EB54 – 13
1002.1

Proponent: John Williams, CBO, Chair, ICC Ad Hoc Committee on Healthcare (John.Williams@DOH.WA.GOV) and Carl Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee (cbaldassarra@rjagroup.com)

Revise as follows:

1002.1 Compliance with the building code. Where the character or use of an existing building or part of an existing building is changed to one of the following special use or occupancy categories as defined in the International Building Code, the building shall comply with all of the applicable requirements of the International Building Code:

1. – 10. *(No change text)*
11. Group I-2 occupancies

Reason: 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).

Ambulatory care facilities, Item 10, was added via code change EB27-09/10 following the inclusion of ambulatory care provisions in Chapter 4 of the 2009 IBC due to the unique nature of such facilities which require added protection features such as separation into smoke compartments. Similarly, Chapter 4 of the IBC requires enhanced fire protection features for Group I-2 which includes hospitals and nursing homes. Where a change in occupancy occurs, resulting in a Group I-2 classification, the new construction features must be employed to provide the requisite fire protection features.

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.

EB54-13

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

1002.1-EB-BALDASSARRA-WILLIAMS-ADHOC.doc

EB58 – 13
1012.2.2

Proponent: Charles S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee

Revise as follows:

1012.2.2 Fire alarm and detection system. Where a change in occupancy classification occurs that requires a fire alarm and detection system to be provided based on the new occupancy in accordance with Chapter 9 of the *International Building Code*, such system shall be provided throughout the area where the change of occupancy occurs. 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 shall be provided throughout the area where the *change of occupancy* occurs ~~and shall be automatically activated.~~ in accordance with Section 907 of the *International Building Code* as required for new construction.

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC) The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion 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 BCAC has held 6 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

In almost all cases where Chapter 9 of the IBC specifies the need for a fire alarm and detection system it is due to the inherent fire hazard of the use. The level of hazard often warrants the notification be provided to all levels of the building even if the detection appliances are not required throughout the building. Section 907 of the IBC identifies when it is appropriate for everyone in the building to hear/see the notification and we believe that same insight is appropriate for existing buildings. Unlike a fire sprinkler system where placing the system in the area will effectively abate the fire hazard, that abatement does not take place with a fire alarm system. The value of the system is diminished without some notification throughout when the fire occurs in an area that is not occupied. Even though this will increase the costs to a change in occupancy project, it is a good compromise when considering the additional safety provided by the additional notification as would be required for new construction.

Cost Impact: This code change proposal will increase the cost of construction.

EB58-13

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

1012.2.2-EB-BAJNAI-BCAC.doc

EB59 – 13
1012.5.1

Proponent: Gene Boecker, Code Consultants, Inc., representing self

Revise as follows:

1012.5.1 Height and area for change to higher hazard category. When a change of occupancy classification is made to a higher hazard category as shown in Table 1012.5, heights and areas of buildings and structures shall comply with the requirements of Chapter 5 of the *International Building Code* for the new occupancy classification.

Exceptions:

1. In other than Groups H, F-1 and S-1, in lieu of fire walls, use of fire barriers having a fire-resistance rating of not less than that specified in Table 706.4 of the *International Building Code*, constructed in accordance with Section 707 of the *International Building Code*, shall be permitted to meet area limitations required for the new occupancy in buildings protected throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the *International Fire Code*.
2. Regardless of height, for high-rise buildings, the type of construction reduction specified in Section 403.2.1 of the *International Building Code* is permitted. This shall include the reduction for columns. The high rise building is required to be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the *International Building Code*.

Reason: When the International Building Code changed to disallow the reduction of ratings on columns for high-rise buildings, it created a problem for existing buildings which had previously used the allowed reduction. This provision in the IEBC does not recognize those previously complying buildings. To meet the requirements as currently written, any change in occupancy from an office to a retail area would require a complete upgrade in the fire-resistance rating for all the columns in the entire building. This is excessive for small changes in occupancy and often impractical.

The revised language makes it clear that if the building is protected throughout with an automatic fire sprinkler system, designed to meet NFPA 13 (not 13R), then the column ratings can be what was allowed prior to the code change to the IBC. Additions will need to meet the requirements for new construction, but a change in occupancy of this type should not require the entire building to fall into non-compliance when it was fully compliant when it was built as little as five years ago.

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

EB59-13

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

1012.5.1-EB-BOECKER.doc

EB60 – 13
1204.1.1

Proponent: Carl Baldassarra, P.E., Chair, ICC Code Technology Committee

Revise as follows:

1204.1.1 Site arrival points. At least one ~~main entrance shall be~~ accessible route from a site arrival point to an *accessible* entrance shall be provided.

Reason: For historical buildings, the requirement for the accessible routes from the site arrival point to the accessible entrance should read the same in IBC and IEBC. The current text in IEBC 1204.1.1does not address where the route should be provided. The IBC text is as follows:

> **IBC 3411.9.1 (IEBC [B] 410.9.1) Site arrival points.** At least one *accessible* route from a site arrival point to an *accessible* entrance shall be provided.

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

EB60-13

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

1204.1.1-EB-BALDASSARRA-CTC.doc

EB61 – 13
1205.5, 1205.9, Chapter 16

Proponent: Marcelo M. Hirschler, GBH International (gbhint@aol.com)

Revise as follows:

1205.5 Roof covering. Regardless of occupancy or use group, roof-covering materials not less than Class C, when tested in accordance with ASTM E 108 or UL 790, shall be permitted where a fire-retardant roof covering is required.

1205.9 Finishes. Where interior finish materials are required to have a flame spread index of Class C or better, when tested in accordance with ASTM E84 or UL 723, existing nonconforming materials shall be surfaced with approved fire-retardant paint or finish.

Add new standards to Chapter 16 as follows:

ASTM

E84-12c Standard Test Method for Surface Burning Characteristics of Building Materials
E108-11 Standard Test Methods for Fire Tests of Roof Coverings

UL Underwriters Laboratories, Inc.
333 Pfingsten Road
Northbrook, IL 60062-2096

UL 723-2008 Standard for Test for Surface Burning Characteristics of Building Materials
UL 790-2004 Standard Test Methods for Fire Tests of Roof Coverings with revisions through October 2008

Reason: This is basically simple clarification, to avoid confusion between Class C for roof coverings (Section 1205.5) and Class C for flame spread index (Section 1205.9). It adds the same ASTM and UL standards contained in the IBC for the applications.

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

Analysis: All of the proposed referenced standards are already referenced in the *International Building Code*.

EB61-13

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

1205.5-EB-HIRSCHLER.doc

EB62 – 13
202 (NEW), 1301.1

Proponent: Carl Baldassarra, P.E., Chair, ICC Code Technology Committee

Add new definition as follows:

SECTION 202
GENERAL DEFINITIONS

RELOCATABLE BUILDING. A partially or completely assembled building constructed and designed to be reused multiple times and transported to different building sites.

Revise as follows:

1301.1 Scope. This chapter provides requirements for relocated or moved structures, including relocatable buildings as defined in Chapter 2.

Reason: This proposed change is a result of the CTC's investigation of the area of study entitled "Relocatable Modular Buildings". The scope of the activity is noted as:

> Identify issues related to the administration, installation and relocation of relocatable modular buildings. Relocatable modular buildings present challenges to code enforcement due to the units be originally built to a specified code and then relocated to a new site which dictates that compliance for the new site be evaluated.

The IEBC includes 3 compliance methods for existing buildings:

- Prescriptive compliance per Chapter 4.
- Work area compliance per Chapters 5 – 13
- Performance compliance per Chapter 14

Code change G201-12 last cycle removed the existing building provisions from Chapter 34 of the IBC in favor of a reference to the IEBC. This action was subsequently affirmed by the ICC Board as this was a code change related to I-Code scoping. The end result is that all existing buildings are now uniquely covered by the IEBC. Since Chapter 14 does not address moved buildings, the end result is that the IEBC allows 2 alternatives when dealing with relocated or moved buildings:

- Prescriptive compliance. Section 409 requires moved buildings to comply with new construction requirements
- Work area compliance. Chapter 13 provides the requirements by which to analyze a moved structure to ensure its safety without requiring compliance with all the requirements for new construction.

The purpose of this proposal is effectively editorial. It clarifies that relocatable buildings, as defined, fall under the provisions of Chapter 13. The definition has been distilled from industry publications and definitions found in state statutes that govern modular (industrialized) buildings. This definition was also approved in the 2012 IGCC.

Unlike site-built buildings, which are typically intended to remain on their original site for the life of the building, relocatable modular buildings are designed and intended for relocation, reuse and/or repurposing. Many states have statutes that govern the building and relocating of relocatable modular buildings. For those that do not have state mandated requirements, much confusion and inconsistency exists about the requirements for relocatable modular buildings as existing buildings.

The Modular Building Institute (MBI) (www.modular.org) estimates that there are over 600,000 code compliant relocatable buildings in use in North America today. While it is impossible to determine the exact amount owned by the public at large, MBI estimates that public school districts across North America collectively own and operate about 180,000 relocatable classrooms with the industry owning and leasing an additional 120,000. Additionally, the industry owns and leases approximately 280,000 relocatable buildings for various other business occupancies, including construction site offices and temporary sales offices.

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.

EB63-13

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

EB63 – 13
602.1.1 (New), 702.1.1 (New), 1202.2.1 (New), Chapter 16

Proponent: Rebecca Morley, National Center for Healthy Housing

Add new text as follows:

SECTION 602
BUILDING ELEMENTS AND MATERIALS

602.1 Existing building materials. Materials already in use in a building in compliance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the *code official* to render the building or structure unsafe or *dangerous* as defined in Chapter 2.

602.1.1 Disturbance of existing painted surfaces. In any Group E, I-4, R-2, R-3, R-4 occupancies completed prior to 1978, where repairs disturb painted surfaces, the work shall comply with the information distribution, certification and work practice requirements of 40 CFR 745 for renovations.

Exception: Where documentation is provided from an approved test in accordance with 40 CFR 745.82(a)(1) or (2) that proves that the disturbed paint contains lead levels below specified levels, the work is not required to comply with this section.

SECTION 702
BUILDING ELEMENTS AND MATERIALS

702.1 Interior finishes. All newly installed interior wall and ceiling finishes shall comply with Chapter 8 of the *International Building Code*.

702.1.1 Disturbance of existing painted surfaces. In any Group E, I-4, R-2, R-3, R-4 occupancies completed prior to 1978, where alterations disturb painted surfaces, the work shall comply with the information distribution, certification and work practice requirements of 40 CFR 745 for renovations.

Exception: Where documentation is provided from an approved test in accordance with 40 CFR 745.82(a)(1) or (2) that proves that the disturbed paint contains lead levels below specified levels, the work is not required to comply with this section.

SECTION 1202
REPAIRS

1202.1 General. Repairs to any portion of an *historic building* or structure shall be permitted with original or like materials and original methods of construction, subject to the provisions of this chapter. Hazardous materials, such as asbestos and lead-based paint, shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

1202.2.1 Disturbance of existing painted surfaces. In any Group E, I-4, R-2, R-3, R-4 occupancies, where repairs disturb painted surfaces, the work shall comply with the information distribution, certification and work practice requirements of 40 CFR 745 for renovations.

Exception: Where documentation is provided from an approved test in accordance with 40 CFR 745.82(a)(1) or (2) that proves that the disturbed paint contains lead levels below specified levels, the work is not required to comply with this section.

Add the following standard to Chapter 16:

EPA U.S. Environmental Protection Agency

40 CFR 745 - July 1, 2012 Lead-Based Paint Poisoning Prevention in Certain Residential Structures

Reason: The purpose of this proposed code language is to incorporate protection from lead-based paint into the Code's requirements. These requirements are already law in every state through the Environmental Protection Agency's Renovation Repair and Painting Rule, which governs work with paint that may contain lead-based paint in order to prevent childhood lead poisoning. These regulations have been in effect since April 2010, and have been adopted by 12 states.

Renovation of painted surfaces is a significant sources of lead dust that poisons children. The dangers associated with lead poisoning are well-known: serious health effects, detrimental effects on cognitive and behavioral development, with serious personal and social consequences that may persist throughout their lifetime.

Multiple studies have demonstrated that lead dust is the major source of lead poisoning for young children. There is no safe level of lead exposure for children; lead affects intelligence even at very low levels.[1,2,5,8,9] Indeed, the rate of IQ loss per 1 microgram of lead per deciliter of blood (µg/dL) is greatest at lead levels below 10 µg/dL. As a child's BLL increases from 1 to 10 µg/dL, experts estimate a child may lose anywhere from 3.9 to 7.4 IQ points, but from 10 to 30 µg/dL the decrement is 2.5 to 3.0 IQ points. Low-level chronic exposure may have an even greater effect on IQ than a single instance of very high BLL.[10]

Research indicates that a five-point negative shift in IQ at the population level would increase the number of children with an "extremely low" IQ by 57%, substantially increasing the cost of special education programs.[3] Considering the costs to the special education system alone, one study conservatively estimated that it costs $38,000 over three years to educate a child with lead poisoning.[11] Low-level exposure to lead has also been linked to factors other than IQ that can further impact educational outcomes. EBLLs are associated with Attention Deficit Hyperactivity Disorder (ADHD) and antisocial behavior, which in turn increase the likelihood of conduct disorder, criminal activity, and drug abuse.[1,4] Each 1 µg/dL reduction in the average preschool blood lead level saves $13.4 billion from the direct and indirect costs of crime.[1]

Several recent studies have explored the specific effects of lead on educational outcomes. These studies show a strong relationship between slightly elevated blood lead levels in young children and decreased scores on end-of-grade tests in elementary school. While similar educational effects were documented for higher blood levels decades ago,[12] the recent studies confirm that the connection between blood lead and poor educational outcomes remains true for blood levels as low as 3-4 µg/dL. A more recent study of 57,000 North Carolina children found that children with a BLL as low as 4 µg/dL at three years of age were significantly more likely to be classified as learning-disabled than children with a BLL of 1 µg/dL.[6]

The consequences of lead exposure are clear. This code change proposal seeks to reduce the risk.

The additions to Sections 602, 702, and 1202 add health-protective requirements to protect children from lead poisoning by preventing the dispersal of lead before, during, and after work performed on a pre-1978 home. The information distribution, certification, and lead safe practices requirements are already in effect in federal and state regulation.

This change would only affect structures likely to contain lead-based paint: pre-1978 homes. As noted under the exception, the requirement is waived if paint testing proves that the paint is not lead-based paint. A rebuttable presumption of lead's presence allows the builder to demonstrate that lead is not present and obtain exemption from the requirements. EPA-approved tests include lead-based paint inspection or risk assessment, test kit used by a certified renovator, and collection of a lead-based paint chips for laboratory analysis.

The EPA 40 CFR 745 standard is available at http://www.gpo.gov/fdsys/pkg/CFR-2012-title40-vol32/xml/CFR-2012-title40-vol32-part745.xml.

References

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2. Jusko TA, Henderson CR, Lanphear BP, Cory-Slechta DA, Parsons PJ, Canfield RL. Blood lead concentrations. Environ. Health Perspect. 2008;116(2):243–248.
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4. Chandramouli K, Steer CD, Ellis M, Emond AM. Effects of early childhood lead exposure on academic performance and behaviour of school age children. Arch. Dis. Child. 2009;94(11):844–848.
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6. Miranda ML, Maxson P, Kim D. Early childhood lead exposure and exceptionality designations for students. Int J Child Health Hum Dev. 2010;3(1):77–84.
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8. Lanphear BP, Hornung R, Khoury J, et al. Low-level environmental lead exposure and children's intellectual function: an international pooled analysis. Environ. Health Perspect. 2005;113(7):894–899.
9. Canfield RL, Henderson CRJ, Cory-Slechta DA, Cox C, Jusko TA, Lanphear BP. Intellectual impairment in children with blood lead concentrations below 10 microg per deciliter. N. Engl. J. Med. 2003;348(16):1517–1526.16.
10. Lanphear BP, Dietrich K, Auinger P, Cox C. Cognitive deficits associated with blood lead concentrations. Public Health Rep. 2000;115(6):521–529.17.
11. Korfmacher KS. Long-term costs of lead poisoning: How much can New York save by stopping lead? Rochester, NY: University of Rochester; 2003.
12. Needleman HL, Leviton A, Bellinger D. Lead-associated intellectual deficit. N Engl J Med. 1982; 306(6):367.

Cost Impact: This code change proposal will not increase the cost of additions, alterations or repairs since these federal/state requirements are already in effect.

Staff analysis: A review of the standard proposed for inclusion in the code, 40 CFR 745 -July 1, 2012 with regard to the ICC criteria for referenced standards (Section 3.6 of CP#28) will be posted on the ICC website on or before April 1, 2013.

EB63-13

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

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