



**2009-2010 ICC CODE DEVELOPMENT CYCLE
ERRATA TO THE 2009/2010 PROPOSED CHANGES
TO THE INTERNATIONAL CODES**

INCLUDES ERRATA TO:

**ICC- Administrative
IBC-Means of Egress
IBC-General
IBC-Structural
IECC
IEBC
IWUIC/IFC
IMC
IPC
IPMC/IZC
IRC-B/E
IRC-P/M**

9/2/2009

Updated 9/24/2009

The following is a compilation of errata discovered to the Code Change Monograph after the posting of Monograph on August 26, 2009.

The first errata was posted on 9/3/2009 and updated on 9/24/2009. All errata added since 9/3/2009 are indicated with "Added 9/24/2009"

Updated 10/6/2009 and 10/19/2009

Errata was added on 10/6/2009 and 10/19/2009. See Errata Update " Added 10/6/2009" and "Added 10/19/2009" at the end of this document.

TABLE OF CONTENTS

2009/2010 Proposed Changes

ADM- Administrative Errata	1
IBC – Means of Egress Hearing Order and Errata.....	2
IBC – Fire Safety Revised Hearing Order and Errata	9
IBC – General Revised Hearing Order and Errata.....	19
IBC – Structural Revised Hearing Order and Errata	24
IECC Revised Hearing Order.....	35
IEBC Revised Hearing Order and Errata	37
IWUIC/IFC Revised Hearing Order and Errata	39
IMC Revised Hearing Order and Errata.....	48
IPC Revised Hearing Order and Errata.....	52
IPMC Revised Hearing Order and Errata.....	56
IRC – B/E Revised Hearing Order and Errata.....	65
IRC – P/M Revised Hearing Order.....	72
Errata Updates.....	74
IECC Added Errata	74
IBC – Fire Safety Added Errata.....	78
IRC – P/M Added Errata	79
IWUIC – Added Errata	80

ICC- ADMINISTRATIVE

Added 9/24/2009

ADM5-09/10: Change to the Proponent line:

ADM5-09/10

IBC 104.10.1 (New), 113.2.1 (New)

Proponent: Rebecca C. Quinn, RCQuinn Consulting, Inc, representing Department of Homeland Security, Federal Emergency Management Agency

(Remainder of proposal, unchanged)

ICCFILENAME: QUINN-ADM1-104.10.1 COMPLETE.DOC

Added 9/24/2009

ADM14-09/10: Change to the Proponent line:

ADM14-09/10

IBC 109.3.10.1 (New); IRC 109.1.6.1 (New)

Proponent: Rebecca C. Quinn, RCQuinn Consulting, Inc, representing Department of Homeland Security, Federal Emergency Management Agency

(Remainder of proposal, unchanged)

ICCFILENAME: QUINN-ADM2-109.3.10.DOC

IBC –MEANS OF EGRESS

REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Revised 9/03:

Add E195-09/10 to IBC Means of Egress Hearing Order following E66-09/10
Add E196-09/10 to IBC Means of Egress Hearing Order following E195-09/10
Add E197-09/10 to IBC Means of Egress Hearing Order following E196-09/10
Add E198-09/10 to IBC Means of Egress Hearing Order following E106-09/10
Add E199-09/10 to IBC Means of Egress Hearing Order following E114-09/10
Add E200-09/10 to IBC Means of Egress Hearing Order following E199-09/10

Revised 9/24:

Add E177-09/10 to IBC Means of Egress Hearing Order following E176-09/10

TENTATIVE ORDER OF DISCUSSION

Revised 9/24/09

2009/2010 PROPOSED CHANGES TO THE INTERNATIONAL BUILDING CODE

MEANS OF EGRESS

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation **does not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair. Note that some AIBC-E® code change proposals are not included on this list, as they are being heard by other committees. Please consult the Cross Index of Proposed Changes.

E1-09/10	E26-09/10	E54-09/10	E75-09/10 Part I
E2-09/10	E27-09/10	E55-09/10	E76-09/10
E3-09/10	E28-09/10	E56-09/10	E77-09/10
E4-09/10	E29-09/10	E57-09/10	E78-09/10
E194-09/10 Part I	E30-09/10	E58-09/10 Part I	E79-09/10
E7-09/10	E31-09/10	E59-09/10	E80-09/10
E8-09/10 Part I	E32-09/10	E60-09/10 Part I	E81-09/10
G79-09/10	E33-09/10	E60-09/10 Part II	E82-09/10
G95-09/10	E34-09/10	E61-09/10	E83-09/10
E9-09/10	E35-09/10	E62-09/10	E84-09/10
E10-09/10	E36-09/10	E63-09/10	E85-09/10
E11-09/10	E37-09/10	E64-09/10	E86-09/10
E12-09/10	E38-09/10	E65-09/10	E87-09/10
E13-09/10	E39-09/10	E66-09/10	E88-09/10
E14-09/10	E40-09/10	E195-09/10	E89-09/10
E15-09/10	E41-09/10	E196-09/10	E90-09/10
E16-09/10	E42-09/10	E197-09/10	E91-09/10
E17-09/10	E43-09/10	E5-09/10 Part I	E92-09/10
E18-09/10	E44-09/10	E5-09/10 Part II	E93-09/10 Part I
E19-09/10	E45-09/10	E67-09/10	E93-09/10 Part II
E20-09/10 Part I	E46-09/10	E68-09/10	E94-09/10
E20-09/10 Part II	E47-09/10	E69-09/10	E95-09/10
E21-09/10 Part I	E48-09/10	E70-09/10 Part I	E96-09/10
E21-09/10 Part II	E49-09/10	E71-09/10 Part I	E97-09/10 Part I
E22-09/10	E50-09/10	E72-09/10 Part I	E98-09/10
E23-09/10	E51-09/10	E73-09/10	E99-09/10
E24-09/10	E52-09/10	E74-09/10 Part I	E100-09/10 Part I
E25-09/10	E53-09/10		E101-09/10

E102-09/10	G164-09/10	E137-09/10	E165-09/10
E103-09/10	G165-09/10	E138-09/10	E166-09/10
E104-09/10	G166-09/10	E139-09/10	E167-09/10
E105-09/10	G167-09/10	E140-09/10	E168-09/10
E106-09/10	G168-09/10	E141-09/10	E169-09/10
<u>E198-09/10</u>	G169-09/10	E142-09/10	E170-09/10
<u>E6-09/10</u>	G170-09/10	E143-09/10	G200-09/10
E107-09/10	G171-09/10	E144-09/10	E171-09/10
G67-09/10	G172-09/10	E145-09/10	E172-09/10
E108-09/10	G173-09/10	E146-09/10	E173-09/10
E109-09/10	G174-09/10	E147-09/10	E174-09/10
E110-09/10	G175-09/10	E148-09/10	E175-09/10
E111-09/10	G176-09/10	E149-09/10	E176-09/10
E112-09/10	G177-09/10	E150-09/10 Part I	E177-09/10
E113-09/10	E119-09/10	E151-09/10 Part I	E178-09/10
E114-09/10	E120-09/10	E151-09/10 Part II	E179-09/10
<u>E199-09/10</u>	E121-09/10	E151-09/10 Part III	E180-09/10
<u>E200-09/10</u>	E122-09/10 Part I	E151-09/10 Part IV	E181-09/10
E115-09/10	E123-09/10	E152-09/10 Part I	E182-09/10
E116-09/10	G52-09/10	E152-09/10 Part II	E183-09/10
E117-09/10	E124-09/10	E153-09/10	E184-09/10
E118-09/10	E125-09/10	E154-09/10	E185-09/10
G46-09/10	E126-09/10	E155-09/10	E186-09/10
G47-09/10	E127-09/10	E156-09/10 Part I	E187-09/10
G48-09/10	E128-09/10	E156-09/10 Part II	E188-09/10
G49-09/10	E129-09/10	E157-09/10	E189-09/10
G157-09/10	E130-09/10	E158-09/10	E190-09/10
G158-09/10	E131-09/10	E159-09/10	E191-09/10
G159-09/10	E132-09/10	E160-09/10	E192-09/10
G160-09/10	E133-09/10	E161-09/10	E193-09/10
G161-09/10	E134-09/10	E162-09/10	
G162-09/10	E135-09/10	E163-09/10	
G163-09/10	E136-09/10	E164-09/10	

E195-09/10 Add proposal as follows:

E195-09/10

1008.1.9.10 (IFC [B] 1008.1.9.10)

Proponent: John Berry, AIA – CR architecture + design (formerly Cole & Russell Architects) - representing self

Revise as follows:

1008.1.9.10 (IFC [B] 1008.1.9.10) Stairway doors. Interior stairway means of egress doors shall be openable from both sides without the use of a key or special knowledge or effort.

Exceptions:

1. Stairway discharge doors shall be openable from the egress side and shall only be locked from the opposite side.
2. This section shall not apply to doors arranged in accordance with Section 403.5.1.
3. In stairways ~~servicing~~ extending through not more than four stories, doors are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon a signal from the fire command center, if present, or a signal by emergency personnel from a single location inside the main entrance to the building.

Reason: This proposal clarifies that the intent of this exception is to address a stairway that extends through not more than four stories. A stairway that may serve stories above can extend through a story below but yet not be required to serve that story if other code compliant exit stairs are provided to serve that story. This has been a point of discussion on a (5) story project, with an exit stair that extended through all five stories, but was not connected to, and did not serve, the second story, thereby only “servicing” four stories. This issue was finally decided via an opinion from ICC Staff, providing the clarification upon which this proposal is based.

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

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

ICCFILENAME:Berry-E2-1008.1.9.10

E196-09/10: Add proposal as follows:

E196-09/10

1008.1.9.10 (IFC [B] 1008.1.9.10)

Proponent: John Berry, AIA – CR architecture + design (formerly Cole & Russell Architects), representing self

Revise as follows:

1008.1.9.10 (IFC [B] 1008.1.9.10) Stairway doors. Interior stairway means of egress doors shall be openable from both sides without the use of a key or special knowledge or effort.

Exceptions:

1. Stairway discharge doors shall be openable from the egress side and shall only be locked from the opposite side.
2. This section shall not apply to doors arranged in accordance with Section 403.5.1.
3. In stairways serving not more than four stories, doors are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon a signal from the fire command center, if present, or a signal by emergency personnel from a single location inside the main entrance to the building.
4. Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side in Group B, F,M and S occupancies where the only interior access to the tenant space is from a single exit stair where permitted in Table 1021.2.

Reason: Section 1021.2 allows B, F, M & S uses to have a single exit stair in two story buildings when the total occupant load per floor does not exceed 29 and the travel distance within the space does not exceed 75 feet. This does not prohibit the second floor from having multiple tenant

spaces. If these spaces are separate tenant spaces under separate ownership, they would expect to have security from the each other and from the exit stair. It is not the intent of the code to allow unsecured access into another tenant space by outside intruders.

The intent of allowing access into the building from the exit stair is to provide an alternate means of egress from the stair other than the exit discharge. When the code only requires one exit from a story per 1021.2 there is no need for an additional exit and therefore there is no purpose to be able to leave the exit enclosure and enter a different tenant space.

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

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

ICCFILENAME:Berry-E3-1008.1.9.10

E197-09/10: Add proposal as follows:

E197-09/10

1008.1.9.10 (IFC [B] 1008.1.9.10)

Proponent: John Berry, AIA – CR architecture + design (formerly Cole & Russell Architects) - representing self

Revise as follows:

1008.1.9.10 (IFC [B] 1008.1.9.10) Stairway doors. Interior stairway means of egress doors shall be openable from both sides without the use of a key or special knowledge or effort.

Exceptions:

1. Stairway discharge doors shall be openable from the egress side and shall only be locked from the opposite side.
2. This section shall not apply to doors arranged in accordance with Section 403.5.1.
3. In stairways serving not more than four stories, doors are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon a signal from the fire command center, if present, or a signal by emergency personnel from a single location inside the main entrance to the building.
4. Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side in Group R-2 occupancies where the only interior access to the dwelling unit is from a single exit stair where permitted in Table 1021.2.

Reason: Section 1021.2 allows up to a three story building of R-2 use to have a single exit. It is typical, and allowed by code, for the dwelling units to open directly into the exit stairway. Dwelling units must have security and therefore must have lockable entry doors separating it from the stairway, as recognized by Section 1008.1.9.3. It is not the intent of the code to allow unsecured access into a families dwelling unit by outside intruders. Furthermore Section 1008.1.9.3 allows the installation of night latches, deadbolts and security chains to be provided on a dwelling unit entry door. The requirements of Section 1008.1.9.10, exception #3 is negated by Section 1008.1.9.3, item #4. This section would further negate the requirement of 1008.1.9.10 to be “openable without the use of a key or special knowledge or effort” from the stairway side.

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

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

ICCFILENAME:Berry-E5-1008.1.9.10

E198-09/10: Add proposal as follows:

E198-09/10

1014.3 (IFC [B] 1014.3)

Proponent: John Berry, AIA – CR architecture + design (formerly Cole & Russell Architects) - representing self

Revise as follows:

1014.3 (IFC [B] 1014.3) Common path of egress travel. In occupancies other than Groups H-1, H-2 and H-3, the common path of egress travel shall not exceed 75 feet (22 860 mm). In Group H-1, H-2 and H-3 occupancies, the common path of egress travel shall not exceed 25 feet (7620 mm). For common path of egress travel in Group A occupancies and assembly occupancies accessory to Group E occupancies having fixed seating, see Section 1028.8.

Exceptions:

1. The length of a common path of egress travel in Group B, F and S occupancies shall not be more than 100 feet (30 480 mm), provided that the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.
2. Where a tenant space in Group B, S and U occupancies has an occupant load of not more than 30, the length of a common path of egress travel shall not be more than 100 feet (30 480 mm).
3. The length of a common path of egress travel in a Group I-3 occupancy shall not be more than 100 feet (30 480 mm).
4. The length of a common path of egress travel in a Group R-2 occupancy shall not be more than 125 feet (38 100 mm), provided that the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
5. The length of a common path of egress travel in a Group S-2 open parking garage shall not be more than 100 feet (30 480 mm).

Reason: Exception #1 allows an enclosed parking garage to have a 100 foot common path of travel . (Section 903.2.10 establishes the threshold criteria for sprinklers to be provided in an enclosed parking garage) However, since an open parking garage is not required to be suppressed, except as allowed in Section 1014.3, ex. #2, currently the maximum common path of travel allowed in an open parking garage is 75 feet. (Section 1014.3, ex. #2 allows an open parking garage with an occupant load of less than or equal to 30 to have a common path of travel of 100 feet.) It appears that the code considers the risk level of an enclosed garage with suppression to be equivalent to an open garage with no suppression. Based upon this analysis, it seems appropriate to allow the common path of travel in an open parking garage to be the same as that allowed in an enclosed parking garage.

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

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

ICCFILENAME:Berry-E4-1014.3

E199-09/10: Add proposal as follows:

E199-09/10

Table 1018.1 (IFC [B] Table 1018.1)

Proponent: Mike Ashley, CBO, representing Alliance for Fire & Smoke Containment & Control (AFSCC)

Revise as follows:

**TABLE 1018.1 (IFC [B] TABLE 1018.1)
 CORRIDOR FIRE-RESISTANCE RATING**

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system ^c
H-1, H-2, H-3	All	Not Permitted	1
H-4, H-5	Greater than 30	Not Permitted	1
A, B, E, F, M, S, U	Greater than 30	1	0
R	Greater than 10	Not Permitted	0.5
I-2 ^a , I-4	All	Not Permitted	0
I-1, I-3, I-4	All	Not Permitted	1 ^b

- a. For requirements for occupancies in Group I-2, see Sections 407.2 and 407.3.
- b. For a reduction in the fire-resistance rating for occupancies in Group I-3, see Section 408.8.
- c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.

Reason: This proposed code change is a follow up to Code Change E119-07/08 which Cal Chiefs submitted during the last code cycle along with a Public Comment requesting approval that was discussed during the ICC Final Action Hearings in Minneapolis. Code Change E119-07/08 was broader in scope than this proposed code change since it addressed the Group I-2 occupancy as well as the Group I-4 occupancy.

Unfortunately, because of strong opposition from the hospital and nursing home industries, the ICC Class A voting members did not support Code Change E119-07/08 for approval. It should be noted that Code Change E119-07/08 was a follow up to the Cal Chiefs Code Change E127-06/07 from the previous code cycle for which they submitted Public Comment #3 for approval. The Class A voting members at the ICC Final Action Hearings in Rochester, NY voted to support their Public Comment by a strong majority to overturn the Committee's recommendation for disapproval but could not achieve the necessary two-thirds majority vote for approval. So there appears to be support for this code change if it can be focused to eliminate the Group I-2 nursing home and hospital occupancies.

This has been accomplished with this proposed code change by limiting it to Group I-4 day care facilities which include both adult care facilities and child care facilities. These facilities are used for more than five occupants where custodial care is provided. They also include supervision and

personal care for adults and for children not more than 2 ½ years old. It should be noted that child care for children greater than 2 ½ years old is classified as a Group E occupancy, as is a child day care facility for children not greater than 2 ½ years old where the occupant load is less than 100 and the facility is located at grade level.

We have submitted this code change proposal to focus on the Group I-4 occupancies to require all corridors to have a minimum fire-resistance rating of 1-hour, even where the building is sprinklered. We believe that the 1-hour fire-resistance rating required for a corridor in Group I-4 occupancies is appropriate due to the users of these types of facilities often being of limited mobility or having to rely on staff to exit. This type of exiting requires more time than normal given their circumstances and their physical and mental condition and a 1-hour rated corridor with opening protection will provide that additional time.

We do not believe that such a sprinkler trade-off is appropriate where life safety is concerned. In such cases, not only is it advantageous and desirable to maintain the built-in passive fire resistive protection, as well as to provide the active automatic sprinkler system protection, where life safety is involved, it is essential. We believe that a balanced fire protection approach should be used to assure that the appropriate level of life safety will be provided to the very old and/or very young occupants who must rely upon the corridors to exit the building. These occupants need to have the additional assurance that they can be safely evacuated which a 1-hour fire-resistance rated corridor in conjunction with an automatic sprinkler system can provide.

A secondary benefit of 1-hour fire-resistance-rated corridors is that they also assist fire fighters in doing their job by providing a protected means of access to the interior of the building where they can perform their search and rescue missions, as well as fire fighting operations, in relative safety. Fire-resistance-rated corridors can provide fire fighters with additional time to perform their tasks more effectively and safely.

We strongly believe that sprinkler trade-offs should not be allowed for means of egress components. At present, the IBC does not allow sprinkler trade-offs for the fire-resistance ratings required for exit stair enclosures, horizontal exits, and exit passageways. So why should sprinkler trade-offs be allowed for the 1-hour fire-resistance rating of corridors which provide a protected egress path giving access to these exit elements?

Furthermore, other sprinkler trade-offs related to the means of egress in buildings have already been provided for in the IBC. For example, travel distance has been increased from 150 feet to 200 feet where automatic sprinkler systems are provided in Group I-4 occupancies. The separation of exits (remoteness) is also allowed to be reduced where automatic sprinkler systems are installed. Interior finish requirements are relaxed within corridors and exit enclosures so that Class B interior finish can be used where Class A interior finish would otherwise be required if not for the installation of automatic sprinklers. We are very concerned that the compounding effect of sprinkler trade-offs could lead to greater risk to the life safety of the building occupants, especially if combined with the elimination of the 1-hour fire-resistance rating for corridors providing access to the exits. Too much reliance on automatic sprinkler systems may not be wise where life safety is a key consideration. We strongly believe that a balanced approach to fire and life safety in buildings should be provided to greatly enhance the probability that the intended level of fire and life safety prescribed by the building code will be provided when a fire occurs, even if something should go wrong.

We acknowledge that automatic sprinkler systems are an important fire protection tool, but they are not infallible. Like any mechanical system, they are subject to failure. In fact, a recent statistical analysis of automatic sprinkler system performance conducted by the NFPA has concluded that automatic sprinkler systems fail to activate in at least 1 out of every 11 fires that occur in sprinklered buildings. In our opinion, such a level of performance does not justify trading-off built-in fire-resistive protection for the means of egress in buildings where the very old and very young occupants' lives are at risk in a fire emergency. A balanced design approach of providing built-in fire resistive protection in conjunction with automatic sprinkler protection, in our opinion, will go a long way toward assuring that the level of fire and life safety intended by the building code will be delivered during a fire emergency.

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

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

ICCFILENAME:Ashley-E1-Table 1018.1-1

E200-09/10: Add proposal as follows:

**E200-09/10
 Table 1018.1 (IFC [B] Table 1018.1)**

Proponent: Mike Ashley, CBO, representing Alliance for Fire & Smoke Containment & Control (AFSCC)

Revise as follows:

**TABLE 1018.1 (IFC [B] TABLE 1018.1)
 CORRIDOR FIRE-RESISTANCE RATING**

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system ^c
H-1, H-2, H-3	All	Not Permitted	1
H-4, H-5	Greater than 30	Not Permitted	1
A, B, E, F, M, S, U	Greater than 30	1	0
R	Greater than 10	Not Permitted	0.5 1 ^d
I-2 ^a , I-4	All	Not Permitted	0
I-1, I-3	All	Not Permitted	1 ^b

- a. For requirements for occupancies in Group I-2, see Sections 407.2 and 407.3.
- b. For a reduction in the fire-resistance rating for occupancies in Group I-3, see Section 408.8.
- c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.

d. The required fire-resistance rating shall be permitted to be 0.5 hour in buildings of Type IIB, IIIB, or VB construction equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

Reason: This code change proposal is a follow up to Code Change E118-07/08 which Cal Chiefs submitted during the last code cycle. Although the Committee recommended disapproval, Cal Chiefs submitted a Public Comment requesting approval as modified. At the ICC Final Action Hearings in Minneapolis, MN, the Class A voting members were successful in overturning the Committee recommendation for disapproval. However, the required two-thirds majority vote to obtain approval as modified of the code change was not successful. The vote was 90 to 68 in favor of approval as modified. This was a 57% approval vote but a 67% percent approval vote was required. Therefore, the code change remained disapproved. So we have decided to resubmit the code change proposal based on the Cal Chiefs Public Comment to incorporate the modifications proposed which the Class A voting members clearly supported. We feel the Committee should reconsider their previous recommendation and approve this code change in order to support the strong majority vote of the Class A voting members.

Currently the code requires that the separation between sleeping units and dwelling units in Group R occupancies have a minimum 1 hour fire-resistance rating which can only be reduced to ½ hour in buildings of Type IIB, IIIB, or VB construction based on the installation of a complete NFPA 13 sprinkler system. However, Table 1018.1 allows for a reduction of ½ hour regardless of the type of construction based on the installation of either a NFPA 13 or 13R sprinkler system. Therefore, we have revised this proposal by adding a new Footnote d which allows the proposed 1-hour corridor rating to be reduced to ½ hour in buildings of Types IIB, IIIB, and VB construction, but only when an NFPA 13 sprinkler system is installed. This is consistent with Section 709.3 Exception 2 and the Section 712.3 Exception for dwelling unit and sleeping unit separations and should satisfy the Committee's concern about this issue. We believe that the corridors in Group R occupancies should have at least the same fire-resistance rating as required for the separation between dwelling and sleeping units. In residential occupancies the evacuation time is longer than other occupancies when the fire occurs at night since the residents must be awakened before they evacuate. The one-hour corridor would provide more protection and time for the residents to evacuate. When there is a fire in a residential type of occupancy, typically many people are displaced. With the higher level of protection we are proposing there is a greater likelihood that people would be able to return to their residences much quicker.

Furthermore, it becomes difficult to enforce code requirements for ½ hour fire-resistance rated fire partitions since there are no penetration or joint protection systems listed for ½ hour wall assemblies nor are there any fire dampers listed for such wall assemblies. On top of that the ASTM E119 fire-resistance test for walls does not require the hose stream test for any wall that has a fire-resistance rating of less than 1 hour. So the corridor walls can be of very flimsy construction which could not even hold up to a hose stream test conducted after the wall would have been burned for ½ hour to satisfy the requirements in ASTM E119 for a 1-hour wall.

There are very few wall assemblies that have been listed for ½ hour. One of those is UL U319 which only requires one layer of 3/8 inch thick Type X gypsum wallboard on each side of studs. Otherwise, a calculated fire-resistance design could be used in accordance with Section 721.6. Such ½ hour (30 minute) partitions could be constructed of 3/8 inch regular gypsum wallboard installed on both sides of wood studs at 16 inches on center or 15/32 inch plywood or 3/8 inch thick plywood with glass fiber insulation in the stud space (which would actually achieve a 40 minute fire-resistance rating). We don't believe that these types of wall constructions provide adequate fire and smoke protection and structural integrity during a fire exposure condition, especially in the case where the automatic sprinkler system may fail to perform satisfactorily.

We are not aware of many projects where the corridor walls are actually constructed to meet the minimum ½ hour fire-resistance rating. It is just not practical since most projects only use one type of gypsum wallboard to stock the job in order to minimize confusion and improper installation using the wrong type or thickness. So for commercial jobs 5/8 inch Type X gypsum wallboard is generally used throughout the project. When a single layer of 5/8 inch Type X gypsum wallboard is installed on both sides of studs, it achieves a 1 hour fire-resistance rating. So it seems somewhat meaningless and not very cost effective to continue to allow the ½ hour trade-off for an NFPA 13R automatic sprinkler system in Group R occupancies.

We do not believe that the ½-hour sprinkler trade-off is appropriate where life safety is concerned. In such cases, not only is it advantageous and desirable to maintain the full 1-hour built-in passive fire-resistive protection, as well as to provide the active automatic sprinkler system protection, where life safety is involved, it is essential. We believe that a balanced fire protection approach should be used to assure that the appropriate level of life safety will be provided to the occupants of the building who may be asleep at night when the fire occurs and must rely upon the corridors to exit the building. These occupants need to have the additional assurance that they can be safely evacuated which a 1-hour fire-resistance-rated corridor in conjunction with an automatic sprinkler system provides.

A secondary benefit of 1-hour fire resistance rated corridors is that they also assist fire fighters in doing their job by providing a protected means of access to the interior of the building where they can perform their search and rescue missions, as well as fire fighting operations, in relative safety. Fire resistance rated corridors can provide fire fighters with additional time to do their jobs more effectively and safely.

We strongly believe that sprinkler trade-offs should not be allowed for means of egress components. At present, the IBC does not allow sprinkler trade-offs for the fire-resistance ratings required for exit stair enclosures, horizontal exits, and exit passageways. So why should sprinkler trade-offs be allowed for the 1-hour fire resistance rating of corridors which provide a protected egress path giving access to these exit elements?

Furthermore, other sprinkler trade-offs related to the means of egress in buildings have already been provided for in the IBC. For example, travel distance is allowed to be increased from 200 feet to 250 feet where automatic sprinkler systems are provided. The separation of exits (remoteness) is also allowed to be reduced where automatic sprinkler systems are installed. Interior finish requirements are relaxed within corridors where Class C interior finish can be used in lieu of Class B interior finish which would otherwise be required if not for the installation of automatic sprinklers. And in Group R-2 occupancies the common path of travel is allowed to be increased in length by 67% from 75 feet to 125 feet where automatic sprinkler systems are provided. We are concerned that the compounding effect of sprinkler trade-offs could lead to greater risk to the life safety of the building occupants, especially if combined with a reduction in or the elimination of the 1-hour fire resistance rating for corridors providing access to the exits or the exit stairs. Too much reliance on automatic sprinkler systems may not be wise where life safety is a key consideration. We strongly believe that a balanced approach to fire and life safety in buildings should be provided to greatly enhance the probability that the intended level of fire and life safety prescribed by the building code will be provided when a fire occurs, even if something should go wrong.

We acknowledge that automatic sprinkler systems are an important fire protection tool, but they are not infallible. Like any mechanical system, they are subject to failure. In fact, a recent statistical analysis of automatic sprinkler system performance conducted by the NFPA has concluded that automatic sprinkler systems fail to activate in at least 1 out of every 11 fires that occur in sprinklered buildings. In our opinion, such a level of performance does not justify trading-off built-in fire resistant protection for the means of egress in buildings where the occupant's lives are at risk in a fire emergency. A balanced design approach of providing built-in fire resistive protection in conjunction with automatic sprinkler protection, in our opinion, will go a long way toward assuring that the level of fire and life safety intended by the building code will be delivered during a fire emergency.

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

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

IBC – FIRE SAFETY

REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Revised 9/03:

Add FS191-09/10 to IBC Fire Safety Hearing Order following FS37-09/10
Add FS192-09/10 to IBC Fire Safety Hearing Order following FS57-09/10
Add FS193-09/10 to IBC Fire Safety Hearing Order following FS63-09/10
Add FS194-09/10 to IBC Fire Safety Hearing Order following FS110-09/10
Add S226-09/10 Part I to IBC Fire Safety Hearing Order following S11-09/10
ADM23-09/10 to show Part I and Part II on the IBC Fire Safety Hearing Order

Revised 9/24:

Add FS195-09/10 to IBC Fire Safety Hearing Order following FS66-09/10
Add FS196-09/10 to IBC Fire Safety Hearing Order following FS54-09/10
Add FS197-09/10 to IBC Fire Safety Hearing Order following FS5-09/10

TENTATIVE ORDER OF DISCUSSION

Revised 9/24/09

2009/2010 PROPOSED CHANGES TO THE INTERNATIONAL BUILDING CODE

FIRE SAFETY

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation does **not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair.

FS1-09/10	FS23-09/10	FS46-09/10	FS67-09/10
FS2-09/10	FS24-09/10	FS47-09/10	FS68-09/10
FS3-09/10	FS25-09/10	FS48-09/10	FS69-09/10
FS4-09/10	FS26-09/10	FS49-09/10	FS70-09/10
FS5-09/10	FS27-09/10	FS50-09/10	FS71-09/10
FS197-09/10	FS28-09/10	FS51-09/10	FS72-09/10
FS6-09/10	FS29-09/10, Part I	FS52-09/10	FS73-09/10
FS7-09/10	FS29-09/10, Part II	FS53-09/10	FS74-09/10
FS8-09/10	FS30-09/10	FS54-09/10	FS75-09/10
FS9-09/10	FS31-09/10	FS196-09/10	FS76-09/10
FS10-09/10	FS32-09/10	FS55-09/10	FS77-09/10
G42-09/10	FS33-09/10	FS56-09/10	FS78-09/10
G41-09/10	FS34-09/10	FS57-09/10	FS79-09/10
FS11-09/10	FS35-09/10	FS192-09/10	FS80-09/10
FS12-09/10	FS36-09/10	FS58-09/10	FS81-09/10
FS13-09/10	FS37-09/10	FS59-09/10	FS82-09/10
FS14-09/10	FS191-09/10	FS60-09/10	FS83-09/10
FS15-09/10	FS38-09/10	FS61-09/10	FS84-09/10
FS16-09/10	FS39-09/10	FS62-09/10	FS85-09/10
FS17-09/10	FS40-09/10	FS63-09/10	FS86-09/10
FS18-09/10	FS41-09/10	FS193-09/10	FS87-09/10
FS19-09/10	FS42-09/10	FS64-09/10	FS88-09/10
FS20-09/10	FS43-09/10	FS65-09/10	FS89-09/10
FS21-09/10	FS44-09/10	FS66-09/10	FS90-09/10
FS22-09/10	FS45-09/10	FS195-09/10	FS91-09/10

FS92-09/10	FS153-09/10
FS93-09/10	FS154-09/10
FS94-09/10	RB120-09/10, Part II
FS95-09/10	RB125-09/10, Part II
FS96-09/10	FS155-09/10, Part I
FS97-09/10	FS157-09/10
FS98-09/10	FS158-09/10
FS99-09/10	FS159-09/10
FS100-09/10	FS160-09/10, Part I
FS101-09/10, Part I	FS161-09/10
FS101-09/10, Part II	FS162-09/10
FS102-09/10	FS163-09/10
FS103-09/10	FS164-09/10
FS104-09/10	S10-09/10
FS105-09/10	S11-09/10
FS106-09/10	<u>S226-09/10, Part I</u>
FS107-09/10	S12-09/10
FS108-09/10	S13-09/10
FS109-09/10	S24-09/10
FS110-09/10	S25-09/10
<u>FS194-09/10</u>	S126-09/10
FS111-09/10	<u>ADM23-09/10, Part I</u>
FS112-09/10	<u>ADM23-09/10, Part II</u>
FS113-09/10	S127-09/10
FS114-09/10	S128-09/10
FS115-09/10	FS165-09/10
FS116-09/10	FS166-09/10
FS117-09/10	FS167-09/10
FS118-09/10, Part I	FS168-09/10, Part I
FS119-09/10	FS169-09/10, Part I
FS120-09/10	FS170-09/10
FS121-09/10	FS171-09/10, Part I
FS122-09/10	FS172-09/10
FS123-09/10	FS173-09/10
FS124-09/10, Part I	FS174-09/10
FS124-09/10, Part II	FS175-09/10
FS125-09/10	FS176-09/10, Part I
FS126-09/10	FS177-09/10
FS127-09/10	FS178-09/10
FS128-09/10	FS179-09/10
FS129-09/10	FS181-09/10
FS130-09/10	FS182-09/10
FS131-09/10	FS183-09/10
FS132-09/10	FS184-09/10
FS133-09/10, Part I	FS185-09/10
FS133-09/10, Part II	FS186-09/10
FS134-09/10	FS187-09/10
FS135-09/10	FS188-09/10
FS136-09/10, Part I	FS190-09/10
FS136-09/10, Part II	
FS137-09/10	
FS138-09/10	
FS139-09/10	
FS140-09/10, Part I	
FS141-09/10	
FS142-09/10	
FS143-09/10	
FS144-09/10, Part I	
FS145-09/10	
FS146-09/10	
RB169-09/10, Part II	
FS147-09/10, Part I	
FS150-09/10, Part I	
FS151-09/10, Part I	
RB122-09/10, Part II	
FS152-09/10	
RB123-09/10, Part II	
RB126-09/10, Part II	

FS114-09/10: Changes to Exception 4 and Reason:

FS114-09/10

716.5.4 (IMC 607.5.3)

Proponent: Tom Hedges, representing the Arizona Building Officials

Revise as follows:

716.5.4 (IMC 607.5.3) Fire partitions. Ducts and air transfer openings that penetrate *fire partitions* shall be protected with *listed fire dampers* installed in accordance with their listing.

Exceptions: In occupancies other than Group H, *fire dampers* are not required where any of the following apply:

1. Corridor walls in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 and the duct is protected as a *through penetration* in accordance with Section 713.
2. Tenant partitions in *covered mall buildings* where the walls are not required by provisions elsewhere in the code to extend to the underside of the floor or roof sheathing, slab or deck above.
3. The duct system is constructed of *approved materials* in accordance with the *International Mechanical Code* and the duct penetrating the wall complies with all of the following requirements:
 - 3.1. The duct shall not exceed 100 square inches (0.06 m2).
 - 3.2. The duct shall be constructed of steel a minimum of 0.0217 inch (0.55 mm) in thickness.
 - 3.3. The duct shall not have openings that communicate the *corridor* with adjacent spaces or rooms.
 - 3.4. The duct shall be installed above a ceiling.
 - 3.5. The duct shall not terminate at a wall register in the fire-resistance-rated wall.
 - 3.6. A minimum 12-inch-long (305 mm) by 0.060-inch-thick (1.52 mm) steel sleeve shall be centered in each duct opening. The sleeve shall be secured to both sides of the wall and all four sides of the sleeve with minimum 1 1/2-inch by 1 1/2-inch by 0.060-inch (38mm by 38mm by 1.52 mm) steel retaining angles. The retaining angles shall be secured to the sleeve and the wall with No. 10 (M5) screws. The *annular space* between the steel sleeve and the wall opening shall be filled with mineral wool batting on all sides.
4. Such walls are penetrated by ducted HVAC systems, have a required fire-resistance rating of 1 hour or less, are in areas of other than Group H and are in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. For the purposes of this exception, a ducted HVAC system shall be a duct system for conveying supply, return or exhaust air as part of the structure's HVAC system. Such a duct system shall be constructed of sheet steel not less than 26 gage thickness and shall be continuous from the air-handling appliance or equipment to the air outlet and inlet terminals.

Reason: Currently the code is less restrictive for penetrations of a fire barrier than a fire partition. This proposal adds an additional exception for fire partitions. This proposal duplicates the provisions of Section 716.5.2 Exception 3 as an exception 4 for fire partitions. It is logical to allow the exception for a wall type where the code places lesser restrictions on its use. This exception does not limit the size of a duct penetration as Exception 3 does currently. If this exception is acceptable for fire barriers in fully sprinklered buildings, it should be acceptable for fire partitions in fully sprinklered buildings.

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

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

ICCFILENAME: HEDGES-FS1-716.5.4

FS124-09/10: Changes made to introduction paragraph (Parts I and II heard by IBC Fire Safety Committee)

FS124-09/10

202 (New); IPC 202 (New); IRC 202 (New)

Proponent: Marcelo M. Hirschler, GBH International, representing American Fire Safety Council

THIS IS A 3 PART CODE CHANGE. PARTS I AND II WILL BE HEARD BY THE IBC FIRE SAFETY COMMITTEE AS TWO SEPARATE CODE CHANGES. PART III WILL BE HEARD BY THE IRC BUILDING/ENERGY CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THOSE COMMITTEES.

(Portions of proposal not shown, remain unchanged)

ICCFILENAME: HIRSCHLER-G7-202.doc

FS191-09/10: Add proposal as follows:

FS191-09/10

708.13.1, 708.13.2, 708.13.3, 708.13.4

Proponent: John Berry, AIA – CR architecture + design (formerly Cole & Russell Architects) - representing self

Revise as follows:

708.13.1 Refuse, recycling and laundry chute enclosures. A shaft enclosure containing a refuse, recycling or laundry chute shall not be used for any other purpose and shall be enclosed in accordance with Section 708.4. Openings into the shaft, including those from access rooms and termination rooms, shall be protected in accordance with this section and Section 715. Openings into chutes shall not be located in corridors. Doors shall be self-or automatic-closing upon the actuation of a smoke detector in accordance with Section 715.4.8.3, except that heat-activated closing devices shall be permitted between the shaft and the termination room.

708.13.2 Materials. A shaft enclosure containing a refuse, recycling or laundry chute shall be constructed of materials as permitted by the building type of construction.

708.13.3 Refuse, recycling and laundry chute access rooms. Access openings for refuse, recycling and laundry chutes shall be located in rooms or compartments enclosed by not less than 1-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both. Openings in to the access rooms shall be protected by opening protectives having a fire protection rating of not less than ¾ hour. Doors shall be self-or automatic-closing upon the detection of smoke in accordance with Section 715.4.8.3.

708.13.4 Termination room. Refuse, recycling and laundry chutes shall discharge into an enclosed room separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 712, or both. Openings into the termination room shall be protected by opening protectives having a fire protection rating of not less than ¾ hour. Doors shall be self-or automatic-closing upon the detection of smoke in accordance with Section 715.4.8.3. Refuse chutes shall not terminate in an incinerator room. Refuse, recycling and laundry rooms that are not provided with chutes need only comply with Table 508.2.5

Reason: The purpose of this proposal is to specifically address the introduction of separate and distinct chutes, access rooms and termination rooms now being provided for recycling materials in multi-story buildings. Recycling materials typically present the same hazard to the building and occupants as refuse and should therefore be handled in the same manner. We are now seeing the introduction of chutes and rooms specifically dedicated to recycling and therefore the code should also address this use.

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

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

ICCFILENAME: BERRY-FS1-708.13.1

FS192-09/10: Add proposal as follows:

FS192–09/10

709.4

Proponent: John Berry, AIA – CR architecture + design (formerly Cole & Russell Architects) - representing self

Revise as follows:

709.4 Continuity. Fire partitions shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above or to the fire-resistance-rated floor/ceiling or roof/ceiling assembly above, and shall be securely attached thereto. If the partitions are not continuous to the sheathing, deck or slab, and where constructed of combustible construction, the space between the ceiling and the sheathing, deck or slab above shall be fireblocked or draftstopped in accordance with Sections 717.2 and 717.3 at the partition line. The supporting construction shall be protected to afford the required fire-resistance rating of the wall supported, except for walls separating tenant spaces in covered mall buildings, walls separating dwelling units, walls separating sleeping units and corridor walls in buildings of Type IIB, IIIB and VB construction.

(No Change to Exceptions 1 through 4)

5. Attic fireblocking or draftstopping is not required at the partition line in Group R-2 buildings that do not exceed four stories above grade plane, provided the attic space is subdivided by draftstopping into areas not exceeding 3,000 square feet (279 m²) or above every two dwelling units, whichever is smaller.

(No Change to Exception 6)

Reason: The purpose of this proposal is merely to clarify that the fireblocking and draftstopping addressed in the exception #5 is in the attic, not the floor fireblocking and draftstopping. Although it is understood by most experienced code users that this section is intended to address the attic, I have had those new to the code read this to also delete the requirement for the fireblocking and draftstopping in the floor. As exception #5 currently reads floor/ceiling draftstopping at the partition lines could be eliminated if the attic was subdivided. It is not the intent of this exception to delete the requirements in the floor.

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

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

ICCFILENAME: BERRY-FS2-709.4

FS193-09/10: Add proposal as follows:

FS193–09/10

711.5.2, 711.5.3, 711.5.4 (New), 711.7

Proponent: Mike Ashley, CBO, representing: Alliance for Fire & Smoke Containment & Control (AFSCC)

Revise as follows:

711.5.2 Smoke and draft control doors. Where required elsewhere in ~~the~~ this code to comply with this section, doors in smoke partitions shall meet the requirements for a smoke and draft control door assembly tested in accordance with UL 1784. The air leakage rate of the door assembly shall not exceed 3.0 cubic feet per minute per square foot (0.015424 m³/(s • m²)) of door opening at 0.10 inch (24.9 Pa) of water for both the ambient temperature test and the elevated temperature exposure test. Installation of smoke doors shall be in accordance with NFPA 105.

711.5.3 Self- or automatic-closing doors. Where required elsewhere in ~~the~~ this code to comply with this section, doors in smoke partitions shall be self-closing or automatic-closing by smoke detection in accordance with Section 715.4.8.3.

711.5.4 Latching of doors. Where required elsewhere in this code to comply with this section, doors in smoke partitions shall be provided with latches as required for fire doors in accordance with Section 715.4.8.1.

711.7 Ducts and air transfer openings. The space around a duct penetrating a smoke partition shall be filled with an approved material to limit the free passage of smoke. Air transfer openings in smoke partitions shall be provided with a smoke damper complying with Section 716.3.2.2. Where required elsewhere in this code to comply with this section, ducts penetrating a smoke partition shall be provided with smoke dampers as required for corridors in accordance with Section 716.5.4.1.

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

Reason: The purpose of this proposed code change is to clarify the application of these sections we're revising, as well as a new Section 711.5.4 which addresses latching requirements for doors that may be installed in smoke partitions under certain conditions. The intent of Sections 711.5.2 and 711.5.3 is to provide a set of criteria for the smoke and draft control doors that might be required elsewhere in the code for smoke partitions depending upon the specific application, without mandating that all doors in smoke partitions meet these requirements where they may not be necessary for the specific application.

A case in point is Section 708.14.1 which was revised during the last code development cycle to include references to Sections 711.5.2 and 711.5.3 in Exception 5 regarding how the doors in the smoke partition are to be protected where the smoke partition substitutes for the 1-hour fire-resistive enclosure for elevator lobbies in sprinklered buildings. It should also be noted that a direct reference to Section 716.5.1 for the protection of duct penetrations of those smoke partitions was also provided in Exception 5. Since that may occur more often than not where certain applications for smoke partitions are prescribed in the future, we decided to incorporate that provision into Section 711.7 in a similar manner to that in Sections 711.5.2 and 711.5.3. We have also provided a reference to Section 715.4.8.1 in our proposed new Section 711.5.4 Latching of Doors in smoke partitions. This is also similar in style to Sections 711.5.2 and 711.5.3 but specifically relates to a latch being required for doors in smoke partitions when prescribed elsewhere in the code, again, such as is the case for Exception 5 to Section 708.14.1.

We believe this will make the code easier to understand, apply, and enforce so that one does not get into a loop when referred back to one of these sections that states "where required elsewhere in this code" and then try to determine how that is intended to apply. So by adding the phrase "to comply with this section," when another section of the code specifies compliance with any of these sections, it will be clear that it is intended to apply to that situation. We believe that with the new Section 711.5.4 and the proposed revisions to Section 711.7, the majority of the situations where opening protectives may be required by other provisions of the code for specific applications of smoke partitions in the future will be covered. This will eliminate the need to reference other sections throughout the code to implement these requirements. In this way, someone referencing the provisions in smoke partitions will find the various options that are available for protecting openings in such smoke partitions in one location.

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

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

ICCFILENAME: ASHLEY-FS2-711.5.2

FS194-09/10: Add proposal as follows:

FS194-09/10

716.5.3 (M607.5.5)

Proponent: Vickie J. Lovell InterCode Incorporated, representing Air Movement and Control Association

Revise as follows:

716.5.3 (M607.5.5) Shaft enclosures. Shaft enclosures that are permitted to be penetrated by ducts and air transfer openings shall be protected with approved fire and smoke dampers installed in accordance with their listing.

Exceptions:

1. Fire dampers are not required at penetrations of shafts where:
 - 1.1. Steel exhaust subducts are extended at least 22 inches (559 mm) vertically in exhaust shafts, provided there is a continuous airflow upward to the outside; or
 - 1.2. Penetrations are tested in accordance with ASTM E119 or UL 263 as part of the fire-resistance-rated assembly; or
 - 1.3. Ducts are used as part of an approved smoke control system designed and installed in accordance with Section 909 and where the fire damper will interfere with the operation of the smoke control system; or
 - 1.4. The penetrations are in parking garage exhaust or supply shafts that are separated from other building shafts by not less than 2-hour fire-resistance-rated construction; or
 - 1.5. Ducts are used as kitchen, bathroom and clothes dryer exhaust systems installed in accordance with the *International Mechanical Code*.
2. ~~In Group B and R occupancies, equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, smoke dampers are not required at penetrations of shafts where:~~
 - 2.1. ~~Kitchen, clothes dryer, bathroom and toilet room exhaust openings are installed with steel exhaust subducts, having a minimum wall thickness of 0.187-inch (0.4712 mm) (No. 26 gage).~~
 - 2.2. ~~That extend at least 22 inches (559 mm) vertically; and~~
 - 2.3. ~~An exhaust fan is installed at the upper terminus of the shaft that is powered continuously in accordance with the provisions of Section 909.11, so as to maintain a continuous upward airflow to the outside.~~
3. ~~Smoke dampers are not required at penetration of exhaust or supply shafts in parking garages that are~~

- ~~separated from other building shafts by not less than 2-hour fire-resistance-rated construction.~~
4. ~~Smoke dampers are not required at penetrations of shafts where ducts are used as part of an approved mechanical smoke control system designed in accordance with Section 909 and where the smoke damper will interfere with the operation of the smoke control system.~~
 5. ~~Fire dampers and combination fire/smoke dampers are not required in kitchen and clothes dryer exhaust system when installed in accordance with the International Mechanical Code.~~
 2. Smoke dampers are not required at penetrations of shafts where:
 - 2.1. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and steel exhaust having a minimum wall thickness of 0.176-inch (0.4712 mm) No.25 gage sub-ducts are extended at least 22 inches (559 mm) vertically in exhaust-only shafts and an exhaust fan installed at the upper terminus of the shaft is powered continuously in accordance with the provisions of Section 909.11, so as to maintain a continuous upward airflow to the outside; or
 - 2.2. Ducts are used as part of an approved mechanical smoke control system designed in accordance with Section 909 and where the smoke damper will interfere with the operation of the smoke control system; or
 - 2.3. The penetrations are in parking garage exhaust or supply shafts that are separated from other building shafts by not less than 2-hour fire-resistance-rated construction; or
 - 2.4. Ducts used as kitchen, bathroom and clothes dryer exhaust systems installed in accordance with the International Mechanical Code.

Reason: The proposed language simplifies the code by clearly segregating the exceptions by either fire damper or smoke damper. The science behind the current exception #2 works equally well in all types of dedicated exhaust-only openings provided the building is fully sprinklered and the fan is properly sized, operates continuously, and is supported with standby power to ensure un-interrupted operation during a fire emergency. As such, this proposed change also expands the previous exception # 2 (proposed exception 2.1) from B and R occupancies and kitchen, dryer, and bathroom exhaust to include all dedicated exhaust shafts in all occupancies.

Cost Impact: The code change proposal will decrease the cost of construction.

Analysis: Code change proposals FS194 and FS111 propose revisions to Exception #2. The committee needs to make its intent clear with respect to these provisions.

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

ICCFILENAME: LOVELL-FS2-716.5.3

Added 9/24/2009

FS195-09/10: Add proposal as follows:

FS195-09/10

712.9, 407.4.3

Proponent: John L. Williams, CBO representing Washington State Department of Health, Construction Review Services

THIS IS A 2 PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE IBC FIRE SAFETY COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

PART I- IBC FIRE SAFETY

Delete without substitution:

~~**712.9 Smoke barrier.** Where horizontal assemblies are required to resist the movement of smoke by other sections of this code in accordance with the definition for smoke barrier, penetrations and joints in such horizontal assemblies shall be protected as required for smoke barriers in accordance with Sections 713.5 and 714.6. Regardless of the number of stories connected by elevator shaft enclosures, doors located in elevator shaft enclosures that penetrate the horizontal assembly shall be protected by enclosed elevator lobbies complying with Section 708.14.1. Openings through horizontal assemblies shall be protected by shaft enclosures complying with Section 708. Horizontal assemblies shall not be allowed to have unprotected vertical openings.~~

PART II- IBC GENERAL

Delete without substitution:

~~**407.4.3 Horizontal assemblies.** Horizontal assemblies supporting smoke barriers required by this section shall be designed to resist the movement of smoke and shall comply with Section 712.9.~~

Reason: These two sections are new to the 2009 code. They add cost and complicate the design process with no significant benefit. These sections are targeted toward I-2 occupancies, which are required to divide each floor into smoke compartments. There was no evidence provided by the author of this section that smoke transfer between floors in a sprinklered, compartmented building poses a significant hazard. If there was a significant transmission of smoke from one of the smoke compartments on the floor below, the occupants on the higher floor have another smoke compartment to horizontally evacuate to.

The addition of elevator lobbies and enclosing doors could also hamper the horizontal evacuation process. The added number of doors that a patient must be pushed through to get to the adjacent smoke compartment slows the evacuation time.

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

PART I- IBC FIRE SAFETY

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

PART II- IBC GENERAL

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

ICCFILENAME: WILLIAMS-FS1-712.9

Added 9/24/2009

FS196-09/10: Add proposal as follows:

FS196-09/10

708.14.1

Proponent: John L. Williams, CBO representing Washington State Department of Health, Construction Review Services

Revise as follows:

708.14.1 Elevator lobby. An enclosed elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than three *stories*. The lobby enclosure shall separate the elevator shaft enclosure doors from each floor by *fire partitions*. In addition to the requirements in Section 709 for *fire partitions*, doors protecting openings in the elevator lobby enclosure walls shall also comply with Section 715.4.3 as required for *corridor* walls and penetrations of the elevator lobby enclosure by ducts and air transfer openings shall be protected as required for *corridors* in accordance with Section 716.5.4.1. Elevator lobbies shall have at least one *means of egress* complying with Chapter 10 and other provisions within this code.

Exceptions:

1. Enclosed elevator lobbies are not required at the street floor, provided the entire street floor is equipped with an *automatic sprinkler system* in accordance with Section 903.3.1.1.
2. Elevators not required to be located in a shaft in accordance with Section 708.2 are not required to have enclosed elevator lobbies.
3. Enclosed elevator lobbies are not required where additional doors are provided at the hoistway opening in accordance with Section 3002.6. Such doors shall be tested in accordance with UL 1784 without an artificial bottom seal.
4. Enclosed elevator lobbies are not required where the building is protected by an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2. This exception shall not apply to the following:
 - 4.1. Group I-2 occupancies,
 - 4.2. Group I-3 occupancies, and
 - 4.3. High-rise buildings.

5. Smoke partitions shall be permitted in lieu of *fire partitions* to separate the elevator lobby at each floor where the building is equipped throughout with an *automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2. In addition to the requirements in Section 711 for smoke partitions, doors protecting openings in the smoke partitions shall also comply with Sections 711.5.2, 711.5.3, and 715.4.8 and duct penetrations of the smoke partitions shall be protected as required for *corridors* in accordance with Section 716.5.4.1.
6. Enclosed elevator lobbies are not required where the elevator hoistway is pressurized in accordance with Section 708.14.2.
7. Enclosed elevator lobbies are not required where the elevator serves only *open parking garages* in accordance with Section 406.3.
8. Enclosed elevator lobbies are not required on floors in I-2 occupancies that are subdivided as required by Section 407.4.

Reason: Elevator lobbies serve no purpose on floors of these types of facilities that "protect in place". Floors that contain patient sleeping are required to be subdivided into smoke compartments by section 407.4 so that bed ridden patients can be moved from one compartment to another. A small elevator lobby would be no where near the size needed to accommodate bed ridden patients. It is inappropriate to evacuate bed ridden patients from a facility unless there is some catastrophic failure way beyond the intent of the code. This protect in place concept is the reason that these facilities are limited in size based on construction type and required to be sprinklered and fully detected for early detection and response. Additionally, these facilities are required to provided quarterly training and fire alarm drills.

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

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

ICCFILENAME: WILLIAMS-FS2-707.14

Added 9/24/2009

FS197-09/10: Add proposal as follows:

FS197-09/10

703.4, 703.4.1, 703.4.3 (New)

Proponent: Gene Boecker, Code Consultants, Inc. representing ECTEK International, Inc.

Revise as follows:

703.4 Noncombustibility tests. The tests indicated in Sections 703.4.1, ~~and 703.4.2~~ and 703.4.3 shall serve as criteria for acceptance of building materials as set forth in Sections 602.2, 602.3 and 602.4 in Type I, II, III and IV construction. The term "noncombustible" does not apply to the flame spread characteristics of interior finish or trim materials. A material shall not be classified as a noncombustible building construction material if it is subject to an increase in combustibility or flame spread beyond the limitations herein established through the effects of age, moisture or other atmospheric conditions.

703.4.1 Elementary materials. ~~Materials~~ Homogenous, elementary materials required to be noncombustible shall be tested in accordance with ASTM E 136.

703.4.2 Composite materials. Materials having a structural base of noncombustible material as determined in accordance with Section 703.4.1 with a surfacing not more than 0.125 inch (3.18 mm) thick that has a flame spread index not greater than 50 when tested in accordance with ASTM E 84 or UL 723 shall be acceptable as noncombustible materials.

703.4.3 Alternate Test. Materials shall be considered as noncombustible if, when tested in a horizontal orientation in accordance with ASTM E 1354 at a heat flux of 50 kW/m² all the following conditions are met:

1. Average total heat release is not greater than 3 MJ/m²;
2. Average smoke extinction area is not greater than 1.0 m²; and
3. Test duration is extended beyond the time stipulated in the referenced standard until it is clear that there is no further release of heat or smoke.

If the material to be tested consists of distinct layers and testing indicates that the covering layer protects the underlying layers such that complete combustion does not occur, the test shall be repeated by removing each covering

layer until all layers have been exposed during testing, or until complete combustion has occurred. The acceptable criteria for this material to be considered as noncombustible shall be based on the cumulative emissions from all layers based on the criteria in items (1) and (2) above.

Reason: The purpose of this code change is to add new requirements for demonstrating that a material is considered noncombustible. Current methods referenced in the IBC for determining whether a material is classified as combustible or noncombustible have significant limitations. More modern test methods are available that overcome many the primary limitation of the existing referenced standard. Such test methods are currently adopted in the National Building Code of Canada (NBCC) [1]. This proposal seeks to implement requirements similar to those in the NBCC, while retaining the existing requirements of the IBC for materials that the existing requirements appropriately address.

Noncombustible materials are currently limited to elementary materials meeting the requirements of ASTM E 136 and composite materials with a noncombustible based having a surfacing not more than 0.125-inch thick with a flame spread index not exceeding 50 when tested in accordance with ASTM E 84. Note that both methods require that at least a portion of the material, either the entire elementary material or the base portion of a composite material, meet the requirements of ASTM E 136.

The ASTM E 136 test method does not address all materials used in building construction and is not a realistic assessment of the performance of a specific material in an end-use condition [2]. Limitations stated directly in ASTM E 136 include:

1. "The test method does not provide a quantitative measure of heat generation or combustibility."
2. "The testing method is not suitable or generally satisfactory for materials that soften, flow, melt,"
3. "In is not intended to apply to laminated or coated materials."
4. "The test method does not provide a measure of an intrinsic property."
5. "Materials are not necessarily tested in the nature and form used in most building applications."

ASTM E 136 does not determine whether a material is literally noncombustible; it merely tests the temperature rise and mass loss during the specific conditions described in ASTM E 136. The ASTM E 136 test standard removed the use of the term noncombustible in 1979 to better describe the, "restricted nature of the test method." [2] In fact, Section 4.2 of the ASTM E 136 test standard states that, "materials passing the test are permitted limited flaming and other indications of combustion."

The ASTM E 136 test method suspends a 1.5-inch by 1.5-inch by 2-inch material sample by a hook in a 3-inch diameter tube furnace where the sample is subject to a temperature of 1,382°F. The ASTM E 136 test measures the temperature rise in the furnace due to combustion of the sample and measures the mass loss of the sample. It does not measure the amount of smoke produced by the sample and suspension of the sample is a significant limitation on the application of the test method. For example, materials may melt, fall from the hook, and fail the test, even though they are not capable of combustion at the furnace temperature. Materials with high moisture contents may also fail the test due to mass loss, even though the materials would have no significant contribution in an actual fire condition.

More modern test methods exist that are appropriate for evaluating whether a material should be classified as combustible or noncombustible. One such test method is ASTM E 1354, which is the test standard for a device commonly known as the Cone Calorimeter. The ASTM E 1354 test apparatus uses a cone-shaped radiant heater to expose a material sample to a specified heat flux and a spark igniter (similar to an automotive spark plug) is used to provide piloted ignition of the sample. The sample is approximately 4 inches by 4 inches square and, as referenced in this code change proposal, is positioned in a metal sample holder horizontally below the cone-shaped heater. Measurements during the test include the time to ignition, the temperature rise of the exhaust gases, the heat (energy) release rate over time by oxygen consumption, the total energy released by the sample, the amount of smoke produced, and the mass loss of the sample. A significant advantage to the use of ASTM E 1354 in comparison with ASTM E 136 is that it allows composite materials and materials that melt or soften to be tested. In addition, ASTM E 1354 provides measurements of not only temperature rise and mass loss, but also a direct measurement of the heat release rate, the total energy release, and the amount of smoke released from the sample.

Carpenter and Janssens have published a summary of research efforts into the use of the Cone Calorimeter to assess combustibility and concluded that, "an assessment of the combustibility of building products based on heat release rate measurement [ASTM E 1354] is more realistic than that based on performance in furnace [ASTM E 136] or oxygen-bomb type combustibility tests." [3] The ASTM E 1354 test method is currently referenced in Section 402.12.1(6) of the IBC for materials used in children's playground structures in covered mall buildings.

The proposed revisions would allow elementary materials complying with 703.4.1 and composite materials complying with 703.4.2 to continue to be used, and adds an alternate method of compliance based on testing in accordance with ASTM E 1354. Proposed criteria for materials tested in accordance with ASTM E 1354 are based on the criteria used in the NBCC: (1) a total heat release not greater than 3 MJ/m² and (2) average smoke extinction area not greater than 1.0 m². Thus, in addition to limiting the heat release of the sample, the proposed criteria would also limit the amount of smoke produced.

Both the NBCC and Section 402.12.1(6) of the IBC specify that the test shall be conducted in a horizontal orientation at a heat flux of 50 kW/m². Thus, the code change proposal is consistent with the NBCC and the existing Section 402.12.1(6) of the IBC on the heat flux and orientation used for the test.

The proposed code change also addresses materials composed of layers, where the upper layers of a sample may protect the layers below from a heat flux exposure. These materials require that the test be conducted to expose each of the layers to ensure that the complete material is tested. The requirements for materials composed of layers are based on the provisions of the NBCC.

The proposed code change provides much needed guidance for classifying materials not addressed by test methods currently referenced in the IBC.

References:

- [1] National Building Code of Canada 2005, Volume 1, National Research Council of Canada, Ottawa, Canada, 2005, Section 3.1.5.1.
- [2] ASTM E 136, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C, ASTM International, West Conshohocken, PA, 2004.
- [3] Carpenter, K. and Janssens, M., Using Heat Release Rate to Assess Combustibility of Building Products in the Conde Calorimeter, Fire Technology, Vol. 41, No. 2, 2005, pp.79-92.

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

Analysis: Standard ASTM E1354 is currently referenced in the I-Codes.

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

FILENAME: BOECKER-FS3-703.4

IBC-GENERAL

REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Revised 9/03:

Remove G40-09/10 from IBC General Hearing Order

Remove G79-09/10 from IBC General Hearing Order

Add G207-09/10 to IBC General Hearing Order following G132-09/10

Add G208-09/10 to IBC General Hearing Order following G137-09/10

Revised 9/24:

Add Part I to G206-09/10 of the IBC General Hearing Order

Remove Part I to G58-09/10 of the IBC General Hearing Order

Remove G84-09/10 from the 3rd row of the IBC General Hearing Order

TENTATIVE ORDER OF DISCUSSION

Revised 9/24/09

2009/2010 PROPOSED CHANGES TO THE INTERNATIONAL BUILDING CODE

GENERAL

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation does **not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair.

G3-09/10	G27-09/10	G61-09/10	G92-09/10
G4-09/10	G28-09/10, Part I	G62-09/10	G93-09/10
G5-09/10, Part I	G29-09/10	G63-09/10	G94-09/10
G6-09/10	G31-09/10	G64-09/10, Part I	G96-09/10
G7-09/10	G32-09/10	G64-09/10, Part II	G97-09/10
G9-09/10	G33-09/10	G57-09/10	G98-09/10
G10-09/10	G35-09/10	G68-09/10	G99-09/10
G11-09/10	G36-09/10	G69-09/10	G100-09/10
G12-09/10	G37-09/10	G1-09/10	G101-09/10
G13-09/10	G38-09/10	G76-09/10	G102-09/10
G14-09/10	G39-09/10	G77-09/10	G103-09/10
G15-09/10	G40-09/10	G78-09/10	G104-09/10
G113-09/10	G43-09/10	G79-09/10	G105-09/10
G16-09/10	G44-09/10, Part I	G80-09/10	G106-09/10
G17-09/10	G44-09/10, Part II	G82-09/10	G107-09/10
G19-09/10	G45-09/10	G83-09/10	G108-09/10
G65-09/10	G84-09/10	G84-09/10	G109-09/10
G20-09/10	G50-09/10	G34-09/10	G110-09/10
G21-09/10	G51-09/10	G85-09/10	G111-09/10
G22-09/10	G55-09/10	G86-09/10	G112-09/10
G23-09/10	G56-09/10, Part 1	G87-09/10	G114-09/10
G66-09/10	G53-09/10	G88-09/10	G115-09/10
G24-09/10	G54-09/10	G89-09/10	G116-09/10
G25-09/10	G58-09/10, Part I	G90-09/10	G117-09/10
G26-09/10	G59-09/10	G81-09/10	G118-09/10
G30-09/10	G60-09/10	G91-09/10	

G119-09/10	G136-09/10	S28-09/10	G185-09/10, Part II
G120-09/10	G137-09/10	G151-09/10	G186-09/10
G18-09/10	<u>G208-09/10</u>	G152-09/10	G187-09/10
G121-09/10	G138-09/10	G153-09/10, Part I	G188-09/10
G122-09/10	G139-09/10	G153-09/10, Part II	G189-09/10
G123-09/10	G140-09/10	G153-09/10, Part III	G198-09/10, Part I
G124-09/10	G141-09/10	G154-09/10	G198-09/10, Part II
G125-09/10	G142-09/10	G155-09/10	G199-09/10
G130-09/10	G143-09/10	G156-09/10	G201-09/10
G126-09/10	G75-09/10	G8-09/10	G202-09/10
G127-09/10	G144-09/10	G178-09/10	G203-09/10
G128-09/10	G145-09/10, Part I	G179-09/10	G204-09/10, Part I
G129-09/10	G146-09/10, Part I	G180-09/10	G205-09/10
G131-09/10	G147-09/10, Part I	G182-09/10	G206-09/10, <u>Part I</u>
G132-09/10	G148-09/10	RB176-09/10, Part II	
<u>G207-09/10</u>	G149-09/10	RB177-09/10, Part II	
G133-09/10	G150-09/10	G183-09/10	
G134-09/10	S26-09/10	G184-09/10	
G135-09/10	S27-09/10	G185-09/10, Part I	

G206-09/10: Add “2 Part Code Change” Header. Add PART I & PART II Headers:

G206–09/10

Appendix L (New)

Proponent: Dwayne Garriss, Georgia State Fire Marshal’s Office – Centers for Medicare and Medicaid Services Life Safety Administration

THIS IS A 2 PART CODE CHANGE. THE PARTS ARE DUPLICATES OF EACH OTHER. PART I WILL BE HEARD BY THE IBC GENERAL COMMITTEE FOR CONSIDERATION OF INCLUSION IN THE IBC. PART II WILL BE HEARD BY THE FIRE CODE COMMITTEE FOR CONSIDERATION OF INCLUSION IN THE IFC.

**PART I: APPENDIX L OF THE IBC
PART II: APPENDIX K OF THE IFC**

(Portions of proposal not shown remain unchanged)

ICCFILENAME: GARRISS-G1-APPENDIX L.doc

G207-09/10: Add proposal as follows:

G207–09/10

509.7

Proponent: John Berry, AIA – CR architecture + design (formerly Cole & Russell Architects) - representing self

Revise as follows:

509.7 Open parking garage beneath Groups A, I, B, M and R. Open parking garages constructed under Groups A, I, B, M and R shall not exceed the height and area limitations permitted under Section 406.3. The height and area of the portion of the building above the open parking garage shall not exceed the limitations in Section 503 for the upper occupancy. The height in both feet and stories, of the portion of the building above the open parking garage, shall be measured from grade plane and shall include both the open parking garage and the portion of the building above the parking garage.

Reason: Currently, the second sentence of this section states that the height and area of the portion of the building above the garage shall not exceed the limitations in section 503 for the upper occupancy. However this section goes on to state in the next sentence that the height is to be measured from the grade plane and include the garage below as well that portion of the building above the garage. This language appears to be contradictory within the same section. Therefore the proposed deletion of the reference to the height in the second sentence clarifies the method in measuring the height of the structure to be the more restrictive of the two criteria currently included in this section.

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

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

ICCFILENAME: BERRY-G2-509.7

G208-09/10: Add proposals as follows:

G208-09/10

Table 602

Proponent: John Berry, AIA – CR architecture + design (formerly Cole & Russell Architects) - representing self

Revise as follows:

TABLE 602
FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED UPON FIRE SEPARATION DISTANCE^{a,e,h}

FIRE SEPARATION DISTANCE = X (feet)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP H ^f	OCCUPANCY GROUP F-1, M, S-1 ^g	OCCUPANCY GROUP A, B, E, F-2, I, R, S-2 ^g , U ^b
X < 5 ^c	All	3	2	1
5 < X < 10	IA	3	2	1
	Others	2	1	1
10 < X < 30	IA, IB	2	1	1 ^d
	IIB, VB	1	0	0
	Others	1	1	1 ^d
X > 30	All	0	0	0

(No Change to footnotes “a” through “g”)

h. Where Table 705.8 permits exterior walls to contain unprotected openings with no limit of the allowable area, the required fire resistance rating for the exterior walls is 0 hours.

Reason: Currently Table 705.8 allows unlimited openings in a building suppressed per NFPA 13 and a fire separation distance as small as 20 feet. However Table 602 would still require the exterior wall to be rated 1 hour. This is a contradiction and makes no sense; why would I rate an exterior wall per Table 602 when that wall could be entirely open per Table 705.8. It is important to note that this would not apply to H-1, H-2 & H-3 Uses, as they are specifically exempted from this provision by footnote “i” to Table 705.8. This would only effect buildings w/ a fire separation distance equal to or greater than 20 feet. There would be no change to buildings with a fire separation distance less than 20 feet.

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

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

ICCFILENAME: BERRY-G1-Table 602

G209-09/10: Add proposal as follows:

G209-09/10

3407.1 (IEBC (B) 306.1); IEBC 307.5

Proponent: Amanda Hickman, InterCode Incorporated, representing: 3M Company, Air Movement and Control Association, Association of Industrial Metallized Coaters and Laminators

THIS IS A 2 PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE ENERGY CONSERVATION CODE DEVELOPMENT COMMITTEE. SEE THE TENTATIVE ORDER FOR THAT COMMITTEE.

PART I- IBC GENERAL

Revise as follows:

3407.1 (IEBC (B) 306.1) Conformance. The installation of new glass or replacement of glass shall be as required for new installations, or shall comply with Section 307.5 of the *International Existing Building Code*.

PART II- EXISTING BUILDING

[EC] 307.5 Energy and environmental impact. Buildings undergoing ~~a change in occupancy~~ an alteration or addition as defined by this code that would result in an increase in demand for either fossil fuel or electrical energy shall comply with the International Energy Conservation Code, or shall be permitted to comply with applicable provisions of a nationally recognized, consensus-developed “green building” standard approved by the code official. The design of such alterations or additions shall also consider sustainability, water use efficiency, and indoor environmental quality.

Reason: The IEBC defines “a change of occupancy” as an “alteration”. The additional text to this code section is intended to provide flexibility and multiple options to achieve maximum energy efficiency and minimum impact on the environment by encouraging the use of “green building” standards in remodeling and major renovations.

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

Analysis: The proponent originally proposed the amendment to Section 3407.1 of the IBC only to Section 306.1 of the IEBC. However, Section 306.1 of the IEBC is scoped and controlled by the IBC. There is not an equivalent section in the IBC to Section 307.5 of the IEBC. The IECC addresses existing buildings only in Chapter 1. Language similar to Section 307.5 of the IEBC is found in Section 101.4.4 of the IECC.

PART I – IBC GENERAL

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

PART II – IEBC

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

ICCFILENAME: HICKMAN-G1-3407.1

STRUCTURAL

REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Revised 9/03:

Add S227-09/10 to IBC Structural Hearing Order following S89-09/10

Remove S192-09/10 from IBC Structural Hearing Order

Add S228-09/10 to IBC Structural Hearing Order following S194-09/10

Add S229-09/10 to IBC Structural Hearing Order following S228-09/10

Add S230-09/10 to IBC Structural Hearing Order following S229-09/10

Revised 9/24:

Add S232-09/10 to IBC Structural Hearing Order following S138-09/10

Add S233-09/10 to IBC Structural Hearing Order following S184-09/10

Add S231-09/10 to IBC Structural Hearing Order following S233-09/10

TENTATIVE ORDER OF DISCUSSION

Revised 9/24/09

2009/2010 PROPOSED CHANGES TO THE INTERNATIONAL BUILDING CODE

STRUCTURAL

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S1-09/10, Part I	S43-09/10	S56-09/10	S76-09/10
S3-09/10, Part I	S32-09/10	S58-09/10	S77-09/10
S4-09/10	S33-09/10	S59-09/10	S78-09/10
S5-09/10	S34-09/10	S60-09/10	S79-09/10
S6-09/10	S35-09/10	S62-09/10, Part I	S80-09/10
S7-09/10	S36-09/10	S64-09/10	S81-09/10
S8-09/10	S37-09/10	S63-09/10	S82-09/10
S9-09/10	S38-09/10	S65-09/10	S83-09/10
S14-09/10, Part I	S39-09/10	S66-09/10, Part I	S84-09/10
S15-09/10, Part I	S40-09/10	S57-09/10, Part I	S51-09/10
S16-09/10, Part I	S41-09/10, Part I	S61-09/10, Part I	S85-09/10
S17-09/10, Part I	S41-09/10, Part II	S67-09/10	S86-09/10
S18-09/10, Part I	S42-09/10	S68-09/10	S87-09/10, Part I
S19-09/10	S45-09/10	S69-09/10	S179-09/10
S20-09/10, Part I	S47-09/10	S70-09/10	EB71-09/10
S21-09/10, Part I	S49-09/10	S71-09/10	EB72-09/10
S22-09/10, Part I	S50-09/10	S72-09/10	EB16-09/10
S22-09/10, Part II	S52-09/10	S73-09/10	EB17-09/10
S23-09/10, Part I	S53-09/10	S31-09/10	S88-09/10
S29-09/10	S54-09/10	S74-09/10	S89-09/10
S30-09/10, Part I	S55-09/10	S75-09/10	<u>S227-09/10</u>

S90-09/10	EB61-09/10	S143-09/10	S198-09/10
S92-09/10, Part I	EB62-09/10	S144-09/10, Part I	S199-09/10, Part I
S92-09/40, Part II	EB63-09/10	S145-09/10	S200-09/10, Part I
S92-09/10, Part III	EB64-09/10	S146-09/10, Part I	S201-09/10, Part I
S92-09/10, Part IV	EB65-09/10	S146-09/10, Part II	S202-09/10
S93-09/10	EB66-09/10	S147-09/10	S203-09/10, Part I
S94-09/10	EB67-09/10	S148-09/10	S204-09/10
S91-09/10, Part I	EB68-09/10	S149-09/10	S205-09/10
S91-09/10, Part II	EB69-09/10	S150-09/10	S206-09/10
G196-09/10	EB70-09/10	S151-09/10	S207-09/01, Part I
G193-09/10	S95-09/10	S152-09/10	FS189-09/10
G194-09/10	S96-09/10	S153-09/10	S209-09/10
EB4-09/10, Part I	S97-09/10, Part I	S154-09/10	S208-09/10
EB4-09/10, Part II	S98-09/10	S155-09/10	S210-09/10
EB6-09/10, Part I	S99-09/10	S156-09/10	S211-09/10
EB6-09/10, Part II	S100-09/10	S157-09/10	S212-09/10
EB7-09/10	S101-09/10	S158-09/10	S213-09/10
EB8-09/10, Part I	S102-09/10	S159-09/10	S214-09/10, Part I
EB8-09/10, Part II	S103-09/10	S160-09/10	S215-09/10
EB9-09/10, Part I	S104-09/10	S161-09/10	S216-09/10
EB9-09/10, Part II	S105-09/10	S162-09/10, Part I	S217-09/10
G195-09/10	S106-09/10	S163-09/10	S218-09/10, Part I
G192-09/10	S44-09/10	S164-09/10	S219-09/10, Part I
G191-09/10	S48-09/10	S165-09/10	S220-09/10
EB3-09/10, Part I	S107-09/10	S166-09/10	S221-09/10
EB3-09/10, Part II	S108-09/10	S167-09/10	S222-09/10, Part I
G190-09/10	S109-09/10	S168-09/10	S223-09/10
G197-09/10	G181-09/10	S170-09/10	S224-09/10, Part I
ADM32-09/10	S110-09/10	S171-09/10, Part I	S225-09/10, Part I
ADM33-09/10	G40-09/10	S172-09/10	FS156-09/10, Part I
EB15-09/10	S112-09/10	S173-09/10	FS180-09/10
EB21-09/10	S113-09/10	S174-09/10	G2-09/10, Part I
EB22-09/10	S114-09/10	S175-09/10	S46-09/10
EB24-09/10	S111-09/10	FS148-09/10	S169-09/10
EB5-09/10	S115-09/10	FS149-09/10	
EB36-09/10	S116-09/10	S176-09/10	
EB37-09/10	S117-09/10	S177-09/10	
EB38-09/10	S118-09/10	S178-09/10	
EB25-09/10	S119-09/10	S180-09/10	
EB40-09/10	S120-09/10	S181-09/10	
EB41-09/10	S121-09/10	S182-09/10, Part I	
EB42-09/10	S122-09/10	S183-09/10	
EB43-09/10	S123-09/10	S184-09/10	
EB44-09/10	S124-09/10	<u>S233-09/10</u>	
EB45-09/10	S125-09/10	<u>S231-09/10</u>	
EB46-09/10	S129-09/10	S185-09/10	
EB47-09/10	S130-09/10	S186-09/10	
EB48-09/10	S131-09/10	S187-09/10	
EB49-09/10	S132-09/10	S189-09/10	
EB50-09/10	S133-09/10	S190-09/10	
EB51-09/10	S134-09/10	S191-09/10	
EB52-09/10	S135-09/10	S193-09/10	
EB53-09/10	S136-09/10	S188-09/10	
EB54-09/10	S137-09/10	S194-09/10	
EB55-09/10	S138-09/10	<u>S228-09/10</u>	
EB56-09/10	<u>S232-09/10</u>	<u>S229-09/10</u>	
EB57-09/10	S139-09/10	<u>S230-09/10</u>	
EB58-09/10	S140-09/10	S195-09/10	
EB59-09/10	S141-09/10	S196-09/10	
EB60-09/10	S142-09/10	S197-09/10	

S60-09/10: Add Item 27 to Table. Item 27 renumbered to 24

S60-09/10

1605.2.1, Table 1607.1, 1607.9.1, 1607.9.1.4, 1607.9.2, 1607.11.2.2

**TABLE 1607.1
MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS, L_o , AND MINIMUM CONCENTRATED LIVE LOADS ^g**

OCCUPANCY OR USE	UNIFORM (psf)	CONCENTRATED (lbs.)
27 24 . Residential		
One- and two-family dwellings		
Uninhabitable attics without storage ⁱ	10	
Uninhabitable attics with limited storage ^{i, j, k}	20	
Habitable attics and sleeping areas	30	-
All other areas	40	
Hotels and multiple-family dwellings		
Private rooms and corridors serving them	40	
Public rooms ^m and corridors serving them	100	

(Portions of table not shown are unchanged)

(Portions of proposal not shown remain unchanged)

ICCFILENAME: Brazil-S45-T1607.1

Added 9/24/2009

S88-09/10: Replace Reason statement:

S88-09/10

1609.1.2

Reason: ICC 500 "Standard for the Design and Construction of Storm Shelters", an American National Standard, was accepted for the 2009 IBC and IRC as the construction standard for designated community and residential tornado and hurricane shelters. The Standard contains detailed impact testing and acceptance criteria, equal to or more onerous than that of ASTM E1886 and E1996.

Where products have been certified to the impact requirements of ICC 500, their use should be permitted, by explicit reference to the Standard, as a means of protection in wind-borne debris regions.

Such reference will provide guidance to AHJ's and will help prevent redundancies in product testing and listing requirements.

Cost Impact: The code change proposal will not increase the cost of construction for typical tilt-up buildings in higher SDC.

(Portions of proposal not shown remain unchanged)

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

ICCFILENAME: ROEPER-S1-1609.1.2

Added 9/24/2009

S92-09/10: Part IV, IMC Section 301.13 has been replaced. Add "and IV" to Part III Reason statement:

S92-09/10

IBC 801.5, 1403.5; IPC [B] 309.2; IFGC [B] 301.11; IMC [B] 301.13, 401.4, 501.2.1, [B] 602.4, [B] 603.13, 1305.2.1

PART IV – IMC

Revise as follows:

[B] 301.13 Flood hazard. For structures located in flood hazard areas, mechanical systems, equipment and appliances shall be located at or above the elevation required by Section 1612.4 of the *International Building Code* for utilities and attendant equipment design flood elevation.

Exception: Mechanical systems, equipment and appliances are permitted to be located below the design flood elevation required by Section 1612.4 of the of the *International Building Code* for utilities and attendant equipment provided that they are designed and installed to prevent water from entering or accumulating within the components and to resist hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding up to such elevation. ~~to the design flood elevation in compliance with the flood-resistant construction requirements of the *International Building Code*.~~

Part III and IV–

In the *International Building Code*, Section 1612.4 refers to ASCE 24, *Flood Resistant Design and Construction*, which specifies elevations as a function of flood zone and Structure Category and which specifies the performance under loads that needs to be provided if equipment is located below such elevations.. This proposal will result in consistency between the elevations of buildings and structures that are specified in ASCE 24 and the elevations of equipment that serve those buildings and structures, which are also specified in ASCE 24.

(Portions of proposal not shown remain unchanged)

ICCFILENAME: QUINN-S2 4 parts

Added 9/24/2009

S127-09/10: Change made to Proponent line

S127–09/10

1704.15 (New), Chapter 35

Proponent: William E. Koffel, Koffel Associates, Inc., representing Firestop Contractors International Association

(Portions of proposal not shown remain unchanged)

ICCFILENAME: KOFFELL-S3-1704.15 NEW

Added 9/24/2009

S128-09/10: Change made to Proponent line

S128–09/10

1704.15 (New), Chapter 35

Proponent: William E. Koffel, Koffel Associates, Inc., representing Firestop Contractors International Association

(Portions of proposal not shown remain unchanged)

ICCFILENAME: KOFFELL-S4-1704.15 NEW

S226-09/10: Add proposal as follows:

S226–09/10

1505.2; IRC: R902.1

Proponent: Craig Thompson, representing Copper Development Assn.

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IBC FIRE SAFETY COMMITTEE. PART II WILL BE HEARD BY THE IRC BUILDING/ENERGY COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.

PART I – IBC FIRE SAFETY

Revise as follows:

1505.2 Class A roof assemblies. Class A roof assemblies are those that are effective against severe fire test exposure. Class A roof assemblies and roof coverings shall be listed and identified as Class A by any approved testing agency. Class A roof assemblies shall be permitted for use in buildings or structures of all types of construction.

Exceptions:

1. Class A roof assemblies include those with coverings of brick, masonry and exposed concrete roof deck.
2. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile, or slate installed on non-combustible decks or ferrous, copper or metal sheets installed without a roof deck on noncombustible framing.
3. Class A roof assemblies include copper sheets installed over combustible decks.

PART II – IRC BUILDING/ENERGY

R902.1 Roofing covering materials. Roofs shall be covered with materials as set forth in Sections R904 and R905. Class A, B or C roofing shall be installed in areas designated by law as requiring their use or when the edge of the roof is less than 3 feet (914 mm) from a property line. Classes A, B and C roofing required by this section to be listed shall be tested in accordance with UL 790 or ASTM E 108.

Exceptions:

1. Class A roof assemblies include those with coverings of brick, masonry and exposed concrete roof deck.
2. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile, or slate installed on non-combustible decks.
3. Class A roof assemblies include copper sheets installed over combustible decks.

Reason : The reason the exceptions clause was modified in the last code cycle was primarily due to a test report submitted by the National Association of State Fire Marshalls from Underwriters Laboratories Inc., (UL), dated January 17, 2007. The report references the findings of a fact finding report done by UL to show that the exceptions to the Class A rating are not valid because, as the fact finding report shows, 30 gauge sheet steel, 24 gauge sheet steel, 0.040 aluminum sheet & 14" X 10" wide , 6" exposure slate installed over A-C plywood do not pass fire test requirements under Standards E108 & UL970 for roof coverings used over combustible roof deck. However this same report states that 16 oz. copper sheet does conform to fire test requirements under Standards E108 & UL 970. The report affirms that the copper roof assembly does pass. Therefore there is no viable reason why copper shingles or sheets should not retain their exception as a Class A roof material. In addition, for the UL test to be valid each assembly must pass four consecutive burning brand tests, two consecutive flame spread tests and two consecutive intermittent flame tests as spelled out in ASTM E108 & UL970. Each assembly was tested only once in the Fire Marshall's report, not as per the standard, thus nullifying the report's conclusions.

In addition, as per the attached report from the Southwest Research Institute, (SwRI), a typical standing seam copper roof assembly, over a combustible deck, was tested and passed as per ASTM E108 for Class A roof assemblies. ASTM E108 is the recognized standard by which all Class A roof assemblies are measured. Therefore the typical copper standing seam roof assembly, on a combustible deck, should rightfully be listed as a Class A roof assembly exception as per the SwRI report dated 1/7/09.

Bibliography:

1. Southwest Research Institute; *Evaluation of the External Fire Resistance Characteristics of Roof Covering Systems in Accordance with ASTM E 108-07a, Standard Test Methods for Fire Tests of Roof Coverings: Class A Testing*; San Antonio, TX, January 7, 2009
2. Underwriters Laboratories; *Fact –Finding Investigation of Metal and Slate Prepared Roof Coverings*; National Association of State Fire Marshalls, Washington, DC; Northbrook, IL, January 17, 2007

Cost Impact: None given.

PART I- IBC FIRE SAFETY

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

PART II- IRC BUILDING/ENERGY

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

ICCFILENAME: THOMPSON, C-S1-1505.2

S227-09/10: Add proposal as follows;

S227-09/10

1609.1.2.1, Chapter 35

Proponent: Vickie Lovell, InterCode Incorporated Representing Air Movement and Control Association

1. Revise as follows:

1609.1.2.1 Louvers. Louvers protecting intake and exhaust ventilation ducts not assumed to be open that are located within 30 feet (9144 mm) of grade shall meet requirements of ~~an approved impact-resisting standard or the large missile test~~ of ASTM E 1996 AMCA 540.

2. Add standard to Chapter 35 as follows:

AMCA

540-08

Test Method for Louvers Impacted by Wind Borne Debris

Reason: The scope of ASTM E 1886 and ASTM E 1996 specifically covers exterior windows, glazed curtain walls, doors, and storm shutters in buildings located in hurricane prone regions. It does not specifically cover the impact testing of louvers. In the absence of an appropriate specification and test method for louvers, jurisdictions have based their product approvals on the performance criteria of the large missile test of ASTM E 1886 and ASTM E 1996. The Air Movement Control Association (AMCA) has developed a standard specification for louvers that provides a uniform set of guidelines and provides a consistent basis for evaluating the ability of the louver to maintain its integrity during the large missile test of ASTM E 1886 and ASTM E 1996.

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

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

ICCFILENAME: LOVELL-S1-1609.1.2.1

S228-09/10: Add proposal as follows:

S228-09/10

2211.1 (New), 2211.2 (New), Chapter 35

Proponent: Victor D. Azzi, PhD, PE, Consulting Structural Engineer, representing the Storage Equipment Manufacturers Association (SMA), a division of the Material Handling Industry of America (MHIA).

1. Add new text as follows:

SECTION 2211

INDUSTRIAL-GRADE STEEL SHELVING

2211.1 General. The design, testing, utilization, and application of industrial-grade steel shelving shall be in accordance with the ANSI/SMA MH28.1. This standard applies to industrial steel shelving, designed to be loaded by hand, constructed entirely of cold-formed or hot-rolled steel structural members. When used in conjunction with automated or man-aboard storage/retrieval equipment, special criteria, beyond the scope of this standard, must be considered.

2211.2 Materials. Steel shall be in accordance with the ASTM specifications listed in AISI S100 and AISC 360. Steels not listed in the above specifications are not excluded, provided that they conform to the chemical and mechanical properties of one or more of the listed specifications, or of other specifications which establish their properties and structural suitability, and provided that they are subjected by either the producer or the purchaser to analyses, tests, and other controls to the extent and in the manner prescribed by one of the listed specifications, as applicable.

2. Add standard to Chapter 35 as follows:

SMA

MH28.1-08

Design, Testing, Utilization and Application of Industrial Grade Steel Shelving.

Reason: The Engineering committees of the Storage Equipment Manufacturers Association (SMA), worked to develop standard engineering practices for the design and testing of industrial steel shelving. The use of this standard permits loading capacities and performance ratings to be determined and verified by designers and users of these products.

The SMA, a Product Section of the Material Handling Industry of America (MHIA), comprises a substantial portion of the companies that design and manufacture industrial steel shelving in the United States. The SMA recognized the need to establish rigorous industry standards, and supported the development and promulgation of the standard for the benefit of the shelving industry as well as users of its products. This SMA/ANSI Standard has been developed using the canvassing processes of the MHIA and the ANSI. The ANSI canvass process for this Standard was recently completed. The SMA Engineering Committee has resolved the one comment having an objection and has made several editorial corrections.

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

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

ICCFILENAME: AZZI-S3-22XX (New)

S229-09/10: Add proposal as follows:

S229-09/10

2211.1 (New), 2211.2 (New), Chapter 35

Proponent: Victor D. Azzi, PhD, PE, Consulting Structural Engineer, representing the Storage Equipment Manufacturers Association (SMA), a division of the Material Handling Industry of America (MHIA).

1. Add new text as follows:

SECTION 2211 **INDUSTRIAL STEEL WORK PLATFORMS**

2211.1 General. The design, testing, utilization, application, and maintenance of industrial steel work platforms shall be in accordance with the provisions of ANSI/SMA MH28.3. An industrial steel work platform is herein defined as a pre-engineered, prefabricated, elevated platform, employing a steel framing system, located in an industrial environment. Other structural or nonstructural elements shall be permitted for flooring including but not limited to, concrete, steel, and engineered wood products. Personnel working on such platforms are trained employees, accustomed to a manufacturing environment and dressed accordingly.

2211.2 Materials. Steel shall be in accordance with the ASTM specifications listed in AISI S100 and AISC 360. Steels not listed in the above specifications are not excluded, provided that they conform to the chemical and mechanical properties of one or more of the listed specifications, or of other specifications which establish their properties and structural suitability, and provided that they are subjected by either the producer or the purchaser to analyses, tests, and other controls to the extent and in the manner prescribed by one of the listed specifications, as applicable.

Materials used in the decking structure and surfaces for these work platforms shall be concrete, engineered wood products, plywood or other wood products, steel sheet, steel plate or grating, supported by the steel framing system. Such decking materials shall conform to the applicable provisions of this code and referenced standards appropriate to their use in this application and work environment.

2. Add standard to Chapter 35 as follows:

SMA

MH28.3-08 **Specification for the Design, Manufacture and Installation of Industrial Steel Work-Platforms.**

Reason: The Engineering committees of the Storage Equipment Manufacturers Association (SMA), have worked to develop standard engineering practices for the design, testing, and utilization of Industrial Steel Work Platforms. The use of this standard permits loading capacities and performance ratings, as well as functional requirements, to be determined and verified by designers and users of these products.

The SMA, a Product Section of the Material Handling Industry of America (MHIA), comprises the substantial portion of the companies that design and manufacture the preponderance of industrial steel work platforms as defined by the scope of this standard. The SMA has recognized the need to establish rigorous industry standards, and have supported the development and promulgation of the ANSI/SMA standard for the benefit of the work-platform industry as well as the users of its products. This SMA/ANSI Standard has been developed using the canvassing processes of the MHIA and the ANSI. The ANSI canvass process for this new ANSI MH28.3 Standard was recently completed and the SMA Engineering Committee has resolved several items involving small editorial changes and corrections.

Cost Impact: This addition to the IBC will not increase the cost of construction.

Analysis:

S230-09/10: Add proposal as follows:

S230-09/10

2211.1 (New), 2211.2 (New), Chapter 35

Proponent: Victor D. Azzi, PhD, PE, Consulting Structural Engineer, representing the Storage Equipment Manufacturers Association (SMA), a division of the Material Handling Industry of America (MHIA).

1. Add new text as follows:

SECTION 2211

BOLTLESS METAL-WOOD SHELVING

2211.1 General. The design, testing, utilization, and application of boltless metal-wood shelving shall be in accordance with ANSI/SMA MH28.2. This standard shall apply to manually loaded Boltless Metal-Wood Shelving exclusively used for the storage of small to bulky type material. The shelving framing shall be cold-formed steel members using boltless connections. Shelving units shall be composed of cold-formed steel framework supporting shelving surfaces made of plywood, particleboard, mat-formed wood particleboard, or other wood products. Shelving surfaces of steel sheet or wire mesh shall be permitted.

2211.2 Materials. Steel shall be in accordance with the ASTM specifications listed in AISI S100 and AISC 360. Steels not listed in the above specifications are not excluded, provided that they conform to the chemical and mechanical properties of one or more of the listed specifications, or of other specifications which establish their properties and structural suitability, and provided that they are subjected by either the producer or the purchaser to analyses, tests, and other controls to the extent and in the manner prescribed by one of the listed specifications, as applicable.

Shelving surfaces shall be plywood, particleboard, mat-formed wood particleboard, oriented strand board, or other wood products supported by the steel framing system. Shelving surfaces of steel sheet or wire mesh shall be permitted.

2. Add standard to Chapter 35 as follows:

SMA

MH28.2-09 Design and Testing of Metal-Wood Shelving.

Reason: The Engineering committees of the Storage Equipment Manufacturers Association (SMA), have worked to develop standard engineering practices for the design and testing of boltless metal-wood shelving. The use of this standard permits loading capacities and performance ratings to be determined and verified by designers and users of these products.

The SMA, a Product Section of the Material Handling Industry of America (MHIA), comprises the substantial portion of the companies that design and manufacture boltless metal-wood shelving in the United States. The SMA has recognized the need to establish rigorous industry standards, and have supported the development and promulgation of the ANSI/SMA standard for the benefit of the shelving industry as well as the users of its products. This SMA/ANSI Standard has been developed using the canvassing processes of the MHIA and the ANSI. The ANSI canvass process for the renewal of this new edition of the ANSI MH28.2 Standard is currently underway and will soon be completed. The SMA Engineering Committee will work to resolve any objections that arise from this renewal canvassing process.

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

Analysis:

S231-09/10: Add proposal as follows:

S231-09/10

2204.1, 2204.2, 2205.3, 2206 (New)

Proponent: Bonnie Manley representing American Institute of Steel Construction, and RMI

Revise as follows:

SECTION 2206 COMPOSITE STRUCTURAL STEEL AND CONCRETE STRUCTURES

2206.1 General. Systems of structural steel acting compositely with reinforced concrete shall be designed in accordance with AISC 360 and ACI 318, excluding ACI 318 Chapter 22. Where required, the seismic design of composite steel and concrete systems shall be in accordance with the additional provisions of Section 2206.2.

2206.2 ~~2205.3~~ Seismic requirements for composite structural steel and concrete construction. Where a response modification coefficient, R , in accordance with ASCE 7, Table 12.2-1 is used for the design of systems of structural steel acting compositely with reinforced concrete, the structures shall be designed and detailed in accordance with the requirements of AISC 341. The design, construction and quality of composite steel and concrete components that resist seismic forces shall conform to the requirements of the AISC 360 and ACI 318. An R factor as set forth in Section 12.2.1 of ASCE 7 for the appropriate composite steel and concrete system is permitted where the structure is designed and detailed in accordance with the provisions of AISC 341, Part II. In *Seismic Design Category B* or above, the design of such systems shall conform to the requirements of AISC 341, Part II.

2205.3.1 Seismic Design Categories D, E and F. ~~Composite structures are permitted in *Seismic Design Categories D, E and F*, subject to the limitations in Section 12.2.1 of ASCE 7, where substantiating evidence is provided to demonstrate that the proposed system will perform as intended by AISC 341, Part II. The substantiating evidence shall be subject to *building official* approval. Where composite elements or connections are required to sustain inelastic deformations, the substantiating evidence shall be based on cyclic testing.~~

(Renumber remaining section)

2204.1 Welding. The details of design, workmanship and technique for welding, inspection of welding and qualification of welding operators shall conform to the requirements of the specifications listed in Sections 2205, 2206, 2207, 2208, ~~2209~~, and 2210, and 2211. *Special inspection* of welding shall be provided where required by Section 1704.

2204.2 Bolting. The design, installation and inspection of bolts shall be in accordance with the requirements of the specifications listed in Sections 2205, 2206, 2207, ~~2209~~, and 2210, and 2211. *Special inspection* of the installation of high-strength bolts shall be provided where required by Section 1704.

Reason: The purpose of new Section 2206 is twofold. First, it editorially reorganizes composite structural steel and concrete structures under its own section within Chapter 22. The layout chosen for the section is similar to that found in Section 2205 for structural steel. However, unlike the section on structural steel, no distinction is made between seismic design categories – no matter what category a composite structure is assigned to, it must be designed and detailed in accordance with AISC 341. Also, the reference to AISC 341, Part II has been eliminated. This level of detail is unnecessary and, in addition, it is anticipated that the 2010 edition of AISC 341 will no longer be divided into two parts.

The proposal also recommends the elimination of the requirements for substantiating evidence in composite structures assigned to SDC D, E and F. First, it is redundant to require design and detailing in accordance with AISC 341 and then to turn around and require substantiating evidence to demonstrate that the system performs as intended by AISC 341. Additionally, the 2010 edition of AISC 341 provides detailed requirements for testing where appropriate, specifically in Section G3.6b (Composite Special Moment Frames), Section G4.6b (Composite Partially Restrained Moment Frames), and Section H3 (Composite Eccentrically Braced Frames). The requirement recommended for deletion in the last sentence currently overwrites AISC 341's requirements, and, in all reality, an oversimplification. Rather, the reference standard should be allowed to govern in this case.

Please note, public review drafts of the 2010 AISC documents can be found on the AISC website (www.aisc.org). The public review period for AISC 360-10 is currently scheduled for 8/14/09 through 9/28/09 and the public review period for AISC 341-10 is currently scheduled for 9/11/09 through 10/26/09. It is anticipated that the 2010 editions of both AISC 360 and AISC 341 will be technically complete by the end of October 2009, with ANSI approval in March 2010 and publication in August 2010.

The revision of Section 2204 is simply editorial in nature. The laundry list of section numbers has been modified to reflect the new Section 2206.

Cost Impact: There is no anticipated impact on the cost of construction.

Added 9/24/2009

S232-09/10: Add proposal as follows:

S232-09/10

1708.3

Proponent: Bonnie Manley, American Iron and Steel Institute, representing American Institute of Steel Construction

Revise as follows:

1708.3 Structural steel. Testing for structural steel shall be in accordance with the quality assurance plan requirements of AISC 341.

Exceptions:

1. Testing for structural steel in structures assigned to *Seismic Design Category C* that are not specifically detailed for seismic resistance, with a response modification coefficient, *R*, of 3 or less, excluding cantilever column systems.
2. For ordinary moment frames, ultrasonic and magnetic particle testing of complete joint penetration groove welds are only required for demand critical welds.

Reason: The first editorial modification tightens up the reference to AISC 341 and the second modification in the exception corrects the requirement to reflect only those buildings and structures designed as "Steel systems not detailed specifically detailed for seismic resistance, excluding cantilever column systems," per ASCE 7, Table 12.2-1, Line H. Similar modifications are recommended in Sections 1705.3.1 and 1707.2.

Cost Impact: There is no anticipated impact on the cost of construction.

Added 9/24/2009

S233-09/10: Add proposal as follows:

S233-09/10

2205.1, 2205.2

Proponent: Bonnie Manley, American Iron and Steel Institute, representing American Institute of Steel Construction

Revise as follows:

2205.1 General. The design, fabrication and erection of structural steel for buildings and structures shall be in accordance with AISC 360. Where required, the seismic design of structural steel structures shall be in accordance with the additional provisions of Section 2205.2.

2205.2 Seismic requirements for structural steel structures. The design of structural steel structures to resist seismic forces shall be in accordance with the provisions of Section 2205.2.1 or 2205.2.2, as applicable for the appropriate seismic design category.

2205.2.1 Seismic Design Category A, B or C. Structural steel structures assigned to *Seismic Design Category A, B or C* shall be of any construction permitted in Section 2205. Where a response modification coefficient, *R*, in accordance with ASCE 7, Table 12.2-1 is used for the design of structural steel structures assigned to *Seismic Design Category B or C*, the structures shall be designed and detailed in accordance with the requirements of AISC 341. An *R* factor as set forth in Section 12.2.1 of ASCE 7 for the appropriate steel system is permitted where the structure is designed and detailed in accordance with the provisions of AISC 341, Part I. Systems not detailed in accordance with

the above shall use the *R* factor in Section 12.2.1 of ASCE 7 designated for “structural steel systems not specifically detailed for seismic resistance.”

Exception: The response modification coefficient, *R*, designated for “Steel systems not specifically detailed for seismic resistance, excluding cantilever column systems” in ASCE 7, Table 12.2-1 shall be permitted for systems designed and detailed in accordance with AISC 360, and need not be designed and detailed in accordance with AISC 341.

2205.2.2 Seismic Design Category D, E or F. Structural steel structures assigned to *Seismic Design Category D, E or F* shall be designed and detailed in accordance with AISC 341, except as permitted in ASCE 7, Table 15.4-1. Part I.

Reason: The following modifications to Section 2205.2 are primarily editorial in nature:

The title of Section 2205.2 has been corrected to reflect the subject of the requirements that follow.

The reference to SDC A has been eliminated. For SDC A, ASCE 7 does specify lateral forces to be used as the seismic loads and effects, but these calculations do not involve the use of an *R*-factor. Thus, for SDC A, it is not necessary to define a seismic force resisting system that meets any special requirements, and, consequently, AISC 341 does not apply.

The second sentence of Section 2205.2.1 has been reworked to clearly indicate that all structural steel structures assigned to SDC B or C need to be detailed in accordance with AISC 341. The only exception to this is for systems that fall under Line H of ASCE 7, Table 12.2-1, which is for “Steel systems not specifically detailed for seismic resistance, excluding cantilever column systems.” These systems are permitted to be designed and detailed in accordance with AISC 360. This exception is now clearly shown as just that – an exception to the requirements in Section 2205.2.1.

The modification to Section 2205.2.2 is intended to correct an oversight in the 2006 and 2009 IBC. Beginning with the 2005 edition of ASCE 7, Table 15.4-1 permits certain select systems with reduced response modification coefficients to be designed and detailed in accordance with AISC 360 only.

Finally, the reference to “Part I” of AISC 341 has been eliminated. This level of detail is unnecessary and, in addition, it is anticipated that the 2010 edition of AISC 341 will no longer be divided into two parts.

Please note, public review drafts of the 2010 AISC documents can be found on the AISC website (www.aisc.org). The public review period for AISC 360-10 is currently scheduled for 8/14/09 through 9/28/09 and the public review period for AISC 341-10 is currently scheduled for 9/11/09 through 10/26/09. It is anticipated that the 2010 editions of both AISC 360 and AISC 341 will be technically complete by the end of October 2009, with ANSI approval in March 2010 and publication in August 2010.

Cost Impact: There is no anticipated impact on the cost of construction.

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

ICCFILENAME: MANLEY-S17-2205.1

INTERNATIONAL ENERGY CONSERVATION CODE

REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Revised 9/03:

Add G209-09/10 to the end of the IECC Hearing Order

Revised 9/24:

Remove EC80-09/10, Part I from the IECC Hearing Order

Add Part I to G209-09/10 of the IECC Hearing Order

Add G209-09/10, Part II to the end of the IECC Hearing Order

TENTATIVE ORDER OF DISCUSSION

Revised 9/24/09

2009/2010 PROPOSED CHANGES TO THE INTERNATIONAL ENERGY CONSERVATION CODE

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation does **not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair.

ADM24-09/10	EC18-09/10, Part I	EC50-09/10, Part I	EC81-09/10, Part I
ADM25-09/10	EC20-09/10	EC51-09/10	EC82-09/10, Part I
ADM26-09/10	EC21-09/10, Part I	EC52-09/10	EC83-09/10, Part I
ADM27-09/10	EC22-09/10, Part I	EC53-09/10, Part I	EC84-09/10, Part I
ADM28-09/10	EC23-09/10, Part I	EC54-09/10, Part I	EC85-09/10
ADM29-09/10	EC24-09/10	EC55-09/10, Part I	EC86-09/10, Part I
EC65-09/10	EC26-09/10, Part I	EC57-09/10, Part I	EC87-09/10, Part I
ADM30-09/10	EC27-09/10, Part I	EC58-09/10, Part I	EC88-09/10
ADM31-09/10	EC28-09/10, Part I	EC59-09/10, Part I	EC89-09/10, Part I
EC1-09/10, Part I	EC29-09/10, Part I	EC60-09/10, Part I	EC90-09/10, Part I
EC2-09/10, Part I	EC30-09/10, Part I	EC61-09/10	EC91-09/10, Part I
EC3-09/10	EC31-09/10, Part I	EC62-09/10	EC92-09/10, Part I
EC4-09/10, Part I	EC32-09/10, Part I	EC63-09/10, Part I	EC93-09/10
EC5-09/10	EC33-09/10	EC64-09/10, Part I	EC94-09/10
EC6-09/10	EC34-09/10, Part I	EC65-09/10	EC96-09/10, Part I
EC7-09/10	EC35-09/10, Part I	EC66-09/10, Part I	EC97-09/10
EC8-09/10	EC36-09/10, Part I	EC67-09/10	EC98-09/10, Part I
EC9-09/10	EC37-09/10	EC68-09/10, Part I	EC99-09/10, Part I
EC10-09/10	EC38-09/10, Part I	EC69-09/10, Part I	EC100-09/10, Part I
EC13-09/10, Part I	EC39-09/10, Part I	EC70-09/10	EC101-09/10, Part I
EC14-09/10	EC40-09/10, Part I	EC71-09/10, Part I	EC102-09/10, Part I
EC15-09/10	EC41-09/10, Part I	EC72-09/10, Part I	EC103-09/10, Part I
EC19-09/10, Part I	EC42-09/10, Part I	EC73-09/10, Part I	EC104-09/10, Part I
EC25-09/10, Part I	EC43-09/10, Part I	EC74-09/10, Part I	EC105-09/10
EC16-09/10, Part I	EC44-09/10	EC75-09/10	EC106-09/10, Part I
EC11-09/10, Part I	EC45-09/10, Part I	EC76-09/10, Part I	EC107-09/10, Part I
EC56-09/10, Part I	EC46-09/10, Part I	EC77-09/10, Part I	EC108-09/10
EC232-09/10	EC47-09/10, Part I	EC78-09/10, Part I	EC109-09/10, Part I
EC12-09/10	EC48-09/10, Part I	EC79-09/10, Part I	EC110-09/10
EC17-09/10, Part I	EC49-09/10	EC80-09/10, Part I	

EC111-09/10	EC141-09/10	EC173-09/10	EC205-09/10
EC112-09/10, Part I	EC142-09/10	EC174-09/10	EC206-09/10
EC113-09/10	EC143-09/10	EC175-09/10	EC207-09/10
EC114-09/10, Part I	EC144-09/10	EC176-09/10	EC208-09/10
EC115-09/10, Part I	EC145-09/10	EC177-09/10	EC209-09/10
EC116-09/10, Part I	EC146-09/10	EC178-09/10	EC210-09/10
EC117-09/10, Part I	EC147-09/10	EC179-09/10	EC211-09/10
EC118-09/10, Part I	EC148-09/10	EC180-09/10	EC212-09/10
EC118-09/10, Part II	EC149-09/10	EC181-09/10	EC213-09/10
EC119-09/10, Part I	EC150-09/10	EC182-09/10	EC214-09/10
EC120-09/10, Part I	EC151-09/10	EC183-09/10	EC215-09/10
EC121-09/10, Part I	EC152-09/10	EC184-09/10	EC216-09/10
EC122-09/10, Part I	EC153-09/10	EC185-09/10	EC217-09/10
EC123-09/10, Part I	EC154-09/10	EC186-09/10	EC218-09/10
EC124-09/10, Part I	EC155-09/10	EC187-09/10	EC219-09/10
EC125-09/10, Part I	EC156-09/10	EC188-09/10	EC220-09/10
EC126-09/10, Part I	EC157-09/10	EC189-09/10	EC221-09/10
EC127-09/10, Part I	EC158-09/10	EC190-09/10	EC222-09/10
EC128-09/10	EC159-09/10	EC191-09/10	EC223-09/10
EC129-09/10, Part I	EC160-09/10	EC192-09/10	EC224-09/10
EC130-09/10, Part I	EC161-09/10	EC193-09/10	EC225-09/10
EC131-09/10, Part I	EC162-09/10	EC194-09/10	EC226-09/10
EC132-09/10	EC163-09/10	EC195-09/10	EC227-09/10
EC133-09/10	EC164-09/10	EC196-09/10	EC228-09/10
EC134-09/10	EC165-09/10	EC197-09/10	EC229-09/10
EC135-09/10	EC166-09/10	EC198-09/10	EC230-09/10
EC136-09/10	EC167-09/10	EC199-09/10	EC231-09/10
EC137-09/10	EC168-09/10	EC200-09/10	<u>G209-09/10, Part I</u>
EC138-09/10	EC169-09/10	EC201-09/10	<u>G209-09/10, Part II</u>
EC139-09/10	EC170-09/10	EC202-09/10	
EC140-09/10	EC171-09/10	EC203-09/10	
	EC172-09/10	EC204-09/10	

INTERNATIONAL EXISTING BUILDING CODE

REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Revised 9/03:

Add EB73-09/10 to IEBC Hearing Order following EB20-09/10

Revised 9/24:

Remove EB32-09/10 from the end of the IEBC Hearing Order

TENTATIVE ORDER OF DISCUSSION

Revised 9/24/09

2009/2010 PROPOSED CHANGES TO THE INTERNATIONAL EXISTING BUILDING CODE

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation does **not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair.

EB1-09/10
EB2-09/10
EB10-09/10 Part I
EB10-09/10 Part II
EB10-09/10 Part III
 EB32-09/10 Part I
 EB32-09/10 Part II
 EB33-09/10 Part I
 EB33-09/10 Part II
 EB34-09/10
EB11-09/10 Part I
EB11-09/10 Part II
EB14-09/10 Part I
EB14-09/10 Part II
EB18-09/10
 EB26-09/10
 EB35-09/10
 EB39-09/10
 EB23-09/10
EB19-09/10
EB20-09/10
 EB73-09/10
EB27-09/10
EB28-09/10
EB29-09/10
EB30-09/10
EB31-09/10
~~EB32-09/10~~

EB6-09/10: Correction to "This is 2 Part Code Change" introduction:

EB6-09/10

506.2.2, 506.2.2.1; IBC 3405.2 (IEBC [B] 304.2), 3405.2.1(IEBC [B] 304.2.1)

Proponent: David Bonowitz, SE, National Council of Structural Engineers Associations, Code Advisory Committee, Existing Buildings Subcommittee (NCSEA EBS)

THIS IS A 2 PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE IBC STRUCTURAL CODE COMMITTEE AS 2 SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER FOR THE IBC STRUCTURAL COMMITTEE.

(Portions of proposal not shown remain unchanged)

ICCFILENAME: BONOWITZ-EB24-506.2.2.DOC

Added 9/24/2009

EB32-09/10: Correction to "This is 2 Part Code Change" introduction:

EB32-09/10

IEBC 912.8, 912.8.1, 912.8.2; IBC 3411.4, 3411.4.1, 3411.4.2 (IEBC [B] 310.4, 310.4.1, 310.4.2)

Proponent: Maureen Traxler, City of Seattle, Seattle Dept of Planning & Development

THIS IS A 2 PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE EXISTING BUILDING COMMITTEE AS 2 SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

(Portions of proposal not shown remain unchanged)

ICCFILENAME: TRAXLER-G11-3411.4.2

EB73-09/10: Add proposal as follows:

EB73-09/10

804.1.1

Proponent: Tom Lariviere, Chairman - Joint Fire Service Review Committee

Revise as follows:

804.1.1 High-rise buildings. ~~In high-rise High-rise buildings, work areas shall be provided with automatic sprinkler protection throughout, where the building has a sufficient municipal water supply system to the site. Where the work area exceeds 50 percent of floor area, sprinklers shall be provided in the specified areas where sufficient municipal water supply for design and installation of a fire sprinkler system is available at the site.~~

Reason: IEBC Chapter 8 applies to Level 3 alterations, which by definition already exceed 50% of the floor area. The entire Chapter 8 applies to alterations where the proposed work exceeds 50% of total floor area of the building. Therefore, the reference to 50% in Section 804.1.1 is redundant, and this portion of the Section 804.1.1 is deleted.

The additional part of this proposal is to eliminate the allowance for high-rise buildings to escape from the sprinkler requirements when the available water is inadequate. There are few, if any, water systems that are capable of providing sprinklers in a high rise building without a fire pump. Most newly constructed buildings require a fire pump to overcome low residual pressure in the municipal water system and are not provided an exception based on a "sufficient municipal water supply". High-rise buildings covered in IEBC Chapter 8 should be treated in the same manner as new construction in the requirements for fire detection and automatic fire suppression, and therefore the exception allowing elimination of the sprinkler system is deleted.

The existing language "sufficient municipal water supply" is vague as to application of water volume and/or pressure and fire flow requirement. In a practical sense, the existing municipal water supply could have sufficient volume but not sufficient pressure needed to push the water to the upper stories of the high rise. The exception could allow exclusion of the automatic sprinkler system that would otherwise be required in the IBC or IFC and therefore this exception should be eliminated from the IEBC. Existing fire protection standards supply engineering solutions for the provision of water where the municipal supply is lacking or non-existent.

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

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

ICCFILENAME: LARIVIERE-EB2-804.1.1

INTERNATIONAL WILDLAND-URBAN INTERFACE CODE/ INTERNATIONAL FIRE CODE

REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Revised 9/03:

Add WUIC06-09/10 to WUIC Hearing Order following WUIC5-09/10
Add F239-09/10 to IFC Hearing Order following F142-09/10
Add F240-09/10 to IFC Hearing Order following F229-09/10
Add F241-09/10 to IFC Hearing Order following F222-09/10
Add F242-09/10 to IFC Hearing Order following F145-09/10
Add F243-09/10 to IFC Hearing Order following F88-09/10

Revised 9/24:

Add Part I to F58-09/10 of the IFC Hearing Order
Add F58-09/10, Part II to IFC Hearing Order following F58-09/10, Part I
Add G206-09/10, Part II to the end of the IFC Hearing Order

TENTATIVE ORDER OF DISCUSSION

Revised 9/24/09

2009/2010 PROPOSED CHANGES TO THE INTERNATIONAL FIRE CODE AND INTERNATIONAL WILDLAND-URBAN INTERFACE CODE

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation does **not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair.

WILDLAND-URBAN

WUIC1-09/10	F30-09/10	F25-09/10	F47-09/10
WUIC2-09/10	F238-09/10	F26-09/10	F48-09/10
WUIC3-09/10	F9-09/10	F27-09/10	F49-09/10
WUIC4-09/10	F10-09/10	F28-09/10	F50-09/10
WUIC5-09/10	F11-09/10	F29-09/10	F51-09/10
WUIC6-09/10	F12-09/10	F31-09/10	F52-09/10
	F13-09/10	F32-09/10	F53-09/10
	F14-09/10	F33-09/10	F54-09/10

FIRE CODE

F1-09/10	F15-09/10	F34-09/10	F55-09/10
ADM34-09/10	F16-09/10	F35-09/10	F56-09/10
ADM35-09/10	F17-09/10	F36-09/10	F57-09/10
F2-09/10	F18-09/10	F37-09/10	F58-09/10, <u>Part I</u>
F3-09/10	F19-09/10	F38-09/10	<u>F58-09/10, Part II</u>
F4-09/10	F20-09/10, Part I	F39-09/10	F59-09/10
F5-09/10	F20-09/10, Part II	F41-09/10	F60-09/10
F6-09/10	F40-09/10	F42-09/10	F61-09/10
F7-09/10	F21-09/10	F43-09/10	F62-09/10
RB9-09/10, Part II	F22-09/10	F44-09/10	F64-09/10
F8-09/10	F23-09/10	F45-09/10	F65-09/10
	F24-09/10	F46-09/10	F66-09/10

F67-09/10	F114-09/10, Part II	F154-09/10	F196-09/10
F68-09/10	F114-09/10, Part III	F155-09/10	F197-09/10
F69-09/10	F115-09/10, Part I	F156-09/10	F198-09/10
F70-09/10	F116-09/10, Part I	F157-09/10	F199-09/10
F71-09/10	F117-09/10	F158-09/10	F200-09/10
F72-09/10	F118-09/10	F159-09/10	F201-09/10
F73-09/10	F119-09/10	F160-09/10	F202-09/10
F74-09/10	F120-09/10, Part I	F161-09/10, Part I	F203-09/10
F75-09/10	F120-09/10, Part II	F161-09/10, Part II	F204-09/10
F76-09/10	F121-09/10	F162-09/10, Part I	F205-09/10
F77-09/10	F122-09/10	F162-09/10, Part II	F206-09/10
F78-09/10	F123-09/10	F163-09/10	F207-09/10
F79-09/10	F124-09/10	F164-09/10	F208-09/10
F80-09/10	F125-09/10	F165-09/10	F209-09/10
F81-09/10	F126-09/10	F166-09/10	F210-09/10
F82-09/10	F127-09/10	F167-09/10	F211-09/10
F83-09/10	F128-09/10	F168-09/10	F212-09/10
F84-09/10	F129-09/10	F169-09/10	F213-09/10
F85-09/10	F130-09/10	F170-09/10	F214-09/10
F86-09/10	F131-09/10	F171-09/10	F215-09/10
F87-09/10	F132-09/10, Part I	F172-09/10	F216-09/10
F89-09/10	F133-09/10	F173-09/10	F217-09/10
F90-09/10	F134-09/10	F174-09/10	F218-09/10
F96-09/10	F135-09/10	F175-09/10	F219-09/10
F97-09/10	F136-09/10	F176-09/10	F220-09/10
F88-09/10	F137-09/10	F177-09/10	F221-09/10
<u>F243-09/10</u>	F138-09/10	F178-09/10	F222-09/10
F91-09/10	F139-09/10	F179-09/10	<u>F241-09/10</u>
F92-09/10	F140-09/10	F180-09/10	F223-09/10
F93-09/10	F141-09/10	F181-09/10	F224-09/10
F94-09/10	F142-09/10	F182-09/10	F225-09/10
F95-09/10	<u>F239-09/10</u>	F183-09/10	F226-09/10
F98-09/10	<u>F145-09/10</u>	F184-09/10	F227-09/10
F99-09/10	<u>F242-09/10</u>	F185-09/10	F228-09/10
F100-09/10	<u>F146-09/10</u>	F186-09/10	F229-09/10
F101-09/10	F143-09/10	F187-09/10	<u>F240-09/10</u>
F102-09/10	F144-09/10	F188-09/10	F230-09/10
F103-09/10	F63-09/10	G73-09/10	F231-09/10
F104-09/10	G72-09/10	G74-09/10	F232-09/10
F105-09/10	F147-09/10	F189-09/10	F233-09/10
F106-09/10	G70-09/10	F190-09/10	F234-09/10
F107-09/10	G71-09/10	F191-09/10	F235-09/10
F108-09/10, Part I	F148-09/10, Part I	F192-09/10	F236-09/10, Part I
F109-09/10	F148-09/10, Part II	M32-09/10	F236-09/10, Part II
F110-09/10	F149-09/10	F193-09/10, Part I	F237-09/10
F111-09/10	F150-09/10	F193-09/10, Part II	<u>G206-09/10, Part II</u>
F112-09/10, Part I	F151-09/10	F194-09/10	
F113-09/10	F152-09/10	M33-09/10	
F114-09/10, Part I	F153-09/10	F195-09/10	

INTERNATIONAL WILDLAND-URBAN INTERFACE CODE

WUIC6-09/10: Add proposal as follows:

WUIC6–09/10 Appendix I (New)

Proponent: Mark Nelson, Fire Marshal, County of Los Angeles, CA Fire Department

Add new text as follows:

APPENDIX I

WILDFIRE EVACUATION PLANS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

SECTION I101 GENERAL

I101.1 General: This appendix shall apply to wildfire evacuation plans for certain occupancies and buildings located within hazardous wildfire areas. These occupancies generally involve patrons, students or tenants, who may be unfamiliar with actions to take when a wildfire threatens. These occupancies also have staff or employees who shall be familiar with the contents of the wildfire evacuation plan and the actions necessary to implement.

SECTION I102 REQUIRED

I102.1 Where Required: An approved wildfire evacuation plan shall be prepared and maintained for the following occupancies and buildings located within hazardous wildfire areas:

1. Group E
2. Group I
3. Group R-1
4. Organized Camps

SECTION I103 APPROVAL

I103.1 Approval: The code official shall review and approve wildfire evacuation plans in conjunction with appropriate law enforcement or other agencies responsible for evacuations.

SECTION I104 CONTENTS

I104.1 Contents: Wildfire evacuation plans shall include the following:

1. **Objective or scope** An example would be: “The objective of this plan is to provide for the safe evacuation of Maple School students, faculty and staff during a wildfire emergency.”
2. **Responsibilities.** Identification and assignment of staff or employees responsible for implementation of the wildfire evacuation plan.
3. **Contacts.** List of individuals or organizations to be contacted in regards to wildfire evacuation planning or implementation.
4. **Alerts.** Procedures for alerting occupants and staff of wildfire, procedures for alerting parents if the

- occupancy is a camp or school and the policy for parent pick-up.
5. **Preparations prior to evacuation.** Preparations to include clothing and protective equipment to prevent burns, medical aid considerations and supplies, vehicle preparation and positioning, structure preparation, items to take.
 6. **Criteria for implementation of evacuation.** Evacuation notification methods and procedures, including decision points for evacuation implementation if no evacuation order is received.
 7. **Evacuation procedures.** Procedures shall include accounting for employees and occupants during and after evacuation, what to do if trapped by fire while evacuating in a vehicle, what to do if trapped by fire while evacuating on foot and what to do if trapped by fire inside a building.
 8. **Evacuation routes.** Routes shall be designated starting from the occupancy and continue to assembly points that are located outside of the hazardous fire area. A minimum of two routes shall be designated based on wildfire threat. For example, a wildfire that is approaching from the south or a wildfire approaching from the north.

Routes shall be graphically displayed in the plan.

9. **Special considerations.** Procedures for evacuation of the young, elderly, persons with disabilities, procedures for evacuation of pets or livestock.
10. **Employee training.** Description of frequency and content of employee training.
11. **Annual review and code official approval.** The plan shall be reviewed and approved annually by the code official.

SECTION I105 **MAINTENANCE**

I105.1 Maintenance: Wildfire evacuation plans shall be reviewed or updated annually or as necessitated by changes in staff assignments, occupancy or the physical arrangement of the building.

SECTION I106 **AVAILABILTY**

I106. Availability: Wildfire evacuation plans shall be made available on the premises for reference and review by employees and copies shall be furnished to the code official for review upon request.

Reason: Wildfire evacuation plans are a necessary life safety feature for certain occupancies in hazardous fire areas. Most civilian wildfire deaths occur during last-minute evacuations. This submittal standardizes evacuation plan contents and is directed at occupancies where civilians may be unfamiliar with actions to take when a wildfire threatens.

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

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

ICCFILENAME: Nelson-WUIC1-Appendix I-New

INTERNATIONAL FIRE CODE

Added 9/24/2009

F195-09/10: Replace entire section with underlined text in 3006.1.

F195-09/10 3006 (IMC [F] 502.9.1)

Proponent: Lynne M. Kilpatrick, Seattle, WA Fire Department, representing City of Seattle Fire Department

Revise as follows:

SECTION 3006 MEDICAL GAS SYSTEMS

3006.1 General. Medical gas systems including, but not limited to, distribution piping, supply manifolds, connections, pressure regulators and relief devices and valves, shall comply with NFPA 99 and the general provisions of this chapter. ~~Compressed gases at hospitals and similar facilities intended for inhalation or sedation including, but not limited to, analgesia systems for dentistry, podiatry, veterinary and similar uses shall comply with Sections 3006.2 through 3006.4 in addition to other requirements of this chapter.~~

3006.2 Interior supply location. ~~Medical gases shall be stored in areas dedicated to the storage of such gases without other storage or uses. Where containers of medical gases in quantities greater than the permit amount are located inside buildings, they shall be in a 1-hour exterior room, a 1-hour interior room or a gas cabinet in accordance with Section 3006.2.1, 3006.2.2 or 3006.2.3, respectively. Rooms or areas where medical gases are stored or used in quantities exceeding the maximum allowable quantity per control area as set forth in Section 2703.1 shall be in accordance with the *International Building Code* for high-hazard Group H occupancies.~~

3006.2.1 One-hour exterior rooms. ~~A 1-hour exterior room shall be a room or enclosure separated from the remainder of the building by fire barriers with a fire-resistance rating of not less than 1 hour. Openings between the room or enclosure and interior spaces shall be self-closing smoke and draft control assemblies having a fire protection rating of not less than 1 hour. Rooms shall have at least one exterior wall that is provided with at least two vents. Each vent shall not be less than 36 square inches (0.023 m²) in area. One vent shall be within 6 inches (152 mm) of the floor and one shall be within 6 inches (152 mm) of the ceiling. Rooms shall be provided with at least one automatic sprinkler to provide container cooling in case of fire.~~

3006.2.2 (IMC [F]502.9.1) One-hour interior room. ~~When an exterior wall cannot be provided for the room, automatic sprinklers shall be installed within the room. The room shall be exhausted through a duct to the exterior. Supply and exhaust ducts shall be enclosed in a 1-hour rated shaft enclosure from the room to the exterior. Approved mechanical ventilation shall comply with the *International Mechanical Code* and be provided at a minimum rate of 1 cubic foot per minute per square foot [0.00508 m³/(s · m²)] of the area of the room.~~

3006.2.3 (IMC [F]502.9.1) Gas cabinets. ~~Gas cabinets shall be constructed in accordance with Section 2703.8.6 and the following:~~

- ~~1. The average velocity of ventilation at the face of access ports or windows shall not be less than 200 feet per minute (61 m/s) with a minimum of 150 feet per minute (46 m/s) at any point of the access port or window.~~
- ~~2. They shall be connected to an exhaust system.~~
- ~~3. They shall be internally sprinklered.~~

3006.3 Exterior supply locations. ~~Oxidizer medical gas systems located on the exterior of a building with quantities greater than the permit amount shall be located in accordance with Section 4004.2.1.~~

3006.4 Medical gas systems. ~~Medical gas systems including, but not limited to, distribution piping, supply manifolds, connections, pressure regulators and relief devices and valves, shall comply with NFPA 99 and the general provisions of this chapter.~~

Reason: Section 3006 requires confinement of compressed medical gases intended for inhalation or sedation in quantities exceeding the permit threshold to a one-hour 'med gas' room equipped with at least one sprinkler head. Further, existing text clarifies that a Group H Occupancy is required when quantities of medical gases in the one-hour 'med gas' room that are also hazardous materials exceed the MAQ set forth in Chapter 27 (e.g. 1500 cu ft oxidizing gases in unsprinklered buildings; 3000 cu ft oxidizing gases in sprinklered buildings). This proposal deletes the

requirement for the special one-hour 'med gas' room in its entirety and defaults to regulation of the gases in accordance with Chapter 27 and NFPA 99.

Cost Impact: Costs may decrease.

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

ICCFILENAME: Kilpatrick-F3-3006-ERRATA

F239-09/10: Add proposal as follows:

F239-09/10

910.2 (IBC [F] 910.2)

Proponent: Mark Nelson, Fire Marshal, County of Los Angeles, CA Fire Department

Revise as follows:

910.2 (IBC [F] 910.2) Where required. Smoke and heat vents shall be installed in the roofs of ~~one-story~~ buildings or portions thereof occupied for the uses set forth in Sections 910.2.1 and 910.2.2.

Exception: In occupied portions of a building where the upper surface of the story is not a roof assembly, mechanical smoke exhaust in accordance with Section 910.4 shall be an acceptable alternative.

Reason: The fire safety concerns that this section provides for should not be limited to one story buildings. The need for smoke and heat venting is more critical in multi-story buildings due to increased travel distances to an exit discharge and the additional time it takes firefighting crews to reach an area of high pile combustible storage located above or below grade plane level within a building.

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

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

ICCFILENAME: NELSON-F3-910.2.DOC

F240-09/10: Add proposal as follows:

F240-09/10

Appendix A101.7

Proponent: Mark Nelson, Fire Marshal, County of Los Angeles, CA Fire Department

Revise as follows:

A101.7 Meetings. The board shall meet at regular intervals, to be determined by the chairman. In any event, the board shall meet within 10 days after a valid notice of appeal has been received by the secretary of the board.

Reason: Restricts the requirement that the Board of Appeals must meet within 10 days to only a notice of appeal that is legitimate and properly submitted to the fire code official/secretary of the board. A notice of appeal would be valid if it met requirements established by law and the rules and regulations established by the Board of Appeals including such items as documentation, procedural, and fee requirements.

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

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

ICCFILENAME: NELSON-F2-A101.7.DOC

F241-09/10: Add proposal as follows;

F241-09/10

4603.6.1 (New), 4603.6.1.1 (New), 4603.6, Table 4603.1

Proponent: Tom Lariviere, Chairman – Joint Fire Service Review Committee

1. Add new text as follows:

4603.6.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 shall be installed in Group A occupancies having an occupant load of 300 or more. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

4603.6.1.1 System initiation in Group A occupancies with an occupant load of 1,000 or more. Activation of the fire alarm in Group A occupancies with an occupant load of 1,000 or more shall initiate a signal using an emergency voice/alarm communications system in accordance with Section 907.6.2.2.

Exception: Where approved, the prerecorded announcement is allowed to be manually deactivated for a period of time, not to exceed 3 minutes, for the sole purpose of allowing a live voice announcement from an approved, constantly attended location.

(Renumber subsequent sections.)

2. Revise as follows:

4603.6 Fire alarm systems. *An approved manual, automatic or manual and automatic fire alarm system shall be installed in existing buildings and structures in accordance with Sections 4603.6.1 through 4603.6.7 4603.6.8 and provide occupant notification in accordance with Section 907.6 unless other requirements are provided by other sections of this code.*

Exception: Occupancies with an existing, previously approved fire alarm system.

**TABLE 4603.1
OCCUPANCY AND USE REQUIREMENTS**

Section	Use			Occupancy Classification																			
	High Rise	Atrium or Covered Mall	Under ground Building	A	B	E	F	H-1	H-2	H-3	H-4	H-5	I-1	I-2	I-3	I-4	M	R-1	R-2	R-3	R-4	S	
4603.6.1				R																			
4603.6.1 4603.6.2						R																	
4603.6.2 4603.6.3													R										
4603.6.3 4603.6.4														R									
4603.6.4 4603.6.5															R								
4603.6.5 4603.6.6																		R					
4603.6.6 4603.6.7																			R				
4603.6.7 4603.6.8																						R	

(Portions of table and notes not shown remain unchanged)

Reason: A study of multiple casualty fires in assembly occupancies has shown that similar conditions existed in all of the fires. These conditions include interior finish, exiting and occupant notification issues. The IFC addresses egress and interior finish issues retroactively in existing buildings. While the IFC contains retroactive fire alarm provisions in Groups E, R and I, there are currently no requirements for fire alarm systems in existing Group A occupancies. In the Beverly Hills Supper Club Fire (1977) and the Coconut Grove Fire (1942) one important factor resulting in 657 fatalities was the lack of occupant notification. In both these fires, multiple assembly rooms created conditions where the occupants of the buildings were not aware of fire conditions elsewhere in the building. Delayed occupant notification resulted in the fire condition blocking exit routes that would have been available earlier in the incidents.

This proposal will require a manual fire alarm system in existing Group A buildings with an occupant load of 300 or more.

Section 4603.6 is revised to include the new sections in the reference.

Table 4603.1 is revised to include the new sections in the reference.

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

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

ICCFILENAME: LARIVIERE-F34-4603.6.1.doc

F242-09/10: Add proposal as follows:

F242-09/10

910.4 (IBC [F]910.4)

Proponent: Vickie Lovell, InterCode Incorporated, representing Air Movement and Control Association

Revise as follows:

910.4 (IBC [F]910.4) Mechanical smoke exhaust. Where approved by the fire code official, engineered mechanical smoke exhaust shall be an acceptable alternative to smoke and heat vents. Exception #2 of Section 910.1 shall not apply to mechanical smoke exhaust in buildings equipped with early suppression, fast response (ESFR) automatic sprinklers.

Reason: There is ongoing debate about the use of smoke and heat vents in sprinklered buildings. This code change does not intend to address that issue. However, due to the way Section 910 is formatted, it has been interpreted by some code users that every exception that applies to smoke and heat vent also applies automatically to mechanical smoke exhaust. This is incorrect, and this proposed change attempts to resolve and clarify the code requirements for mechanical smoke exhaust.

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

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

ICCFILENAME: Lovell-F2-910.4

F243-09/10: Add proposal as follows:

F243-09/10

905.3 (IBC [F]905.3)

Proponent: John Berry, AIA – CR architecture + design (formerly Cole & Russell Architects) - representing self

Revise as follows:

905.3 (IBC [F] 905.3) Required Installations. Standpipe systems shall be installed where required by Sections 905.3.1 through 905.3.7 ~~and in the locations indicated in Sections 905.4, 905.5 and 905.6.~~ Standpipe systems are allowed to be combined with automatic sprinkler systems.

Exception: Standpipe systems are not required in Group R-3 occupancies.

Reason: The reference to Sections 905.3.1 through 905.3.7 makes sense since Section 905.3. is establishing when a standpipe **system** is required, per the charging statement, and these sections also use the term “**system**”. However, Sections 905.4, 905.5 & 905.6 all refer to standpipe **connections**. It appears that the code intends for once a system is required per Sections 905.3.1 through 905.3.7, then connections are required per 905.4, 905.5 & 905.6.

For example, If the code intends for standpipe systems to be provided per 905.4, then a complete standpipe system would be required in every required stairway of a two-story building per the first criteria.

If the code intends for standpipe systems to be provided per 905.5, then a complete standpipe system would be required in a single story building such that all areas of the building were within a 30 foot hose stream attached to a 100 foot hose.

I have posed this question twice to ICC for an opinion and yet received no response.

Approving this proposal will clean up the language to specifically clarify what portions of the code require the complete standpipe system and what portions of the code establish requirements for connections once a system is required.

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

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

ICCFILENAME: BERRY-F1-905.3

INTERNATIONAL MECHANICAL COMMITTEE

REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Revised 9/03:

Add M155-09/10 to IMC Hearing Order following M66-09/10

Revised 9/24:

Add Part I to M8-09/10 of the IMC Hearing Order

Add M8-09/10, Part II to IMC Hearing Order following M8-09/10, Part I

Add M156-09/10, Part I to IMC Hearing Order following M15-09/10

Add M156-09/10, Part II to IMC Hearing Order following M156-09/10, Part I

TENTATIVE ORDER OF DISCUSSION

Revised 9/24/09

2009/2010 PROPOSED CHANGES TO THE INTERNATIONAL MECHANICAL CODE

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation does **not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair.

ADM36-09/10	M23-09/10	M52-09/10	M78-09/10
ADM37-09/10	M24-09/10	M53-09/10	M79-09/10
M1-09/10, Part I	M25-09/10	M54-09/10	M80-09/10
M2-09/10	M26-09/10	M55-09/10	M81-09/10
M3-09/10	M27-09/10	M56-09/10	M82-09/10
M4-09/10	M28-09/10	M57-09/10	M83-09/10
M5-09/10	M29-09/10	M58-09/10	M84-09/10
M6-09/10, Part I	M30-09/10	M59-09/10	M85-09/10
M7-09/10, Part I	M31-09/10, Part I	M60-09/10	M86-09/10
M8-09/10, Part I	M34-09/10	M61-09/10	M87-09/10
<u>M8-09/10, Part II</u>	M35-09/10, Part I	M62-09/10	M88-09/10
<u>M9-09/10, Part I</u>	M36-09/10, Part I	M63-09/10	M89-09/10
M10-09/10, Part I	M37-09/10	M64-09/10	M90-09/10
M11-09/10, Part I	M38-09/10, Part I	M65-09/10	M91-09/10
M12-09/10	M39-09/10, Part I	M66-09/10	M92-09/10
M13-09/10	M40-09/10, Part I	M155-09/10	M93-09/10
M14-09/10	M41-09/10	M67-09/10	M94-09/10
M15-09/10	M42-09/10	M68-09/10	M95-09/10
<u>M156-09/10, Part I</u>	M43-09/10	M69-09/10	M96-09/10
<u>M156-09/10, Part II</u>	M44-09/10	M70-09/10	M97-09/10, Part I
M16-09/10	M45-09/10, Part I	M71-09/10	M98-09/10, Part I
M17-09/10	M46-09/10, Part I	M72-09/10	M99-09/10
M18-09/10	M47-09/10	M73-09/10	M100-09/10
M19-09/10	M48-09/10	M74-09/10	M101-09/10
M20-09/10	M49-09/10	M75-09/10	M102-09/10, Part I
M21-09/10	M50-09/10	M76-09/10	M103-09/10, Part I
M22-09/10	M51-09/10	M77-09/10	M104-09/10

M105-09/10, Part I
M106-09/10
M107-09/10
M108-09/10
M109-09/10
M110-09/10, Part I
M111-09/10, Part I
M112-09/10, Part I
M113-09/10
M114-09/10, Part I
M115-09/10
M116-09/10
M117-09/10, Part I

M118-09/10
M119-09/10, Part I
M120-09/10, Part I
M121-09/10, Part I
M122-09/10
M123-09/10
M124-09/10
M125-09/10
M126-09/10, Part I
M127-09/10, Part I
M128-09/10, Part I
M129-09/10
M130-09/10, Part I

M131-09/10, Part I
M132-09/10
M133-09/10, Part I
M134-09/10
M135-09/10
M136-09/10
M137-09/10
M138-09/10
M139-09/10
M140-09/10, Part I
M141-09/10, Part I
M142-09/10, Part I
M143-09/10

M144-09/10
M145-09/10
M146-09/10
M147-09/10
M148-09/10, Part I
M149-09/10
M150-09/10
M151-09/10, Part I
M152-09/10, Part I
M153-09/10
M154-09/10

M155-09/10: Add proposal as follows:

M155–09/10

507.2.1.1

Proponent: Tom Lariviere, Chairman - Joint Fire Service Review Committee

Revise as follows:

507.2.1.1 Operation. Type I hood systems shall be designed and installed to automatically activate the exhaust fan whenever cooking operations occur. The activation of the exhaust fan shall occur through an interlock with the cooking appliances, by means of heat sensors or by means of other approved methods. The method of interlock between an exhaust hood system and cooking appliances shall not involve or depend upon any component of a fire extinguishing system.

Reason: In many areas of the country, the current code requirement is being misapplied. Since fire extinguishing systems provide a shut off device for the fuel to the appliances being protected, many electrical contractors are interlocking or connecting to the shut off device that is a component of the fire extinguishing system in an effort to comply with this separate interlock requirement in Section 507.2.1.1. This could pose a potential problem for the shutoff device since it is not listed to provide this function, which might also compromise the effectiveness of the fire extinguishing systems in an emergency situation.

This requirement is an operational requirement to ensure that the ventilation is operational when the cooking appliances are in use. This requirement is not part of the operations that occur when a fire occurs. The shut-off device in the extinguishing system is listed as part of the extinguishing system. The shut-off devices are not listed to perform this additional function.

Many installations are being performed where the assumption is that the manual reset device is no longer being installed because of the assumption that connecting the hood to the extinguishing system eliminates the need for the manual reset device. In these situations, there is a possibility that the gas valve could be reactivated automatically without someone being aware. This would result in filling the cooking area with gas before the pilots are lighted.

This proposal is not requiring additional equipment to what is currently in the code. This proposal is clarifying the requirements that are in the code and eliminating the misconception that the fuel shut off device can perform this other function.

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

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

ICCFILENAME: LARIVIERE-M1-507.2.1.1

Added 9/24/2009

M155-09/10: Add proposal as follows:

M156–09/10

401.2; IBC 1203.1; IRC R303.1

Proponent: Mike Moore, Newport Ventures, representing Broan NuTone

THIS IS A 3 PART CODE CHANGE. PARTS 1 AND 2 WILL BE HEARD BY THE IMC COMMITTEE. PART 3 WILL BE HEARD BY THE IRC P/M COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

PART I –IMC

Revise as follows:

401.2 Ventilation required. Every occupied space shall be ventilated by natural means in accordance with Section 402 or by mechanical means in accordance with Section 403. Where the air infiltration rate in a dwelling unit is less than 5 air changes per hour when tested with a blower door at a pressure of 33.5 psf (50 Pa) in accordance with Section 402.4.2.1 of the International Energy Conservation Code, the dwelling unit shall be ventilated by mechanical means in accordance with Section 403.

PART II – IBC

Revise as follows:

1203.1 General. Buildings shall be ventilated with natural ventilation in accordance Section 1203.4, or mechanical ventilation in accordance with the International Mechanical Code.

Where the air infiltration rate in a dwelling unit is less than 5 air changes per hour when tested with a blower door at a pressure of 33.5 psf (50 Pa) in accordance with Section 402.4.2.1 of the International Energy Conservation Code, the dwelling unit shall be ventilated by mechanical means in accordance with Section 403 of the International Mechanical Code.

PART III – IRC

Insert new section as follows (renumber current Section 303.4 and those following as appropriate):

R303.4 Mechanical ventilation. Where the air infiltration rate of a dwelling unit is less than 5 air changes per hour when tested with a blower door at a pressure of 33.5 psf (50 Pa) in accordance with Section N1102.4.2.1, the dwelling unit shall be provided with whole-house mechanical ventilation in accordance with Section M1507.3.

Reason: Everyone can agree that when dwelling units become “too” tight, they need mechanical ventilation. The question is, “how tight is too tight?” This code change proposal offers five air changes per hour at 50 Pascal as the “too tight” limit, and directs builders to provide mechanical ventilation at this point.

Why is whole-house mechanical ventilation needed?

Indoor air quality has direct impact on the health of building occupants. Poor indoor air quality is listed by the EPA as being the fourth largest environmental threat to our country.¹ A 2007 California study revealed formaldehyde exposure in most new homes is beyond limits recommended by the California Air Resources Board. Multiple studies have shown that relying on window operation to provide ventilation is not sufficient in practice.^{2,3} If unchecked, pollutants from cleaning chemicals, finishes, furniture, and occupant activities can cause serious health effects on building occupants. Whole-house mechanical ventilation reduces occupant exposure to such pollutants.

Why 5 ACH 50?

Traditionally, 0.35 natural air changes per hour has been the consensus ventilation rate at which it is believed that sufficient fresh air is being provided to building occupants. This ventilation rate was typically achieved without mechanical ventilation because homes were built without an effective air barrier. As building practices have improved, homes have become tighter, and as homes become tighter, mechanical ventilation must be introduced to provide sufficient levels of ventilation.

ASHRAE Standard 136 was developed to enable calculation of natural air changes per hour as a function of air changes at various pressures. By following the calculation procedures in this standard, it can be shown that a natural infiltration rate of 0.35 air changes per hour is equivalent to somewhere between 7 ACH 50 to 10 ACH 50, depending on the local climatic conditions of the home. Because most dwellings are built this tight, ASHRAE 62.2 requires mechanical ventilation for all homes, with few exceptions. However, based on ASHRAE 136, a conservative code might prescribe whole-house mechanical ventilation for any home with an infiltration leakage rate of 10 ACH 50 or less.

As a second point of reference, California’s 2005 Title 24 Chapter 6 requires that, “Continuous mechanical ventilation (either exhaust or supply ventilation) must be installed when the target SLA is below 3.0”. California’s SLA of 3.0 is roughly equivalent to 6 ACH 50. As a third point of reference, NAHB’s National Green Building Standard requires whole-house mechanical ventilation when the infiltration rate falls below 5.0 ACH 50. This requirement provides clear recognition from a consensus standard that whole-house mechanical ventilation should be provided for all homes that meet this threshold.

Based on the previous references, there is broad consensus across states and within consensus standards that whole-house mechanical ventilation should be required when a dwelling’s infiltration falls below 5.0 ACH 50.

What states are now requiring whole-house mechanical ventilation?

Several states now require mechanical ventilation in dwellings, including MN, VT, WA, CA, and ME.

References:

1. ASHRAE Standard 62.2-2007 *Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings*. <http://www.ashrae.org/technology/page/548>
2. Price, P.N. and M.H. Sherman "Ventilation Behavior and Household Characteristics in New California Houses," April 2006. LBNL-59620 <http://epb.lbl.gov/Publications/lbnl-59620.pdf>
3. Offermann, F.J., et al., "Window usage, ventilation, and formaldehyde concentrations in new California homes: summer field sessions", in IAQ 2007, *Healthy and Sustainable Buildings*. 2007, American Society of Heating Refrigerating, and Air Conditioning Engineers, Inc.: Baltimore, MD. p. 497-526 (preprints); <http://www.iee-sf.com/pdf/SummerFieldResults.pdf>

Cost Impact: Where homes have infiltration rates less than 5.0 ACH 50, and those homes are not already providing whole-house mechanical ventilation, the cost of construction will increase.

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

INTERNATIONAL PLUMBING/PRIVATE SEWAGE DISPOSAL COMMITTEE

REVISION TO TENTATIVE ORDER OF DISCUSSION:

- Add Part I to P2-09/10 of the IPC Hearing Order
- Add Part I to P16-09/10 of the IPC Hearing Order
- Add Part I to P64-09/10 of the IPC Hearing Order
- Add Part I to P68-09/10 of the IPC Hearing Order
- Add Part I to P69-09/10 of the IPC Hearing Order
- Add Part I to P70-09/10 of the IPC Hearing Order
- Add Part I to P71-09/10 of the IPC Hearing Order
- Add Part I to P72-09/10 of the IPC Hearing Order
- Add Part I to P73-09/10 of the IPC Hearing Order
- Add Part I to P75-09/10 of the IPC Hearing Order
- Add Part I to P83-09/10 of the IPC Hearing Order
- Remove Part I to P85-09/10 of the IPC Hearing Order
- Add Part I to P152-09/10 of the IPC Hearing Order

TENTATIVE ORDER OF DISCUSSION

Revised 9/24/09

2009-2010 PROPOSED CHANGES TO THE INTERNATIONAL PLUMBING/PRIVATE SEWAGE DISPOSAL CODE

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation **does not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair.

P = *International Plumbing Code*

PSD = *International Private Sewage Disposal Code*

PLUMBING

P1-09/10, Part I	P18-09/10, Part I	P38-09/10	P60-09/10, Part I
P1-09/10, Part II	P156-09/10, Part I	P39-09/10	P61-09/10, Part I
P2-09/10, <u>Part I</u>	P19-09/10, Part I	P40-09/10, Part I	P62-09/10, Part I
P3-09/10	P20-09/10	P41-09/10, Part I	P63-09/10, Part I
P4-09/10	P21-09/10	P42-09/10, Part I	P64-09/10, <u>Part I</u>
P5-09/10	P22-09/10	P43-09/10	P65-09/10, <u>Part I</u>
P6-09/10	P23-09/10	P44-09/10	P66-09/10, Part I
P7-09/10, Part I	P24-09/10	P45-09/10	P67-09/10, Part I
P8-09/10, Part I	P25-09/10	P46-09/10	P157-09/10, Part I
P9-09/10	P26-09/10	P47-09/10	P158-09/10, Part I
P10-09/10, Part I	P27-09/10	P48-09/10	P68-09/10, <u>Part I</u>
P11-09/10	P162-09/10	P49-09/10	P69-09/10, <u>Part I</u>
P155-09/10	P28-09/10	P50-09/10	P70-09/10, <u>Part I</u>
P12-09/10	P29-09/10	P51-09/10	P71-09/10, <u>Part I</u>
P13-09/10	P30-09/10	P52-09/10, Part I	P72-09/10, <u>Part I</u>
P14-09/10	P31-09/10	P53-09/10, Part I	P73-09/10, <u>Part I</u>
P15-09/10	P32-09/10	P54-09/10, Part I	P74-09/10
P16-09/10, <u>Part I</u>	P33-09/10	P55-09/10, Part I	P75-09/10, <u>Part I</u>
P161-09/10	P34-09/10	P56-09/10	P76-09/10
P17-09/10	P35-09/10	P57-09/10	P77-09/10
	P36-09/10, Part I	P58-09/10	PM12-09/10
	P37-09/10, Part I	P59-09/10, <u>Part I</u>	

P78-09/10
P79-09/10
P80-09/10
P81-09/10
P82-09/10
P83-09/10, Part I
P84-09/10, Part I
P85-09/10, Part I
P86-09/10, Part I
P87-09/10, Part I
P88-09/10
P89-09/10
P90-09/10, Part I
P154-09/10, Part I
P91-09/10
P92-09/10, Part I
P93-09/10, Part I
P94-09/10, Part I
P95-09/10, Part I
P96-09/10, Part I
P97-09/10
P98-09/10

P99-09/10, Part I
P100-09/10, Part I
P101-09/10
P102-09/10, Part I
P103-09/10, Part I
P104-09/10, Part I
P105-09/10
P106-09/10, Part I
P107-09/10
P108-09/10, Part I
P109-09/10, Part I
P110-09/10, Part I
P111-09/10, Part I
P112-13/10
P113-09/10
P114-09/10, Part I
P115-09/10, Part I
P116-09/10, Part I
P160-09/10, Part I
P117-09/10
P118-09/10
P119-09/10

P120-09/10
P121-09/10, Part I
P122-09/10
P163-09/10
P164-09/10
P123-09/10
P124-09/10, Part I
P159-09/10, Part I
P125-09/10
P126-09/10
P127--09/10, Part I
P128-09/10, Part I
P129-09/10
P130-09/10
P131-09/10, Part I
P132-09/10
P133-09/10
P134-09/10
P135-09/10, Part I
P136-09/10, Part I
P137-09/10
P138-13/10

P139-09/10
P140-09/10
P141-09/10
P142-09/10
PM13-09/10
P143-09/10
P144-09/10
P145-09/10
P146-09/10
P147-09/10
P148-09/10
P149-09/10
P150-09/10
S2-09/10, Part I
S2-09/10, Part II
P151-09/10
P152-09/10, Part I
P153-09/10, Part I

P64-09/10: Correction to "This is 2 Part Code Change" introduction:

P64-09/10
504.6; IRC P2803.6.1

Proponent: Tom Hedges, representing the Arizona Building Officials

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IPC COMMITTEE. PART II WILL BE HEARD BY THE IRC PLUMBING COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

(Portions of proposal not shown remain unchanged)

ICCFILENAME: HEDGES-P1-504.6

Added 9/24/2009

P139-09/10: Corrections made to last sentence of proposed change text:

P139 -09/10
1003.3.1

Proponent: Sid Cavanaugh, Cavanaugh Consulting representing Thermaco

Revise as follows:

1003.3.1 Grease interceptors and automatic grease removal devices required. A grease interceptor or automatic grease removal device shall be required to receive the drainage from fixtures and equipment with grease-laden waste located in food preparation areas, such as in restaurants, hotel kitchens, hospitals, school kitchens, bars, factory cafeterias and clubs. Fixtures and equipment shall include pot sinks, prerinse sinks; soup kettles or similar devices; wok stations; floor drains or sinks into which kettles are drained; automatic hood wash units and dishwashers without prerinse sinks. Grease interceptors and automatic grease removal devices shall receive waste only from fixtures and equipment that allow fats, oils or grease to be discharged. Where lack of space or other constraints prevent the installation or replacement of a grease interceptor, one or more grease interceptors shall be permitted to be installed on or above the floor and upstream of an existing grease interceptor.

Reason: This proposal addresses the issues raised by the IPC Committee during the last code cycle. This code change is important and recognizes the need for combinations of grease interceptors for renovation projects (change of occupancy) involving existing buildings where there is insufficient space or it is cost prohibitive to install a large enough in-ground interceptor (usually a gravity type) to meet local sewer ordinance requirements.

Cost Impact: None. It will probably save money for the user in many cases.

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

ICCFILENAME: CAVANAUGH-P1-1003.3.1

P152-09/10: Correction to “This is 2 Part Code Change” introduction:

P152–09/10

202 (New), 301.3, Chapter 13 (New), Appendix C; IRC R202, P2601.2, Section P3009 (New), Appendix O

Proponent: Guy Tomberlin of Fairfax County, Virginia, Virginia Plumbing and Mechanical Inspectors, Virginia Building and Code Officials and ICC Region 7.

THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IPC COMMITTEE. PART II WILL BE HEARD BY THE IRC PLUMBING COMMITTEE. SEE THE TENTATIVE HEARING ORDERS FOR THESE COMMITTEES.

ICCFILENAME: TOMBERLIN-P5-Chapter 13 NEW

INTERNATIONAL PROPERTY MAINTENANCE CODE

REVISION TO TENTATIVE ORDER OF DISCUSSION:

Add PM19-09/10 to IPMC Hearing Order following PM06-09/10
Add PM20-09/10 to IPMC Hearing Order following PM19-09/10
Add PM21-09/10 to IPMC Hearing Order following PM7-09/10
Add PM22-09/10 to IPMC Hearing Order following PM11-09/10
Add PM23-09/10 to IPMC Hearing Order following PM015-09/10

TENTATIVE ORDER OF DISCUSSION

Revised 9/24/09

2009/2010 PROPOSED CHANGES TO THE INTERNATIONAL PROPERTY MAINTENANCE/ZONING CODE

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation does **not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair.

IPMC

ADM38-09/10
PM1-09/10
PM2-09/10
PM3-09/10
PM4-09/10
PM5-09/10
PM6-09/10

PM19-09/10, Part I
PM19-09/10, Part II
PM20-09/10, Part I
PM20-09/10, Part II
PM7-09/10
PM21-09/10
PM8-09/10
PM9-09/10

PM10-09/10
PM11-09/10
PM22-09/10
PM14-09/10
PM15-09/10
PM16-09/10
PM23-09/10, Part I
PM23-09/10, Part II

PM17-09/10
PM18-09/10
PM24-09/10

ZONING

Z1-09/10
Z2-09/10

INTERNATIONAL PROPERTY MAINTENANCE CODE

PM19-09/10: Add proposal as follows:

PM19–09/10

305.3, IEBC 602.1.1 (New)

Proponent: Tom Neltner, National Center for Healthy Housing, representing National Center for Healthy Housing and Alliance for Healthy Homes.

THIS IS A TWO PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE IPMC/IZC COMMITTEE AS SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER OF THE IPMC/IZC COMMITTEE.

PART I - IPMC

Revise as follows:

305.3 Interior surfaces. All interior surfaces, including windows and doors, shall be maintained in good, clean and sanitary condition. Peeling, chipping, flaking or abraded paint shall be repaired, removed or covered. Cracked or loose plaster, decayed wood and other defective surface conditions shall be corrected. Surfaces of porous or water permeable materials made of or containing organic materials, such as but not limited to wood, textiles, paint, cellulose insulation, and paper, including paper-faced gypsum board, that have visible signs of mold or mildew shall be removed and replaced or remediated in an approved manner.

Exception: Porous materials that do not contain organic materials, such as clean unpainted bricks and concrete.

PART II - IEBC

Add new text as follows:

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

602.1.1 Interior surfaces. All interior surfaces, including windows and doors, shall be maintained in good, clean and sanitary condition. Peeling, chipping, flaking or abraded paint shall be repaired, removed or covered. Cracked or loose plaster, decayed wood and other defective surface conditions shall be corrected. Surfaces of porous or water permeable materials made of or containing organic materials, such as but not limited to wood, textiles, paint, cellulose insulation, and paper, including paper-faced gypsum board, that have visible signs of mold or mildew shall be removed and replaced or remediated in an approved manner.

Exception: Porous materials that do not contain organic materials, such as clean unpainted bricks and concrete.

Reason: Mold typically grows in buildings affected by water damage. According to the Institute of Medicine of the National Academies' *Damp Indoor Spaces and Health* (2004), mold and damp indoor environments are associated with asthma symptoms in sensitized persons, coughing, wheezing, and upper respiratory tract symptoms. See www.nap.edu/books/0309091934/html/

In December 2007, the National Center for Healthy Housing (NCHH) and the U.S. Centers for Disease Control and Prevention (CDC) convened an Expert Panel consistent with National Institute of Health guidelines to assess the effectiveness of various interventions to make homes healthier and safer. NCHH and CDC published the report of the experts in January 2009. See www.nchh.org/LinkClick.aspx?fileticket=2lvaEDNBldU%3d&tabid=229 for the full report.

The Expert Panel reviewed five peer-reviewed research studies on the issue of mold and allergens and concluded that "when implemented together, eliminating moisture intrusion and leaks and removal of moldy items were found to be effective in reducing asthma triggers and reducing exposures." Other provisions of the IPMC address eliminating moisture intrusion. But no provisions require the removal, replacement or remediation of the mold.

This proposal implements the Expert Panel's recommendation while allowing the option of remediation in an approved manner. To ensure the health of the building's occupants, mold mitigation measures must be a part of the code.

Water damage, if left unattended for any period of time, may lead to mold growth. Molds typically grow in buildings affected by water damage and are a potential cause of many health problems including asthma, sinusitis, and infections. Water infiltration of the building envelope due to damage or deterioration is the primary contributor to mold. To ensure the health of the buildings occupants mold mitigation measures must be a part of the code.

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

PART I - IPMC

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

PART II – IEBC

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

ICCFILENAME: NELTNER-PM2-305.3 AND NELTNER-EB2-602.1.1

PM20-09/10: Add proposal as follows:

PM20–09/10

305.4 (New), IEBC 502.1.1 (New)

Proponent: Jane Malone, National Center for Healthy Housing, representing National Center for Healthy Housing and Alliance for Healthy Homes.

THIS IS A TWO PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE IPMC/IZC COMMITTEE AS SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER OF THE IPMC/IZC COMMITTEE.

PART I - IPMC

1. Add new text as follows:

305.4 Pre-1978 Structures. Deteriorated paint in structures built before 1978 shall be repaired in accordance with the work practice standards for renovations in 40 CFR 745.85(a).

Exceptions:

1. Structures built after 1977 (or earlier date, if applicable to the jurisdiction of the structure), when lead-based paint was banned.
2. Structures with documentation from an approved test in accordance with 40 CFR 745 that proves that the deteriorated paint contains no lead-based paint.

(Renumber subsequent sections)

2. Revise Chapter 8 as follows:

EPA U.S. Environmental Protection Agency

40 CFR 745 Lead-Based Paint Poisoning Prevention in Certain Residential Structures.....305.4

PART II - IEBC

1. Add new text as follows:

502.1 Existing buildings materials. Materials already in use in a building in conformance 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.

502.1.1 Lead safe work practices during additions, alterations and repairs. Unless it is determined by an approved test that lead-based paint is not present on the surfaces where paint is disturbed, addition, alteration, and repair activities that disturb painted surfaces in structures built before 1978 shall be performed using lead safe work practices by a certified renovation firm in accordance with U.S. Environmental Protection Agency requirements for renovation activities in 40 CFR 745.

Exceptions:

1. Structures built after 1977 (or earlier date, if applicable to the jurisdiction of the structure), when lead-based paint was banned.
2. Structures with documentation from an approved test in accordance with 40 CFR 745 that proves that the painted surfaces to be disturbed contain no lead-based paint.

2. Revise Chapter 15 as follows:

EPA U.S. Environmental Protection Agency

40 CFR 745 Lead-Based Paint Poisoning Prevention in Certain Residential Structures.....502.1.1

Reason:

PART I - The purpose of this proposed code language for the surfaces of the interior structure is to incorporate measures that reflect current knowledge about working with paint that may contain lead-based paint and thereby prevent lead poisoning. These changes would only affect structures likely to contain lead-based paint to promote the safe repair of deteriorated paint that is likely to contain lead. Multiple studies have demonstrated that lead dust, which is caused by deteriorated lead-based paint and some methods of paint repair, is the major source of lead exposure for young children. The dangers associated with exposure to lead based paint hazards are well-known: lead is associated with a range of serious health effects on children, including detrimental effects on cognitive and behavioral development with serious personal and social consequences that may persist throughout their lifetime. More than 36 million pre-1978 US housing units contain lead-based paint.

Section 305.3 Interior surfaces of the current property maintenance code fails to specifically require, in older structures that are likely to contain lead-based paint, the use of precautionary practices in order to prevent the dispersal of lead before, during, and after the repair work, in the course of complying with the code requirement to repair peeling, chipping, flaking or abraded paint. The proposal improves the current Code by adding a health-protective requirement to perform the repair safely around lead-based paint, a subject currently acknowledged in the Commentary but not in the Code. The addition of the proposed new language will protect children from lead poisoning by specifying the use of federally – or state - approved lead safe work practices in making the required repairs. As noted under exceptions, the requirement is not in effect if the paint has been tested using an approved test and proven to not be lead-based paint. The lead-safe work practices are required by EPA effective April 22, 2010, for most renovation, repair and painting work in pre-1978 homes.

The proposed new sub-sub-section contains two exceptions to the requirement: structures built after lead was banned from paint used in residential structures (1977 US; earlier in some US cities; 1909 France, Belgium, Austria), and where the deteriorated paint has been documented to not contain lead (such as by a lead-based paint inspection or risk assessment, by the use of a test kit by a certified renovator, or through completion of another government-approved test method or ANSI standard).

PART II - The purpose of this proposed code language is to incorporate lead-safe work practices in work that disturbs paint known or presumed to be lead-based paint in order to reflect current knowledge and to promote consistency with imminent federal regulations. These changes would only affect structures likely to contain lead-based paint. Multiple studies have demonstrated that lead dust caused by deteriorated lead-based paint and repair activity is the major source of lead exposure for young children. The dangers associated with exposure to lead based paint hazards are well-known: lead is associated with a range of serious health effects on children, including detrimental effects on cognitive and behavioral development with serious personal and social consequences that may persist throughout their lifetime. More than 36 million pre-1978 US housing units contain lead-based paint.

Section 302 requires that all alteration and addition jobs comply with the IBC new construction and that alteration, addition, and repair jobs in flood hazard areas comply with flood design requirements, but fails to require, in structures that are likely to contain lead-based paint, the use of precautionary practices to prevent the dispersal of lead before, during, and after the addition, alteration, and repair work in structures likely to contain lead-based paint. The addition of the proposed new language will protect children from lead poisoning by specifying compliance with federal requirements for lead safe work practices and the use of certified renovators working for certified renovation firms when conducting addition, alteration, or repair work in such structures. The related EPA certification requirements take effect April 22, 2010. In the jurisdiction of a State or Federally-recognized Tribe that obtains EPA authorization to administer the renovation program, the requirements of that State or Tribe will take effect on or after April 22, 2010.

The proposed new sub-sub-section contains two exceptions to the requirement: structures built after lead was banned from paint used in residential structures (1977 US; earlier in some US cities; 1909 France, Belgium, Austria), and where the deteriorated paint has been documented to not contain lead (such as by a lead-based paint inspection or risk assessment, use of an approved test kit by a certified renovation firm, or through completion of another government-approved test method or ANSI standard).

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

Analysis: A review of the standard(s) proposed for inclusion in the code, 40 CFR 745, for compliance with ICC criteria for referenced standards given in Section 3.6 of Council Policy #CP 28 will be posted on the ICC website on or before September 24, 2009.

PART I - IPMC

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

PART II – IEBC

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

ICCFILENAME: MALONE-PM1-305.4 AND MALONE-EB1-502.1.1

PM21-09/10: Add proposal as follows:

PM21–09/10

102.5, 308.4

Proponent: Tom Neltner, National Center for Healthy Housing, Representing the National Center for Healthy Housing and the Alliance for Healthy Homes.

Revise as follows:

102.5 Workmanship. Repairs, maintenance work, alterations or installations which are caused directly or indirectly by the enforcement of this code shall be executed and installed in a workmanlike manner and installed in accordance with the manufacturer’s installation instructions. Where pest elimination is ordered, application of pesticides to control cited pests must be performed by a company authorized to perform pest management by the state or territory lead agency in accordance with applicable state and federal laws.

308.4 Multiple occupancy. The owner of a structure containing two or more dwelling units, a multiple occupancy, a rooming house or a nonresidential structure shall be responsible for pest elimination in the public or shared areas of the structure and exterior property. If infestation is caused by failure of an occupant to prevent such infestation in the area occupied, the occupant shall be responsible for pest elimination. Where pest elimination is ordered, application of pesticides to control cited pests must be performed by a company authorized to perform pest management by the state or territory lead agency in accordance with applicable state and federal laws.

Reason: As amended in the 2007/2008 cycle, Section 202 of the IPMC defines “pest elimination” as the “control and elimination of insects, rodents or other pests by eliminating their harborage places; by removing or making inaccessible materials that serve as their food or water; by other approved pest elimination methods.”

In situations where the code official has to order pest elimination, the owner’s and occupant’s current pest control practices have clearly failed. The owner and occupant are unlikely to improve their practices without expert assistance. They are likely to simply apply pesticides while not eliminating the pest’s harborage places and eliminating the pests’ access to food and water.

They need a professional who has the training and oversight to do the work properly consistent with the law working for a company that is authorized by the state to manage pests. All states license or otherwise authorize companies to perform pest management. If a state drops its program, EPA is required to administer the program until the state resumes it. Under these authorized programs, pest management professionals must be employed by state-authorized companies. These employees of these companies must meet specific training, continuing education, and work practice standards established in state regulations and law. The state conducts inspections and takes enforcement actions to ensure compliance by these companies. The code official can rely on the state agency to be more confident that the order will be fully complied with the first time.

The National Pest Management Association supports this proposal. It represents more than 5000 companies providing structural pest control services.

Cost Impact: The code change proposal will not increase the cost of construction. While the professional may initially cost more than “do-it-yourself” pest control, it will avoid the need for repeated orders and inspections if they fail to achieve pest elimination the first time.

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

ICCFILENAME: NELTNER-PM1-102.5

PM22-09/10: Add proposal as follows:

PM22–09/10

602.2

Proponent: Tom Neltner, National Center for Healthy Housing, representing National Center for Healthy Housing and Alliance for Healthy Homes.

Revise as follows:

602.2 Residential occupancies. Dwellings shall be provided with heating facilities capable of maintaining a room temperature of 68°F (20°C) in all habitable rooms, *bathrooms* and *toilet rooms* based on the winter outdoor design temperature for the locality indicated in Appendix D of the *International Plumbing Code*. ~~Cooking appliances shall not be used to provide space heating to meet the requirements of this section.~~ Cooking appliances shall not be used, nor shall portable unvented fuel-burning space heaters be used as the primary means, to provide comfort heating.

Exception: In areas where the average monthly temperature is above 30°F(-1°C), a minimum temperature of 65°F(18°C) shall be maintained.

Reason: A fuel-burning space heater generates nitrogen oxides and carbon monoxide. Typically, the label on these space heaters calls for them to be used in well-ventilated areas. When properly used according to the label, they may not be hazardous. However, like cooking appliances, they can be dangerous, especially when used as the primary means to provide heat. In addition, when used as a primary means to provide heat, they are less likely to be used in well-ventilated areas. Finally, their sustained use creates a potential fire hazard.

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

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

ICCFILENAME NELTNER-PM3-602.2

PM23-09/10: Add proposal as follows:

PM23-09/10

705.1 (New), 705.2 (New), IEBC 704.4.4 (New), 704.4.4.1 (New)

Proponent: Tom Neltner, National Center for Healthy Housing, representing National Center for Healthy Housing and Alliance for Healthy Homes.

THIS IS A TWO PART CODE CHANGE. BOTH PARTS WILL BE HEARD BY THE IPMC/IZC COMMITTEE AS SEPARATE CODE CHANGES. SEE THE TENTATIVE HEARING ORDER OF THE IPMC/IZC COMMITTEE.

PART I - IPMC

1. Add new text as follows:

SECTION 705 CARBON MONOXIDE ALARMS

705.1 Carbon monoxide alarms. An approved carbon monoxide alarm shall be installed outside of every separate sleeping area in the immediate vicinity of the bedrooms in dwelling units within which a fuel-fired appliance, including a portable fuel burning space heater, exists and in dwelling units that have an attached garage.

705.2 Alarm requirements. Single station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed in accordance with this code and the manufacturer’s installation instructions.

2. Revise Chapter 8 as follows:

Underwriters Laboratories, Inc.
333 Pfingsten Road
Northbrook, IL 60062

UL 2034-2008 Standard for Single- and Multiple-station Carbon Monoxide Alarms.....705.2

PART II - IEBC

1. Add new text as follows:

704.4.4 Carbon monoxide alarms. Where work requiring a permit occurs, carbon monoxide alarms shall be provided outside of each separate sleeping area in the immediate vicinity of the bedroom(s) in dwelling units within which a fuel burning appliance, including a portable fuel burning space heater, exist or in dwelling units that have an attached garage.

704.4.4.1 Alarm requirements. Single station carbon monoxide alarms shall be listed as complying with UL 2034 and shall be installed in accordance with this code and the manufacturer’s installation instructions.

2. Revise Chapter 8 as follows:

Underwriters Laboratories, Inc.
333 Pfingsten Road
Northbrook, IL 60062

Reason:

PART I - Carbon monoxide (CO) is an odorless, tasteless, invisible gas that kills more than 300 people in homes each year. Thousands more are admitted to the hospital with carbon monoxide poisoning. This is a serious issue that effects people nationwide in all regions of the country.

The International Residential Code was amended in the 2007/2008 cycle with similar language to require CO alarms whenever a building permit is issued in an existing residence within which fuel-fired appliances exist or have or attached garages. This proposal expands on the requirement to specifically include portable fuel burning space heaters. Portable fuel burning space heaters may not normally be considered an appliance.

The following states have required CO alarms in existing residences: Alaska, Colorado, Illinois, Massachusetts, Michigan, Minnesota, Montana, New Jersey, New York, Oklahoma, Rhode Island, Vermont and Wisconsin. While these are cold weather states, the deaths from CO are spread throughout the country as residents unwittingly use dangerous methods to stay warm in unusually cold weather.

PART II - Carbon monoxide (CO) is an odorless, tasteless, invisible gas that kills more than 300 people in homes each year. Thousands more are admitted to the hospital with carbon monoxide poisoning. This is a serious issue that effects people nationwide in all regions of the country.

This proposal provides consistency between the IEBC and the International Residential Code. The IRC was amended in the 2007/2008 cycle with similar language to require CO alarms whenever a building permit is issued in an existing residence within which fuel-fired appliances exist or have or attached garages. This proposal expands on the IRC requirement to specifically include portable fuel burning space heaters. Portable fuel burning space heaters may not normally be considered an appliance.

The following states require CO alarms in existing residences: Alaska, Colorado, Illinois, Massachusetts, Michigan, Minnesota, Montana, New Jersey, New York, Oklahoma, Rhode Island, Vermont and Wisconsin. While these are cold weather states, the deaths from CO are spread throughout the country as residents unwittingly use dangerous methods to stay warm in unusually cold weather.

Cost Impact: Yes, this code change proposal will increase the cost of construction. Carbon monoxide alarms typically cost approximately \$25.00 each.

Analysis: A review of the standard(s) proposed for inclusion in the code, UL 2034-2008, for compliance with ICC criteria for referenced standards given in Section 3.6 of Council Policy #CP 28 will be posted on the ICC website on or before September 24, 2009.

PART I - IPMC

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

PART II – IEBC

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

ICCFILENAME: NELTNER-PM4-705.1 PART I AND NELTNER-EB3-704.4.4 PART II

PM24-09/10: Add proposal as follows:

**PM24–09/10
Chapter 8 (New)**

Proponent: Jane Malone, Alliance for Healthy Homes, representing National Center for Healthy Housing and Alliance for Healthy Homes.

Add new Chapter 8 as follows:

CHAPTER 8
HEALTH AND SANITATION

SECTION 801
GENERAL

801.1 Scope. The provisions of this chapter shall govern the minimum sanitation required to occupy a structure and prevention and elimination of health hazards.

801.2 Responsibility. The owner of the structure shall provide and maintain the sanitation of the structure, premises or portion thereof in compliance with these requirements for the health, safety, and welfare of the occupants. A person shall not occupy as owner-occupant or permit another person to occupy any structure or premises which does not comply with the requirements of this chapter.

SECTION 802
GENERAL REQUIREMENTS FOR MAINTAINING HEALTH AND SANITATION

802.1 Performance of structure, premises or portion thereof. Elements and components of a structure, premises or portion thereof shall be maintained in accordance with this section to provide a healthy and sanitary condition and shall not be allowed to deteriorate to an extent that it poses a threat to any occupant's health, safety or welfare. Elements and components of the structure, premises or portion thereof are determined to be unsafe shall be replaced or repaired according to Section 802.2.

802.2 Elements and components. Elements and components of a structure, premises or portion thereof determined to be unsafe shall be replaced or repaired by the owner according to the provisions of the *International Building Code*, *International Existing Building Code* or *International Residential Code*.

Exception: Where repair of the element or component to its original sanitary and health standards will not pose a threat to any occupant's health, safety or welfare.

802.2.1 Equipment. Equipment associated with a structure, premises or portion thereof that poses a threat to public health, safety or welfare, shall be determined to be health hazards and shall be replaced or repaired according to the provisions of Section 802.2.

802.3 Health and sanitary conditions. The conditions described below shall be determined by a trained professional. These conditions are health hazards and shall be mitigated in an approved manner.

1. Asbestos in heating or ventilation components, insulation, siding, roofing, or other materials where the asbestos is friable.
2. Carbon Monoxide at levels that exceed any of the following:
 - 2.1. 100 milligrams per cubic meter (90 parts per million) for 15 minutes;
 - 2.2. 60 milligrams per cubic meter (50 parts per million) for 30 minutes;
 - 2.3. 30 milligrams per cubic meter (25 parts per million) for 1 hour; or
 - 2.4. 10 milligrams per cubic meter (10 parts per million) for 8 hours.
3. Radon at levels that exceed four picocuries of radon per liter in the lowest occupied level.
4. Lead under any of the following conditions:
 - 4.1. Peeling, flaking, chipping, cracking, or chalking paint on a dwelling unit built before 1978 unless the paint has been determined to have less than 0.5 percent or 1 milligram per square centimeter of lead;
 - 4.2. Lead dust at levels greater than 10 micrograms of lead per square foot on the floor;
 - 4.3. Lead dust at levels greater than 100 micrograms of lead per square foot on an interior window sill;
 - 4.4. Lead contamination in exposed soil at levels greater than 400 mg of lead per kilogram of soil in children's play areas or 1200 mg of lead per kilogram of soil in other areas.
5. Potable water contamination at levels that exceed that for potable water as defined by the *International Plumbing Code*.
6. Arsenic-treated lumber that shows evidence of splintering

802.3.1 Written report. Where the conditions specified in Section 802.3 identify threshold levels, information shall be provided to the code official in accordance with Section 105.3.

Reason: Asbestos products were extensively used in building materials. They continue to be legal to sell and to use. Intact asbestos is not a hazard. It becomes a hazard when damaged or deteriorated and releases friable asbestos. See www.epa.gov/asbestos/pubs/ashome.html for details. The U.S. Environmental Protection Agency (EPA) and most states license asbestos inspectors.

Radon is the leading cause of lung cancer in people who have never smoked. U.S. Environmental Protection Agency (EPA) has established a recommended maximum exposure level of four picocuries of radon per liter of air in occupied areas. This level can be achieved through established technology in a cost effective manner. The radon controls also reduce moisture and soil gas intrusion. See www.epa.gov/radon/pubs/newconst.html. Two national organizations and some states certify radon professionals to measure radon levels in residences.

Lead can cause permanent damage to a child's brain that is manifested as lower IQ levels, learning disorders and violent behavior. In adults, it can cause hypertension. The levels for lead in dust on floor and window sills are expected result in less than 5% of the children younger than six years of age playing on the floor to be lead poisoned. The current EPA standards of 40 micrograms of lead per square foot on the floor and 100 micrograms of lead per square foot on an interior window sill at 40 CFR Part 745 Subpart D . These levels are expected to result in 15 to 20% of the children playing on the floor to be lead poisoned. See Dixon SL, Gaitens JM, Jacobs DE et al. (2009) Exposure of U.S. children to residential dust lead, 1999-2004: II: The contribution of lead-contaminated dust to children's blood lead levels. *Environmental Health Perspectives* 117(3):468-474 at www.nchh.org/LinkClick.aspx?fileticket=4Q/PvfvDTIs=&tabid=165.

EPA and many states certify lead risk assessors, lead inspectors and dust sampling technicians to take the dust samples and make the determination.

Drinking water contamination at levels that exceed the contaminant standards established by EPA are unhealthy and can be dangerous. See U.S EPA standard at 40 Code of Federal Regulations Part 141 or www.epa.gov/safewater/contaminants. EPA and many states certify drinking water testing laboratories.

Arsenic is a known carcinogen and can be toxic. When properly sealed, the health risk is relatively low. However, arsenic from splinters that penetrate the skin can be a serious health problem that can be avoided by repairing wood that shows evidence of splintering.

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

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

ICCFILENAME: MALONE PM2-CHAPTER8

INTERNATIONAL RESIDENTIAL CODE

REVISIONS TO TENTATIVE ORDER OF DISCUSSION:

Revised 9/03:

Add RB184-09110 to IRC B/E Hearing Order following RB18-09/10
Add RB185-09110 to IRC B/E Hearing Order following RB21-09110
Add RB186-09110 to IRC B/E Hearing Order following E150-09110
Add RB187-09/10, Part II to IRC B/E Hearing Order following RB58-09/10
Add S226-09/10 to IRC B/E Hearing Order following RB161-09/10
Add FS144-09/10, Part II to IRC B/E Hearing Order following FS151-09/10

Revised 9/24:

Remove EC122-09/10
Change FS124-09/10, Part II to FS124-09/10, Part III
Remove EC80-09/10 Part II

TENTATIVE ORDER OF DISCUSSION

Revised 9/24/09

2009/2010 PROPOSED CHANGES TO THE INTERNATIONAL RESIDENTIAL CODE BUILDING & ENERGY

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

Proposed change numbers that are indented are those which are being heard out of numerical order. Indentation does **not** necessarily indicate that one change is related to another. Proposed changes may be grouped for purposes of discussion at the hearing at the discretion of the chair.

IRC ENERGY

RE1-09/10	EC29-09/10, Part II	EC56-09/10, Part II	EC83-09/10, Part II
RE2-09/10	EC30-09/10, Part II	EC57-09/10, Part II	EC84-09/10, Part II
RE3-09/10	EC31-09/10, Part II	EC58-09/10, Part II	EC86-09/10, Part II
RE4-09/10	EC32-09/10, Part II	EC59-09/10, Part II	EC87-09/10, Part II
EC1-09/10, Part II	EC34-09/10, Part II	EC60-09/10, Part II	EC89-09/10, Part II
EC2-09/10, Part II	EC35-09/10, Part II	EC63-09/10, Part II	EC90-09/10, Part II
EC4-09/10, Part II	EC36-09/10, Part II	EC64-09/10, Part II	EC91-09/10, Part II
EC13-09/10, Part II	EC38-09/10, Part II	EC66-09/10, Part II	EC92-09/10, Part II
EC19-09/10, Part II	EC39-09/10, Part II	EC68-09/10, Part II	RE6-09/10
EC25-09/10, Part II	EC40-09/10, Part II	EC69-09/10, Part II	EC96-09/10, Part II
EC16-09/10, Part II	EC41-09/10, Part II	EC71-09/10, Part II	RE5-09/10
EC11-09/10, Part II	EC42-09/10, Part II	EC72-09/10, Part II	EC98-09/10, Part II
EC17-09/10, Part II	EC43-09/10, Part II	EC73-09/10, Part II	EC99-09/10, Part II
EC18-09/10, Part II	EC45-09/10, Part II	EC74-09/10, Part II	EC100-09/10, Part II
EC21-09/10, Part II	EC46-09/10, Part II	EC76-09/10, Part II	EC101-09/10, Part II
EC22-09/10, Part II	EC47-09/10, Part II	EC77-09/10, Part II	EC102-09/10, Part II
EC23-09/10, Part II	EC48-09/10, Part II	EC78-09/10, Part II	EC103-09/10, Part II
EC26-09/10, Part II	EC50-09/10, Part II	EC79-09/10, Part II	EC104-09/10, Part II
EC27-09/10, Part II	EC53-09/10, Part II	EC80-09/10, Part II	EC106-09/10, Part II
EC28-09/10, Part II	EC54-09/10, Part II	EC81-09/10, Part II	EC107-09/10, Part II
	EC55-09/10, Part II	EC82-09/10, Part II	EC109-09/10, Part II

RE7-09/10
 EC112-09/10, Part II
 EC114-09/10, Part II
 EC115-09/10, Part II
 EC116-09/10, Part II
 EC117-09/10, Part II
 EC118-09/10, Part III
 EC118-09/10, Part IV
 EC119-09/10, Part II
 EC120-09/10, Part II
 EC121-09/10, Part II
~~EC122-09/10, Part II~~
 EC123-09/10, Part II
 EC124-09/10, Part II
 EC125-09/10, Part II
 EC126-09/10, Part II
 EC127-09/10, Part II
 EC129-09/10, Part II
 EC130-09/10, Part II
 EC131-09/10, Part II

IRC BUILDING
 G28-09/10, Part II
 RB1-09/10
 RB4-09/10
 RB7-09/10
 S87-09/10, Part II
 RB8-09/10
 RB9-09/10, Part I
 RB31-09/10
 RB84-09/10
 RB85-09/10
 RB86-09/10
 RB87-09/10
 RB88-09/10
 RB10-09/10
 RB2-09/10
 RB3-09/10
 RB76-09/10
 RB130-09/10
 G2-09/10, Part II
 RB11-09/10
 RB12-09/10
 RB13-09/10
 RB14-09/10
 RB15-09/10
 S97-09/10, Part II
 RB16-09/10
 RB17-09/10
 S57-09/10, Part II
 S61-09/10, Part II
 S62-09/10, Part II
 S66-09/10, Part II
 RB18-09/10
 RB184-09/10
 RB19-09/10
 RB20-09/10
 RB21-09/10
 RB185-09/10
 FS155-09/10, Part II
 RB5-09/10

RB22-09/10
 RB23-09/10
 S1-09/10, Part II
 RB24-09/10
 RB25-09/10
 RB26-09/10
 G56-09/10, Part II
 RB27-09/10
 RB28-09/10
 RB29-09/10
 RB30-09/10
 RB32-09/10
 RB33-09/10
 FS124-09/10, Part III
 G5-09/10, Part II
 RB34-09/10
 RB35-09/10
 FS118-09/10, Part II
 RB36-09/10
 RB37-09/10
 RB38-09/10
 S219-09/10, Part II
 RB39-09/10
 RB40-09/10
 S218-09/10, Part II
 S144-09/10, Part II
 RB41-09/10
 E150-09/10, Part II
 RB186-09/10
 RB42-09/10
 RB43-09/10
 E60-09/10, Part III
 E194-09/10, Part II
 E8-09/10, Part II
 RB44-09/10
 E58-09/10, Part II
 RB45-09/10
 E122-09/10, Part II
 E70-09/10, Part II
 E71-09/10, Part II
 E72-09/10, Part II
 RB46-09/10
 E74-09/10, Part II
 E75-09/10, Part II
 RB47-09/10
 RB48-09/10
 RB49-09/10
 E97-09/10, Part II
 RB50-09/10
 E100-09/10, Part II
 RB51-09/10
 RB52-09/10
 RB53-09/10
 RB54-09/10
 RB55-09/10
 RB56-09/10
 RB57-09/10
 RB58-09/10
 RB187-09/10
 RB59-09/10
 F108-09/10, Part II

F112-09/10, Part II
 F115-09/10, Part II
 F116-09/10, Part II
 F132-09/10, Part II
 RB60-09/10
 RB61-09/10
 FS160-09/10, Part II
 RB62-09/10
 FS168-09/10, Part II
 FS169-09/10, Part II
 FS171-09/10, Part II
 FS176-09/10, Part II
 S203-09/10, Part II
 S207-09/10, Part II
 RB6-09/10
 RB63-09/10
 RB64-09/10
 RB65-09/10
 E156-09/10, Part III
 RB66-09/10
 RB67-09/10
 RB68-09/10
 RB69-09/10
 RB149-09/10
 S162-09/10, Part II
 RB70-09/10
 RB71-09/10
 RB72-09/10
 RB73-09/10
 RB74-09/10
 RB75-09/10
 RB77-09/10
 RB78-09/10
 RB79-09/10
 RB80-09/10
 RB81-09/10
 RB82-09/10
 RB83-09/10
 RB89-09/10
 RB90-09/10
 RB91-09/10
 RB92-09/10
 RB93-09/10
 RB94-09/10
 RB95-09/10
 RB96-09/10
 S200-09/10, Part II
 RB97-09/10
 RB98-09/10
 RB99-09/10
 RB100-09/10
 FS147-09/10, Part II
 RB101-09/10
 RB102-09/10
 RB103-09/10
 RB104-09/10
 RB105-09/10
 RB106-09/10
 S214-09/10, Part II
 RB107-09/10
 RB108-09/10

RB109-09/10
 RB110-09/10
 RB111-09/10
 RB112-09/10
 RB113-09/10
 S199-09/10, Part II
 S171-09/10, Part II
 RB114-09/10
 RB115-09/10
 RB116-09/10
 RB117-09/10
 RB118-09/10
 RB119-09/10
 RB120-09/10, Part I
 RB121-09/10
 RB122-09/10, Part I
 RB123-09/10, Part I
 RB124-09/10
 RB125-09/10, Part I
 RB126-09/10, Part I
 RB127-09/10
 RB128-09/10
 RB129-09/10
 RB131-09/10
 RB132-09/10
 S222-09/10, Part II
 RB133-09/10
 S224-09/10, Part II
 FS140-09/10, Part II
 RB134-09/10
 S225-09/10, Part II
 FS156-09/10, Part II
 RB135-09/10
 RB136-09/10
 RB137-09/10
 RB138-09/10
 RB139-09/10
 RB140-09/10
 RB141-09/10
 RB142-09/10
 RB143-09/10
 RB144-09/10
 RB145-09/10
 RB146-09/10
 RB147-09/10
 FS150-09/10, Part II
 FS151-09/10, Part II
 FS144-09/10, Part II
 RB148-09/10
 S201-09/10, Part II
 RB150-09/10
 RB151-09/10
 RB152-09/10
 RB153-09/10
 RB154-09/10
 RB155-09/10
 RB156-09/10
 G146-09/10, Part II
 G145-09/10, Part II
 RB157-09/10
 RB158-09/10
 RB159-09/10
 RB160-09/10
 RB161-09/10

S226-09/10, Part II
RB162-09/10
S3-09/10, Part II
RB163-09/10
RB164-09/10
RB165-09/10
RB166-09/10
RB167-09/10
S14-09/10, Part II
S15-09/10, Part II
RB168-09/10
RB169-09/10, Part I
RB170-09/10

S16-09/10, Part II
S17-09/10, Part II
S18-09/10, Part II
S20-09/10, Part II
S21-09/10, Part II
S22-09/10, Part III
S23-09/10, Part II
RB171-09/10
S30-09/10, Part II
RB172-09/10
S182-09/10, Part II
RB173-09/10
RB174-09/10

RB175-09/10
RB176-09/10, Part I
RB177-09/10, Part I
RB178-09/10
RB179-09/10
RB180-09/10
RB181-09/10
G147-09/10, Part II
G204-09/10, Part II
RB182-09/10
RB183-09/10
ADM1-09/10, Part XII

ADM3-09/10, Part II
ADM4-09/10, Part II
ADM6-09/10, Part II
ADM7-09/10, Part II
ADM8-09/10, Part III
ADM9-09/10, Part II
ADM14-09/10, Part II
ADM15-09/10, Part II
ADM16-09/10, Part II

RB184-09/10: Add proposal as follows:

RB184-09/10

R302.1, Table R302.1(1), Table R302.1(2) (New), R309.5 (New)

Proponent: Tom Lariviere, Chairman - Joint Fire Service Review Committee

1. Revise as follows:

R302.1 Exterior walls. Construction, projections, openings and penetrations of *exterior walls* of *dwellings* and accessory buildings shall comply with Table R302.1(1); or for *dwellings* equipped throughout with an *automatic sprinkler system* installed in accordance with Section P2904 shall comply with Table R302.1(2).

Exceptions:

1. Walls, projections, openings, or penetrations in walls perpendicular to the line used to determine the *fire separation distance*.
2. Walls of *dwellings* and *accessory structures* located on the same lot.
3. Detached tool sheds and storage sheds, playhouses and similar structures exempted from permits are not required to provide wall protection based on location on the *lot*. Projections beyond the *exterior wall* shall not extend over the *lot line*.
4. Detached garages accessory to a *dwelling* located within 2 feet (610 mm) of a *lot line* are permitted to have roof eave projections not exceeding 4 inches (102 mm).
5. Foundation vents installed in compliance with this code are permitted.

**TABLE R302.1(1)
EXTERIOR WALLS**

Exterior Wall Element		Minimum Fire-Resistance Rating	Minimum Fire Separation Distance
Walls	(Fire-resistance rated)	1 hour-tested in accordance with ASTM E 119 or UL 263 with exposure from both sides	<5 feet
	(Not fire-resistance rated)	0 hours	5 feet
Projections	(Fire-resistance rated)	1 hour on the underside	2 feet to 5 feet
	(Not fire-resistance rated)	0 hours	5 feet
Openings in walls	Not allowed	N/A	<3 feet
	25% Maximum of Wall Area	0 hours	3 feet
	Unlimited	0 hours	5 feet
Penetrations	All	Comply with Section R317.3	<5 feet
		None required	5 feet

For SI: 1 foot = 304.8 mm.
N/A = Not Applicable

**TABLE R302.1(2)
EXTERIOR WALLS – DWELLINGS WITH FIRE SPRINKLERS**

Exterior Wall Element		Minimum Fire-Resistance Rating	Minimum Fire Separation Distance
Walls	(Fire-resistance rated)	1 hour-tested in accordance with ASTM E 119 or UL 263 with exposure from the outside	0 feet
	(Not fire-resistance rated)	0 hours	3 feet ^a
Projections	(Fire-resistance rated)	1 hour on the underside	2 feet ^a
	(Not fire-resistance rated)	0 hours	3 feet
Openings in walls	Not allowed	N/A	<3 feet
	Unlimited	0 hours	3 feet ^a
	Penetrations	All	Comply with Section R317.3
None required			3 feet ^a

For SI: 1 foot = 304.8 mm.
N/A = Not Applicable

- a. For residential subdivisions where all dwellings are equipped throughout with an automatic sprinkler systems installed in accordance with Section P2904, the fire separation distance for non-rated exterior walls and rated projections shall be permitted to be reduced to zero feet, and

unlimited unprotected openings and penetrations shall be permitted, where the adjoining lot provides an open setback yard that is 6 feet or more in width on the opposite side of the property line.

2. Add new text as follows:

R309.5 Fire Sprinklers. Private garages shall be protected by fire sprinklers where the garage wall has been designed based on Table R302.1(2), Footnote a. Sprinklers in garages shall be connected to an automatic sprinkler system that complies with Section P2904. Garage sprinklers shall be residential sprinklers or quick-response sprinklers, designed to provide a density of 0.05 gpm/ft². Garage doors shall not be considered obstructions with respect to sprinkler placement.

Reason: In the last code cycle, Proposal RB67-07/08 (which was withdrawn at the Final Action Hearings) provided as one of its sprinkler alternatives a reduction in exterior wall fire ratings that we believe still is a reasonable and justifiable sprinkler incentive. This proposal will provide a reasonable sprinkler alternative in the IRC when residential sprinkler systems are installed.

This proposal provides a significant financial and design incentive for residential sprinklers. From a financial perspective, the proposal permits cost reductions related to exterior wall construction and, in the case of a planned community, could result in more developable lots. From a design advantage perspective, the proposal permits homes to have larger footprints without triggering fire-rated exterior walls and permits more flexible use of windows on walls facing property lines.

From a fire safety perspective, the proposed requirements under new Table R302.1(2) generally put the code back where it was in 2000 and 2003, so there is essentially no concession compared to how homes have been built under the IRC since the code was first published in 2000. In 2006, the IRC's fire separation distances for non-rated exterior walls were increased from 3 feet to 5 feet for the purpose of coordinating the IRC's residential separation distances with those in the IBC (Code Change G128-03/04). History shows that residential sprinklers reliably limit fire spread to the room of origin, and with such protection, allowing the code to revert to a 3-foot separation distance provides a reasonable compensation for sprinklers. Certainly, the probability of a favorable outcome in the event of a fire is much better for a sprinklered building with a 3-foot separation versus a nonsprinklered building with a 5-foot separation, so encouraging sprinklers is a preferred approach.

The proposed garage requirement for R309.5 provides a limitation on the application of new Table R302.1(2) by only allowing use of sprinkler incentives in areas where sprinklers are provided. Normally, garages aren't required to have sprinklers; however, where a designer chooses to take advantage of reduced separation requirements for a garage wall, it is appropriate for the garage to be provided with sprinklers as a means of property protection. Proposed design criteria for sprinklers were derived from NFPA 13R Section 6.8.3.3, which addresses sprinkler protection for garages in buildings protected by NFPA 13R sprinkler systems. Often, garage protection is provided by dry pendent or dry sidewall sprinklers connected to a wet pipe sprinkler system.

The original Table R302.1(1) has been retained for jurisdictions that may adopt this edition of the Code without the mandatory sprinkler requirements that are presently in the 2009 IRC and for cases where there are additions or modifications to an existing non-sprinklered property.

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

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

ICCFILENAME: LARIVIERE-RB2-R302.1

RB185-09/10: Add proposal as follows:

RB185-09/10
R302.2

Proponent: Tom Lariviere, Chairman - Joint Fire Service Review Committee

Add new text as follows:

R302.2 Soffits. Soffit construction shall be securely attached to framing members and shall be constructed of a minimum of one of the following:

1. 1/2 inch wood sheathing or gypsum board installed under aluminum or vinyl coverings.
2. 1/2 inch wood sheathing or gypsum board, or
3. Other approved materials or assemblies that provide a minimum 15 minute fire rating.

Venting requirements shall apply to both soffit and underlayments and shall not exceed 150% of the minimum net free air requirements established in Section R806.2.

Reason: Greater building density has contributed to an increase in the spread of fires into the attics of adjacent, exposed structures. Many of the fires pass into the exposed building by penetrating the soffit area. This proposal provides prescriptive requirements to retard the intrusion of fire into attic spaces from exterior exposure.

This proposal will require protection of the underside of the soffit by providing a wood or gypsum board barrier. Item 3 allows the use of other materials when they are approved by the code official and provide a 15 minute fire rating.

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

RB186-09/10: Add proposal as follows:

RB186-09/10

R310.1

Proponent: Tom Lariviere, Chairman - Joint Fire Service Review Committee

Revise as follows:

R310.1 Emergency escape and rescue required. Basements, habitable attics, and every sleeping room shall have at least one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room. Where emergency escape and rescue openings are provided they shall have a sill height of not more than 44 inches (1118 mm) above the floor. Where a door opening having a threshold below the adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with Section R310.3. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. Emergency escape and rescue openings with a finished sill height below the adjacent ground elevation shall be provided with a window well in accordance with Section R310.2. Emergency escape and rescue openings shall open directly into a public way, or to a yard or court that opens to a public way.

Exceptions:

1. Basements used only to house mechanical equipment and not exceeding total floor area of 200 square feet (18.58 m²).
2. In dwelling units equipped throughout with an automatic sprinkler system installed in accordance with Section P2904.

Reason: Fire sprinklers are universally recognized as the most effective means of reducing America's fire losses and preventing firefighter deaths and injuries associated with firefighting operations. Both of these objectives are fundamental to the mission of fire and life safety. This proposal is based on the increased safety provided when residential fire sprinklers are installed.

The use of construction allowances based on the installation of fire sprinkler systems is traceable in model building codes for at least 80 years, and today, these construction allowances are woven into the text of nearly every ICC code. Likewise, in communities throughout the United States where residential sprinklers are required, construction allowances have played a critical roll in developing and maintaining community support for sprinklers. Nevertheless, construction allowances based on the installation of fire sprinklers remain few and far between in the IRC, offering little to offset the cost of installing sprinklers or to enhance their value through building design options.

This proposal will provide greater flexibility to use a variety of window types and configurations to provide required light and ventilation (it should be noted an exception to the emergency escape window requirement is unlikely to result in rooms without windows or doors because rooms will still require light and ventilation to comply with R303.1 and it seems unlikely that homeowners would choose to forgo natural light in bedrooms). For example, by allowing side-hinged windows, smaller windows or strategically positioned windows that wouldn't meet the current escape window requirements, there are potential gains in energy efficiency and wind resistance versus traditional hung windows with friction seals used to meet escape provisions.

To those who might regard egress windows as a safety feature that should not be equated to sprinkler protection, consider that the IBC already allows elimination of escape windows in Groups R-1, R-2, R-4 and I-1 occupancies (IBC Section 1028, Exception 1) based on the installation of fire sprinklers. It simply makes no sense that sprinkler protection should be considered as providing adequate safety without escape windows in fraternities, apartments, hotels, adult care, child care and assisted living facilities, among others, but not in one- and two-family dwellings. In fact, even the NFPA Life Safety Code, a document with a pure life safety focus, provides an exception to the escape window requirement for one- and two-family dwellings [2006 NFPA 101, Section 24.2.2.1.2(2)] based on the installation of fire sprinklers in accordance with NFPA 13D. Recognizing the high level of safety that will be provided in homes that have both smoke alarms and sprinklers, providing adequate time for occupants to escape a fire using the normal means of egress, and with so much code precedent and a high incentive value, it makes sense to extend the sprinkler allowance for escape windows to include one- and two-family dwellings and townhouses.

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

RB187-09/10: Add proposal as follows:

RB187-09/10

R314.3

Proponent: Tom Lariviere, Chairman - Joint Fire Service Review Committee

Revise as follows:

R314.3 Location. Smoke alarms shall be installed in the following locations:

1. In each sleeping room.
2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.

Exception: In dwelling units equipped throughout with an automatic sprinkler system installed in accordance with Section P2904.

3. ~~On~~ In a common area on each additional story of the dwelling, including basements and habitable attics but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

When more than one smoke alarm is required to be installed within an individual dwelling unit the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual unit.

Reason: Fire sprinklers are universally recognized as the most effective means of reducing America's fire losses and preventing firefighter deaths and injuries associated with firefighting operations. Both of these objectives are fundamental to the mission of fire and life safety. This proposal is based on the increased safety provided when residential fire sprinklers are installed.

The value of smoke alarms with respect to life safety is well recognized. Nevertheless, code requirements associated with how many smoke alarms must be installed in a dwelling and where they must be located were developed without respect to the presence of fire sprinklers. It is widely known that the addition of fire sprinklers to a dwelling will provide a significant improvement to life safety and property protection versus having smoke alarms alone, so eliminating a minimal number of smoke alarms when fire sprinklers are installed is a reasonable approach.

Contrary to what one might expect as a result of reducing the number of smoke alarms, the proposed revision could actually improve the performance of smoke alarms because it will require that a minimum of one smoke alarm be located in the common area on each floor. Currently, the code only requires smoke alarms outside of sleeping areas, often satisfied by installing a smoke alarm in the hallway outside of bedroom doors. The number of alarms will only be reduced in cases where there is more than one sleeping area on a floor.

Given that fires often start in kitchens and living rooms, installing a smoke alarm in a more central area, as required by this proposal, may well result in more effective detection of fires in these areas. Plus, with the code still requiring smoke alarms in each bedroom, connected to common area smoke alarms, waking effectiveness and protection of bedroom areas will not be impacted by this proposal.

Cost Impact: The code change proposal will decrease the cost of construction.

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

ICCFILENAME: LARIVIERE-RB1-R315.2

INTERNATIONAL RESIDENTIAL CODE (IRC P-M)

REVISION TO TENTATIVE ORDER OF DISCUSSION:

Revised 9/03:

Add FG14-09/10 Part III to IRC RM Hearing Order following M1-09/10
Add FG10-09/10 Part III to IRC RM Hearing Order following M6-09/10
Add FG11-09/10 Part III to IRC RM Hearing Order following RM7-09/10
Add FG32-09/10 Part III to IRC RM Hearing Order following RM26-09/10

Revised 9/24:

Add P2-09/10 to the beginning of IRC RM Hearing Order
Add M156-09/10, Part III to IRC RM Hearing Order following RM14-09/10
Add RM20-09/10 to IRC RM Hearing Order following M31-09/10, Part II
Add M97-09/10 to IRC RM Hearing Order following RM20-09/10

TENTATIVE ORDER OF DISCUSSION

Revised 9/24/09

2009-2010 PROPOSED CHANGES TO THE INTERNATIONAL RESIDENTIAL CODE

PLUMBING/MECHANICAL

The following is the tentative order in which the proposed changes to the code will be discussed at the public hearings. Proposed changes which impact the same subject have been grouped to permit consideration in consecutive changes.

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IRC PLUMBING

P2-09/10, Part II	P65-09/10, Part II	P100-09/10, Part II	M1-09/10, Part II
P7-09/10, Part II	P66-09/10, Part II	P102-09/10, Part II	FG14-09/10, Part III
P8-09/10, Part II	P67-09/10, Part II	P103-09/10, Part II	M6-09/10, Part II
P10-09/10, Part II	P68-09/10, Part II	P104-09/10, Part II	FG10-09/10, Part III
P16-09/10, Part II	P69-09/10, Part II	P106-09/10, Part II	M9-09/10, Part II
RP1-09/10	P70-09/10, Part II	P108-09/10, Part II	M10-09/10, Part II
P18-09/10, Part II	P71-09/10, Part II	P109-09/10, Part II	RM1-09/10
P156-09/10, Part II	P72-09/10, Part II	P110-09/10, Part II	P111-09/10, Part II
P19-09/10, Part II	P73-09/10, Part II	P111-09/10, Part II	RM2-09/10
P36-09/10, Part II	RP6-09/10	P114-09/10, Part II	RM3-09/10
P37-09/10, Part II	P75-09/10 Part II	P115-09/10, Part II	RM4-09/10
P40-09/10, Part II	RP9-09/10	P116-09/10, Part II	RM5-09/10
P41-09/10, Part II	RP10-09/10	P121-09/10, Part II	M121-09/10, Part II
RP7-09/10	RP11-09/10	RP3-09/10	RM6-09/10
P42-09/10, Part II	RP12-09/10	P159-09/10, Part II	RM7-09/10
P52-09/10, Part II	RP13-09/10	P124-09/10, Part II	FG11, Part III
P53-09/10, Part II	RP14-09/10	P127-09/10, Part II	M130-09/10, Part II
P54-09/10, Part II	RP15-09/10	P128-09/10, Part II	M131-09/10, Part II
P55-09/10, Part II	P83-09/10, Part II	P131-09/10, Part II	M133-09/10, Part II
RP8-09/10	P84-09/10, Part II	P135-09/10, Part II	RM8-09/10
RP4-09/10	P86-09/10, Part II	P136-09/10, Part II	M126-09/10, Part II
RP5-09/10	P87-09/10, Part II	EC122-09/10, Part II	RM9-09/10
RP2-09/10	P90-09/10, Part II	S2-09/10, Part III	RM10-09/10
P60-09/10, Part II	P154-09/10, Part II	P152-09/10, Part II	M35-09/10, Part II
P61-09/10, Part II	P92-09/10, Part II	P157-09/10, Part II	M36-09/10, Part II
P62-09/10, Part II	P93-09/10, Part II	P158-09/10, Part II	RM11-09/10
P63-09/10, Part II	P94-09/10, Part II	P160-09/10, Part II	RM12-09/10
P64-09/10, Part II	P95-09/10, Part II	P153-09/10, Part II	M38-09/10, Part II
	P96-09/10, Part II		M39-09/10, Part II
	P99-09/10, Part II		M40-09/10, Part II

IRC MECHANICAL

RM13-09/10
M45-09/10, Part II
RM14-09/10
M46-09/10, Part II
RM15-09/10
RM16-09/10
RM17-09/10
M156-09/10, Part III
RM18-09/10
RM19-09/10
M31-09/10, Part II
RM20-09/10
M97-09/10, Part II
RM21-09/10
M102-09/10, Part II
M103-09/10, Part II
RM22-09/10
M98-09/10, Part II
M105-09/10, Part II
M110-09/10, Part II
M111-09/10, Part II
M112-09/10, Part II
RM23-09/10
RM24-09/10
RM25-09/10
RM26-09/10
FG32-09/10, Part III
RM27-09/10
RM28-09/10
RM29-09/10
RM30-09/10
RM31-09/10
RM32-09/10
RM33-09/10
RM34-09/10
M128-09/10, Part II
RM35-09/10
RM36-09/10
M127-09/10, Part II
RM37-09/10
M140-09/10, Part II
M141-09/10, Part II
M142-09/10, Part II
M148-09/10, Part II
RM38-09/10
M114-09/10, Part II
M117-09/10, Part II
M119-09/10, Part II
M151-09/10, Part II
M152-09/10, Part II

EC225-09/10: Revision to the second half of Table 505.6.2(2) was omitted in error:

EC225-09/10

Tables 505.6.2(1) and 505.2(2)

Proponent: Richard Heinisch, Acuity Brands Lighting, Inc.

Revise table as follows:

**TABLE 505.6.2(1)
EXTERIOR LIGHTING ZONES**

Lighting Zone	Description
0	Undeveloped areas within national parks, state parks, forest land, rural areas, and other undeveloped areas as defined by the local land use planning authority
1	Developed areas of national parks, state parks, forest land, and rural areas
2	Areas predominantly consisting of residential zoning, neighborhood business districts, light industrial with limited nighttime use and residential mixed use areas
3	All other areas
4	High activity commercial districts in major metropolitan areas as designated by the local land use planning authority

**TABLE 505.6.2(2)
INDIVIDUAL LIGHTING POWER ALLOWANCES FOR BUILDING EXTERIORS**

	Zone 0	Zone 1	Zone 2	Zone 3	Zone 4
Base Site Allowance (base allowance may be used in tradable or non-tradable surfaces)	No Base Site in Zone 0	500 W	600 W	750 W	1300 W
Uncovered Parking Areas					
	No Tradable Surface allowances in Zone 0				
Parking areas and drives		0.04 W/ft ²	0.06 W/ft ²	0.10 W/ft ²	0.13 W/ft ²
Building Grounds					
Walkways less than 10 feet wide		0.7 W/linear foot	0.7 W/linear foot	0.8 W/linear foot	1.0 W/linear foot
Walkways 10 feet wide or greater Plaza areas Special Feature Areas		0.14 W/ft ²	0.14 W/ft ²	0.16 W/ft ²	0.2 W/ft ²
Stairways		0.75 W/ft ²	1.0 W/ft ²	1.0 W/ft ²	1.0 W/ft ²
Pedestrian Tunnels		0.15 W/ft ²	0.15 W/ft ²	0.2 W/ft ²	0.3 W/ft ²
Landscaping		0.04 W/ft ²	0.05 W/ft ²	0.05 W/ft ²	0.05 W/ft ²
Building Entrances and Exits					
Main entries		20 W/linear foot of door width	20 W/linear foot of door width	30 W/linear foot of door width	30 W/linear foot of door width
Other doors		20 W/linear foot of door width	20 W/linear foot of door width	20 W/linear foot of door width	20 W/linear foot of door width
Entry Canopies		0.25 W/ft ²	0.25 W/ft ²	0.4 W/ft ²	0.4 W/ft ²
Sales Canopies					

		Zone 0	Zone 1	Zone 2	Zone 3	Zone 4
	free standing and attached		0.6 W/ft ²	0.6 W/ft ²	0.8 W/ft ²	1.0 W/ft ²
	Outdoor Sales					
	Open areas (including vehicle sales lots)		0.25 W/ft ²	0.25 W/ft ²	0.5 W/ft ²	0.7 W/ft ²
	Street frontage for vehicle sales lots in addition to "open area" allowance		No allowance	10 W/linear foot	10 W/linear foot	30 W/linear foot
Non-Tradable Surfaces (Lighting power density calculations for the following applications can be used only for the specific application and can-not be traded between surfaces or with other exterior lighting. The following allowances are in addition to any allowance otherwise permitted in the "tradable Surfaces" section of this table.)	Building Facades		No allowance	0.1 W/ft ² for each illuminated wall or surface or 2.5 W/linear foot for each illuminated wall or surface length	0.15 W/ft ² for each illuminated wall or surface or 3.75 W/linear foot for each illuminated wall or surface length	0.2 W/ft ² for each illuminated wall or surface or 5.0 W/linear foot for each illuminated wall or surface length
	Automated teller machines and night depositories	<u>A single luminaire of 60 watts or less may be installed for each roadway/parking entry, trail head, and toilet facility, or other locations approved by the authority having jurisdiction</u>	270 W per location plus 90 W per additional ATM per location	270 W per location plus 90 W per additional ATM per location	270 W per location plus 90 W per additional ATM per location	270 W per location plus 90 W per additional ATM per location
	Entrances and gatehouse inspection stations at guarded facilities		0.75 W/ft ² of covered and uncovered area	0.75 W/ft ² of covered and uncovered area	0.75 W/ft ² of covered and uncovered area	0.75 W/ft ² of covered and uncovered area
	Loading areas for law enforcement, fire, ambulance and other emergency service vehicles		0.5 W/ft ² of covered and uncovered area	0.5 W/ft ² of covered and uncovered area	0.5 W/ft ² of covered and uncovered area	0.5 W/ft ² of covered and uncovered area
	Drive-up windows/doors		400 W per drive-through	400 W per drive-through	400 W per drive-through	400 W per drive-through
	Parking near 24-hour retail entrances		800 W per main entry	800 W per main entry	800 W per main entry	800 W per main entry

Reason: This change adds an exterior zone 0 to cover very low light requirement areas. This will help eliminate excessive use of light in areas where none is needed other than for location marking type. Prior to this, the choices for users were zone 1 or 3 which both have higher than needed allowances. The single 60 W luminaire per location allows the use of small HID from higher pole locations (i.e. at parking) and would allow incandescent in locations where cold weather inhibits the use of CFL technology.

Cost Impact: The code change proposal will not increase the cost of construction and will, in fact, decrease costs by keeping designers from over lighting Zone 0 sites.

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

ICCFILENAME: Heinisch-EC-1-T. 505.6.2(1)-(2)

EC37-09/10: Revised table to reflect the proponents intention to change Skylight SHGC values only.

EC37-09/10

Table 402.1.1

Proponent: Jeff Lowinski, Window and Door Manufacturers Association (WDMA)

Revise table as follows:

**TABLE 402.1.1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT^a**

CLIMATE ZONE	GLAZED FENESTRATION				CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUE ⁱ	FLOOR R-VALUE	BASEMENT ^c WALL R-VALUE	SLAB ^d R-VALUE & DEPTH	CRAWL SPACE ^c WALL R-VALUE
	WINDOW AND DOOR		SKYLIGHT ^b								
	U-FACTOR	SHGC ^e	U-FACTOR	SHGC ^e							
1	1.2	0.30	0.75	0.30 0.35	30	13	3/4	13	0	0	0
2	0.65 ^j	0.30	0.75	0.30 0.35	30	13	4/6	13	0	0	0
3	0.50 ^j	0.30	0.65	0.30 0.35	30	13	5/8	19	5/13 ^f	0	5/13
4 except Marine	0.35	NR	0.60	NR	38	13	5/10	19	10/13	10, 2 ft	10/13
5 and Marine 4	0.35	NR	0.60	NR	38	20 or 13+5 ^h	13/17	30 ^g	10/13	10, 2 ft	10/13
6	0.35	NR	0.60	NR	49	20 or 13+5 ^h	15/19	30 ^g	15/19	10, 4 ft	10/13
7 and 8	0.35	NR	0.60	NR	49	21	19/21	38 ^g	15/19	10, 4 ft	10/13

(Footnotes remain unchanged)

Reason: Skylights provide daylighting as a primary function. Low SHGC values might reduce the amount of daylighting available. WDMA proposes a revision to the maximum SHGC allowed for skylights in residential applications to allow an increase in visible light (daylighting).

Roof-mounted fenestration, such as skylights, provide lighting to the interior of spaces as a primary benefit and compliment lighting from windows and doors. Allowing for a slightly higher maximum SHGC value will preserve a level of natural visible light that is sufficient to maximize the opportunities for occupants to switch off artificial lights.

When the 2006 energy code modifications were being debated, the severe reductions in fenestration SHGC were accepted with the unintended consequence of reducing the availability of qualifying skylights that carry NFRC ratings. Discussion of the amended proposal centered exclusively on windows in walls and reducing cooling energy consumption, without regard to the significant offsetting lighting energy savings unique to natural toplighting with visible transmittance high enough to permit switching off lights even under an overcast sky.

It should also be noted that skylight area as a percentage of roof area is typically 0 to 3%, so the negative heat gain contribution on the average building from skylights is very minor in relation to that of the windows in the average house.

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

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

ICCFILENAME: Woestman-EC-5-T. 402.1.1

EC164-09/10: Corrections to “All Other U-Factor” row: Strike-out entire row. The values for Zones 7 and 8 were inadvertently changed, correct value shown. Corrections to: “Curtain Wall/Storefront U-Factor”: values for Zones 7 and 8 were inadvertently changed, correct value shown.

EC164-09/10

Table 502.3

Proponent: Michael D. Fischer, the Kellen Company, representing the Window and Door Manufacturers Association (WDMA)

Revise as follows:

**Table 502.3
BUILDING ENVELOPE REQUIREMENTS: FENESTRATION**

CLIMATE ZONE	1	2	3	4 Except Marine	5 and Marine 4	6	7	8
Vertical Fenestration (40% maximum of above-grade wall)								
U-Factor								
Framing materials other than metal with or without metal reinforcement or cladding								
<i>U-Factor</i> Fixed and operable windows, non-entrance doors	1.20	0.75	0.65	0.40	0.35	0.35	0.35	0.35
Metal framing with or without thermal break								
Curtain Wall/Storefront <i>U-Factor</i>	1.0	0.70	0.60	0.50	0.45	0.45	0.40	0.40
Entrance Door <i>U-Factor</i>	1.20	1.10	0.90	0.85	0.80	0.80	0.80	0.80
All Other <i>U-Factor</i> ^a	1.20	0.75	0.65	0.55	0.55	0.55	0.45	0.45
SHGC-All Frame Types								
SHGC: PF < 0.25	0.25	0.25	0.25	0.40	0.40	0.40	NR	NR
SHGC: 0.25 ≤ PF < 0.5	0.33	0.33	0.33	NR	NR	NR	NR	NR
SHGC: PF ≥ 0.5	0.40	0.40	0.40	NR	NR	NR	NR	NR
Skylights (3% maximum)								
<i>U-Factor</i>	0.75	0.75	0.65	0.60	0.60	0.60	0.60	0.60
SHGC	0.35	0.35	0.35	0.40	0.40	0.40	NR	NR

NR = No requirement

PF = Projection factor (see Section 502.3.2).

a. ~~All others includes operable windows, fixed windows and nonentrance doors.~~

Reason: The current prescriptive requirements in Table 502.3 give preferential treatment to particular types of products by providing different rules depending upon the frame material used. Non-metal frame windows are generally more energy efficient than aluminum and metal windows, yet their use is restricted by the imposition of the prescriptive values that discriminate against wood, vinyl, and composite windows.

This proposal removes that preferential treatment (one that conflicts with the foundational principles of the IECC as reproduced below) and uses the current prescriptive values for non-metal frames as the baseline. The use of less efficient windows should not occur without a consideration of other efficiency measures such as increased insulation. This proposal makes no change in requirements for curtainwall, storefront, entrance doors, or non-metal frames. Buildings constructed with elements such as metal framed windows perform differently, and thus should qualify using the performance path.

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

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

ICCFilename: Fischer-EC-1-T. 502.3

FS114-09/10: Changes to Exception 4:

FS114-09/10

716.5.4 (IMC 607.5.3)

Proponent: Tom Hedges, representing the Arizona Building Officials

Revise as follows:

716.5.4 (IMC 607.5.3) Fire partitions. Ducts and air transfer openings that penetrate *fire partitions* shall be protected with *listed fire dampers* installed in accordance with their listing.

Exceptions: In occupancies other than Group H, *fire dampers* are not required where any of the following apply:

1. Corridor walls in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1 or 903.3.1.2 and the duct is protected as a *through penetration* in accordance with Section 713.
2. Tenant partitions in *covered mall buildings* where the walls are not required by provisions elsewhere in the code to extend to the underside of the floor or roof sheathing, slab or deck above.
3. The duct system is constructed of *approved materials* in accordance with the *International Mechanical Code* and the duct penetrating the wall complies with all of the following requirements:
 - 3.1. The duct shall not exceed 100 square inches (0.06 m2).
 - 3.2. The duct shall be constructed of steel a minimum of 0.0217 inch (0.55 mm) in thickness.
 - 3.3. The duct shall not have openings that communicate the *corridor* with adjacent spaces or rooms.
 - 3.4. The duct shall be installed above a ceiling.
 - 3.5. The duct shall not terminate at a wall register in the fire-resistance-rated wall.
 - 3.6. A minimum 12-inch-long (305 mm) by 0.060-inch-thick (1.52 mm) steel sleeve shall be centered in each duct opening. The sleeve shall be secured to both sides of the wall and all four sides of the sleeve with minimum 1 1/2-inch by 1 1/2-inch by 0.060-inch (38mm by 38mm by 1.52 mm) steel retaining angles. The retaining angles shall be secured to the sleeve and the wall with No. 10 (M5) screws. The *annular space* between the steel sleeve and the wall opening shall be filled with mineral wool batting on all sides.
4. Such walls are penetrated by ducted HVAC systems, have a required fire-resistance rating of 1 hour or less, and are in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. For the purposes of this exception, a ducted HVAC system shall be a duct system for conveying supply, return or exhaust air as part of the structure's HVAC system. Such a duct system shall be constructed of sheet steel not less than 26 gage thickness and shall be continuous from the air-handling appliance or equipment to the air outlet and inlet terminals.

Reason: Currently the code is less restrictive for penetrations of a fire barrier than a fire partition. This proposal adds an additional exception for fire partitions. This proposal duplicates the provisions of Section 716.5.2 Exception 3 as an exception 4 for fire partitions. It is logical to allow the exception for a wall type where the code places lesser restrictions on its use. This exception does not limit the size of a duct penetration as Exception 3 does currently. If this exception is acceptable for fire barriers in fully sprinklered buildings, it should be acceptable for fire partitions in fully sprinklered buildings.

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

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

Revised 10/15:

Add P85-09/10, Part II to IRC RP Hearing Order following P84-09/10, Part II

TENTATIVE ORDER OF DISCUSSION

2009-2010 PROPOSED CHANGES TO THE INTERNATIONAL RESIDENTIAL CODE

PLUMBING/MECHANICAL

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IRC PLUMBING

P2-09/10, Part II
P7-09/10, Part II
P8-09/10, Part II
P10-09/10, Part II
P16-09/10, Part II
RP1-09/10
P18-09/10, Part II
P156-09/10, Part II
P19-09/10, Part II
P36-09/10, Part II
P37-09/10, Part II
P40-09/10, Part II
P41-09/10, Part II
RP7-09/10
P42-09/10, Part II
P52-09/10, Part II
P53-09/10, Part II
P54-09/10, Part II
P55-09/10, Part II
RP8-09/10
RP4-09/10
RP5-09/10
RP2-09/10
P60-09/10, Part II
P61-09/10, Part II
P62-09/10, Part II
P63-09/10, Part II
P64-09/10, Part II
P65-09/10, Part II
P66-09/10, Part II
P67-09/10, Part II
P68-09/10, Part II
P69-09/10, Part II
P70-09/10, Part II
P71-09/10, Part II
P72-09/10, Part II
P73-09/10, Part II
RP6-09/10
P75-09/10, Part II
RP9-09/10
RP10-09/10

RP11-09/10
RP12-09/10
RP13-09/10
RP14-09/10
RP15-09/10
P83-09/10, Part II
P84-09/10, Part II
P85-09/10, Part II
P86-09/10, Part II
P87-09/10, Part II
P90-09/10, Part II
P154-09/10, Part II
P92-09/10, Part II
P93-09/10, Part II
P94-09/10, Part II
P95-09/10, Part II
P96-09/10, Part II
P99-09/10, Part II
P100-09/10, Part II
P102-09/10, Part II
P103-09/10, Part II
P104-09/10, Part II
P106-09/10, Part II
P108-09/10, Part II
P109-09/10, Part II
P110-09/10, Part II
P111-09/10, Part II
P114-09/10, Part II
P115-09/10, Part II
P116-09/10, Part II
P121-09/10, Part II
RP3-09/10
P159-09/10, Part II
P124-09/10, Part II
P127-09/10, Part II
P128-09/10, Part II
P131-09/10, Part II
P135-09/10, Part II
P136-09/10, Part II
EC122-09/10, Part II
S2-09/10, Part III
P152-09/10, Part II
P157-09/10, Part II

P158-09/10, Part II
P160-09/10, Part II
P153-09/10, Part II

IRC MECHANICAL

M1-09/10, Part II
FG14-09/10, Part III
M6-09/10, Part II
FG10-09/10, Part III
M9-09/10, Part II
M10-09/10, Part II
RM1-09/10
RM2-09/10
RM3-09/10
RM4-09/10
RM5-09/10
M121-09/10, Part II
RM6-09/10
RM7-09/10
FG11-09/10, Part III
M130-09/10, Part II
M131-09/10, Part II
M133-09/10, Part II
RM8-09/10
M126-09/10, Part II
RM9-09/10
RM10-09/10
M35-09/10, Part II
M36-09/10, Part II
RM11-09/10
RM12-09/10
M38-09/10, Part II
M39-09/10, Part II
M40-09/10, Part II
RM13-09/10
M45-09/10, Part II
RM14-09/10
M46-09/10, Part II
RM15-09/10
RM16-09/10
RM17-09/10
M156-09/10, Part III

RM18-09/10
RM19-09/10
M31-09/10, Part II
RM20-09/10
M97-09/10, Part II
RM21-09/10
M102-09/10, Part II
M103-09/10, Part II
RM22-09/10
M98-09/10, Part II
M105-09/10, Part II
M110-09/10, Part II
M111-09/10, Part II
M112-09/10, Part II
RM23-09/10
RM24-09/10
RM25-09/10
RM26-09/10
FG32-09/10, Part III
RM27-09/10
RM28-09/10
RM29-09/10
RM30-09/10
RM31-09/10
RM32-09/10
RM33-09/10
RM34-09/10
M128-09/10, Part II
RM35-09/10
RM36-09/10
M127-09/10, Part II
RM37-09/10
M140-09/10, Part II
M141-09/10, Part II
M142-09/10, Part II
M148-09/10, Part II
RM38-09/10
M114-09/10, Part II
M117-09/10, Part II
M119-09/10, Part II
M151-09/10, Part II
M152-09/10, Part II

WUIC5-09/10: Replace entire code change with the following:

WUIC5-09/10

504.2.1 (New), Chapter 7

Proponent: John Scott, Roxul, Inc.

1. Revise as follows:

504.2.1 Roof insulation. Roof insulations shall be classified as Class NC (noncombustible core) in accordance with the requirements of FM 4470.

(Renumber subsequent section)

2. Add new standard to Chapter 7 as follows:

FM Factory Mutual Global Research
Standards Laboratories Department
1301 Atwood Avenue, P.O. Box 7500
Johnston, RI 02919

4470 (2009) Approval Standard for Single-Ply, Polymer-Modified Bitumen Sheet, Built-Up Roof (BUR) and Liquid Applied Roof Assemblies

Reason: To introduce a new Class of Ignition-resistant building material into the IWUIC, based upon testing and conformance with the newest edition (2009) of FM 4470 Approval Standard for Single-Ply, Polymer-Modified Bitumen Sheet, Built-Up Roof (BUR) and Liquid Applied Roof Assemblies.

The IWUIC has very stringent expectations for Class 1 Ignition Resistant Construction. While the definitions in Section 202 addresses "Noncombustible Roof Coverings", this really only applies to the weathering membrane on the exterior surface of the roof (i.e. such as shingles, sheets, and tiles), rather than the potentially high fuel loads coming from some combustible insulation materials beneath them. Consequently, there is a need to further restrict the use of combustible roof insulations where required.

The 2009 edition of FM Approval Standard 4470 has introduced a new category of roofing insulation defined as Class "NC" non-combustible core.

In order for a roof insulation material to be classified as "NC", the roof insulation must meet the following stringent criterion:

1. ASTM D482, Standard Test Method for Ash from Petroleum Products
2. ASTM E2058, Standard Test Methods for Measurement of Synthetic Polymer Material Flammability Using a Fire Propagation Apparatus (FPA)
3. ISO 1716:2002 Reaction to Fire Tests for Building Products - Determination of the Heat of Combustion

The first test acceptance criteria used by FM for these materials is very stringent, and includes a minimum total solids content of 90% per ASTM D 482.

In addition, during the ASTM E2058 test, no visible flaming of the insulation is permitted for the full 15 minute duration, and the test is extended beyond 15 minutes in duration if there is any evidence of the sample still exhibiting mass loss and/or visible vapors being emitted. The test is continued until the mass loss and/or visible vapors have also ceased.

The third test method is ISO Standard 1716 which is used for determination of the Heat of Combustion of building materials. The insulation core must have a maximum heat of combustion of 2.0 kJ/g (860 BTU/lb).

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

Analysis: FM 4470 (1992) is currently referenced in the IBC.

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

ICCFILENAME: SCOTT-WUIC2-504.2.1.DOC