildings, that are protected throughout with an automatic sprinkler system, would be allowed to have combustible decorative materials that cover up to 50% of the aggregate area of walls inside of resident rooms. This is consistent with the requirements within sprinklered dwelling units in Group R-2 dormitories.

Section 807.4.5.2 - In I-1 and I-2 Condition 1 buildings, that are protected throughout with an automatic sprinkler system, spaces other than resident rooms would be limited to 30% coverage of walls by combustible decorative materials. This would include common spaces and corridors.

Section 807.4.5.3 - For Group I-2 Condition 2 buildings, protected throughout with an automatic sprinkler system, all spaces would be limited to 30% coverage of walls. The need for this allowance is for such items as pictures, bulletin boards, safety bulletins, educational materials, patient bills or rights, allowing longer term patients to put up cards, and limited holiday decorations.

Section 807.4.5.4 - For existing Group I-1 and I-2 non-sprinkled buildings, and for Group I-2 buildings that have not yet retroactively provide complete automatic sprinkler protection, Section 807.4.5.4 shall apply. This text is current language relocated from Section 807.1.

Please note, that this proposed language change would also include combustible decorations that are tested to NFPA 701 or have been treated with an approved fire retardant coating within these limits. This change would also allow decorations to be placed on doorways, as long as they are either less than 50% coverage inside a Group I-1 or I-2 Condition 1 resident or 30% in other areas, and do not obstruct the use of the door, nor block vision panels.

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 8 open meetings and over 150 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/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty five meetings - all open to the public.

**Cost Impact:** None

**Committee Action:**

**Disapproved**

**Committee Reason:** The wording in Section 807.4.5.1 appeared awkward and was in need of revision as to how the term combustible material related to the section. In addition, the titles for the newly introduced sections addressing Group I-1 and I-2 occupancies needed more work. Specifically the use of the term “unit” on its own was confusing. Also the proposal needs to be coordinated with F109-13.

**Assembly Action:**

**None**

**Study Group recommendation:** F111 was proposed by CTC and Adhoc Health. F111 was disapproved after a floor medication intended to coordinate with F109(AM)/F110(D) & F3(AS)/F4(D) was submitted. The study group proposes a modification to F109 specifically to address paper in Group I-2 only.

## F109-AM

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care (john.williams@doh.wa.gov) and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee (cbaldassarra@RJAGroup.com)

**Further modify the proposal as following:**

**IFC 807.5.3 Groups I-1 and I-2.** In Groups I-1 and I-2 occupancies, combustible *decorative materials* shall comply with Sections 807.5.3.1 through 807.5.3.4.

**IFC 807.5.3.1 Group I-1 and Group I-2 Condition 1 within sleeping units and dwelling units.** In Group I-1 and Group I-2 Condition 1 occupancies, equipped throughout by an *approved automatic sprinkler system* installed in accordance with Section 903.3.1, within sleeping units and dwelling units, combustible decorative materials are limited to not more than 50 percent of the aggregate wall area.

**IFC 807.5.3.2 In Group I-1 and Group I-2 Condition 1 for areas other than within sleeping units and dwelling units.** In Group I-1 and Group I-2 Condition 1 occupancies, equipped throughout by an *approved automatic sprinkler system* installed in accordance with Section 903.3.1, combustible decorative materials in areas other than within sleeping units and dwelling units are limited to not more than 30 percent of the aggregate wall area.

**IFC 807.5.3.3 In Group I-2 Condition 2.** In Group I-2 Condition 2 occupancies, equipped throughout by an *approved automatic sprinkler system* installed in accordance with Section 903.3.1, the combustible decorative materials are limited to not more than 30 percent of the aggregate wall area.

**IFC 807.5.3.4 Other areas in Groups I-1 and I-2.** In Group I-1 and I-2 occupancies, in areas not equipped throughout by an *approved automatic sprinkler system*, the combustible decorative materials, shall be of such limited quantities that a hazard of fire development or spread is not present.

~~**807.5.5 Groups I-1 and I-2.** In Groups I-1 and I-2 occupancies, combustible *decorative materials* shall be of such limited quantities that a hazard of fire development or spread is not present.~~

~~**807.5.4 807.5.6 Group I-3.** (No change to text)~~

~~**807.5.5 807.5.3 Group I-4, day care facilities.** (No change to text)~~

~~**807.5.5.1 807.5.3.1 Storage in corridors and lobbies.** (No change to text)~~

~~**807.5.5.2 807.5.3.2 Artwork in corridors.** (No change to text)~~

~~**807.5.5.3 807.5.3.3 Artwork in classrooms.** (No change to text)~~

~~**807.5.6 807.5.4 Dormitories in Group R-2.** (No change to text)~~

*(Portions or proposal not shown remain unchanged.)*

**Reason:** The renumbering is to put the groups addressed in alphabetical order for ease of use.

Code change F109 was approved as modified as part of a coordination effort between F109 and F110. This is a good cleanup of the section and is indicated below as it will appear in the 2015 IBC. This change, along with the approval of F3, addressed the issues in F111 with the exception of the allowance for paper in assisted living facilities, nursing homes and hospitals.

The committee did not really express any reasons for not approving the percentages recommended. There was a floor modification that attempted to coordinate F111 with the coordination work being done with F109 and F110 which appeared to confuse the issue.

Section 807.5.5, dealing with Group I-2, while a relocation of existing language, is very open for interpretation and/or unenforceable. This proposal for Section 807.5.3, replaces Section 807.5.5, and pulls the more exact language in F111 to put it here to address situations in Group I-1 and I-2 facilities such as assisted living, nursing homes and hospitals.

## **SECTION 807 (IBC [F] 806) DECORATIVE MATERIALS OTHER THAN DECORATIVE VEGETATION IN NEW AND EXISTING BUILDINGS**

**807.1 (IBC [F]806.1) General.** Combustible decorative materials, other than decorative vegetation, shall comply with Section 807.2 through 807.5.

**807.2 (IBC [F]806.2) General.** The following requirements shall apply to all occupancies:

1. Furnishings or decorative materials of an explosive or highly flammable character shall not be used.
2. Fire-retardant coatings in existing buildings shall be maintained so as to retain the effectiveness of the treatment under service conditions encountered in actual use.
3. Furnishings or other objects shall not be placed to obstruct *exits*, access thereto, egress there from or visibility thereof.
4. The permissible amount of noncombustible decorative materials shall not be limited.

**807.3 (IBC [F] 806.3) Combustible decorative materials.** In other than Group I-3, curtains, draperies, fabric hangings and other similar combustible decorative materials suspended from walls or ceilings shall comply with Section 807.4 and shall not exceed 10 percent of the specific wall or ceiling area to which they are attached.

Fixed or movable walls and partitions, paneling, wall pads and crash pads applied structurally or for decoration, acoustical correction, surface insulation or other purposes shall be considered *interior finish* shall comply with Section 803 and shall not be considered *decorative materials* or furnishings.

### **Exceptions:**

1. In auditoriums in Group A, the permissible amount of curtains, draperies, fabric hangings and other similar combustible decorative materials suspended from walls or ceilings shall not exceed 75 percent of the aggregate wall area where the building is equipped throughout with an *approved automatic sprinkler system* in accordance with Section 903.3.1.1, and where the material is installed in accordance with Section 803.11 of the *International Building Code*.
2. In Group R-2 dormitories, within sleeping units and dwelling units, the permissible amount of curtains, draperies, fabric hangings and other similar decorative materials suspended from walls or ceiling shall not exceed 50 percent of the aggregate wall areas where the building is equipped throughout with an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.
3. In Group B and M occupancies, the amount of combustible fabric partitions suspended from the ceiling and not supported by the floor shall comply with Section 807.4 and shall not be limited.

**807.4 (IBC [F] 806.4) Acceptance criteria and reports.** Where required to exhibit improved fire performance, curtains, draperies, fabric hangings and other similar combustible decorative materials suspended from walls or ceilings shall be tested by an *approved* agency and meet the flame propagation performance criteria of Test 1 or Test 2, as appropriate of NFPA 701 or exhibit a maximum rate of heat release of 100kW when tested in accordance with NFPA 289, using the 20 kW ignition source. Reports of test results shall be prepared in accordance with the test method used and furnished to the *fire code official* upon request.

**807.5 Occupancy-based requirements.** In occupancies, combustible decorative materials not complying with Section 807.3 shall comply with Sections 807.5.1 through 807.5.7.

**807.5.1 Group A.** In Group A occupancies, the requirements in Sections 807.5.2.1 through 807.5.2.4 shall apply to occupancies in Group A.

**807.5.1.1 Foam plastics.** Exposed foam plastic materials and unprotected materials containing foam plastic used for decorative purposes or stage scenery or exhibit booths shall have a maximum heat release rate of 100 kW when tested in accordance with UL 1975, or when tested in accordance with NFPA 289 using the 20 kW ignition source.

### **Exceptions:**

1. Individual foam plastic items or items containing foam plastic where the foam plastic does not exceed 1 pound (0.45 kg) in weight.
2. Cellular or foam plastic shall be allowed for trim in accordance with Section 804.2.

**807.5.1.2 Motion Picture Screens.** The screens upon which motion pictures are projected in new and existing buildings shall either comply with Section 807.4 or shall comply with the requirements for a Class B interior finish in accordance with Section 803 of the *International Building Code*.

**807.5.1.3 Wood use in places of religious worship.** In places of religious worship, wood used for ornamental purposes, trusses, paneling or chancel furnishing shall not be limited.

**807.5.1.4 Pyroxylin plastic.** Imitation leather or other material consisting of or coated with a pyroxylin or similarly hazardous base shall not be used.

**807.5.2 Group E.** Group E occupancies, shall comply with Sections the requirements in Sections 807.5.3.1 through 807.5.3.3

**807.5.2.1 Storage in corridors and lobbies.** Clothing and personal effects shall not be stored in *corridors* and lobbies.

**Exceptions:**

1. *Corridors* protected by an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1.
2. *Corridors* protected by an *approved fire alarm system* installed in accordance with Section 907.
3. Storage in metal lockers, provided the minimum required egress width is maintained.

**807.5.2.2 Artwork in corridors.** Artwork and teaching materials shall be limited on the walls of *corridors* to not more than 20 percent of the wall area.

**807.5.2.3 Artwork in classrooms.** Artwork and teaching materials shall be limited on walls of classrooms to not more than 50 percent of the specific wall area to which they are attached.

**807.5.3 Group I-4, day care facilities.** Group I-4 occupancies shall comply with, the requirements in Sections 807.5.4.1 through 807.5.4.2 .

**807.5.3.1 Storage in corridors and lobbies.** Clothing and personal effects shall not be stored in *corridors* and lobbies.

**Exceptions:**

1. *Corridors* protected by an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1.
2. *Corridors* protected by an *approved fire alarm system* installed in accordance with Section 907.
3. Storage in metal lockers, provided the minimum required egress width is maintained.

**807.5.3.2 Artwork in corridors.** Artwork and teaching materials shall be limited on the walls of *corridors* to not more than 20 percent of the wall area.

**807.5.3.3 Artwork in classrooms.** Artwork and teaching materials shall be limited on walls of classrooms to not more than 50 percent of the specific wall area to which they are attached.

**807.5.4 Dormitories in Group R-2.** In Group R-2 dormitories, within sleeping units and dwelling units, the combustible decorative materials, shall be of limited quantities such that a hazard of fire development or spread is not present.

**807.5.5 Groups I-1 and I-2.** In Groups I-1 and I-2 occupancies, combustible *decorative materials* shall be of such limited quantities that a hazard of fire development or spread is not present.

**807.5.6 Group I-3.** In Group I-3, combustible *decorative materials* are prohibited.

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## F212 – D Part I and II

**THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IFC CODE DEVELOPMENT COMMITTEE AND PART II WILL BE HEARD BY THE IEBC CODE DEVELOPMENT COMMITTEE AS SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.**

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care  
(john.williams@doh.wa.gov)

### PART I – INTERNATIONAL FIRE CODE

Revise as follows:

#### SECTION 1103 FIRE SAFETY REQUIREMENTS FOR EXISTING BUILDING

**1103.1 Required construction.** Existing buildings shall comply with not less than the minimum provisions specified in Table 1103.1 and as further enumerated in Sections 1103.2 through 1103.9.

The provisions of this chapter shall not be construed to allow the elimination of fire protection systems or a reduction in the level of fire safety provided in buildings constructed in accordance with previously adopted codes.

**Exceptions:**

1. Where approved in accordance with Section 102.4, in Group I-2 Condition 2 buildings where an automatic sprinkler system installed in accordance with Section 903.3.1.1 has been added and the building is now sprinklered throughout, the existing fire resistance ratings, opening protectives, penetrations and joints in assemblies are not required to be maintained where such fire resistance ratings, opening protectives, penetrations and joints are not required in new construction for sprinklered buildings.
2. Group U occupancies.

**SECTION 1104  
MEANS OF EGRESS FOR EXISTING BUILDINGS**

**1104.1 General.** *Means of egress* in existing buildings shall comply with the minimum egress requirements when specified in Table 1103.1 as further enumerated in Sections 1104.2 through 1104.23, and the building code that applied at the time of construction. Where the provisions of this chapter conflict with the building code that applied at the time of construction, the most restrictive provision shall apply. Existing buildings that were not required to comply with a building code at the time of construction shall comply with the minimum egress requirements when specified in Table 1103.1 as further enumerated in Sections 1104.2 through 1104.24.

**Exception:** Where approved in accordance with Section 102.4, in Group I-2 Condition 2 buildings where an automatic sprinkler system installed in accordance with Section 903.3.1.1 has been added and the building is now sprinklered throughout, the existing fire resistance ratings, opening protectives, penetrations and joints in assemblies are not required to be maintained where such fire resistance ratings, opening protectives, penetrations and joints are not required in new construction for sprinklered buildings.

**PART II – INTERNATIONAL EXISTING BUILDING CODE**

**Add new text as follows:**

**804.2.2.2 Group I-2.** Where approved, in Group I-2 Condition 2 buildings where an automatic sprinkler system installed in accordance with Section 903.3.1.1 of the *International Building Code* has been added and the building is now equipped throughout with an automatic sprinkler system, the existing fire resistance ratings, opening protectives, penetrations and joints in assemblies are not required to be maintained where such fire resistance ratings, opening protectives, penetrations and joints are not required in new construction for buildings equipped throughout with an automatic sprinkler system.

**Reason:** The changes provide tradeoffs for installation of automatic sprinkler systems consistent with those allowed for new construction and also with those allowed by CMS. In many editions of the legacy codes and the ICC Codes dating from the 1980s and even before, the same or similar tradeoffs were allowed when a facility elected to provide sprinkler protection. The Ad Hoc Committee on Health Care is proposing requiring retrofit of sprinklers in Hospitals that we feel provide the best protection available and feel because of this the tradeoffs are justified in existing facilities as has been vetted and justified in new construction for many years. These requirements are part of a package of retrofit requirements that provide a minimum level of safety considered necessary for patients, staff and first responders in an environment in which patients are in many instances not capable of self preservation and must be protected in place. Automatic sprinkler protection is key to any plan for protecting residents in place and for the safety of those responding to emergencies by providing the extra time needed to respond. The requirements are also consistent with current CMS standards that apply to all hospitals nationwide receiving Medicare/Medicaid funding and would not add additional requirements to those facilities beyond current nationwide Federal requirements but would allow the facilities to better meet those requirements without possible costly conflicts in other codes.

If this proposal is successful and the proposal for a new Section 1105 is also approved, the Adhoc Health Care committee will bring forward a corresponding exception to be applicable for the new Section 1105.1 as follows:



**SECTION 1105  
CONSTRUCTION REQUIREMENTS FOR EXISTING GROUP I-2**

**1105.1 General.** Existing Group I-2 shall meet the following requirements:

1. The minimum fire safety requirements in Section 1103, and
2. The minimum egress requirements in Section 1104, and
3. The additional egress and construction requirements in Sections 1105.2 through 1105.7.5.2.

Where the provisions of this chapter conflict with the construction requirements that applied at the time of construction, the most restrictive provision shall apply.

**Exception:** Where approved in accordance with Section 102.4, in Group I-2 Condition 2 buildings where a sprinkler system installed in accordance with Section 903.3.1.1 has been added and the building is now sprinklered throughout, the existing fire resistance ratings, opening protectives, penetrations and joints in assemblies are not required to be maintained where such fire resistance ratings, opening protective, penetrations and joints are not required in new construction for sprinklered buildings.

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 8 open meetings and over 150 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

## **PART I – IFC**

**Committee Action:**

**Disapproved**

**Committee Reason:** The disapproval was based on the committee's concerns that the proposal needs to be well-correlated with code change EB26-13 which is related. It was also unclear as to why the exception should be limited to Group I-2 Condition 2 only when other occupancies would likely want to take advantage of it. The proposal also does not take into account alternative methods that may have been previously granted. Record keeping and documentation of reduced fire resistance ratings would be a major challenge as would trying to determine rating reductions by visual inspection.

**Assembly Action:**

**None**

## **PART II – IEBC**

**This code change was heard by the IEBC code development committee.**

**Committee Action:**

**Disapproved**

**Committee Reason:** The committee disapproved this proposal in favor of the action taken on EB26-13 and by the request of the proponent.

**Assembly Action:**

**None**

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## **F212 – D Part I only**

### **Study group Recommendation:**

**Do not add exception to Section 1104.1 and 1105.1(F237). Copy the language in EB26-13. Emphasize that any changes to EB26 should be repeated in this language. Proposal to Part I only. Based on development committee comments, expand to all use groups. Support from Adhoc Health and CTC.**

**The committee discussed a reference to IEBC Section 803.6. However, some felt that this could be interpreted to not allow this exception when it was not part of a Level II alteration. Bob Davidson has offered to put in the following public comment.**

1. Where a change in fire resistance rating has been approved in accordance with Section 803.6 of the International Existing Building Code.

**Reason:** This puts into place a process for what is currently happening. This will stop reduction in passive protections for projects to work areas or smoke compartments. The requirement is for the entire building to be sprinklered before this evaluation is considered.

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care (john.williams@doh.wa.gov) and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee (cbaldassarra@RJAGroup.com)

**Replace the proposal with the following:**

### **SECTION 1103 FIRE SAFETY REQUIREMENTS FOR EXISTING BUILDING**

**1103.1 Required construction.** Existing buildings shall comply with not less than the minimum provisions specified in Table 1103.1 and as further enumerated in Sections 1103.2 through 1103.9.

The provisions of this chapter shall not be construed to allow the elimination of fire protection systems or a reduction in the level of fire safety provided in buildings constructed in accordance with previously adopted codes.

**Exceptions:**

1. Where approved by the code official, buildings where an automatic sprinkler system installed in accordance with Section 903.3.1.1 and 903.3.1.2 has been added and the building is now sprinklered throughout, the fire-resistance ratings of building elements and materials shall be permitted to meet the requirements of the current building code. The building is required to meet the other applicable fire protection requirements of Chapter 9 of the *International Building Code*. Plans, investigation and evaluation reports, and other data shall be submitted indicating which building elements and materials the applicant is requesting the code official to review and approve for determination of applying the current building code fire-resistance ratings. Any special construction features, conditions of occupancy, approved modifications or approved alternative materials, design and methods of construction, and equipment applying to the building that impact required fire-resistance ratings shall be identified in the evaluation reports submitted.
2. Group U occupancies.

**Reason:** This puts into place a process for what is currently happening. This will stop reduction in passive protections for projects to work areas or smoke compartments. The requirement is for the entire building to be sprinklered before this evaluation is considered.

The proposal is consistent with the language that was approved for EB26-13 (shown below). The EB26 proposal is acceptable to the CTC and Adhoc as meeting the same intent as Part II of F212, therefore this modification to F212 Part I only. It is the this language match what is finally approved for EB26, therefore, if there are successful public comments to EB26, those changes should also be reflected in the final version of this public comment.

This exception will allow facilities being reviewed as existing building under the IFC to have a process to show where continuing maintenance of rated corridor walls and their opening protective is no longer needed since the building has been improved to the extent that the entire building is suppressed.

It was decided that a reference to the IEBC text may not be relevant if the review was being performed separate from a current alteration. Therefore, the language should be repeated here.

Since this proposal is limited to the fire resistance ratings, there is no need for a similar exception to IFC Section 1104, since that deals with means of egress issues.

**EB26-13 AM**

**803.6 Fire-resistance ratings.** Where approved by the code official, buildings where an automatic sprinkler system installed in accordance with Section 903.3.1.1 and 903.3.1.2 of the *International Building Code* has been added, and the building is now sprinklered throughout, the required fire-resistance ratings of building elements and materials shall be permitted to meet the requirements of the current building code. The building is required to meet the other applicable fire protection requirements of Chapter 9 of the *International Building Code*.

Plans, investigation and evaluation reports, and other data shall be submitted indicating which building elements and materials the applicant is requesting the code official to review and approve for determination of applying the current building code fire-resistance ratings. Any special construction features, conditions of occupancy, approved modifications or approved alternative materials, design and methods of construction, and equipment applying to the building that impact required fire-resistance ratings shall be identified in the evaluation reports submitted.

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## F218 – 13 - D

### 1103.4.1

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care  
(john.williams@doh.wa.gov)

**Revise as follows:**

**IFC 1103.4.1 Group I occupancies.** In Group I occupancies, interior vertical openings connecting two or more stories shall be protected with 1-hour fire-resistance-rated construction.

**Exceptions:**

1. In Group I-2 Condition 2 equipped throughout with an automatic sprinkler system, vertical opening connecting two or more stories need not be protected with 1-hour fire-resistance-rated construction where both of the following conditions are met:
  - 1.1. The atrium volume is accounted for in the design of a smoke control system in accordance with Section 909.
  - 1.2 The floor levels within the vertical opening shall contain only low or ordinary fire hazard uses.
2. In Group I-2 Condition 2, where an automatic sprinkler system is installed in accordance with Section 404.6 of the *International Building Code*, glass walls shall be considered to be equivalent to 1-hour fire-resistance-rated construction for purposes of this section. Where glass doors are provided in the glass wall, they shall be either self-closing or automatic-closing.
3. In Group I-2 Condition 2, 1-hour fire-resistance-rated construction is not required where a glass-block wall assembly complying with Section 2110 of the *International Building Code* and having a ¾-hour fire protection rating is provided.

**Reason:** The intent of this code change is to make the IFC consistent with federal standards that are in place for the maintenance of Group I-2 Condition 2 (hospitals) and to clarify the allowable use and construction of atria in hospitals. This adds language to clarify the fire hazard class allowed in the existing atrium (no higher than ordinary), as opposed to only low hazard class in new. A smoke control system is also acknowledged as a factor when it comes to separation of the atrium, and clarifies that the smoke control system's engineering analysis must account for any spaces open to it.

Glass walls points back to the language in IBC Section 404.6 in an attempt to set that as a minimum, retroactive standard. It is far simpler to address a potential deficiency with addition of a smoke control system or properly installed sprinklers at the glass, rather than reconstructing the walls themselves.

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 150 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:** This proposal would make the IFC consistent with federal standards that are in place for the maintenance of hospitals, and therefore would not represent an increase in cost.

**Committee Action:** **Disapproved**

**Committee Reason:** The disapproval was based on the committee's concern that the exceptions in the proposal do not exactly mirror Section 404.6 of the IBC which it felt should be the minimum standard. The automatic sprinkler requirements are also not coordinated with regard to complete protection of the building or only protection in the Group I-2 fire area.

**Assembly Action:** **None**

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## F218 – 13

### Study Group Recommendation:

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care  
(john.williams@doh.wa.gov)

**Adhoc Health committee would like to request that CTC be a cosponsor for the public comment to F218-13. The license requirements for hospitals and nursing homes are the same when it comes to atriums. If CTC will be a co-sponsor, the exceptions will be for all Group I-2, and not just condition 2. Please keep in mind that F217-13 from the CTC did revise Section 1103.4.1 so that this section is applicable to Group I-2 and I-3.**

**The language in this proposal is consistent with IBC Section 404.6. It is hoped that consistent language will allow for more consistent interpretations and enforcement.**

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care  
(john.williams@doh.wa.gov) **and CTC Care?**

### Replace the proposal with the following:

**IFC 1103.4.1 Group I occupancies.** In Group I occupancies, interior vertical openings connecting two or more stories shall be protected with 1-hour fire-resistance-rated construction.

#### Exceptions:

1. In Group I-2 **Condition 2**, unenclosed vertical openings not exceeding two connected stories and not concealed within the building construction shall be permitted as follows:
  - 1.1 The unenclosed vertical openings shall be separated from unprotected vertical openings serving other floors by a smoke barrier.
  - 1.2 The unenclosed vertical openings shall be separated from corridors by smoke partitions.
  - 1.3 The unenclosed vertical openings shall be separated from other fire or smoke compartments on the same floors by a smoke barrier.
  - 1.4 On other than the lowest level, the unenclosed vertical openings shall not serve as a required means of egress.
2. In Group I-2 **Condition 2**, atriums connecting three or more stories shall not require a 1-hour fire resistance rated construction when the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3, and all of the following conditions are met:
  - 2.1. For other than existing approved atriums with a smoke control system, where the atrium was constructed and is maintained in accordance with the code in effect at the time the atrium

was created, the atrium shall have a smoke control system that is in compliance with Section 909; and,

2.2. Glass walls forming a smoke partition or a glass-block wall assembly shall be permitted when in compliance with 2.2.1 or 2.2.2:

2.2.1. Glass walls forming a smoke partition shall be permitted where all of the following conditions are met.

1. Automatic Sprinklers are provided along both sides of the separation wall and doors, or on the room side only if there is not a walkway or occupied space on the atrium side.
2. The sprinklers shall not be more than 12 inches away from the face of the glass and at intervals along the glass of not greater than 72 inches.
3. Windows in the glass wall shall be non-operating type.
4. The glass wall and windows shall be installed in a gasket frame in a manner that the framing system deflects without breaking (loading) the glass before the sprinkler system operates.
5. The sprinkler system shall be designed so that the entire surface of the glass is wet upon activation of the sprinkler system without obstruction.

2.2.2. A fire barrier is not required where a glass-block wall assembly complying with Section 2110 of the International Building Code and having a 3/4-hour fire protection rating is provided.

2.3. Where doors are provided in the glass wall, they shall be either self-closing or automatic-closing and shall be constructed to resist the passage of smoke.

Reason: Based on the input from the committee and interested parties, the AHC presents the revised proposal above. The intent of this change is to appropriately address floor openings in existing construction. Today a conflict exists in the code, the building code would allow you to construction a floor opening without a 1 hour fire barrier in certain specific cases. The fire code would then tell you that approval is void and unilaterally require a 1 hour rating around all openings. This also impacts all historical non-rated floor openings that have been reviewed, approved and maintained. Practically we believe that this is not being enforced today and may be a reason why many jurisdictions do not adopt this chapter of the IFC. To set an appropriate retroactive standard, we believe the code should consider the historical context of the model codes. Unrated vertical openings have been allowed in hospitals previously. Atriums have been installed with various types of smoke venting and removal systems over the past few decades. The AHC has attempted to determine the general requirements that have been broadly used through these versions of codes. If we set the requirements based on the current version of the IBC, the facilities will constantly be tearing out existing, compliant construction to upgrade to new requirements. The federal regulations governing hospitals have used a retroactive standard similar to the one above for the past 10 years. Through our experiences with facilities during that period of time, we believe that the requirements listed above are reasonably consistent with that action.

In regards to the sprinkler question, currently all group I-2 fire areas are required to have sprinklers retroactively per chapter 11 of this Code. In Dallas, a code change was accepted to provide sprinkler protection throughout the building by a date certain provided by the adopting jurisdiction. The code change here was modified to state that the atrium option can be used if the "building is equipped throughout". **SHOULD WE LOOK AT THE UNENCLOSED OPTION 1 AND apply "sprinklered throughout" THERE AS WELL?**

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 10 open meetings and over 150 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>

## F219 – 13-D

### 1103.4.1

**Proponent:** Robert J Davidson, Davidson Code Concepts, LLC, representing self (BFICOCS)  
(rjd@davidsoncodeconcepts.com)

**Revise as follows:**

**1103.4.1 Group I-3 occupancies.** In Group I-3 occupancies, interior vertical openings connecting two or more stories shall be protected with 1-hour fire-resistance-rated construction.

**Exceptions:**

1. In Group I-3 equipped throughout with an automatic sprinkler system, vertical opening connecting two or more stories need not be protected with 1-hour fire-resistance-rated construction where both of the following conditions are met:
  - 1.1. The atrium and connecting stories are accounted for in the design of a smoke control system in accordance with Section 909.
  - 1.2. The floor levels within the vertical opening shall contain only low or ordinary fire hazard uses.
2. In Group I-3 where an automatic sprinkler system is installed throughout the building and in accordance with Section 404.6 of the *International Building Code*, glass walls shall be considered to be equivalent to 1-hour fire-resistance-rated construction for purposes of this section. Where glass doors are provided in the glass wall, they shall be either self-closing or automatic-closing.
3. In Group I-3, 1-hour fire-resistance-rated construction is not required where a glass- block wall assembly complying with Section 2110 of the *International Building Code* and having a  $\frac{3}{4}$ -hour fire protection rating is provided.

**Reason:** The intent of this code change is to clarify the allowable use and construction of atria in jail. This adds language to clarify the fire hazard class allowed in the existing atrium (no higher than ordinary), as opposed to only low hazard class in new. A smoke control system is also acknowledged as a factor when it comes to separation of the atrium, and clarifies that the smoke control systems engineering analysis must account for any spaces open to it.

Glass walls points back to the language in the IBC in an attempt to set that as a minimum, retroactive standard. It is far simpler to address a potential deficiency with addition of a smoke control system or properly installed sprinklers at glass, rather than reconstructing the walls themselves.

This is intended to coordinate with the Group I-2 provisions.

**Cost impact:**

**Committee Action:**

**Disapproved**

**Committee Reason:** The disapproval was based on the committee's action on code change F218-13.

**Assembly Action:**

**None**

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**Study Group Recommendation: No public comment at this time. See F217-13.**

**Partial of F217-13**

**1103.4.1 Group I-2 and I-3 occupancies.** In Group I-2 and I-3 occupancies, interior vertical openings connecting two or more stories shall be protected with 1-hour fire-resistance-rated construction.

**Exception:** In Group I-3 occupancies, exit stairways or ramps and exit access stairways or ramps constructed in accordance with Section 408 in the *International Building Code*.

# F295 – 13-D

## 5003.9, 5003.9.11 (New)

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care  
(john.williams@doh.wa.gov)

**Revise as follows:**

**5003.9 General safety precautions.** General precautions for the safe storage, handling or care of hazardous materials shall be in accordance with Sections 5003.9.1 through ~~5003.9.40~~ 5003.9.11.

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

**Reason:** This proposal addresses KTag K134. The IPC already provides the installation requirements but the requirements are not called up in the IFC. This proposal uses verbiage from OSHA with some minor revisions to remove permissive language. The focus is only on corrosive materials which are defined in the IFC. The scope of this change is limited to Group I-2 condition 2 due to the scoping limitations of the Ad Hoc Healthcare Committee.

Source of verbiage (no copyright issues):

OSHA  
1910.151(c)

Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

For Reference:

International Plumbing Code 2012

### SECTION 411 EMERGENCY SHOWERS AND EYEWASH STATIONS

**411.1 Approval.** Emergency showers and eyewash stations shall conform to ISEA Z358.1.

**411.2 Waste connection.** Waste connections shall not be required for emergency showers and eyewash stations.

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 8 open meetings and over 150 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:**

**Committee Action:**

**Disapproved**

**Committee Reason:** The disapproval was based on the committee's judgment that the language of the proposal is vague and ambiguous and could lead to inconsistent enforcement. The committee also felt that including OSHA-type worker safety requirements in the code is inconsistent with the scope of the code and could lead to conflicts with OSHA regulations.

**Assembly Action:**

**None**

**Study Group Recommendation:**

## F295 – 13

### 5003.9, 5003.9.11 (New)

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care  
(john.williams@doh.wa.gov)

**Further modify as follows:**

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

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

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

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## F360 – 13

### 908.7 (IBC [F]908.7) through 908.7.7 (IBC [F]908.7.7) (New); 1103.9; 202

**Proponent:** Adolf Zubia, Chairman IAFC Fire and Life Safety Section, representing ICC Fire Code Action Committee (azubiamia@yahoo.com)

**Delete Sections 908.7 (IBC [F]908.7) and 908.7.1 (IBC [F]908.7.1) in their entirety and substitute as follows:**

~~**908.7 (IBC [F]908.7) Carbon monoxide alarms.** Group I or R occupancies located in a building containing a fuel-burning appliance or in a building which has an attached garage shall be equipped with single-station carbon monoxide alarms. The carbon monoxide alarms shall be listed as complying with UL 2034 and be installed and maintained in accordance with NFPA 720 and the manufacturer's instructions. An open parking garage, as defined in Chapter 2 of the *International Building Code*, or an enclosed parking garage ventilated in accordance with Section 404 of the *International Mechanical Code* shall not be considered an attached garage.~~

~~**Exception:** *Sleeping units or dwelling units* which do not themselves contain a fuel-burning appliance or have an attached garage, but which are located in a building with a fuel-burning appliance or an attached garage, need not be equipped with single-station carbon monoxide alarms provided that:~~

- ~~1. The *sleeping unit* or *dwelling unit* is located more than one story above or below any story which contains a fuel-burning appliance or an attached garage;~~
- ~~2. The *sleeping unit* or *dwelling unit* is not connected by duct work or ventilation shafts to any room containing a fuel-burning appliance or to an attached garage; and~~
- ~~3. The building is equipped with a common area carbon monoxide alarm system.~~

~~**908.7.1 (IBC [F]908.7.1) Carbon monoxide detection systems.** Carbon monoxide detection systems, which include carbon monoxide detectors and audible notification appliances, installed and maintained in accordance with this section for carbon monoxide alarms and NFPA 720 shall be permitted. The carbon monoxide detectors shall be *listed* as complying with UL 2075.~~



**908.7 (IBC [F]908.7) Carbon monoxide alarms.** Carbon monoxide alarms shall be installed in new buildings in accordance with Sections 908.7.1 through 908.7.7. Carbon monoxide alarms shall be installed in existing buildings in accordance with Section 1103.9.

**908.7.1 (IBC [F]908.7.1) Where required.** Carbon monoxide alarms shall be provided in Group I-1, I-4, and R occupancies in the locations specified in 908.7.2 where any of the conditions in Sections 908.7.1.1 through 908.7.1.4 exist.

**908.7.1.1 (IBC [F]908.7.1.1) Fuel-burning appliances and fuel burning fireplaces.** Carbon monoxide alarms shall be provided in dwelling units and sleeping units that contain a fuel-burning appliance or a fuel burning fireplace.

**908.7.1.2 (IBC [F]908.7.1.2) Forced air furnaces.** Carbon monoxide alarms shall be provided in dwelling units and sleeping units served by a fuel-burning, forced air furnace.

**908.7.1.3 (IBC [F]908.7.1.3) Fuel burning appliances outside of dwelling units and sleeping units.** Carbon monoxide alarms shall be provided in dwelling units and sleeping units located in buildings that contain fuel-burning appliances or fuel burning fireplaces.

**Exception:**

1. Carbon monoxide alarms shall not be required in dwelling units and sleeping units if there are no communicating openings between the fuel-burning appliance or fuel burning fireplace and the dwelling unit or sleeping unit.
2. Carbon monoxide alarms shall not be required in dwelling units and sleeping units if a carbon monoxide alarm is provided:
  - 2.1 In an approved location between the fuel burning appliance or fuel burning fireplace and the dwelling unit or sleeping unit, or
  - 2.2 On the ceiling of the room containing the fuel burning appliance or fuel burning fireplace.

**908.7.1.4 (IBC [F]908.7.1.4) Private garages.** Carbon monoxide alarms shall be provided in dwelling units and sleeping units in buildings with attached private garages.

**Exceptions:**

1. Carbon monoxide alarms shall not be required if there are no communicating openings between the private garage and the dwelling unit or sleeping unit.
2. Carbon monoxide alarms shall not be required in dwelling units and sleeping units located more than one story above or below a private garage.
3. Carbon monoxide alarm shall not be required if the private garage connects to the building through an open-ended corridor.

**908.7.1.4.1 (IBC [F]908.7.1.4.1) Exempt garages.** For determining compliance with Section 908.7.1.4, an *open parking garage*, complying with Section 406.5 of the *International Building Code*, or an *enclosed parking garage* complying with Section 406.6 of the *International Building Code* shall not be considered a private garage.

**908.7.2 (IBC [F]908.7.2) Locations.** Where required by Section 908.7.1, carbon monoxide alarms shall be installed in the locations specified in Sections 908.7.2.1 through 908.7.2.2.

**908.7.2.1 (IBC [F]908.7.2.1) Dwelling units.** Carbon monoxide alarms shall be installed in dwelling units outside of each separate sleeping area in the immediate vicinity of the bedrooms. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed within the bedroom.

**908.7.2.2 (IBC [F]908.7.2.2) Sleeping units.** Carbon monoxide alarms shall be installed in sleeping units.

**Exception:** Carbon monoxide alarms shall be allowed to be installed outside of each separate sleeping area in the immediate vicinity of the sleeping unit where the sleeping unit or its attached bathroom do not contain a fuel burning appliance and are not served by a forced air furnace.

**908.7.3 (IBC [F]908.7.3) Power source.** Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than that required for overcurrent protection.

**Exception:** Where installed in buildings without commercial power, battery powered carbon monoxide alarms shall be an acceptable alternative.

**908.7.4 (IBC [F]908.7.4) Listings.** Carbon monoxide alarms shall be listed in accordance with UL 2034.

**908.7.5 (IBC [F]908.7.5) Combination alarms.** Combination carbon monoxide/smoke alarms shall be an acceptable alternative to carbon monoxide alarms. Combination carbon monoxide/smoke alarms shall be listed in accordance with UL 2034 and UL 217.

**908.7.6 (IBC [F]908.7.6) Carbon monoxide detection systems.** Carbon monoxide detection systems shall be an acceptable alternative to carbon monoxide alarms and shall comply with Sections 908.7.6.1 through 908.7.6.3.

**908.7.6.1 (IBC [F]908.7.6.1) General.** Carbon monoxide detection systems shall comply with NFPA 720. Carbon monoxide detectors shall be listed in accordance with UL 2075.

**908.7.6.2 (IBC [F]908.7.6.2) Locations.** Carbon monoxide detectors shall be installed in the locations specified in Section 908.7.2. These locations supersede the locations specified in NFPA 720.

**908.7.6.3 (IBC [F]908.7.6.3) Combination detectors.** Combination carbon monoxide/smoke detectors installed in carbon monoxide detection systems shall be an acceptable alternative to carbon monoxide detectors, provided they are listed in accordance with UL 2075 and UL 268.

**908.7.7 Maintenance.** Carbon monoxide alarms and carbon monoxide detection systems shall be maintained in accordance with NFPA 720. Carbon monoxide alarms and carbon monoxide detectors that become inoperable or begin producing end-of-life signals shall be replaced.

**Add new text as follows:**

## SECTION 202 GENERAL DEFINITIONS

**[B] PRIVATE GARAGE.** A building or portion of a building in which motor vehicles used by the tenants of the building or buildings on the premises are stored or kept, without provisions for repairing or servicing such vehicles for profit

**Revise as follows:**

**1103.9 Carbon monoxide alarms.** Existing Group I-1, I-4 and or-R occupancies located in a building containing a fuel-burning appliance or a building which has an attached garage shall be provided with be equipped with single-station carbon monoxide alarms in accordance with Section 908.7, except that the carbon monoxide alarms shall be allowed to be solely battery powered.

**Reason:** This proposal is submitted by the ICC Fire Code Action Committee (FCAC). This ICC committee was established by the ICC Board of Directors to pursue opportunities to improve and enhance assigned International Codes or portions thereof. This

includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the Fire-CAC has held 6 open meetings and numerous Regional Work Group and Task Group meetings and conference calls which included members of the committees as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the FAC website at: <http://www.iccsafe.org/cs/CAC/Pages/default.aspx>.

This proposal clarifies the requirements for carbon monoxide alarm installations. The intent is to provide protection for occupants of dwelling units and sleeping units within Group I-1, I-4, and R occupancies, which are locations where occupants are likely to be sleeping. Protection is provided from carbon monoxide that may be generated from faulty fuel burning appliance both inside and outside of the dwelling unit or sleeping unit, or from motor vehicle exhaust emanating from vehicles in attached private garages. It is assumed that a fuel burning appliance also includes a fuel burning fireplace. Specific details on the proposal are as follows.

1. The definition of PRIVATE GARAGE is identical to the IBC definition that was approved as part of proposal G59-12.
2. The entire section was reformatted to provide requirements in a more logical order.
3. Section 908.7 clarifies that the section only applies to new constructions, and that Section 1103.9 applies to existing occupancies.
4. Section 908.7.1 now only requires CO alarms are to be provided in Group I-1, I-4 and R occupancies, not all Group I occupancies as required in the existing code. It was felt that CO alarms were not warranted in Group I-2 and I-3 occupancies.
5. The code currently requires CO alarms to be provided in buildings that contain fuel burning appliances, with no additional details. Sections 908.7.1.1 through 908.7.1.3 describe the specific conditions when CO alarms are and are not required with regard to fuel-burning appliances.
6. Section 908.7.1.3 covers situations where dwelling units and sleeping units do not contain a fuel burning appliance, but such an appliance is included in a common area of the building. A good example of this is a multistory hotel that has all electric HVAC in the sleeping units, but perhaps a fireplace in the lobby, forced air heating in the common area, and a boiler in an equipment room. In these situations it is not reasonable to provide CO alarms in every sleeping room on every floor of the hotel, where there are no sources of carbon monoxide. Having a few strategically located Co alarms in common areas will provide a reasonable level of protection for the sleeping units and dwelling units.

Exception 1 to this section covers situations where CO emanating from the fuel burning appliance has no direct path to a dwelling unit or sleeping unit, such as a water heater in an equipment room that only has access from the exterior of the building, and no openings through which the CO can get to dwelling units or sleeping units. An interior door, between this equipment room and a dwelling unit, even if it is self-closing, would not allow this exception to be used.

Exception 2 to this section requires the installation of a one or more CO alarms in approved locations between fuel burning appliances and the nearest dwelling unit or sleeping unit, or on the ceiling of the room in which a fuel burning appliance is located. CO alarms are only required where there are communicating openings including ducts, concealed spaces, interior hallways, stairs and spaces between the fuel-burning appliance or fuel burning fireplace and the dwelling unit or sleeping unit where air can flow from the appliance to the dwelling unit or sleeping unit.

7. The code currently requires CO alarms to be provided when the building has an attached garage, other than an open parking garages or enclosed parking garages that contain mechanical ventilation systems. The proposal keeps these basic concepts, but clarifies that CO alarms are required when the building has an attached private garage (which is defined in section 406.3 of the IBC). The proposal also does not require CO alarms to be provided when the private garage is attached to the building by an open ended corridor (a term used in the IBC and IFC, which is commonly called a breeze way).
8. The code currently deferred to NFPA 720 for identifying where CO alarms are to be located. In order to make the code more user friendly, Section 908.7.2 now describes the locations where CO alarms are to be provided. In some cases this differs from NFPA 720 required locations, but again is intended to provide protection for CO emanating from motor vehicles in attached private garages or from faulty fuel-burning appliances located either inside or outside of the dwelling unit or sleeping unit. .
9. Section 908.7.3 clarifies that CO alarms are required to be hard wired into building power, similar to smoke alarms, with one exception.
10. Section 908.7.5 addresses combination CO/smoke alarms, which are listed and readily available.
11. Section 908.7.6 includes more comprehensive requirements for CO detection systems as compared to the current code requirements. It requires these systems to comply with NFPA 720, but clarifies that detectors must be installed in the locations specified in Section 908.7.2 (not as specified in NFPA 720). It also allows combination CO/smoke detectors to be used.
12. Section 908.7.7 covers maintenance of devices and requires inoperative and end-of-life CO alarms to be replaced.
13. Section 1103.9 was revised to avoid duplicating section 908.7 requirements, and to allow battery powered CO alarms to be used to retrofit existing buildings, which is consistent with the retrofit provisions in the IRC.

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

The code change is contained in the [Updates to the 2013 Proposed Changes](http://www.iccsafe.org/cs/codes/Documents/2012-2014Cycle/Proposed-B/00-CompleteGroupB-MonographUpdates.pdf) posted on the ICC website. Please go to <http://www.iccsafe.org/cs/codes/Documents/2012-2014Cycle/Proposed-B/00-CompleteGroupB-MonographUpdates.pdf> for more information.

**Committee Action:**

**Approved as Modified**

**Modify proposal as follows:**

**908.7 (IBC [F] 908.7) Carbon monoxide alarms.** Carbon monoxide alarms shall be installed in new buildings in accordance with Sections 908.7.1 through 908.7.7. Carbon monoxide alarms shall be installed in existing buildings in accordance with Section 1103.9.

**908.7.1 (IBC [F] 908.7.1) Where required.** Carbon monoxide alarms shall be provided in Group I-1, **I-2**, I-4, and R occupancies in the locations specified in 908.7.2 where any of the conditions in Sections 908.7.1.1 through 908.7.1.4 exist.

**908.7.1.1 (IBC [F] 908.7.1.1) Fuel-burning appliances and fuel burning fireplaces.** Carbon monoxide alarms shall be provided in dwelling units and sleeping units that contain a fuel-burning appliance or a fuel burning fireplace.

**908.7.1.2 (IBC [F] 908.7.1.2) Forced air furnaces.** Carbon monoxide alarms shall be provided in dwelling units and sleeping units served by a fuel-burning, forced air furnace.

**908.7.1.3 (IBC [F] 908.7.1.3) Fuel burning appliances outside of dwelling units and sleeping units.** Carbon monoxide alarms shall be provided in dwelling units and sleeping units located in buildings that contain fuel-burning appliances or fuel burning fireplaces.

**Exception:**

1. Carbon monoxide alarms shall not be required in dwelling units and sleeping units if there are no communicating openings between the fuel-burning appliance or fuel burning fireplace and the dwelling unit or sleeping unit.
2. Carbon monoxide alarms shall not be required in dwelling units and sleeping units if a carbon monoxide alarm is provided:
  - 2.1 In an approved location between the fuel burning appliance or fuel burning fireplace and the dwelling unit or sleeping unit, or
  - 2.2 On the ceiling of the room containing the fuel burning appliance or fuel burning fireplace.

**908.7.1.4 (IBC [F]908.7.1.4) Private garages.** Carbon monoxide alarms shall be provided in dwelling units and sleeping units in buildings with attached private garages.

**Exceptions:**

1. Carbon monoxide alarms shall not be required if there are no communicating openings between the private garage and the dwelling unit or sleeping unit.
2. Carbon monoxide alarms shall not be required in dwelling units and sleeping units located more than one story above or below a private garage.
3. Carbon monoxide alarm shall not be required if the private garage connects to the building through an open-ended corridor.

**908.7.1.4.1 (IBC [F]908.7.1.4.1) Exempt garages.** For determining compliance with Section 908.7.1.4, an *open parking garage*, complying with Section 406.5 of the *International Building Code*, or an *enclosed parking garage* complying with Section 406.6 of the *International Building Code* shall not be considered a private garage.

**908.7.2 (IBC [F]908.7.2) Locations.** Where required by Section 908.7.1, carbon monoxide alarms shall be installed in the locations specified in Sections 908.7.2.1 through 908.7.2.2.

**908.7.2.1 (IBC [F]908.7.2.1) Dwelling units.** Carbon monoxide alarms shall be installed in dwelling units outside of each separate sleeping area in the immediate vicinity of the bedrooms. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed within the bedroom.

**908.7.2.2 (IBC [F]908.7.2.2) Sleeping units.** Carbon monoxide alarms shall be installed in sleeping units.

**Exception:** Carbon monoxide alarms shall be allowed to be installed outside of each separate sleeping area in the immediate vicinity of the sleeping unit where the sleeping unit or its attached bathroom do not contain a fuel burning appliance and are not served by a forced air furnace.

**908.7.3 (IBC [F]908.7.3) Power source.** Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than that required for overcurrent protection.

**Exception:** Where installed in buildings without commercial power, battery powered carbon monoxide alarms shall be an acceptable alternative.

**908.7.4 (IBC [F]908.7.4) Listings.** Carbon monoxide alarms shall be listed in accordance with UL 2034.

**908.7.5 (IBC [F]908.7.5) Combination alarms.** Combination carbon monoxide/smoke alarms shall be an acceptable alternative to carbon monoxide alarms. Combination carbon monoxide/smoke alarms shall be listed in accordance with UL 2034 and UL 217.

**908.7.6 (IBC [F]908.7.6) Carbon monoxide detection systems.** Carbon monoxide detection systems shall be an acceptable alternative to carbon monoxide alarms and shall comply with Sections 908.7.6.1 through 908.7.6.3.

**908.7.6.1 (IBC [F]908.7.6.1) General.** Carbon monoxide detection systems shall comply with NFPA 720. Carbon monoxide detectors shall be listed in accordance with UL 2075.

**908.7.6.2 (IBC [F]908.7.6.2) Locations.** Carbon monoxide detectors shall be installed in the locations specified in Section 908.7.2. These locations supersede the locations specified in NFPA 720.

**908.7.6.3 (IBC [F]908.7.6.3) Combination detectors.** Combination carbon monoxide/smoke detectors installed in carbon monoxide detection systems shall be an acceptable alternative to carbon monoxide detectors, provided they are listed in accordance with UL 2075 and UL 268.

**908.7.7 Maintenance.** Carbon monoxide alarms and carbon monoxide detection systems shall be maintained in accordance with NFPA 720. Carbon monoxide alarms and carbon monoxide detectors that become inoperable or begin producing end-of-life signals shall be replaced.

**1103.9 Carbon monoxide alarms.** Existing Group I-1, I-2, I-4 and R occupancies shall be provided with carbon monoxide alarms in accordance with Section 908.7, except that the carbon monoxide alarms shall be allowed to be solely battery powered.

Add new definition as follows:

**SECTION 202  
GENERAL DEFINITIONS**

**[B] PRIVATE GARAGE.** A building or portion of a building in which motor vehicles used by the tenants of the building or buildings on the premises are stored or kept, without provisions for repairing or servicing such vehicles for profit

**Committee Reason:** The proposal was approved as the requirements associated with the more specific hazards within a building have been clarified. In addition, the placement of the CO alarms and CO detectors, where applicable, are more clearly specified. Previously the provisions were difficult to enforce. The modification simply added Group I-2 occupancies as it was requested that such occupancies be provided the same protection. The original provisions stated Group I occupancies which intended to address Group I-2.

**Assembly Action:**

**None**

**Study Group Recommendation: Work with FCAC**

*Public comment for F182 FCAC as of 6/24/2013*

**SECTION 915  
CARBON MONOXIDE DETECTION**

**915.1 Carbon monoxide ~~alarms~~ detection.** Carbon monoxide ~~alarms~~ detection shall be installed in new buildings in accordance with Sections 915.1.1 through 915.76. Carbon monoxide ~~alarms~~ detection shall be installed in existing buildings in accordance with Section 1103.9.

**915.1.1 Where required.** Carbon monoxide ~~alarms~~ detection shall be provided in Group I-1, I-2, I-4, and R occupancies, and in classrooms in Group E occupancies in the locations specified in 915.2 where any of the conditions in Sections 915.1.2 through 915.1.6 exist.

**915.1.2 Fuel-burning appliances and fuel burning fireplaces.** Carbon monoxide ~~alarms~~ detection shall be provided in dwelling units, ~~and~~ sleeping units and classrooms that contain a fuel-burning appliance or a fuel burning fireplace.

**915.1.3 Forced air furnaces.** Carbon monoxide ~~alarms~~ detection shall be provided in dwelling units, ~~and~~ sleeping units and classrooms served by a fuel-burning, forced air furnace.

Exception: Carbon monoxide detection shall not be required in dwelling units, sleeping units and classrooms if carbon monoxide detection is provided in the first room or area served by each main duct leaving the furnace, and the carbon monoxide alarm signals are automatically transmitted to an approved location.

**915.1.4 Fuel burning appliances outside of dwelling units, ~~and sleeping units~~ and classrooms.** Carbon monoxide ~~alarms~~ detection shall be provided in dwelling units, ~~and sleeping units~~ and classrooms located in buildings that contain fuel-burning appliances or fuel burning fireplaces.

**Exceptions:**

1. Carbon monoxide ~~alarms~~ detection shall not be required in dwelling units, ~~and sleeping units~~ and classrooms if there are no communicating openings between the fuel-burning appliance or fuel burning fireplace and the dwelling unit, ~~or sleeping unit~~ or classroom.
2. Carbon monoxide ~~alarms~~ detection shall not be required in dwelling units, ~~and sleeping units~~ and classrooms if carbon monoxide ~~alarms~~ detection is provided in one of the following locations:
  - 2.1 In an approved location between the fuel burning appliance or fuel burning fireplace and the dwelling unit, ~~or sleeping unit~~ or classroom, or
  - 2.2 On the ceiling of the room containing the fuel burning appliance or fuel burning fireplace.

**915.1.5 Private garages.** Carbon monoxide ~~alarms~~ detection shall be provided in dwelling units, ~~and sleeping units,~~ and classrooms in buildings with attached private garages.

**Exceptions:**

1. Carbon monoxide ~~alarms~~ detection shall not be required if there are no communicating openings between the private garage and the dwelling unit, ~~or sleeping unit~~ or classroom.
2. Carbon monoxide ~~alarms~~ detection shall not be required in dwelling units, ~~and sleeping units~~ and classrooms located more than one story above or below a private garage.
3. Carbon monoxide ~~alarms~~ detection shall not be required if the private garage connects to the building through an open-ended corridor.

**915.1.6 Exempt garages.** For determining compliance with Section 915.1.5, an *open parking garage*, complying with Section 406.5 of the *International Building Code*, or an *enclosed parking garage* complying with Section 406.6 of the *International Building Code* shall not be considered a private garage.

**915.2 Locations.** Where required by Section 915.1.1, carbon monoxide ~~alarms~~ detection shall be installed in the locations specified in Sections 915.2.1 through ~~915.2.2–~~ 915.2.3.

**915.2.1 Dwelling units.** Carbon monoxide ~~alarms~~ detection shall be installed in dwelling units outside of each separate sleeping area in the immediate vicinity of the bedrooms. Where a fuel-burning appliance is located within a bedroom or its attached bathroom, ~~a carbon monoxide alarm~~ detection shall be installed within the bedroom.

**915.2.2 Sleeping units.** Carbon monoxide ~~alarms~~ detection shall be installed in sleeping units.

**Exception:** Carbon monoxide ~~alarms~~ detection shall be allowed to be installed outside of each separate sleeping area in the immediate vicinity of the sleeping unit where the sleeping unit or its attached bathroom do not contain a fuel burning appliance and are not served by a forced air furnace.

**915.2.3 Group E occupancies.** Carbon monoxide detection shall be installed in classrooms in Group E occupancies. Carbon monoxide alarm signals shall be automatically transmitted to an on-site location that is staffed by school personnel.

**Exception:** Carbon monoxide alarm signals shall not be required to be automatically transmitted to an on-site location that is staffed by school personnel in Group E occupancies with an occupant load of 30 or less.

**915.3 Detection equipment.** Carbon monoxide detection required by 915.1 through 915.2.3 shall be provided with carbon monoxide alarms complying with Section 915.4 or with carbon monoxide detection systems complying with Section 915.5.

**915.4 Carbon monoxide alarms.** Carbon monoxide alarms shall comply with Section 915.4.1 through 915.4.3.

**915.4.1 915.3 Power source.** Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than that required for overcurrent protection.

**Exception:** Where installed in buildings without commercial power, battery powered carbon monoxide alarms shall be an acceptable alternative.

**915.4 915.4.2 Listings.** Carbon monoxide alarms shall be listed in accordance with UL 2034.

**915.5 915.4.3 Combination alarms.** Combination carbon monoxide/smoke alarms shall be an acceptable alternative to carbon monoxide alarms. Combination carbon monoxide/smoke alarms shall be listed in accordance with UL 2034 and UL 217.

**915.6 915.5 Carbon monoxide detection systems.** Carbon monoxide detection systems shall be an acceptable alternative to carbon monoxide alarms and shall comply with Sections 915.6.1 915.5.1 through 915.6.3 915.5.3.

**915.6.1 915.5.1 General.** Carbon monoxide detection systems shall comply with NFPA 720. Carbon monoxide detectors shall be listed in accordance with UL 2075.

**915.6.2 915.5.2 Locations.** Carbon monoxide detectors shall be installed in the locations specified in Section 915.2 908.7.2. These locations supersede the locations specified in NFPA 720.

**915.6.3 915.5.3 Combination detectors.** Combination carbon monoxide/smoke detectors installed in carbon monoxide detection systems shall be an acceptable alternative to carbon monoxide detectors, provided they are listed in accordance with UL 2075 and UL 268.

**915.7 915.6 Maintenance.** Carbon monoxide alarms and carbon monoxide detection systems shall be maintained in accordance with NFPA 720. Carbon monoxide alarms and carbon monoxide detectors that become inoperable or begin producing end-of-life signals shall be replaced.

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**1103.9 Carbon monoxide alarms detection.** Existing Group I-1, I-2, I-4, and R and E occupancies shall be provided with carbon monoxide ~~alarms~~ detection in accordance with Section 915.

**Exceptions:** ~~except that the e~~

1. Carbon monoxide alarms shall be allowed to be solely battery powered
2. Carbon monoxide alarm signals in Group E occupancies shall not be required to be transmitted to an on-site location that is staffed by school personnel.

**Reason:** Proposals F180, F182, and F360 covered carbon monoxide alarms and were all approved in Dallas. F360 included requirements to protect occupants in dwelling units and sleeping unit from potential sources of carbon monoxide. F182 required CO detection in Group E occupancies, but differed from F360 in how the protection was to be provided.

This public comment was developed by the Fire Code Action Committee's carbon monoxide task group, which included a wide range of interested parties. It resolves conflicts between the proposals, and makes some editorial revisions to clarify the intent of the requirements, as follows:

- Changes references from "carbon monoxide alarm" to "carbon monoxide detection" in Sections 915.1, 915.2 and 1103.9 since detection can be provided by either carbon monoxide alarms or carbon monoxide detection systems.
- Maintains the same protection requirements for Group I-1, I-2, I-4, and R occupancies as approved in F360, and extends it to classrooms in Group E occupancies, except as noted below.

- For clarification, section 915.1.3 covers forced air furnaces that serve dwelling units, sleeping units or classrooms. This section only covers furnaces where a malfunction or crack in the heat exchange will cause CO to be spread from the combustion chamber to the ducts serving the building. This section does not apply to other heating systems such as boilers that circulate heated water to the building. An exception was added to 915.1.3 that allows carbon monoxide detection to be provided in the first room or area served by each main duct leaving the furnace, provided the carbon monoxide alarm signals are automatically transmitted to an approved location. Such an arrangement will detect carbon monoxide from the ducts and provide notification of the condition to an approved location, such as a reception area, engineering office, or central station. With this protection in place there is no need to provide carbon monoxide detection in each dwelling unit, sleeping unit or classroom served by the forced air furnace ducts.
- Section 915.2.3 requires carbon monoxide detection to be provided in classrooms in Group E occupancies, and not other rooms such as bathrooms, break rooms, interior hallways, gymnasiums, etc. The concept is to protect the students in rooms in which they spend a considerable amount of time in a relatively compact space. This is similar to the concept of only providing CO protection for sleeping units and dwelling units in Group I and R occupancies, and not rooms used for other purposes.
- F182 required carbon monoxide alarm signals In Group E occupancies to be automatically transmitted to a constantly attended on-site location. Proposed section 915.2.3 recognizes that many schools do not have a location that is constantly attended 24/7, requires carbon monoxide alarms to be automatically transmitted to an on-site location that is staffed by school personnel.
- Section 915.2.3 also includes an exception that does not require carbon monoxide alarms to be transmitted to an on-site location that is staffed by school personnel for very small schools with an occupant load of 30 or less. These occupancies may not have a location other than the classroom staffed by school personnel, and the carbon monoxide alarm in the classroom will provide the necessary alarm warning to the occupants. The trigger for 30 or less occupants corresponds with the fire alarm threshold for small Group E occupancies in 907.2.3.
- Section 915.3 was provided to clarify that protection can be provided by either carbon monoxide alarms or carbon monoxide detection systems, which are options recognized in F180, F360, and in the 2012 IFC. With this change, the reference in section 915.5 that carbon monoxide detection systems are acceptable alternatives to carbon monoxide alarms is no longer needed.
- Section 1103.9 was revised to include an exception that classrooms in existing Group E occupancies can be protected with battery power carbon monoxide alarms, and that alarm signals are not required to be transmitted to an on-site location that is staffed by school personnel. The piercing alarm from a carbon monoxide alarm should ensure that the classroom is evacuated and that personnel will be called to investigate and address the problem.

## EB33 – D

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care (john.williams@doh.wa.gov) and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee (cbaldassarra@RJAGroup.com)

### Revise as follows:

**804.4.1 Occupancy requirements.** A fire alarm system shall be installed in accordance with Sections 804.4.1.1 through 804.4.1.7. Existing alarm-notification appliances shall be automatically activated throughout the building. Where the building is not equipped with a fire alarm system, alarm-notification appliances within the *work area* shall be provided and automatically activated.

#### Exceptions:

1. Occupancies with an existing, previously approved fire alarm system.
2. Where selective notification is permitted, alarm notification appliances shall be automatically activated in the areas selected.

**804.4.1.3 Group I-2.** A fire alarm system shall be installed in work areas of Group I-2 occupancies as required by the International Fire Code for ~~existing~~ new Group I-2 occupancies.

**Reason:** This proposed change is a joint proposal from the ICC Ad Hoc Committee on Healthcare (AHC) and the Code Technology Committee (CTC). The scope of the AHC deals with Group I-2 hospitals (now Group I-2 Condition 2 as a result of approved code change G257-12) and the scope of the CTC's investigation of the area of study entitled "Care Facilities" addresses Group I-1 and Group I-2 Condition 1 (nursing homes).

This section in the IEBC refers you to the IFC for fire alarm requirements in existing buildings undergoing a Level 2 Alteration. Section 1103.7.3 of the IFC refers back to the new construction requirements of Section 907.2.6.2. This proposal removes the circuitous references by stipulating that the fire alarm system needs to be installed as required for new construction.

This is a joint proposal submitted by the ICC Ad Hoc Committee for Healthcare and the ICC Code Technology Committee.

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 8 open meetings and over 150 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 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. This proposal is submitted 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/CTC/Pages/default.aspx>. Since its inception in April/2005, the CTC has held twenty-five meetings - all open to the public. In 2012, three of the 25 face-to-face meetings were held. In addition to the CTC meetings, the CTC established Study Groups (SG) of interested parties for each of the areas of study. These SG's are responsible for reviewing the available information and making recommendations to the CTC. All totaled, the SG's held over 70 conference calls in 2012.

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

**Committee Action:**

**Disapproved**

**Committee Reason:** This proposal was felt to conflict with the IFC for existing Group I-2 occupancies. Other concerns related to the fact that this provision should be dealt with in the change of occupancy requirements for new installations.

**Assembly Action:**

**None**

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**Study group recommendation:**

## **EB33**

**Proponent:** John Williams, CBO, Chair, ICC Ad Hoc Committee on Health Care (john.williams@doh.wa.gov) and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee (cbaldassarra@RJAGroup.com)

**Replace the proposal with the following:**

**804.4.1 Occupancy requirements.** A fire alarm system shall be installed in accordance with Sections 804.4.1.1 through 804.4.1.7. Existing alarm-notification appliances shall be automatically activated throughout the building. Where the building is not equipped with a fire alarm system, alarm-notification appliances within the *work area* shall be provided and automatically activated.

**Exceptions:**

1. Occupancies with an existing, previously approved fire alarm system.
2. Where selective notification is permitted, alarm notification appliances shall be automatically activated in the areas selected.

**804.4.1.3 Group I-2.** A fire alarm system shall be installed ~~in work areas of~~ throughout Group I-2 occupancies as required by the International Fire Code ~~for existing Group I-2 occupancies.~~

**Reason:** The proposal was not discussion new vs. existing occupancies. The intent is to send the designer to the correct location for fire alarms as required in IFC and maintaining correlation in the codes. Section 804.4.1 could be confusing for designers. Fire Codes and CMS require fire alarms throughout a Group I-2 already.