
INTERNATIONAL BUILDING CODE – GENERAL

G1-07/08

101.2

Proposed Change as Submitted:

Proponent: Tom Lariviere, Fire Department, Madison, MS, representing the Joint Fire Service Review Committee

Revise as follows:

101.2 Scope. The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

Exception: Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures ~~shall comply built in accordance with the *International Residential Code* shall not require compliance with this code.~~

Reason: This proposal is intended to provide the latitude that is truly part of the codes. It is the intent, in fact, it is specifically required that a one-family dwelling be constructed in accordance with the IBC when it is **not** a detached structure. If this attached one-family dwelling could adequately be constructed according to the IBC, then why couldn't the designer choose to construct a one-family dwelling in accordance with the IBC, when it is detached.

This proposal only provides the designer with an option. The option is that the detached one-family dwelling could be constructed according to the IBC, or according to the IRC. This exception would then state that when the IRC is used, the IBC does not apply. This section would no longer mandate that the designer must use the IRC.

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

Committee Action:

Disapproved

Committee Reason: This proposal was disapproved as there are provisions in the IRC that refer specifically to the IBC structural provisions for certain conditions. This revision would cause confusion as to whether or not to apply the IBC in those cases.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Tom Lariviere, Fire Department, Madison, MS, representing the Joint Fire Service Review Committee requests Approval as Modified by this public comment.

Modify proposal as follows:

101.2 Scope. The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

Exception: Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures built in accordance with the *International Residential Code* ~~shall not require compliance with this code.~~

Commenter's Reason: The Code Development Committee was concerned with the phrase "shall not require compliance with this code", because there are occasions where the IRC refers back to the IBC for structural requirements, and the inclusion of this phrase would create confusion. Therefore this phrase is stricken from the original proposal.

This Public Comment is intended to provide the latitude and option that is truly part of the I-Codes. It is the intent, in fact, it is specifically required that a one-family dwelling be constructed in accordance with the IBC when it is **not** a detached structure. If this attached one-family dwelling can adequately be constructed according to the IBC, then why couldn't the designer choose to construct a one-family dwelling in accordance with the IBC, even when it is a detached structure?

This proposal simply provides the designer with an option. The option is that the detached one-family dwelling could be constructed according to the IBC, or according to the IRC. The exception would no longer mandate that the designer must use the IRC.

Final Action: AS AM AMPC_____ D

G3-07/08, Part I

101.3

Proposed Change as Submitted:

Proponent: Richard Schulte, Schulte & Associates

PART I – IBC GENERAL

Revise as follows:

101.3 Intent. The purpose of this code is to establish ~~the~~ reasonable minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, sanitation, adequate light and ventilation, energy conservation, and safety to life and property from fire and other hazards attributed to the built environment and to provide reasonable safety ~~to~~ for fire fighters and emergency responders during emergency operations.

Reason: The purpose of this proposal is clarify the meaning of the "intent" statement presently contained in the *International Building Code*.

The "intent" statement presently contained in the Code is so general that practically any and all proposals to make the Code more restrictive can be justified as being necessary to "safeguard" the public or to provide safety to fire fighters and emergency responders during emergency operations, without regard to either the cost or benefit to the public. This code change attempts to clarify that both cost and benefit to the public should be considered when determining whether or not a new provision or modification to any existing provision should be included in the Code.

While the term "reasonable" is not defined any where in the Code and is a general term, this proposal improves the "intent" statement contained in the Code by at least introducing the concept that the provisions contained in the Code should be "reasonable".

If this proposal is adopted, proponents of future code changes should be required to demonstrate that the proposals pass the "reasonable" test. The "reasonable" test should disqualify code change proposals which address highly improbable events (i.e. "multi-hazard" design) or events for which it is simply impossible to address (i.e. terrorist attacks and "multi-hazard" design).

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

PART I – IBC GENERAL

Committee Action:

Disapproved

Committee Reason: The committee disapproved this proposal based upon the ambiguity the term "reasonable" would add to the code and the burden it would place upon the jurisdiction. The term "reasonable" was felt to be too subjective.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Richard Schulte, Schulte & Associates requests Approval as Modified for Part I.

Modify proposal as follows:

101.3 Intent. The purpose of this code is to establish ~~reasonable~~ minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, sanitation, adequate light and ventilation, energy conservation and safety to life and property from fire and other hazards attributed to the built environment and to provide a reasonable level of safety for fire fighters and emergency responders during emergency operations.

Commenter's Reason: The various committees which reviewed this proposal and heard testimony stated that the proposed language was ambiguous and that different people attach different meanings to the term "reasonable". The proponent can't argue with these points, however, the present language of this section is already ambiguous and users of the code already attach different meanings to the intent statement. If the intent statement contained in the code was clear, then the number of code change proposals would decrease with each cycle, rather than be increasing.

The introduction into the text of the term "reasonable" is intended to introduce a concept which is already applied to many code changes and is generally understood by experienced users of the Code. It is the proponent's opinion that the "reasonable" concept should be applied to all code change proposals and to all current provisions contained in the Code.

It should be noted that the term "reasonable" has been included in the Life Safety Code (LSC) ever since I began using the LSC over 30 years ago. This term is also included in NFPA 5000. Most users of the IBC have likely also used the LSC. If the use of the term "reasonable" is understood when it is used in the LSC and NFPA 5000, it is a mystery to me why users of the IBC, IFC and IRC will not be able to grasp the meaning of this term. I don't believe that users of the LSC and NFPA 5000 are any more intelligent than users of the IBC.

Final Action: AS AM AMPC____ D

G3-07/08, Part II IFC 101.3

Proposed Change as Submitted:

Proponent: Richard Schulte, Schulte & Associates

PART II – IFC

Revise as follows:

101.3 Intent. The purpose of this code is to establish ~~the~~ reasonable minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises and to provide reasonable safety ~~to~~ for fire fighters and emergency responders during emergency operations.

Reason: The purpose of this proposal is clarify the meaning of the "intent" statement presently contained in the *International Building Code*.

The "intent" statement presently contained in the Code is so general that practically any and all proposals to make the Code more restrictive can be justified as being necessary to "safeguard" the public or to provide safety to fire fighters and emergency responders during emergency operations, without regard to either the cost or benefit to the public. This code change attempts to clarify that both cost and benefit to the public should be considered when determining whether or not a new provision or modification to any existing provision should be included in the Code.

While the term "reasonable" is not defined any where in the Code and is a general term, this proposal improves the "intent" statement contained in the Code by at least introducing the concept that the provisions contained in the Code should be "reasonable".

If this proposal is adopted, proponents of future code changes should be required to demonstrate that the proposals pass the "reasonable" test. The "reasonable" test should disqualify code change proposals which address highly improbable events (i.e. "multi-hazard" design) or events for which it is simply impossible to address (i.e. terrorist attacks and "multi-hazard" design).

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

PART II – IFC

Committee Action:

Disapproved

Committee Reason: The IFC is a minimum code. Adding "reasonable" is not measurable and would cause confusion in the application of the code. Disapproval is also consistent with the actions of the IBC-G and IRC-B/E Committees in Parts I and III, respectively.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Richard Schulte, Schulte & Associates requests Approval as Modified by this public comment for Part II.

Modify proposal as follows:

101.3 Intent. The purpose of this code is to establish ~~reasonable~~ reasonable minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises and to provide a reasonable level of safety for fire fighters and emergency responders during emergency operations.

Commenter's Reason: The various Committees which reviewed this proposal and heard testimony stated that the proposed language was ambiguous and that different people attach different meanings to the term "reasonable". The proponent can't argue with these points, however, the present language of this section is already ambiguous and users of the code already attach different meanings to the intent statement. If the intent statement contained in the code was clear, then the number of code change proposals would decrease with each cycle, rather than be increasing.

The introduction into the text of the term "reasonable" is intended to introduce a concept which is already applied to many code changes and is generally understood by experienced users of the Code. It is the proponents opinion that the "reasonable" concept should be applied to all code change proposals and to all current provisions contained in the Code.

It should be noted that the term "reasonable" has been included in the Life Safety Code (LSC) ever since I began using the LSC over 30 years ago. This term is also included in NFPA 5000. Most users of the IBC have likely also used the LSC. If the use of the term "reasonable" is understood when it is used in the LSC and NFPA 5000, it is a mystery to me why users of the IBC, IFC and IRC will not be able to grasp the meaning of this term. I don't believe that users of the LSC and NFPA 5000 are any more intelligent than users of the IBC.

Final Action: AS AM AMPC___ D

G3-07/08, Part III IRC R101.3

Proposed Change as Submitted:

Proponent: Richard Schulte, Schulte & Associates

PART III – IRC BUILDING/ENERGY

R101.3 (Supp) Intent. The purpose of this code is to establish reasonable minimum requirements to safeguard the public safety, health and general welfare through affordability, structural strength, means of egress facilities, stability, sanitation, light and ventilation, energy conservation and safety to life and property from fire and other hazards attributed to the built environment and to provide reasonable safety ~~to~~ for fire fighters and emergency responders during emergency operations.

Reason: The purpose of this proposal is clarify the meaning of the "intent" statement presently contained in the *International Building Code*. The "intent" statement presently contained in the Code is so general that practically any and all proposals to make the Code more restrictive can be justified as being necessary to "safeguard" the public or to provide safety to fire fighters and emergency responders during emergency operations, without regard to either the cost or benefit to the public. This code change attempts to clarify that both cost and benefit to the public should be considered when determining whether or not a new provision or modification to any existing provision should be included in the Code.

While the term "reasonable" is not defined any where in the Code and is a general term, this proposal improves the "intent" statement contained in the Code by at least introducing the concept that the provisions contained in the Code should be "reasonable".

If this proposal is adopted, proponents of future code changes should be required to demonstrate that the proposals pass the "reasonable" test. The "reasonable" test should disqualify code change proposals which address highly improbable events (i.e. "multi-hazard" design) or events for which it is simply impossible to address (i.e. terrorist attacks and "multi-hazard" design).

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

PART III – IRC-B/E Committee Action:

Disapproved

Committee Reason: The proposed language is vague and should not be included in the charging text. Everyone has a different opinion of what reasonable is.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Richard Schulte, Schulte & Associates requests Approval as Modified by this public comment for Part III.

Modify proposal as follows:

R101.3 (Supp) Intent. The purpose of this code is to establish ~~reasonable~~ minimum requirements to safeguard the public safety, health and general welfare through affordability, structural strength, means of egress facilities, stability, sanitation, light and ventilation, energy conservation and safety to life and property from fire and other hazards attributed to the built environment and to provide a reasonable level of safety for fire fighters and emergency responders during emergency operations.

Commenter's Reason: The various Committees which reviewed this proposal and heard testimony stated that the proposed language was ambiguous and that different people attach different meanings to the term "reasonable". The proponent can't argue with these points, however, the present language of this section is already ambiguous and users of the code already attach different meanings to the intent statement. If the intent statement contained in the code was clear, then the number of code change proposals would decrease with each cycle, rather than be increasing.

The introduction into the text of the term "reasonable" is intended to introduce a concept which is already applied to many code changes and is generally understood by experienced users of the Code. It is the proponent's opinion that the "reasonable" concept should be applied to all code change proposals and to all current provisions contained in the Code.

It should be noted that the term "reasonable" has been included in the Life Safety Code (LSC) ever since I began using the LSC over 30 years ago. This term is also included in NFPA 5000. Most users of the IBC have likely also used the LSC. If the use of the term "reasonable" is understood when it is used in the LSC and NFPA 5000, it is a mystery to me why users of the IBC, IFC and IRC will not be able to grasp the meaning of this term. I don't believe that users of the LSC and NFPA 5000 are any more intelligent than users of the IBC.

Final Action: AS AM AMPC____ D

G4-07/08, Part I 101.3

Proposed Change as Submitted:

Proponent: Richard Schulte, Schulte & Associates

PART I – IBC GENERAL

Revise as follows:

101.3 Intent. The purpose of this code is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, sanitation, adequate light and ventilation, energy conservation, and safety to life and property from ~~fire and other~~ hazards attributed to the built environment and to provide safety to fire fighters and emergency responders during emergency operations. Protection from property losses caused by fire and combustion products generated by fire, other than the spread of fire between buildings, is outside the scope of this code.

Reason: The purpose of this code change is to clarify that it is not the intent of the code to address property losses or business interruption caused by a fire and combustion products generated by a fire, other than the spread of fire between buildings.

In recent code change cycles, manufacturers and installers of passive fire protection products have sought to make more restrictive changes to the code utilizing property protection from fire, smoke and other combustion products as the rationale for the code change proposal. Based upon the fire safety and fire protection provisions presently contained in the code, it can be concluded that it is clearly not the intent of the code to address property losses or business interruption caused by fire, other than fire spread between adjacent buildings.

If the code intended to address the issue of property losses (or business interruption) due to fire, the code would not permit unprotected (non-rated) building construction types, non-rated tenant separations, unenclosed floor openings (including atriums) or unsprinklered buildings.

If it were the intent of the code to address property losses due to fire, the code would have long ago required that all buildings, including 1- and 2-family dwellings, be protected by a sprinkler system.

Including the exception above in the intent statement clarifies the intent of the code with respect to property protection from fire, smoke other and combustion products.

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

PART I – IBC GENERAL

Committee Action:

Disapproved

Committee Reason: The proposed language was felt to be unenforceable as there are many aspects of the building code that are related to property protection and such language would have a large effect on the application of the code. Additionally it was pointed out that structural integrity is in fact related to property protection as well as life safety and such statements are contrary to the intent of the IBC.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Richard Schulte, Schulte & Associates requests Approval as Submitted for Part I.

Commenter's Reason: The Committee indicated that this language is unenforceable and that the proposed change would have a large impact on the code. With respect to enforcement, the Code as presently written is not consistent with respect to the issue of property protection from the hazard of fire, but is still deemed to be enforceable. With respect to the impact, the Code should be consistent. If the Code is not consistent, the Code should be changed so that Code is internally consistent with the intent statement.

One example of where the Code is not consistent with the intent statement is with respect to sprinkler protection. It is well known that sprinkler protection provides the best protection for property from the hazard of fire, yet the code does not require that all buildings be protected by sprinklers. If one of the purposes of the Code is to address property protection from the hazard of fire, then it would seem that the Code should require that all buildings be protected by a sprinkler system. It might be said that requiring all buildings to be protected by a sprinkler system is unreasonable, however, quite a number of jurisdictions in suburban Chicago have amended to IBC to require that all buildings be protected by sprinklers. (It should also be noted that the Committee rejected a code change which would insert the word "reasonable" in the intent statement.)

In testimony regarding this proposal, it was stated that this proposal was intended to be a "joke". Nothing could be further from the truth. At present, the provisions contained in the IBC are very similar to those contained in NFPA 5000. Both the IBC and NFPA 5000 contain similar statements regarding the intent of the code, however, explanatory material contained in NFPA 5000 specifically states that NFPA 5000 is not intended to address the issue of property protection from the hazard of fire. If the contents and intent statements contained in both the IBC and NFPA 5000 are very similar, then it is a reasonable assumption that the intent of the two Codes is the same (or very similar). Hence, it is reasonable to assume that the explanatory material regarding the intent NFPA 5000 is also applicable to the IBC.

It is my opinion that the government should not be involved in dictating how the public protects its property from the hazard of fire. The protection of property from fire should be between the public and property insurers. If the Code is going to tell the public how to protect their property, where will it all end? At present, we have a presidential candidate who thinks it is proper to tell the public what to eat and how much to eat. With respect to the hazard of fire, the protection of life and the spread of fire from one building to adjacent buildings should be the only legitimate concerns of the Code.

Final Action: AS AM AMPC_____ D

G4-07/08, Part II IFC 101.3

Proposed Change as Submitted:

Proponent: Richard Schulte, Schulte & Associates

PART II – IFC

Revise as follows:

101.3 Intent. The purpose of this code is to establish the minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises and to provide safety to fire fighters and emergency responders during emergency operations. Protection from property losses caused by fire and combustion products generated by fire, other than the spread of fire between buildings, is outside the scope of this code.

Reason: The purpose of this code change is to clarify that it is not the intent of the code to address property losses or business interruption caused by a fire and combustion products generated by a fire, other than the spread of fire between buildings.

In recent code change cycles, manufacturers and installers of passive fire protection products have sought to make more restrictive changes to the code utilizing property protection from fire, smoke and other combustion products as the rationale for the code change proposal. Based upon the fire safety and fire protection provisions presently contained in the code, it can be concluded that it is clearly not the intent of the code to address property losses or business interruption caused by fire, other than fire spread between adjacent buildings.

If the code intended to address the issue of property losses (or business interruption) due to fire, the code would not permit unprotected (non-rated) building construction types, non-rated tenant separations, unenclosed floor openings (including atriums) or unsprinklered buildings.

If it were the intent of the code to address property losses due to fire, the code would have long ago required that all buildings, including 1- and 2-family dwellings, be protected by a sprinkler system.

Including the exception above in the intent statement clarifies the intent of the code with respect to property protection from fire, smoke other and combustion products.

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

PART II – IFC

Committee Action:

Disapproved

Committee Reason: Protection of property is included in the current text and provides protection to the jurisdiction. This proposal appears to be a scoping issue. Disapproval is also consistent with the actions of the IBC-G and IRC-B/E Committees in Parts I and III, respectively.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Richard Schulte, Schulte & Associates requests Approval as Submitted for Part II.

Commenter's Reason: The Committee indicated that this language is unenforceable and that the proposed change would have a large impact on the code. With respect to enforcement, the Code as presently written is not consistent with respect to the issue of property protection from the hazard of fire, but is still deemed to be enforceable. With respect to the impact, the Code should be consistent. If the Code is not consistent, the Code should be changed so that Code is internally consistent with the intent statement.

One example of where the Code is not consistent with the intent statement is with respect to sprinkler protection. It is well known that sprinkler protection provides the best protection for property from the hazard of fire, yet the code does not require that all buildings be protected by sprinklers. If one of the purposes of the Code is to address property protection from the hazard of fire, then it would seem that the Code should require that all buildings be protected by a sprinkler system. It might be said that requiring all buildings to be protected by a sprinkler system is unreasonable, however, quite a number of jurisdictions in suburban Chicago have amended to IBC to require that all buildings be protected by sprinklers. (It should also be noted that the Committee rejected a code change which would insert the word "reasonable" in the intent statement.)

In testimony regarding this proposal, it was stated that this proposal was intended to be a "joke". Nothing could be further from the truth.

At present, the provisions contained in the IBC are very similar to those contained in NFPA 5000. Both the IBC and NFPA 5000 contain similar statements regarding the intent of the code, however, explanatory material contained in NFPA 5000 specifically states that NFPA 5000 is not intended to address the issue of property protection from the hazard of fire. If the contents and intent statements contained in both the IBC and NFPA 5000 are very similar, then it is a reasonable assumption that the intent of the two Codes is the same (or very similar). Hence, it is reasonable to assume that the explanatory material regarding the intent NFPA 5000 is also applicable to the IBC.

It is my opinion that the government should not be involved in dictating how the public protects its property from the hazard of fire. The protection of property from fire should be between the public and property insurers. If the Code is going to tell the public how to protect their property, where will it all end? At present, we have a presidential candidate who thinks it is proper to tell the public what to eat and how much to eat. With respect to the hazard of fire, the protection of life and the spread of fire from one building to adjacent buildings should be the only legitimate concerns of the Code.

Final Action: AS AM AMPC____ D

G4-07/08, Part III IRC R101.3

Proposed Change as Submitted:

Proponent: Richard Schulte, Schulte & Associates

PART III – IRC BUILDING/ENERGY

Revise as follows:

R101.3 (Supp) Intent. The purpose of this code is to establish minimum requirements to safeguard the public safety, health and general welfare through affordability, structural strength, means of egress facilities, stability, sanitation, light and ventilation, energy conservation and safety to life and property from ~~fire and other~~ hazards attributed to the built environment and to provide safety to fire fighters and emergency responders during emergency operations. Protection from property losses caused by fire and combustion products generated by fire, other than the spread of fire between buildings, is outside the scope of this code.

Reason: The purpose of this code change is to clarify that it is not the intent of the code to address property losses or business interruption caused by a fire and combustion products generated by a fire, other than the spread of fire between buildings.

In recent code change cycles, manufacturers and installers of passive fire protection products have sought to make more restrictive changes to the code utilizing property protection from fire, smoke and other combustion products as the rationale for the code change proposal. Based upon the fire safety and fire protection provisions presently contained in the code, it can be concluded that it is clearly not the intent of the code to address property losses or business interruption caused by fire, other than fire spread between adjacent buildings.

If the code intended to address the issue of property losses (or business interruption) due to fire, the code would not permit unprotected (non-rated) building construction types, non-rated tenant separations, unenclosed floor openings (including atriums) or unsprinklered buildings.

If it were the intent of the code to address property losses due to fire, the code would have long ago required that all buildings, including 1- and 2-family dwellings, be protected by a sprinkler system.

Including the exception above in the intent statement clarifies the intent of the code with respect to property protection from fire, smoke other and combustion products.

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

**PART III – IRC-B/E
Committee Action:**

Disapproved

Committee Reason: The proposed language is unnecessary as it is already the purpose and intent of the code to protect property. If the language were introduced it would be redundant.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Richard Schulte, Schulte & Associates requests Approval as Submitted for Part III.

Commenter's Reason: The Committee indicated that this language is unenforceable and that the proposed change would have a large impact on the code. With respect to enforcement, the Code as presently written is not consistent with respect to the issue of property protection from the hazard of fire, but is still deemed to be enforceable. With respect to the impact, the Code should be consistent. If the Code is not consistent, the Code should be changed so that Code is internally consistent with the intent statement.

One example of where the Code is not consistent with the intent statement is with respect to sprinkler protection. It is well known that sprinkler protection provides the best protection for property from the hazard of fire, yet the code does not require that all buildings be protected by sprinklers. If one of the purposes of the Code is to address property protection from the hazard of fire, then it would seem that the Code should require that all buildings be protected by a sprinkler system. It might be said that requiring all buildings to be protected by a sprinkler system is unreasonable, however, quite a number of jurisdictions in suburban Chicago have amended to IBC to require that all buildings be protected by sprinklers. (It should also be noted that the Committee rejected a code change which would insert the word "reasonable" in the intent statement.)

In testimony regarding this proposal, it was stated that this proposal was intended to be a "joke". Nothing could be further from the truth. At present, the provisions contained in the IBC are very similar to those contained in NFPA 5000. Both the IBC and NFPA 5000 contain similar statements regarding the intent of the code, however, explanatory material contained in NFPA 5000 specifically states that NFPA 5000 is not intended to address the issue of property protection from the hazard of fire. If the contents and intent statements contained in both the IBC and NFPA 5000 are very similar, then it is a reasonable assumption that the intent of the two Codes is the same (or very similar). Hence, it is reasonable to assume that the explanatory material regarding the intent NFPA 5000 is also applicable to the IBC.

It is my opinion that the government should not be involved in dictating how the public protects its property from the hazard of fire. The protection of property from fire should be between the public and property insurers. If the Code is going to tell the public how to protect their property, where will it all end? At present, we have a presidential candidate who thinks it is proper to tell the public what to eat and how much to eat. With respect to the hazard of fire, the protection of life and the spread of fire from one building to adjacent buildings should be the only legitimate concerns of the Code.

Final Action: AS AM AMPC____ D

**G5-07/08, Part I
104.11.3 (New), 105.3.1**

Proposed Change as Submitted:

Proponent: Kirk Grundahl, PE, WTCA and Wayne R. Jewell, CBO

PART I – IBC GENERAL

1. Add new text as follows:

104.11.3 Rejected approval. If the research report and/or tests are properly submitted in accordance with the statutes of the jurisdiction by a registered design professional or approved agency and the building official rejects the approval of the alternative material, design or method of construction, the building official shall recite the specific section(s) of the code that have been violated and state the specific reasons and/or interpretations that have caused the rejection. Approval of properly submitted work by a registered design professional shall not be withheld without specific cause cited.

2. Revise as follows:

105.3.1 Action on application. The building official shall examine or cause to be examined applications for permits and amendments thereto within a reasonable time after filing. If the application or the construction documents do not conform to the requirements of pertinent laws, the building official shall reject such application

in writing, reciting each specific section of the code that has been violated stating the reasons and/or interpretations therefor. If the building official is satisfied that the proposed work conforms to the requirements of this code and laws and ordinances applicable thereto, the building official shall issue a permit therefor as soon as practicable.

Reason: The purpose of the proposed code changes is to clarify the:

1. Actions that need to be taken by the building official when a building permit application, research report or product test(s) is rejected.
2. Specific actions that need to be taken by the building official upon reject of any of these items.

There are times when it is not clear why a building official has rejected a building permit application, research report or product test. This change is to emphasize that it is important that any rejection clearly define the reason for the rejection so that the person submitting a building permit application, research report or product test(s) knows how to successfully cure the rejected item(s).

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

PART I – IBC GENERAL

Committee Action:

Disapproved

Committee Reason: The committee felt that the issue addressed by this proposal is already addressed in the code currently. In addition there was concern that if a design was based upon an alternative approach, it is often difficult to refer to a specific section to explain the rejection. Also, committee members raised a concern that the last sentence only refers to the registered design professional and not others that may be involved in the design process.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment 1:

Wayne R. Jewell, City of Southfield, MI, representing himself requests Approval as Modified by this public comment for Part I.

Modify proposal as follows:

104.11.3 Rejected approval. If the research report and/or tests are properly submitted in accordance with the statutes of the jurisdiction by a registered design professional or approved agency and the building official rejects the approval of the alternative material, design or method of construction, the building official shall ~~recite~~ provide the specific section(s) of the code that have been violated and state the specific reasons and/or interpretations that have caused the rejection. ~~Approval of properly submitted work by a registered design professional shall not be withheld without specific cause cited.~~

(Portions of proposal not shown remain unchanged)

Commenter's Reason: The committee had concerns with the use of terms such as "specific", "work" and "registered design professional" in proposed new language of Section 104.11.3. The modified language addresses the concerns that have been fed back regarding this proposed language. It is believed that this language demands no more of the building official than present code language. The intention is to clarify that when a submission is not approved, the code sections that are not complied with and the reasons therefore should be provided so that the person that is working on the submission knows what needs to be done to gain approval.

Public Comment 2:

Wayne R. Jewell, City of Southfield, MI, representing himself requests Approval as Modified by this public comment for Part I.

Modify proposal as follows:

104.11.3 Rejected approval. If the research report and/or tests are properly submitted in accordance with the statutes of the jurisdiction by a registered design professional or approved agency and the building official rejects the approval of the alternative material, design or method of construction, the building official shall ~~recite~~ provide the specific section(s) of the code that have been violated and state the specific reasons and/or interpretations that have caused the rejection. Approval of properly submitted work construction documents by a registered ~~design professional~~ any permit applicant shall not be withheld without providing a reason ~~specific cause cited~~.

(Portions of proposal not shown remain unchanged)

Commenter's Reason: The committee had concerns with the use of terms such as "specific", "work" and "registered design professional" in proposed new language of Section R104.11.3. The modified language addresses the concerns that have been fed back regarding this proposed language. It is believed that this language demands no more of the building official than present code language. The intention is to clarify that when a submission is not approved, the code sections that are not complied with and the reasons therefore should be provided so that the person that is working on the submission knows what needs to be done to gain approval.

Public Comment 3:

Wayne R. Jewell, City of Southfield, MI, representing himself requests Approval as Modified by this public comment for Part I.

Modify proposal as follows:

105.3.1 Action on application. The building official shall examine or cause to be examined applications for permits and amendments thereto within a reasonable time after filing. If the application or the construction documents do not conform to the requirements of pertinent laws, the building official shall reject such application in writing, ~~reciting each specific~~ providing the section(s) of the code that has been violated stating the reasons and/or interpretations therefor. If the building official is satisfied that the proposed work conforms to the requirements of this code and laws and ordinances applicable thereto, the building official shall issue a permit therefor as soon as practicable.

(Portions of proposal not shown remain unchanged)

Commenter's Reason: The committee had concerns with the use of terms such as "specific", "work" and "each" in proposed revised language of Section 105.3.1. The modified language addresses the concerns that have been fed back regarding this proposed language. The intention is to clarify that when a submission is not approved, the code sections that are not complied with and the reasons therefore should be provided so that the person that is working on the submission knows what needs to be done to gain approval

Final Action: AS AM AMPC____ D

**G5-07/08, Part II
IRC R104.11.3 (New), R105.3.1**

Proposed Change as Submitted:

Proponent: Kirk Grundahl, PE, WTCA and Wayne R. Jewell, CBO

PART II – IRC BUILDING/ENERGY

1. Add new text as follows:

R104.11.3 Rejected approval. If the research report and/or tests are properly submitted in accordance with the statutes of the jurisdiction by a registered design professional or approved agency and the building official rejects the approval of the alternative material, design or method of construction, the building official shall recite the specific section(s) of the code that have been violated and state the specific reasons and/or interpretations that have caused the rejection. Approval of properly submitted work by a registered design professional shall not be withheld without specific cause cited.

2. Revise as follows:

R105.3.1 Action on application. The building official shall examine or cause to be examined applications for permits and amendments thereto within a reasonable time after filing. If the application or the construction documents do not conform to the requirements of pertinent laws, the building official shall reject such application in writing, reciting each specific section of the code that has been violated stating the reasons and/or interpretations therefor. If the building official is satisfied that the proposed work conforms to the requirements of this code and laws and ordinances applicable thereto, the building official shall issue a permit therefor as soon as practicable.

Reason: The purpose of the proposed code changes is to clarify the:

1. Actions that need to be taken by the building official when a building permit application, research report or product test(s) is rejected.
2. Specific actions that need to be taken by the building official upon reject of any of these items.

There are times when it is not clear why a building official has rejected a building permit application, research report or product test. This change is to emphasize that it is important that any rejection clearly define the reason for the rejection so that the person submitting a building permit application, research report or product test(s) knows how to successfully cure the rejected item(s).

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

**PART II – IRC-B/E
Committee Action:**

Approved as Submitted

Committee Reason: The new language will provide important feedback to the architect or engineer of record that provides specific section numbers.

Assembly Action

Disapproved

Individual Consideration Agenda

This item is on the agenda for individual consideration because an assembly action was successful and public comments were submitted.

Public Comment 1:

Wayne R. Jewell, City of Southfield, MI, representing himself requests Approval as Modified by this public comment for Part II.

Modify proposal as follows:

R104.11.3 Rejected approval. If the research report and/or tests are properly submitted in accordance with the statutes of the jurisdiction by a registered design professional or approved agency and the building official rejects the approval of the alternative material, design or method of construction, the building official shall ~~recite~~ provide the ~~specific~~ section(s) of the code that have been violated and state the ~~specific~~ reasons and/or interpretations that have caused the rejection. ~~Approval of properly submitted work by a registered design professional shall not be withheld without specific cause cited.~~

(Portions of proposal not shown remain unchanged)

Commenter's Reason: The committee had concerns with the use of terms such as "specific", "work" and "registered design professional" in proposed new language of Section R104.11.3. The modified language addresses the concerns that have been fed back regarding this proposed language. It is believed that this language demands no more of the building official than present code language. The intention is to clarify that when a submission is not approved, the code sections that are not complied with and the reasons therefore should be provided so that the person that is working on the submission knows what needs to be done to gain approval

Public Comment 2:

Wayne R. Jewell, City of Southfield, MI, representing himself requests Approval as Modified by this public comment for Part II.

Modify proposal as follows:

R104.11.3 Rejected approval. If the research report and/or tests are properly submitted in accordance with the statutes of the jurisdiction by a registered design professional or approved agency and the building official rejects the approval of the alternative material, design or method of construction, the building official shall ~~recite~~ provide the ~~specific~~ section(s) of the code that have been violated and state the ~~specific~~ reasons and/or interpretations that have caused the rejection. Approval of properly submitted ~~work~~ construction documents by a ~~registered design professional~~ any permit applicant shall not be withheld without providing a reason ~~specific cause cited~~.

(Portions of proposal not shown remain unchanged)

Commenter's Reason: The committee had concerns with the use of terms such as "specific", "work" and "registered design professional" in proposed new language of Section R104.11.3. The modified language addresses the concerns that have been fed back regarding this proposed language. It is believed that this language demands no more of the building official than present code language. The intention is to clarify that when a submission is not approved, the code sections that are not complied with and the reasons therefore should be provided so that the person that is working on the submission knows what needs to be done to gain approval.

Public Comment 3:

Wayne R. Jewell, City of Southfield, MI, representing himself requests Approval as Modified by this public comment for Part II.

Modify proposal as follows:

105.3.1 Action on application. The building official shall examine or cause to be examined applications for permits and amendments thereto within a reasonable time after filing. If the application or the construction documents do not conform to the requirements of pertinent laws, the building official shall reject such application in writing, ~~reciting each specific~~ providing the section(s) of the code that has been violated stating the reasons and/or interpretations therefor. If the building official is satisfied that the proposed work conforms to the requirements of this code and laws and ordinances applicable thereto, the building official shall issue a permit therefor as soon as practicable.

(Portions of proposal not shown remain unchanged)

Commenter's Reason: The committee had concerns with the use of terms such as "specific", "work" and "each" in proposed revised language of Section R105.3.1. The modified language addresses the concerns that have been fed back regarding this proposed language. The intention is to clarify that when a submission is not approved, the code sections that are not complied with and the reasons therefore should be provided so that the person that is working on the submission knows what needs to be done to gain approval.

Final Action: AS AM AMPC____ D

G6-07/08, Part III

IRC R106.1

THIS CODE CHANGE WILL BE HEARD ON THE IRC BUILDING PORTION OF THE HEARING ORDER.

NOTE: PARTS I AND II DID NOT RECEIVE A PUBLIC COMMENT AND ARE ON THE CONSENT AGENDA. PARTS I AND II ARE REPRODUCED FOR INFORMATIONAL PURPOSES ONLY FOLLOWING ALL OF PART IV.

Proposed Change as Submitted:

Proponent: Lori Lee Graham, City of Portland, OR

PART III – IRC BUILDING/ENERGY

Revise as follows:

R106.1 Submittal documents. ~~Submittal documents consisting of~~ construction documents, ~~special inspection and structural observation programs~~ and other data shall be submitted in ~~one~~ two or more sets with each application for a permit. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional.

Exception: The building official is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that reviewing of construction documents is not necessary to obtain compliance with this code

Reason: Section 106.3.1 of the IBC requires that when the construction documents are approved, one set is retained by the building official and one set is returned to the applicant to be kept at the work site. Since at least 2 sets are required at permit issuance, there should be at least 2 sets submitted. With respect to this requirement the 2006 I-codes are consistent in requiring 2 sets at issuance, but inconsistent in requiring 2 sets at application. As currently written the IBC, IFC, IRC and IEBC require one set at application; the IMC, IPC, IWUIC and the IFGC require 2 sets at application. The codes should be consistent. Companion proposals have been submitted for the IFC, IRC and IEBC.

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

PART III – IRC-B/E

Committee Action:

Disapproved

Committee Reason: The specific number of construction documents to be submitted is a policy decision that is better left up to the local authority having jurisdiction.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Lori Lee Graham, City of Portland, OR, representing herself requests Approval as Submitted for Part III.

Commenter's Reason: This is an editorial proposal. Two portions of this proposal were approved in some fashion (Part I alone and Part II in code change F15 07/08). This change simply makes it so all of the International Codes are requiring the same number of plans. Approving Parts II and IV of this change will bring consistency amongst all of the codes.

Final Action: AS AM AMPC____ D

G6-07/08, Part IV

IEBC 106.1

THIS CODE CHANGE WILL BE HEARD ON THE IRC BUILDING PORTION OF THE HEARING ORDER.

Proposed Change as Submitted:

Proponent: Lori Lee Graham, City of Portland, OR

PART IV – IEBC

Revise as follows:

106.1 (Supp) General. Submittal documents consisting of construction documents special inspection and structural observation programs, investigation and evaluation reports, and other data shall be submitted in ~~one~~ two or more sets with each application for a permit. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the code official is authorized to require additional construction documents to be prepared by a registered design professional.

Exception: The code official is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that reviewing of construction documents is not necessary to obtain compliance with this code

Reason: Section 106.3.1 of the IBC requires that when the construction documents are approved, one set is retained by the building official and one set is returned to the applicant to be kept at the work site. Since at least 2 sets are required at permit issuance, there should be at least 2 sets submitted. With respect to this requirement the 2006 I-codes are consistent in requiring 2 sets at issuance, but inconsistent in requiring 2 sets at application. As currently written the IBC, IFC, IRC and IEBC require one set at application; the IMC, IPC, IWUIC and the IFGC require 2 sets at application. The codes should be consistent. Companion proposals have been submitted for the IFC, IRC and IEBC.

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

PART IV – IEBC

Committee Action:

Disapproved

Committee Reason: The committee felt that this proposed provision is unnecessary. The authority having jurisdiction can determine how many copies of documents that it needs.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Lori Lee Graham, City of Portland, OR, representing herself requests Approval as Submitted for Part IV.

Commenter's Reason: This is an editorial proposal. Two portions of this proposal were approved in some fashion (Part I alone and Part II in code change F15 07/08). This change simply makes it so all of the International Codes are requiring the same number of plans. Approving Parts II and IV of this change will bring consistency amongst all of the codes.

Final Action: AS AM AMPC____ D

NOTE: PARTS I AND II REPRODUCED FOR INFORMATIONAL PURPOSES ONLY – SEE ABOVE

G6-07/08, PART I – IBC GENERAL

Revise as follows:

106.1 (Supp) General. Submittal documents consisting of construction documents, statement of special inspections and other data shall be submitted in ~~one~~ two or more sets with each permit application. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional.

Exception: The building official is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this code.

Reason: Same as Parts III and IV.

Cost Impact: Same as Parts III and IV.

**PART I – IBC GENERAL
Committee Action:**

Approved as Submitted

Committee Reason: The proposal was approved as it provides consistency throughout the code with the number of plans and other documentation required to be submitted.

Assembly Action:

None

PART II – IFC

Revise as follows:

105.4.1 Submittals. Construction documents shall be submitted in ~~one~~ two or more sets and in such form and detail as required by the fire code official. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.

Reason: Same as parts III and IV.

PART II – IFC

Withdrawn by Proponent

G7-07/08, Part I 106.2.3 (New)

Proposed Change as Submitted:

Proponent: Bill McHugh, Firestop Contractors International Association

PART I – IBC GENERAL

Add new text as follows:

106.2.3 Fire and smoke protection features shop drawings. Shop drawings for fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions, horizontal assemblies; rolling and swinging fire doors and hardware; fire rated glazing; fire, smoke or fire/smoke dampers; and through or membrane penetration firestops, shall be submitted to indicate conformance with this code and the construction documents shall be approved prior to the start of system installation.

(Renumber subsequent sections)

Reason: Effective fire and smoke resistance rated compartmentation systems features should be given the same level of attention in the code as fire sprinklers, detection and alarm systems, and means of egress as already exists currently in the building code in Chapter 106.1.1.1, Fire protection system shop drawings.

If means of egress and other compartments are to be protected with fire and smoke resistance rated construction, then it is considered vital in importance and attention should be heightened for fire safety, means of egress and general safety. When fire, smoke, or fire/smoke resistance rated compartmentation (firestopping, fire and smoke, fire/smoke dampers, fire rated glazing, rolling and swinging fire doors, fire barriers, fire walls, fire partitions, smoke barriers and smoke partitions) is used for safety, it should be examined with the same scrutiny as other fire protection items during permit application.

Where required by code, compartmentation needs to be properly designed, installed, inspected and maintained for effectiveness when called upon to protect people in buildings. This code change addresses compartmentation fire and smoke protection features importance through construction documents to communicate its importance throughout the design and building process.

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

Analysis: In the 2007 Supplement the sections in the IBC and IEBC are numbered as follows:

- 106.2.1 Information on construction documents (IEBC Quality of Construction documents)
- 106.2.2 Fire protection shop drawings
- 106.2.3 Means of egress
- 106.2.4 Exterior wall envelope

**PART I – IBC GENERAL
Committee Action:**

Disapproved

Committee Reason: This proposal would create an undue documentation burden to both designers and the building official. A large amount of documents would be required for all construction permits including small alterations. There was a concern that such documentation would be virtually impossible to produce working with a large number of vendors during a project.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Bill McHugh, Firestop Contractors International Association requests Approval as Modified by this public comment for Part I.

Modify proposal as follows:

106.2.3 Fire and smoke protection features shop drawings-resistance designs from approved sources. ~~Shop drawings~~ Fire resistance designs from approved sources for fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions, horizontal assemblies; rolling and swinging fire doors and hardware; fire rated glazing; fire, smoke or fire/smoke dampers; and through or membrane penetration firestops, shall be submitted to indicate conformance with this code and the construction documents shall be approved prior to the start of system installation.

Commenter's Reason: Fire resistance rated and smoke resistant compartmentation systems and their features should be given the same level of attention in the code as fire sprinklers, detection and alarm systems, and means of egress as already exists currently in the building code in Chapter 106.1.1.1, Fire protection system shop drawings. Recognizing the committee and assembly comments made in Palm Springs, we changed the name of the requested information from 'shop drawings' to fire resistance designs from approved sources. This language better describes information that is vital for all parties in the life cycle of the building.

If means of egress, horizontal assemblies, and other compartments are to be protected with fire resistance rated and smoke resistant construction features, then it is considered vital in importance for fire and life safety. When fire, smoke, or fire/smoke resistance rated compartmentation and its features (firestopping, fire and or smoke, combination fire/smoke dampers, fire rated glazing, rolling and swinging fire doors and hardware, fire barriers, fire walls, fire partitions, smoke barriers and smoke partitions) is used for safety, submissions should be examined with the same scrutiny as other fire protection items during permit process...which then sets up a documentation stream that is used for the life cycle of the building.

Where required by code, compartmentation needs to be properly designed, installed, inspected and maintained for effectiveness when called upon to protect people in buildings. This code change addresses compartmentation fire and smoke protection features importance through Fire resistance designs to communicate its importance throughout the design, construction and the building's life. We believe the modified language for fire resistance designs are a great improvement to our original code change proposal.

Final Action: AS AM AMPC____ D

G7-07/08, Part II

IEBC 106.2.3 (New)

Proposed Change as Submitted:

Proponent: Bill McHugh, Firestop Contractors International Association

PART II – IEBC

Add new text as follows:

106.2.3 Fire and smoke protection features shop drawings. Shop drawings for fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions, horizontal assemblies; rolling and swinging fire doors and hardware; fire rated glazing; fire, smoke or fire/smoke dampers; and through or membrane penetration firestops, shall be submitted to indicate conformance with this code and the construction documents shall be approved prior to the start of system installation.

(Renumber subsequent sections)

Reason: Effective fire and smoke resistance rated compartmentation systems features should be given the same level of attention in the code as fire sprinklers, detection and alarm systems, and means of egress as already exists currently in the building code in Chapter 106.1.1.1, Fire protection system shop drawings.

If means of egress and other compartments are to be protected with fire and smoke resistance rated construction, then it is considered vital in importance and attention should be heightened for fire safety, means of egress and general safety. When fire, smoke, or fire/smoke resistance rated compartmentation (firestopping, fire and smoke, fire/smoke dampers, fire rated glazing, rolling and swinging fire doors, fire barriers, fire walls, fire partitions, smoke barriers and smoke partitions) is used for safety, it should be examined with the same scrutiny as other fire protection items during permit application.

Where required by code, compartmentation needs to be properly designed, installed, inspected and maintained for effectiveness when called upon to protect people in buildings. This code change addresses compartmentation fire and smoke protection features importance through construction documents to communicate its importance throughout the design and building process.

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

Analysis: In the 2007 Supplement the sections in the IBC and IEBC are numbered as follows:
106.2.1 Information on construction documents (IEBC Quality of Construction documents)
106.2.2 Fire protection shop drawings
106.2.3 Means of egress
106.2.4 Exterior wall envelope

PART II – IEBC

Committee Action:

Disapproved

Committee Reason: The information belongs on the design drawings. Addition of shop drawings further complicates the submittal process.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Bill McHugh, Firestop Contractors International Association requests Approval as Modified by this public comment for Part II.

Modify proposal as follows:

106.2.3 Fire and smoke protection features ~~shop drawings~~ resistance and smoke resistant designs from approved sources. ~~Shop drawings- Fire resistance designs from approved sources~~ for fire walls, fire barriers, fire partitions, smoke barriers and smoke partitions, horizontal assemblies; rolling and swinging fire doors and hardware; fire rated glazing; fire, smoke or fire/smoke dampers; and through or membrane penetration firestops, shall be submitted to indicate conformance with this code and the construction documents shall be approved prior to the start of system installation.

Commenter's Reason: Fire resistance rated and smoke resistant compartmentation systems and their features should be given the same level of attention in the code as fire sprinklers, detection and alarm systems, and means of egress as already exists currently in the building code in Chapter 106.1.1.1, Fire protection system shop drawings. Recognizing the committee and assembly comments made in Palm Springs, we changed the name of the requested information from 'shop drawings' to fire resistance designs from approved sources. This language better describes information that is vital for all parties in the life cycle of the building.

If means of egress, horizontal assemblies, and other compartments are to be protected with fire resistance rated and smoke resistant construction features, then it is considered vital in importance for fire and life safety. When fire, smoke, or fire/smoke resistance rated compartmentation and its features (firestopping, fire and or smoke, combination fire/smoke dampers, fire rated glazing, rolling and swinging fire doors and hardware, fire barriers, fire walls, fire partitions, smoke barriers and smoke partitions) is used for safety, submissions should be examined with the same scrutiny as other fire protection items during permit process...which then sets up a documentation stream that is used for the life cycle of the building.

Where required by code, compartmentation needs to be properly designed, installed, inspected and maintained for effectiveness when called upon to protect people in buildings. This code change addresses compartmentation fire and smoke protection features importance through Fire resistance designs to communicate its importance throughout the design, construction and the building's life. We believe the modified language for fire resistance designs are a great improvement to our original code change proposal.

Final Action: AS AM AMPC___ D

G9-07/08, Part I

109.3.5, 109.3.5.2 (New), 109.3.6, 109.3.5.4 (New)

Proposed Change as Submitted:

Proponent: Bill McHugh, Firestop Contractors International Association

PART I – IBC GENERAL

Revise as follows:

109.3.5 Fire and smoke-resistance-rated construction. The inspection of fire and smoke resistance-rated construction shall be in accordance with Section 109.3.5.1 through 109.3.5.4.

109.3.5.1 Lath and gypsum board inspection. Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, is in place, but before any plastering is applied or gypsum board joints and fasteners are taped and finished.

Exception: Gypsum board that is not part of a fire-resistance-rated or a shear assembly.

109.3.5.2 Masonry and concrete inspection. The inspection of concrete shall be in accordance with Sections 1704.4, 720, and 721. The inspection of masonry shall be in accordance with Sections 1704.5, 720 and 721.

109.3.5.3 409.3.6 Fire and Smoke-Resistant Penetrations. Protection of joints and penetrations in fire-resistance-rated assemblies, smoke barriers and smoke partitions shall not be concealed from view until inspected and approved.

109.3.5.4 Fire and smoke-resistant openings. Protection of openings in fire-resistance-rated assemblies, smoke barriers and smoke partitions shall not be concealed from view until inspected and approved.

(Renumber subsequent sections)

Reason: Where used in the code, fire and smoke resistance rated compartmentation is vital to fire and life safety, providing protection that must perform when called upon. The purpose of this code change is to reorganize this section for ease of use of the code. The change also makes reference to fire and smoke resistance rated construction that makes compartmentation systems work in buildings.

Protection of penetrations and joints in fire and smoke resistance rated construction is very important to maintain tenability for egress or until evacuated from a compartment, in compartmentation used in corridors, occupancy separations, and between floors. Current code only requires that fire resistant penetrations and joints not be concealed from view until inspected and approved. Both fire and smoke-resistance-rated penetrations and joints should be included.

This code change proposal brings consistency between the fire-resistance-rated penetrations and the fire/smoke-resistance-rated or smoke-resistance-rated penetrations, which may or may not have a fire-resistance-rating, while bringing all elements of compartmentation to one location, so all elements and assemblies, penetrations and openings are included.

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

PART I – IBC GENERAL

Committee Action:

Disapproved

Committee Reason: The primary concern was with the use of laundry lists. The code requires many more aspects to be inspected beyond what is proposed. Having specific construction materials called out and not others may lead to confusion in terms of the priority placed upon their regulation. Additionally, the committee felt that the inspections being addressed by this proposal are already required by the code.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Bill McHugh, Firestop Contractors International Association requests Approval as Modified by this public comment for Part I.

Modify proposal as follows:

109.3.5.2 Masonry and concrete inspection. ~~The inspection of concrete shall be in accordance with Sections 1704.4, 720, and 721. The inspection of masonry shall be in accordance with Sections 1704.5, 720 and 721.~~

Fire and Smoke-Resistant concrete and masonry shall be inspected and not be concealed from view until inspected and approved.

109.3.5.3 Fire and Smoke-Resistant Penetrations. Protection of joints and penetrations in fire-resistance-rated assemblies, smoke barriers and smoke partitions shall be inspected and not be concealed from view until inspected and approved.

(Renumber subsequent sections)

(Portions of proposal not shown remain unchanged)

Commenter's Reason: Where used in the code, fire resistance rated and smoke resistant effective compartmentation must operate when called upon by fire. Proper design, installation, inspection and maintenance of compartmentation systems is vital to reliability of these important fire resistance rated and smoke resistant systems. The language makes inspection of compartmentation take place, *for fire and smoke resistance in addition to structural resistance*. Chapter 17's inspection requirements are for concrete and masonry, spray fireproofing, and do not address structural compartmentation and the features, penetration firestopping and opening protection. Since structural and compartmentation are both of high importance and very interrelated, this is needed for fire and life safety.

This public comment also brings attention to compartmentation components inspection all in one place, for ease of use by the building official. What compartmentation is left in the code needs to be correct to function as intended for fire and life safety this provides simplicity in the code.

To address the committee and assembly concerns in Palm Springs, we modified the wording to focus on inspection and the point that these systems should not be concealed from view before inspection, providing the building official with the appropriate language for enforcement.

Final Action: AS AM AMPC_____ D

G9-07/08, Part II IEBC 109.3.5, 109.3.5.2 (New), 109.3.6, 109.3.5.4 (New)

Proposed Change as Submitted:

Proponent: Bill McHugh, Firestop Contractors International Association

PART II – IEBC

Revise as follows:

109.3.5 Fire and Smoke-Resistance-Rated Construction. The inspection of fire and smoke resistance-rated construction shall be in accordance with Section 109.3.5.1 through 109.3.5.4.

109.3.5.1 Lath or gypsum board inspection. Lath and gypsum board inspections shall be made after lathing and gypsum board, interior and exterior, is in place but before any plastering is applied or before gypsum board joints and fasteners are taped and finished.

Exception: Gypsum board that is not part of a fire-resistance-rated assembly or a shear assembly.

109.3.5.2 Masonry and concrete inspection. The inspection of concrete shall be in accordance with the *International Building Code*, Sections 1704.4, 720, and 721. The inspection of masonry shall be in accordance with the *International Building Code*, Sections 1704.5, 720 and 721.

109.3.5.3 ~~109.3.6~~ Fire and Smoke-Resistant Penetrations. Protection of joints and penetrations in fire-resistance-rated assemblies, smoke barriers and smoke partitions shall not be concealed from view until inspected and approved.

109.3.5.4 Fire and Smoke-Resistant Openings. Protection of openings in fire-resistance-rated assemblies, smoke barriers and smoke partitions shall not be concealed from view until inspected and approved.

(Renumber subsequent sections)

Reason: Where used in the code, fire and smoke resistance rated compartmentation is vital to fire and life safety, providing protection that must perform when called upon. The purpose of this code change is to reorganize this section for ease of use of the code. The change also makes reference to fire and smoke resistance rated construction that makes compartmentation systems work in buildings.

Protection of penetrations and joints in fire and smoke resistance rated construction is very important to maintain tenability for egress or until evacuated from a compartment, in compartmentation used in corridors, occupancy separations, and between floors. Current code only requires that fire resistant penetrations and joints not be concealed from view until inspected and approved. Both fire and smoke-resistance-rated penetrations and joints should be included.

This code change proposal brings consistency between the fire-resistance-rated penetrations and the fire/smoke-resistance-rated or smoke-resistance-rated penetrations, which may or may not have a fire-resistance-rating, while bringing all elements of compartmentation to one location, so all elements and assemblies, penetrations and openings are included.

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

PART II – IEBC

Committee Action:

Disapproved

Committee Reason: The need to single out these particular items as requiring inspection was not clear.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Bill McHugh, Firestop Contractors International Association requests Approval as Modified by this public comment for Part II.

Modify proposal as follows:

109.3.5.2 Masonry and concrete inspection. ~~The inspection of concrete shall be in accordance with Sections 1704.4, 720, and 721. The inspection of masonry shall be in accordance with Sections 1704.5, 720 and 721.~~
Fire and Smoke-Resistant concrete and masonry shall be inspected and not be concealed from view until inspected and approved.

109.3.5.3 Fire and Smoke-Resistant Penetrations. Protection of joints and penetrations in fire-resistance-rated assemblies, smoke barriers and smoke partitions shall be inspected and not be concealed from view until inspected and approved.

(Renumber subsequent sections)

(Portions of proposal not shown remain unchanged)

Commenter's Reason: Where used in the code, fire resistance rated and smoke resistant effective compartmentation must operate when called upon by fire. Proper design, installation, inspection and maintenance of compartmentation systems is vital to reliability of these important fire resistance rated and smoke resistant systems. The language makes inspection of compartmentation take place, *for fire and smoke resistance in addition to structural resistance*. Chapter 17's inspection requirements are for concrete and masonry, spray fireproofing, and do not address structural compartmentation and the features, penetration firestopping and opening protection. Since structural and compartmentation are both of high importance and very interrelated, this is needed for fire and life safety.

This public comment also brings attention to compartmentation components inspection all in one place, for ease of use by the building official. What compartmentation is left in the code needs to be correct to function as intended for fire and life safety this provides simplicity in the code.

To address the committee and assembly concerns in Palm Springs, we modified the wording to focus on inspection and the point that these systems should not be concealed from view before inspection, providing the building official with the appropriate language for enforcement.

Final Action: AS AM AMPC____ D

G11-07/08

109.3.6, 109.3.7 (New), Chapter 35 (New)

Proposed Change as Submitted:

Proponent: Tony Crimi, A.C. Consulting Solutions, Inc., representing the International Firestop Council

1. Revise as follows:

109.3.6 Fire-resistant penetrations. Protection of joints and penetrations in fire-resistance-rated assemblies shall not be concealed from view until inspected and approved. The building official is authorized in accordance with Section 109.4 to allow inspection of penetrations of the types specified in Sections 712.3.1.2 and 712.4.1.12 by an approved inspection agency in accordance with ASTM E2174, or to adopt other policies and procedures in compliance with the intent and purpose of this code.

2. Add new text as follows:

109.3.7 Fire-resistive joints. Protection of joints in fire-resistance-rated assemblies shall not be concealed from view until inspected and approved. The building official is authorized in accordance with Section 109.4 to allow inspection of joints of the types specified in Sections 713.3 and 713.4 by an approved inspection agency in accordance with ASTM E2393, or to adopt other policies and procedures in compliance with the intent and purpose of this code.

(Renumber subsequent sections)

3. Add standards to Chapter 35 as follows:

ASTM E2174-04 Standard Practice for On-Site Inspection of Installed Fire Stops
E2393-04 Standard Practice for On-Site Inspection of Installed Fire Resistive Joint Systems and Perimeter Fire Barrier

Reason: Add a reference to two new Consensus Standards developed at ASTM for inspection of installed penetration firestop systems, fire-resistive joints, and perimeter fire barriers.

The Code already mandates proper installation of penetration firestops to maintain the integrity of vertical and horizontal fire or smoke separations. This Standard identifies effective techniques for the field inspection of these systems, and provides consistent procedures needed to conduct and document the on-site assessment of the installations.

Installation of firestop systems and joints is often conducted by trades who do not have the extensive knowledge or training needed to ensure that these critical life safety systems are installed correctly. At the same time, firestop and joint system designs and materials are increasing in number and sophistication. The current code relies heavily on Installers, Designers, and Code Officials to verify proper system selection and installation. In response to this reality, a standard practice was developed within the ASTM process to allow inspections of through-penetration firestops, joints, and perimeter fire barrier systems to be conducted in a thorough and consistent manner, with standardized report formats, regardless of the Trade or individual conducting the inspection. Part of the impetus for the development of that standard was the recognition that jurisdictions sometimes do not have sufficient resources themselves to ensure that all penetrations and joints are firestopped properly. In any project, the number of joints and penetrations can range from hundreds to a few thousand in a single building. The addition of these new Standards to the Code would provide and identify a means for both large and small building departments to have effective tools to instruct either their own staff or third party inspection agencies on good methodologies for inspection of these important systems. The inclusion of consensus standards would ensure that required inspections are conducted consistently, fairly, and adequately, while also standardizing inspection reports, so that they will be of a uniform high quality.

The proposed code change would provide the code official the option of having a third party (e.g. approved inspection agency) to conduct the inspection of joints and penetrations, while preserving the option to utilize other policies and procedures consistent with the intent of the Code.

The current editions of **ASTM E2174** and **ASTM E2393** are dated 2004.

ASTM E2174-04 Standard Practice for On-site Inspection of Installed Fire Stops

ASTM E2393-04, Standard practice for On-Site Inspection of Installed Fire Resistive Joint Systems and Perimeter Fire Barriers

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

Committee Action:

Disapproved

Committee Reason: This proposal was disapproved as the standards are not in mandatory language and such provisions, if necessary, would be better located in Chapter 17.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Bill McHugh, Firestop Contractors International Association requests Approval as Modified by this public comment.

Modify proposal as follows:

109.3.6 Fire-resistant penetrations. Protection of penetrations in fire-resistance-rated assemblies shall not be concealed from view until inspected and approved. The building official is authorized in accordance with Section 109.4 to allow inspection of penetrations of the types specified in Sections 712.3.1.2 and 712.4.1.12 ~~by an approved inspection agency in accordance with ASTM E2174, or to adopt other policies and procedures in compliance with the intent and purpose of this code.~~

109.3.7 Fire-resistive joints. Protection of joints in fire-resistance-rated assemblies shall not be concealed from view until inspected and approved. The building official is authorized in accordance with Section 109.4 to allow inspection of joints of the types specified in Sections 713.3 and 713.4 ~~by an approved inspection agency in accordance with ASTM E2393, or to adopt other policies and procedures in compliance with the intent and purpose of this code.~~

(Portions of proposal not shown remain unchanged)

Commenter's Reason: The Firestop Contractors International Association (FCIA) supports the International Firestop Council's code change to include these important ASTM Inspection Standards in the building code. These standards were developed with full industry cooperation and a commitment to provide fire and life safety through inspection that has a standard process, nationwide, wherever an inspection takes place.

To recognized comments made at the hearings that these are good standards and used by major cities like New York, we have modified the code change. Key modifications include:

- Inspection 'by an approved agency' – The ASTM Standards have excellent requirements for inspector firm qualification including independence from the manufacturer, supplier, installing contractor competitor. Therefore, we've stricken the 'approved agency', as it is already addressed in the ASTM Inspection Standard.
- 'or to adapt other policies and procedures in compliance with the intent and purpose of this code'. – This statement seems to add much language to the code, but not more result than is already in the code. As an association, FCIA believes that the standards are the most uniform way to provide inspection by a firm independent of the supplier, manufacturer, or contractor firm installing products.

FCIA applauds the International Firestop Council for submitting this code change, and supports the concept of independent inspection in the building code for all important fire and life safety effective compartmentation features.

Final Action: AS AM AMPC ____ D

G13-07/08

202, 502.1, 902.1 (IFC [B] 902.1), 1612.2, 412.2.2, [F] 415.4, [F] 903.2.8.1 (IFC 903.2.8.1), 1203.3, 1915.5, 2111.13.3, 2308.11.2, 2308.12.2

Proposed Change as Submitted:

Proponent: Philip Brazil, PE, Reid Middleton, Inc., representing himself

Revise as follows:

SECTION 202 DEFINITIONS

BASEMENT (for other than flood loads). See Sections 502.1 and ~~1612.2~~.

BASEMENT (for flood loads). See Section 1612.2.

STORY ABOVE GRADE PLANE. (Supp) Any story having its finished floor surface entirely above grade plane, or in which the finished surface of the floor or roof next above is:

1. More than 6 feet (1829 mm) above grade plane; or
2. More than 12 feet (3658 mm) above the finished ground level at any point.

502.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

BASEMENT. (Supp) A story that is not a story above grade plane (See “Story above grade plane” in Section 202).

The definition of “Basement” does not apply to the provisions of Section 1612 for flood loads (see “Basement” in Section 1612.2).

902.1 (IFC [B] 902.1) Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

FIRE AREA. The aggregate floor area enclosed and bounded by fire walls, fire barriers, exterior walls or fire resistance-rated horizontal assemblies of a building. Areas of the building not provided with surrounding walls shall be included in the fire area if such areas are included within the horizontal projection of the roof or floor next above.

1612.2 Definitions. The following words and terms shall, for the purposes of this section, have the meanings shown herein.

BASEMENT. The portion of a building having its floor subgrade (below ground level) on all sides.

The definition of “Basement” is limited in application to the provisions of Section 1612 (see “Basement” in Section 502.1).

412.2.2 Basements. Where hangars have basements, ~~the~~ floor over ~~the~~ basements shall be of Type IA construction and shall be made tight against seepage of water, oil or vapors. There shall be no opening or communication between ~~the~~ basements and the hangar. Access to ~~the~~ basements shall be from outside only.

[F] 415.4 Special provisions for Group H-1 occupancies. Group H-1 occupancies shall be in buildings used for no other purpose, shall not exceed one story in height and be without a basements, crawl spaces or other under-floor spaces. Roofs shall be of lightweight construction with suitable thermal insulation to prevent sensitive material from reaching its decomposition temperature. Group H-1 occupancies containing materials which are in themselves both physical and health hazards in quantities exceeding the maximum allowable quantities per control area

[F] 903.2.8.1 (IFC 903.2.8.1) (Supp) Repair garages. An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406, as shown:

1. Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 10,000 square feet (929 m²).
2. Buildings no more than one story above grade plane, with a fire area containing a repair garage exceeding 12,000 square feet (1115 m²).
3. Buildings with a repair garages servicing vehicles parked in the basements.

1203.3 Under-floor ventilation. The space between the bottom of the floor joists and the earth under any building except spaces occupied by a basements or cellars shall be provided with ventilation openings through foundation walls or exterior walls. Such openings shall be placed so as to provide cross ventilation of the under-floor space.

1915.5 (Supp) Fire-resistance-rating protection. Pipe columns shall be of such size or so protected as to develop the required fire-resistance ratings specified in Table 601. Where an outer steel shell is used to enclose the fire protective covering, the shell shall not be included in the calculations for strength of the column section. The minimum diameter of pipe columns shall be 4 inches (102 mm) except that in structures of Type V construction not exceeding three stories or 40 feet (12 192 mm) in height, pipe columns used in the basements and as secondary steel members shall have a minimum diameter of 3 inches (76 mm).

2111.13.3 Exterior air intake. The exterior air intake shall be capable of providing all combustion air from the exterior of the dwelling. The exterior air intake shall not be located within the a garage, attic, basement or crawl space of the dwelling nor shall the air intake be located at an elevation higher than the firebox. The exterior air intake shall be covered with a corrosion-resistant screen of 1/4-inch (6.4 mm) mesh.

2308.11.2 (Supp) Concrete or masonry. Concrete or masonry walls and stone or masonry veneer shall not extend above the a basement.

Exceptions:

1. Stone and masonry veneer is permitted to be used in the first two stories above grade plane or the first three stories above grade plane where the lowest story has concrete or masonry walls in Seismic Design Category B, provided that structural use panel wall bracing is used and the length of bracing provided is one- and one half times the required length as determined in Table 2308.9.3(1).
2. Stone and masonry veneer is permitted to be used in the first story above grade plane or the first two stories above grade plane where the lowest story has concrete or masonry walls in Seismic Design Category B or C.
3. Stone and masonry veneer is permitted to be used in the first two stories above grade plane in Seismic Design Categories B and C, provided the following criteria are met:
 - 3.1. Type of brace per Section 2308.9.3 shall be Method 3 and the allowable shear capacity in accordance with Table 2306.4.1 shall be a minimum of 350 plf (5108 N/m).
 - 3.2. The bracing of the top story shall be located at each end and at least every 25 feet (7620 mm) o.c. but not less than 40 percent of the braced wall line. The bracing of the first story shall be located at each end and at least every 25 feet (7620 mm) o.c. but not less than 35 percent of the braced wall line.
 - 3.3. Hold-down connectors shall be provided at the ends of braced walls for the second floor to first floor wall assembly with an allowable design of 2,000 pounds (8896 N). Hold-down connectors shall be provided at the ends of each wall segment of the braced walls for the first floor to foundation with an allowable design of 3,900 pounds (17 347 N). In all cases, the hold-down connector force shall be transferred to the foundation.
 - 3.4. Cripple walls shall not be permitted.

2308.12.2 (Supp) Concrete or masonry. Concrete or masonry walls and stone or masonry veneer shall not extend above the a basement.

Exception: Stone and masonry veneer is permitted to be used in the first story above grade plane in Seismic Design Category D, provided the following criteria are met:

1. Type of brace in accordance with Section 2308.9.3 shall be Method 3 and the allowable shear capacity in accordance with Table 2306.4.1 shall be a minimum of 350 plf (5108 N/m).
2. The bracing of the first story shall be located at each end and at least every 25 feet (7620 mm) o.c. but not less than 45 percent of the braced wall line.
3. Hold-down connectors shall be provided at the ends of braced walls for the first floor to foundation with an allowable design of 2,100 pounds (9341 N).
4. Cripple walls shall not be permitted.

Reason: Proposal G8-06/07-AMPC1 revised the definition of “basement” to be a story that is not a story above grade plane. The proposal extends these changes to other sections of the IBC. A “story” is a vertical space between each floor and between the upper floor and the roof. There are instances where a basement is assumed to be all stories below grade plane instead of an individual story below grade plane. The proposal makes the necessary corrections for consistency with the revised definition of “basement.”

A comprehensive review of the 2006 IBC and 2007 Supplement was made during the preparation of this proposal and it was determined that, except for flood loads (below), the code sections referring to basements do so consistent with the revised definition of “basement” except for the code sections in this proposal. Approximately 50 such code sections were studied.

The definition of “story” in Section 202 establishes the vertical space as “between the upper surface of a floor and the upper surface of the floor or roof next above.” The proposal revises the definitions of “story above grade plane” in Section 202 and “fire area” in Section 902.1 for consistency with this definition.

The definition of “basement” in Section 502.1 applies to all provisions of the IBC except for flood loads in Section 1612 for which there is a separate definition of “basement” (see Section 1612.2). This proposal adds language following the definitions in Sections 502.1 and 1612.2 and revises Section 202 to clarify the application of both definitions.

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

Committee Action:

Approved as Submitted

Committee Reason: The proposal provides a necessary editorial clean up of the definition of the term basement and its use throughout the code.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Lori Lee Graham, City of Portland, OR, representing herself requests Approval as Modified by this public comment.

Modify proposal as follows:

SECTION 202 DEFINITIONS

STORY ABOVE GRADE PLANE. (Supp) Any story having its finished floor surface entirely above grade plane, or in which the finished surface of the floor ~~or roof~~ next above is:

1. More than 6 feet (1829 mm) above grade plane; or
2. More than 12 feet (3658 mm) above the finished ground level at any point.

(Portions of proposal not shown remain unchanged)

Commenter’s Reason: Measuring to the roof next above is problematic. On a mansard roof, where do I measure? On a pitched roof, where do I measure? If the roof is flat, I have a good idea where I measure, but in all other instances I don’t. It is inappropriate to determine whether a story is a story above grade based on something as variable as the roof surface.

Final Action: AS AM AMPC____ D

G14-07/08, Part II

IFC 903.3.5.2 (IBC [F] 903.3.5.2), 903.4.3 (IBC [F] 903.4.3), 907.2.12 (IBC [F] 907.2.12), 907.7.3.2 (IBC [F] 907.7.3.2)

THIS CODE CHANGE WILL BE HEARD ON THE IFC PORTION OF THE HEARING ORDER.

NOTE: PART I DID NOT RECEIVE A PUBLIC COMMENT AND IS ON THE CONSENT AGENDA. PART I IS REPRODUCED FOR INFORMATIONAL PURPOSES ONLY FOLLOWING ALL OF PART II.

Proposed Change as Submitted:

Proponent: Tom Lariviere, Madison Fire Department, MS, representing the Joint Fire Service Review Committee

PART II – IFC

Revise as follows:

903.3.5.2(IBC [F] 903.3.5.2) Secondary water supply. A secondary on-site water supply equal to the hydraulically calculated sprinkler demand, including the hose stream requirement, shall be provided for high-rise buildings required to comply with Section 403 of the *International Building Code* in Seismic Design Category C,

D, E or F as determined by this code. The secondary water supply shall have a duration of not less than 30 minutes as determined by the occupancy hazard classification in accordance with NFPA 13.

Exception: Existing buildings.

903.4.3 (IBC [F] 903.4.3) Floor control valves. Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor in high-rise buildings required to comply with Section 403 of the *International Building Code*.

907.2.12 (IBC [F] 907.2.12) (Supp) High-rise buildings. ~~Buildings with a floor used for human occupancy located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access~~ High rise buildings shall be provided with an automatic fire alarm system and an emergency voice/alarm communication system in accordance with Section 907.6.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Sections 907.2.21 and 412.
2. Open parking garages in accordance with Section 406.3.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1.
4. Low-hazard special occupancies in accordance with Section 503.1.1.
5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415.
6. In Group I-1 and I-2 occupancies, the alarm shall sound at a constantly attended location and general occupant notification shall be broadcast by the paging system.

907.7.3.2 (IBC [F] 907.7.3.2) (Supp) High-rise buildings. ~~In buildings with a floor used for human occupancy that is located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access,~~ high rise buildings required to comply with Section 403 of the *International Building Code*, a separate zone by floor shall be provided for all of the following types of alarm-initiating devices where provided:

1. Smoke detectors.
2. Sprinkler water-flow devices.
3. Manual fire alarm boxes.
4. Other approved types of automatic fire detection devices or suppression systems.

Reason: The term "High-Rise Building" is utilized in numerous locations through-out the IBC and IFC. However, there is no definition for a "High-Rise Building." This definition is proposed from and is consistent with the high-rise building applicability language in section 403.1 of the IBC.

The definition will be applied to both the IFC and the IBC and provide consistency.

Additionally, Section 903.3.5.2 is revised by deleting the exception. The exception refers to existing buildings and is not necessary in this section. IFC Section 903.6 deals specifically with existing buildings and this provision is not required in that section. Therefore, it is not necessary under the major section 903.3 since it does not address existing buildings at all.

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

PART II – IFC

Committee Action:

Disapproved

Committee Reason: The proposed added text would be redundant since high-rise buildings must already comply with IBC Section 403. The deletion of the exception in Section 903.3.5.2 is inappropriate in light of the difficulties in retrofitting existing buildings.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Tom Lariviere, Madison Fire Department, MS, representing the Joint Fire Service Review Committee requests Approval as Modified by this public comment for Part II.

Modify proposal as follows:

903.3.5.2 (IBC [F] 903.3.5.2) Secondary water supply. A secondary on-site water supply equal to the hydraulically calculated sprinkler demand, including the hose stream requirement, shall be provided for high-rise buildings ~~required to comply with Section 403 of the *International Building Code*~~ in Seismic Design Category C, D, E or F as determined by this code. The secondary water supply shall have a duration of not less than 30 minutes as determined by the occupancy hazard classification in accordance with NFPA 13.

Exception: Existing buildings.

903.4.3 (IBC [F] 903.4.3) Floor control valves. Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor in high-rise buildings ~~required to comply with Section 403 of the International Building Code.~~

907.2.12 (IBC [F] 907.2.12) (Supp) High-rise buildings. High rise buildings shall be provided with an automatic fire alarm system and an emergency voice/alarm communication system in accordance with Section 907.6.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Sections 907.2.21 and 412.
2. Open parking garages in accordance with Section 406.3.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1.
4. Low-hazard special occupancies in accordance with Section 503.1.1.
5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415.
6. In Group I-1 and I-2 occupancies, the alarm shall sound at a constantly attended location and general occupant notification shall be broadcast by the paging system.

907.7.3.2 (IBC [F] 907.7.3.2) (Supp) High-rise buildings. In high rise buildings ~~required to comply with Section 403 of the International Building Code,~~ a separate zone by floor shall be provided for all of the following types of alarm-initiating devices where provided:

1. Smoke detectors.
2. Sprinkler water-flow devices.
3. Manual fire alarm boxes.
4. Other approved types of automatic fire detection devices or suppression systems.

Commenter's Reason: The term "High-Rise Building" is utilized in numerous locations through-out the IBC and IFC. Part I was Approved as Submitted by the IBC General Committee which added the definition of "High-Rise Building" to the IBC. This definition is consistent with, and replaces the language used in each of the sections.

The revisions in this Public Comment to Part II will utilize the same definition in the IFC and provide consistency between the codes. The phrase "required to comply with Section 403 of the IBC" has been deleted since it is redundant and Section 403 only addresses high rise buildings.

Additionally, Section 903.3.5.2 is revised by re-inserting the exception. The exception refers to existing buildings and would only apply when an existing high rise is being retrofit with fire sprinklers. The difficulty in retrofitting existing high rise buildings would only be compounded if this exception is deleted, and the high rise building is not structurally designed to support the secondary water supply.

Final Action: AS AM AMPC_____ D

NOTE: PART I REPRODUCED FOR INFORMATIONAL PURPOSES ONLY – SEE ABOVE

G14-07/08, PART I – IBC GENERAL

1. Add a new definition as follows:

**SECTION 202
DEFINITIONS**

HIGH-RISE BUILDING. A building with an occupied floor located more than 75 feet (23 m) above the lowest level of fire department vehicle access.

2. Revise as follows:

403.1 Applicability. ~~The provisions of this section shall apply to buildings with an occupied floor located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.~~ High rise buildings shall comply with Section 403.2 through 403.18.

Exception: The provisions of ~~this~~ Section 403.2 through 403.18 shall not apply to the following buildings and structures:

1. Airport traffic control towers in accordance with Section 412.
2. Open parking garages in accordance with Section 406.3.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1.
4. Low-hazard special industrial occupancies in accordance with Section 503.1.1.
5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415.

707.14.1 (Supp) Elevator lobby. An enclosed elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than three stories. The lobby shall separate the elevator shaft enclosure doors from each floor by fire partitions equal to the fire-resistance rating of the corridor and the required opening protection. 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 707.2 are not required to have enclosed elevator lobbies.
3. 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. In other than Group I-2 and I-3, and high-rise buildings ~~having occupied floors located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access~~, 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.
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.
6. Enclosed elevator lobbies are not required where the elevator hoistway is pressurized in accordance with Section 707.14.2.

Reason: Same as Part II.

Cost Impact: Same as Part II.

PART I – IBC GENERAL

Committee Action:

Approved as Submitted

Committee Reason: Clarifies throughout the code that a high rise building is a building with an occupied floor located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

Assembly Action:

None

G16-07/08, Part IV IFGC 202

THIS CODE CHANGE WILL BE HEARD ON THE IFGC PORTION OF THE HEARING ORDER.

NOTE: PARTS I, II, III AND VI DID NOT RECEIVE A PUBLIC COMMENT. PARTS I, II, III AND VI ARE REPRODUCED FOR INFORMATIONAL PURPOSES ONLY FOLLOWING ALL OF PARTS IV, V AND VII.

Proposed Change as Submitted:

Proponent: Bob Eugene, Underwriters Laboratories Inc.

PART IV – IFGC

Revise as follows:

SECTION 202 (IFGC) GENERAL DEFINITIONS

~~**LABELED.** Devices, equipment, appliances or materials to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and by whose label the manufacturer attests to compliance with applicable nationally recognized standards.~~
Equipment, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and whose labeling indicates either that the equipment, material or product meets identified standards or has been tested and found suitable for a specified purpose.

Reason: The term "labeled" is used throughout the *International Building Code* and other I-Codes. It is preferred to have such a definition in Chapter 2 rather than elsewhere in code. The definition complements the definition of "LABEL" currently in IBC Section 1702.1 and the requirements of IBC Section 1703.5. Through a series of proposals, the exact same generic text is being proposed for each of the I-codes where the term is used.

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

PART IV – IFGC

Committee Action:

Approved as Modified

Modify proposal as follows:

LABELED. Equipment, appliances, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and whose labeling indicates either that the equipment, appliance, material or product meets identified standards or has been tested and found suitable for a specified purpose.

Committee Reason: The proposed definition will provide consistent text throughout the codes in the ICC family. The modification adds “appliances” because the IFGC regulates gas appliances which do not fall under the definition of equipment and which are required to be listed and labeled.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Bob Eugene, Underwriters Laboratories Inc. requests Approval as Submitted for Part IV.

Commenter’s Reason: Although “appliances” would not be included under the term “equipment”, they would be included under the term “products”, so the definition as submitted is not flawed. Appliances are products that are required to be listed and labeled elsewhere in the code. The definition for “Labeled” was approved as Submitted in the International Building Code, International Energy Conservation Code, International Fire Code and International Property Maintenance Code. For the sake of consistency and user-friendliness, the definition proposed needs to be Approved as Submitted.

Final Action: AS AM AMPC____ D

G16-07/08, Part V

IMC 202

THIS CODE CHANGE WILL BE HEARD ON THE IFGC PORTION OF THE HEARING ORDER.

Proposed Change as Submitted:

Proponent: Bob Eugene, Underwriters Laboratories Inc.

PART V – IMC

Revise as follows:

SECTION 202 GENERAL DEFINITIONS

~~**LABELED.** Devices, equipment, appliances or materials to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and by whose label the manufacturer attests to compliance with applicable nationally recognized standards. Equipment, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and whose labeling indicates either that the equipment, material or product meets identified standards or has been tested and found suitable for a specified purpose.~~

Reason: The term “labeled” is used throughout the *International Building Code* and other I-Codes. It is preferred to have such a definition in Chapter 2 rather than elsewhere in code. The definition complements the definition of “LABEL” currently in IBC Section 1702.1 and the requirements of IBC Section 1703.5. Through a series of proposals, the exact same generic text is being proposed for each of the I-codes where the term is used.

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

PART V – IMC

Committee Action: **Approved as Modified**

Modify proposal as follows:

LABELED. Equipment, appliances, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and whose labeling indicates either that the equipment, material or product meets identified standards or has been tested and found suitable for a specified purpose.

Committee Reason: The latter part of this definition was reworded to better clarify what labeling a product signifies. The definition will be coordinated with all other I-codes. The modification added the term "appliances" back into the definition from the existing language to complete the list of items which receive labels.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Bob Eugene, Underwriters Laboratories Inc. requests Approval as Submitted for Part V.

Commenter's Reason: Although "appliances" would not be included under the term "equipment", they would be included under the term "products", so the definition as submitted is not flawed. Appliances are products that are required to be listed and labeled elsewhere in the code. Additionally, the definition of "labeled" as modified by the Mechanical Committee is flawed. The term "appliances" was added only in the first line by the committee, but omitted in the fourth line. The definition for "Labeled" was approved as Submitted in the International Building Code, International Energy Conservation Code, International Fire Code and International Property Maintenance Code. For the sake of consistency and user-friendliness, the definition proposed needs to be Approved as Submitted.

Final Action: AS AM AMPC____ D

G16-07/08, Part VII IRC 202

THIS CODE CHANGE WILL BE HEARD ON THE IFGC PORTION OF THE HEARING ORDER.

Proposed Change as Submitted:

Proponent: Bob Eugene, Underwriters Laboratories Inc.

PART VII – IRC BUILDING/ENERGY

Revise as follows:

LABELED. ~~Devices, equipment or materials to which have been affixed a label, seal, symbol or other identifying mark of a testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above labeled items that attests to compliance with a specific standard.~~ Equipment, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and whose labeling indicates either that the equipment, material or product meets identified standards or has been tested and found suitable for a specified purpose.

Reason: The term "labeled" is used throughout the *International Building Code* and other I-Codes. It is preferred to have such a definition in Chapter 2 rather than elsewhere in code. The definition complements the definition of "LABEL" currently in IBC Section 1702.1 and the requirements of IBC Section 1703.5. Through a series of proposals, the exact same generic text is being proposed for each of the I-codes where the term is used.

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

PART VII – IRC-B/E

Committee Action:

Disapproved

Committee Reason: The committee preferred the current language in the code for consistency across the International Codes with respect to the technical definition of the term "labeled."

Assembly Action:

Approved as Submitted

Individual Consideration Agenda

This item is on the agenda for individual consideration because an assembly action was successful and a public comment was submitted.

Public Comment:

Bob Eugene, Underwriters Laboratories Inc. requests Approval as Submitted for Part VII.

Commenter's Reason: The membership in attendance at Palm Springs recognized the benefit of having a consistent definition for the term "labeled" as used throughout the family of International Codes. The definition for "Labeled" was Approved as Submitted in the International Building Code, International Energy Conservation Code, International Fire Code and International Property Maintenance Code. The Fuel Gas and Mechanical Committees each modified the definition differently from the submitted definition and from each other's modified definitions. For the sake of consistency and user-friendliness, the definition proposed needs to be Approved as Submitted.

Final Action: AS AM AMPC____ D

NOTE: PARTS I, II, III AND VI REPRODUCED FOR INFORMATIONAL PURPOSES ONLY – SEE ABOVE

G16-07/08, PART I – IBC GENERAL

Add new definition as follows:

**SECTION 202
DEFINITIONS**

LABELED. Equipment, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and whose labeling indicates either that the equipment, material or product meets identified standards or has been tested and found suitable for a specified purpose.

Reason: Same as Parts IV, V, and VII.

Cost Impact: Same as Parts IV, V, and VII.

PART I – IBC GENERAL

Committee Action:

Approved as Submitted

Committee Reason: Defining the term 'labeled' provides a necessary definition and will add clarity and consistency to the code.

Assembly Action:

None

G16-07/08, PART II – IECC

Revise as follows:

**SECTION 202
GENERAL DEFINITIONS**

~~LABELED. Devices, equipment, or materials to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items that attests to compliance with a specific standard.~~ Equipment, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and whose labeling indicates either that the equipment, material or product meets identified standards or has been tested and found suitable for a specified purpose.

Reason: Same as Parts IV, V and VII.

Cost Impact: Same as Parts IV, V, and VII.

PART II – IECC

Committee Action:

Approved as Submitted

Committee Reason: This definition for "labeled" needs to be the same definition throughout the I-Codes for purposes of uniform application of the codes for products requiring third party certification.

Assembly Action:

None

G16-07/08, PART III – IFC

Revise as follows:

**SECTION 202
GENERAL DEFINITIONS**

~~LABELED. Equipment or material to which has been attached a label, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling is indicated compliance with~~

~~nationally recognized standards or tests to determine suitable usage in a specified manner. Equipment, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and whose labeling indicates either that the equipment, material or product meets identified standards or has been tested and found suitable for a specified purpose.~~

Reason: Same as Parts IV, V and VII.

Cost Impact: Same as Parts IV, V, and VII.

PART III – IFC

Committee Action:

Approved as Submitted

Committee Reason: The change will provide a clearer definition that is correlated with its companion term "Listed". Approval is also consistent with the actions taken on Parts I and II, and IV through VI to correlate with the other I-Codes.

Assembly Action:

None

G16-07/08, PART VI – IPMC

Revise as follows:

**SECTION 202
GENERAL DEFINITIONS**

~~**LABELED.** Devices, equipment, appliances, or materials to which has been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and by whose label the manufacturer attests to compliance with applicable nationally recognized standards. Equipment, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and whose labeling indicates either that the equipment, material or product meets identified standards or has been tested and found suitable for a specified purpose.~~

Reason: The term "labeled" is used throughout the *International Building Code* and other I-Codes. It is preferred to have such a definition in Chapter 2 rather than elsewhere in code. The definition complements the definition of "LABEL" currently in IBC Section 1702.1 and the requirements of IBC Section 1703.5. Through a series of proposals, the exact same generic text is being proposed for each of the I-codes where the term is used.

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

Reason: Same as Parts IV, V and VII.

Cost Impact: Same as Parts IV, V, and VII.

PART VI – IPMC

Committee Action:

Approved as Submitted

Committee Reason: The proposal was approved to provide consistency across the I-Codes with respect to the technical definition of the term "label."

Assembly Action:

None

G17-07/08, Part IV

IFGC 202

THIS CODE CHANGE WILL BE HEARD ON THE IFGC PORTION OF THE HEARING ORDER.

NOTE: PARTS I, II AND III DID NOT RECEIVE A PUBLIC COMMENT. PARTS I, II AND III ARE REPRODUCED FOR INFORMATIONAL PURPOSES ONLY FOLLOWING ALL OF PARTS IV, V AND VI.

Proposed Change as Submitted:

Proponent: Bob Eugene, Underwriters Laboratories Inc.

PART IV – IFGC

Revise as follows:

SECTION 202 GENERAL DEFINITIONS

~~LISTED. Equipment, appliances or materials included in a list published by a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of production of listed equipment, appliances or materials, and whose listing states either that the equipment, appliance or material meets nationally recognized standards or has been tested and found suitable for use in a specified manner. The means for identifying listed equipment, appliances or materials may vary for each testing laboratory, inspection agency or other organization concerned with product evaluation, some of which do not recognize equipment, appliances or materials as listed unless they are also labeled. The authority having jurisdiction shall utilize the system employed by the listing organization to identify a listed product.~~

Equipment, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

PART IV – IFGC

Committee Action:

Approved as Modified

Modify proposal as follows:

LISTED. Equipment, appliances, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of listed equipment, appliances or materials or periodic evaluation of services and whose listing states either that the equipment, appliance, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

Committee Reason: The proposed definition will provide consistent text throughout the codes in the ICC family. The modification adds “appliances” because the IFGC regulates gas appliances which do not fall under the definition of equipment and which are required to be listed and labeled.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Bob Eugene, Underwriters Laboratories Inc. requests Approval as Submitted for Part IV.

Commenter’s Reason: Although “appliances” would not be included under the term “equipment”, they would be included under the term “products”, so the definition as submitted is not flawed. Appliances are products that are required to be listed and labeled elsewhere in the code. The definition for “Listed” was approved as Submitted in the International Building Code, International Energy Conservation Code and International Fire Code. For the sake of consistency and user-friendliness, the definition proposed needs to be Approved as Submitted.

Final Action: AS AM AMPC____ D

G17-07/08, Part V

IMC 202

THIS CODE CHANGE WILL BE HEARD ON THE IFGC PORTION OF THE HEARING ORDER.

Proposed Change as Submitted:

Proponent: Bob Eugene, Underwriters Laboratories Inc.

PART V – IMC

Revise as follows:

SECTION 202 GENERAL DEFINITIONS

~~**LISTED.** Equipment, appliances or materials included in a list published by a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of production of listed equipment, appliances or materials, and whose listing states either that the equipment, appliances or material meets nationally recognized standards or has been tested and found suitable for use in a specified manner. Not all testing laboratories, inspection agencies and other organizations concerned with product evaluation use the same means for identifying listed equipment, appliances or materials. Some do not recognize equipment, appliances or materials as listed unless they are also labeled. The authority having jurisdiction shall utilize the system employed by the listing organization to identify a listed product.~~

Equipment, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

Reason: The term "listed" is used in nearly every chapter of the *International Building Code* and throughout the other I-Codes. It is preferred to have such a definition in Chapter 2 of the IBC rather than in Chapter 9. The definition is somewhat revised from the definition currently in IBC Chapter 9, but through a series of proposals, the exact same generic text is being proposed for each of the I-codes where the term is used.

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

PART V – IMC

Committee Action:

Approved as Modified

Modify the proposal as follows:

LISTED. Equipment, appliances, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

Committee Reason: The definition was simplified to clarify the meaning of a listed item and to delete a requirement that did not belong in a definition. The modification added the term "appliances" back into the definition from the existing language to complete the list of items that can be listed.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Bob Eugene, Underwriters Laboratories Inc. requests Approval as Submitted for Part V.

Commenter's Reason: Although "appliances" would not be included under the term "equipment", they would be included under the term "products", so the definition as submitted is not flawed. Appliances are products that are required to be listed and labeled elsewhere in the code. The Fuel Gas and Mechanical Committees each modified the definition differently from the submitted definition and from each others modified definitions. The definition of "labeled" as modified by the Mechanical Committee is flawed. The term "appliances" was added only in the first line by the committee, but omitted in the third and fourth lines. The definition for "Listed" was approved as Submitted in the International Building Code, International Energy Conservation Code, and International Fire Code. For the sake of consistency and user-friendliness, the definition proposed needs to be Approved as Submitted.

Final Action: AS AM AMPC____ D

G17-07/08, Part VI IRC 202

THIS CODE CHANGE WILL BE HEARD ON THE IFGC PORTION OF THE HEARING ORDER.

Proposed Change as Submitted:

Proponent: Bob Eugene, Underwriters Laboratories Inc.

PART VI – IRC BUILDING/ENERGY

~~**LISTED AND LISTING.** Terms referring to equipment that is shown in a list published by an approved testing agency qualified and equipped for experimental testing and maintaining an adequate periodic inspection of current productions and whose listing states that the equipment complies with nationally recognized standards when installed in accordance with the manufacturer's installation instructions.~~

Equipment, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

Reason: The term "listed" is used in nearly every chapter of the *International Building Code* and throughout the other I-Codes. It is preferred to have such a definition in Chapter 2 of the IBC rather than in Chapter 9. The definition is somewhat revised from the definition currently in IBC Chapter 9, but through a series of proposals, the exact same generic text is being proposed for each of the I-codes where the term is used.

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

PART VI – IRC-B/E Committee Action:

Disapproved

Committee Reason: The committee preferred the current language in the code for consistency across the International Codes with respect to the technical definition of the term "listed".

Assembly Action:

Approved as Submitted

Individual Consideration Agenda

This item is on the agenda for individual consideration because an assembly action was successful and a public comment was submitted.

Public Comment:

Bob Eugene, Underwriters Laboratories Inc. requests Approval as Submitted for Part VI.

Commenter's Reason: The definition as submitted expands the definition beyond "equipment." Products other than "equipment" are required to be listed and labeled elsewhere in the code. The definition for "Listed" was approved as Submitted in the International Building Code, International Energy Conservation Code, and International Fire Code. The Fuel Gas and Mechanical Committees each modified the definition differently from the submitted definition and from each others modified definitions. For the sake of consistency and user-friendliness, the definition proposed needs to be Approved as Submitted.

Final Action: AS AM AMPC____ D

**NOTE: PARTS I, II AND III REPRODUCED FOR INFORMATIONAL PURPOSES ONLY –
SEE ABOVE**

G17-07/08, PART I – IBC GENERAL

1. Revise as follows:

**SECTION 202
DEFINITIONS**

LISTED. See Section 902.4. Equipment, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

Reason: Same as Parts IV, V and VI.

Cost Impact: Same as Parts IV, V and VI.

PART I – IBC GENERAL

Committee Action:

Approved as Submitted

Committee Reason: Defining the term 'listed' provides a necessary definition and will add clarity and consistency to the code.

Assembly Action:

None

G17-07/08, PART II – IECC

Revise as follows:

**SECTION 202
GENERAL DEFINITIONS**

LISTED. Equipment, appliances, assemblies or materials included in a list published by an approved testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of production of listed equipment, appliances, assemblies or material, and whose listing states either that the equipment, appliances, assemblies, or material meets nationally recognized standards or has been tested and found suitable for use in a specified manner. Equipment, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

Reason: Same as Parts IV, V and VI.

Cost Impact: Same as Parts IV, V and VI.

PART II – IECC

Committee Action:

Approved as Submitted

Committee Reason: This definition for "listed" needs to be the same throughout the I-Codes for purposes of uniform application of the codes for products that need to be listed by an agency.

Assembly Action:

None

G17-07/08, PART III – IFC

Revise as follows:

**SECTION 202 (IBC [F] 902.1)
GENERAL DEFINITIONS**

LISTED. Equipment or materials included on a list published by an approved testing laboratory, inspection agency or other organization concerned with current product evaluation that maintains periodic inspection of production of listed equipment or materials, and whose listing states that equipment or materials comply with approved nationally recognized standards and have been tested or evaluated and found suitable for use in a specified manner. Equipment, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

Reason: Same as Parts IV, V and VI.

Cost Impact: Same as Parts IV, V and VI.

PART III – IFC

Committee Action:

Approved as Submitted

Committee Reason: The proposal was approved for consistency with the action taken on code change G16-07/08, Part III.

Assembly Action:

None

G20-07/08 **303.1 (IFC 202)**

Proposed Change as Submitted:

Proponent: Don Lee, DLR Group, representing himself

Revise as follows:

303.1 (IFC 202) (Supp) Assembly Group A. Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering of persons for purposes such as civic, social or religious functions; recreation, food or drink consumption; or awaiting transportation.

Exceptions:

1. A building or tenant space used for assembly purposes with an occupant load of less than 50 persons shall be classified as a Group B occupancy.
2. A room or space used for assembly purposes with an occupant load of less than 50 persons and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.
3. A room or space used for assembly purposes that is less than 750 square feet (70 m²) in area and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.
4. ~~Assembly areas that are accessory to Group E occupancies are not considered separate occupancies~~
except when applying the assembly occupancy requirements of Chapter 11.
For the purpose of allowable area Assembly areas that are accessory to Group E occupancies are not considered separate occupancies. All other requirements of the code for the Assembly areas shall apply.
5. Accessory religious educational rooms and religious auditoriums with occupant loads of less than 100 are not considered separate occupancies.

Reason: This change is intended to clarify the intent of the accessory assembly areas within schools. The present changes made in the 2007 Supplement do address the concern but fall short in defining the other assembly requirements of the code. The 2007 Supplement does not address the assembly portions of Chapters 9 and 10 which need to be recognized.

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

Committee Action:

Disapproved

Committee Reason: Some of the committee members preferred G21-07/08 to G20-07/08 as it was felt to more comprehensively deal with the issue. Other committee members felt that the provisions were currently working well and no change was necessary. There was also concern that such provisions were better placed in Chapter 5 if the focus was only supposed to be on allowing height and area allowances where Group E occupancies contained assembly spaces. Note that G21-07/08 was also disapproved.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Don Lee, DLR Group, representing himself requests Approval as Modified by this public comment.

Replace proposal as follows:

303.1 (IFC 202) (Supp) Assembly Group A. Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering of persons for purposes such as civic, social or religious functions; recreation, food or drink consumption; or awaiting transportation.

Exceptions:

1. A building or tenant space used for assembly purposes with an occupant load of less than 50 persons shall be classified as a Group B occupancy.
2. A room or space used for assembly purposes with an occupant load of less than 50 persons and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.
3. A room or space used for assembly purposes that is less than 750 square feet (70 m²) in area and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.
4. ~~Assembly areas that are accessory to Group E occupancies are not considered separate occupancies except when applying the assembly occupancy requirements of Chapter 11.~~ Assembly uses associated with Group E occupancies, which exceed 10% of the floor area of any story shall be considered as part of the Group E occupancy for the purpose of allowable height and area, provided all other code requirements applicable to assembly uses and occupancies are met.
5. Accessory religious educational rooms and religious auditoriums with occupant loads of less than 100 are not considered separate occupancies.

Commenter's Reason: This change is intended to clarify the intent of the assembly areas within schools. The present changes made in the 2007 Supplement do address the concern but fall short in defining the other assembly requirements of the code. The 2007 Supplement does not address the other use portions other than Chapters 11 which need to be recognized. At the hearings the committee disapproved the change but G20 and G21 were heard together and G21 was intended to delete this section. Discussion of the two proposals was confusing at best. In the 2006 code the provision was located in Chapter 5, Mixed occupancies, 508.3.1, Exception 2. In the 2007 Supplement the accessory use section was moved from the height and area section of Chapter 5 and moved to the occupancy chapter, Chapter 3. As a result the question of area is reduced to single occupancy and that classified as Group E. The move to Chapter 3 indicates this is a use and occupancy classification issue and not an allowable area concern. Table 508.3.3 supports this by grouping the A and E use groups together without any fire-resistance-rated separation requirement. The other code requirements for any use groups associated with the school naturally are to be met. The reason this exception starts at 10% is because at 10% or less, then the provisions for accessory occupancies in Section 508 clearly apply.

Final Action: AS AM AMPC____ D

G23-07/08, Part I

304.1, 202 (New) [IFC [B] 202 (New)], 421 (New)

Proposed Change as Submitted:

Proponent: John Williams, State of Washington Department of Health, Construction Review Services, WA

PART I – IBC GENERAL

1. Revise as follows:

304.1 (IFC [B] 202) Business Group B. Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to, the following:

- Airport traffic control towers
- Ambulatory health care facilities (see section 421)
- Animal hospitals, kennels and pounds
- Banks
- Barber and beauty shops
- Car wash
- Civic administration
- Clinic—outpatient
- Dry cleaning and laundries: pick-up and delivery stations and self-service
- Educational occupancies for students above the 12th grade
- Electronic data processing
- Laboratories: testing and research
- Motor vehicle showrooms

Post offices
Print shops
Professional services (architects, attorneys, dentists, physicians, engineers, etc.)
Radio and television stations
Telephone exchanges
Training and skill development not within a school or academic program

2. Add new definition as follows:

**SECTION 202 (IFC 202)
DEFINITIONS**

AMBULATORY HEALTH CARE FACILITY. Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to individuals who are rendered incapable of self-preservation.

3. Add new text as follows:

**SECTION 421
AMBULATORY CARE FACILITIES**

421.1 General. Occupancies classified as Group B Ambulatory Health Care Facilities shall comply with the provisions of this section and other applicable provisions of this code.

421.2 Smoke barriers. Smoke barriers shall be provided to subdivide every ambulatory care facility greater than 10,000 square feet (929 m²) into a minimum of two smoke compartments. The travel distance from any point in a smoke compartment to a smoke barrier door shall not exceed 200 feet (60 960 mm). The smoke barrier shall be installed in accordance with Section 709.

421.3 Refuge area. At least 30 net square feet (2.8 m²) per nonambulatory patient shall be provided within the aggregate area of corridors, patient rooms, treatment rooms, lounge or dining areas and other low-hazard areas on each side of each smoke barrier.

421.4 Independent egress. A means of egress shall be provided from each smoke compartment created by smoke barriers without having to return through the smoke compartment from which means of egress originated.

421.5 Automatic Sprinkler Systems. Automatic sprinklers systems shall be provided for ambulatory care facilities in accordance with Section 903.2.2.

421.6 Fire alarm systems. A fire alarm system shall be provided in accordance with Section 907.2.2.

Reason: This code change is intended to address the issue of ambulatory surgery centers. Thirty years ago, few surgical procedures were performed outside of the hospital. Today, complex outpatient surgeries outside of the hospital are commonplace. They are performed in facilities often called "day surgery centers" or "Ambulatory surgical centers (ASC's)" because patients are able to walk in and walk out the same day. Procedures render patients temporarily incapable of self-preservation by application of nerve blocks, sedation, or anesthesia. Patients in these facilities typically recover quickly.

The IBC identifies the healthcare Group I occupancies as having 24 hour stay. Without 24 stay these surgery centers are being classified as Group B. Essentially this allows you to render an unlimited number of people incapable of self preservation with no more protection than a business office. Since there is no distinct classification for ASC's in the I codes, the total number of these facilities cannot be quantified. These types of facilities contain distinctly different hazards to life and safety than other Business Occupancies, such as:

- Patients incapable of self-preservation require rescue by other occupants or fire personnel.
- Medical staff must stabilize the patient prior to evacuation; therefore, staff may require evacuation as well.
- Use of oxidizing medical gases such oxygen and nitrous oxide
- Prevalence of surgical fires.

Past changes have tried to force these occupancies into the Group I-2 category. This is a poor fit, because these are not hospitals. Other Federal and State jurisdictions have recognized that there is a middle ground somewhere in between Group B and I-2. This proposal provides a scaled approach to protection. Occupancy classification stays as group B. A fire alarm is required in all facilities for increased staff awareness. A sprinkler is required when several people are incapable of self preservation. In larger facilities, a smoke compartment is provided to allow more of a protect-in-place environment. These allow staff a safer environment to stabilize the patients before evacuation, and protection for fire personnel who may have to evacuate both patients and staff.

An ICC CTC study group was formed last year to examine these facilities and determine what if any changes to the code are necessary. Unfortunately, scheduling did not allow enough time for the study group to complete a proposal for a code change. Hundreds of these facilities are being built every year, and those are the ones that we know about. Please do not wait until 2012 to provide a safer environment for this very sensitive population of patients.

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

PART I – IBC GENERAL

Committee Action:

Approved as Modified

Modify the proposal as follows:

304.1 (IFC [B] 202) Business Group B. Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to, the following:

- Airport traffic control towers
- Ambulatory health care facilities (~~see section 421~~)
- Animal hospitals, kennels and pounds
- Banks
- Barber and beauty shops
- Car wash
- Civic administration
- Clinic—outpatient
- Dry cleaning and laundries: pick-up and delivery stations and self-service
- Educational occupancies for students above the 12th grade
- Electronic data processing
- Laboratories: testing and research
- Motor vehicle showrooms
- Post offices
- Print shops
- Professional services (architects, attorneys, dentists, physicians, engineers, etc.)
- Radio and television stations
- Telephone exchanges
- Training and skill development not within a school or academic program

421.2 Smoke barriers. Smoke barriers shall be provided to subdivide every ambulatory care facility greater than 10,000 square feet (929 m²) into a minimum of two smoke compartments per story. The travel distance from any point in a smoke compartment to a smoke barrier door shall not exceed 200 feet (60 960 mm). The smoke barrier shall be installed in accordance with Section 709.

(Portions of proposal not shown remain unchanged)

Committee Reason: The proposal was felt to comprehensively address the issue of surgery centers that are not classified as Group I occupancies but need increased regulation based upon the conditions of the people being treated at these facilities. There were two modifications made. The first was simply an editorial revision to remove an unnecessary reference in the occupancy classifications to the new Section 421. The second clarifies that each story needs to be divided into at least 2 smoke compartments. This addresses multiple story facilities. The committee also felt that an issue to be addressed during public comment would be the threshold number of patients that classify an occupancy as an ambulatory health care facility.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment 1:

Lori Lee Graham, City of Portland, OR, representing herself requests Approval as Modified by this public comment for Part I.

Further modify proposal as follows:

421.2 Smoke barriers. Smoke barriers shall be provided to subdivide every ambulatory care facility greater than 10,000 square feet (929 m²) into a minimum of two smoke compartments per story. The travel distance from any point in a smoke compartment to a smoke barrier door shall not exceed 200 feet (60 960 mm). The smoke barrier shall be installed in accordance with Section 709.

Exception: Smoke barriers are not required for stories provided with not less than 2 exterior exit doors where the exit discharge from the exit doors do not include any stairs.

(Portions of proposal not shown remain unchanged)

Commenter's Reason: : The intent of providing smoke compartments both positive and necessary where the care facility is located on an upper level and it is not possible to move patients off the floor quickly. However, at grade level, it seems reasonable to provide an exception to the compartment requirement in those cases where patients can be evacuated directly out of the building. In order to facilitate the swift evacuation from the building, it would be essential that such routes not contain stairs.

Public Comment 2:

Paul K. Heilstedt, PE, FAIA, Chair, representing the ICC Code Technology Committee (CTC) requests Approval as Modified by this public comment for Part I.

Further modify proposal as follows:

**SECTION 421
AMBULATORY CARE FACILITIES**

421.1 General. Occupancies classified as Group B Ambulatory Health Care Facilities shall comply with the provisions of this section and other applicable provisions of this code by the services provided.

~~**421.2 Smoke barriers.** Smoke barriers shall be provided to subdivide every ambulatory care facility greater than 10,000 square feet (929 m²) into a minimum of two smoke compartments per story. The travel distance from any point in a smoke compartment to a smoke barrier door shall not exceed 200 feet (60 960 mm). The smoke barrier shall be installed in accordance with Section 709.~~

421.2 Separation. Ambulatory Health Care Facilities where four or more care recipients are rendered incapable of self preservation at any given time shall be separated from adjacent spaces, corridors or tenants with a fire partition installed in accordance with Section 708.

421.3 Smoke compartments. Where the aggregate area of one or more Ambulatory Health Care Facility exceeds 10, 000 square feet on one story, the story shall be provided with a smoke barrier to subdivide the story into not less than two smoke compartments. The area of any one such smoke compartment shall not exceed 22,500 square feet (2092 m²). The travel distance from any point in a smoke compartment to a smoke barrier door shall not exceed 200 feet (60 960 mm). The smoke barrier shall be installed in accordance with Section 709 with the exception smoke barriers shall be continuous from outside wall to an outside wall, a floor to a floor, or from a smoke barrier to a smoke barrier or a combination thereof.

~~**421.3**~~ **421.4 Refuge area.** At least ~~30~~ 15 net square feet (2.8 m²) per ~~nonambulatory patient occupant~~ shall be provided within the aggregate area of corridors, patient rooms, treatment rooms, lounge or dining areas and other low-hazard areas on each side of each smoke barrier. Each Ambulatory Health Care Facility shall be provided with access to the required refuge areas without passing through or utilizing adjacent tenant spaces.

421.4 **421.5 Independent egress.** A means of egress shall be provided from each smoke compartment created by smoke barriers without having to return through the smoke compartment from which means of egress originated.

421.5 **421.6 Automatic Sprinkler Systems.** Automatic sprinklers systems shall be provided for ambulatory care facilities in accordance with Section 903.2.2.

421.6 **421.7 Fire alarm systems.** A fire alarm system shall be provided for ambulatory health care facilities in accordance with Section 907.2.2.

Commenter's Reason: The CTC has thoroughly vetted this proposal through both a separate Study Group formed to review care facilities and then the full CTC. This public comment represents the collaborative efforts of a broad range of interested parties, including licensing agencies from several states and the proponents of similar code changes in this cycle.

Changes include:

- Remove an unneeded reference to "Group B" whenever the term Ambulatory Health Care Facility(s) is used.
- Clarified the definition so that this change refers to those facilities that render patients incapable by the services provided.
- Added a fire partition separation from adjacent spaces in facilities with greater than 4 occupants.
- Modified the continuity requirements of a smoke barrier to reduce impact on adjacent tenants and building owners.
- Added 22,500 square foot limit to a smoke compartment, similar to I-2s.
- Changed the area of refuge from 30 per patient to 15 per occupant, to be consistent with the horizontal exit/area of refuge requirements for this type of facility in IBC Section 1022.4.
- For multiple tenant spaces, language is added to the area of refuge requirements which is consistent with Section 1014.2.1 to clarify that the area of refuge must be accessed without going through adjacent tenant spaces.

The overall change responds to developments within the modern healthcare delivery system. More and more people are being rendered incapable of self preservation in outpatient facilities, but do not receive care for more than 24 hours. Currently these facilities are classified as B occupancies, which could be unprotected construction without fire alarm or sprinklers. This proposals attempting to deal with this issue have been before the committee every single code cycle since the ICC's inception. The committees have sent a consistent message: these facilities do not belong in Group I, but may need more protections than Group B.

Both the original proposal and this change provide a scalable, measured approach to the risks. As the facilities get larger, either by number of people incapable or by area of facility, the protections increase. If one patient is incapable of self preservation, a fire alarm system is required. As the number of patients increase, or they move off of the level of exit discharge, fire sprinklers are required. Smoke compartmentation is required for larger facilities. These thresholds were designed to be consistent with other standards and federal regulations.

Code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/cc/ctc/index.html>. Since its inception in April/2005, the CTC has held fifteen meetings - all open to the public. This public comment is a result of the CTC's investigation of the area of study entitled "Care Facilities". The CTC web page for this area of study is: <http://www.iccsafe.org/cs/cc/ctc/care.html>

Final Action: AS AM AMPC____ D

G23-07/08, Part II

IFC 903.2.2 (New) [IBC [F] 903.2.2 (New)], 907.2.2 (IBC [F] 907.2.2)

Proposed Change as Submitted:

Proponent: John Williams, State of Washington Department of Health, Construction Review Services, WA

PART II – IFC

1. Add new text as follows:

903.2.2 (IBC [F] 903.2.2) Group B ambulatory health care facilities. An automatic sprinkler system shall be provided for Group B Ambulatory Health Care Facility occupancies when either of the following conditions are met:

1. Four or more care recipients are incapable of self preservation at any given time
2. One or more care recipients that are incapable of self preservation are located at other than the level of exit discharge.

(Renumber subsequent sections)

2. Revise as follows:

907.2.2 (IBC [F] 907.2.2) (Supp) Group B. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.6 shall be installed in Group B occupancies where one of the following conditions exists:

1. The combined Group B occupant load of all floors is 500 or more.
2. The Group B occupant load is more than 100 persons above or below the lowest level of exit discharge.
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.

A manual and automatic fire alarm system shall be installed in all Group B Ambulatory Health Care Facilities.

Reason: This code change is intended to address the issue of ambulatory surgery centers. Thirty years ago, few surgical procedures were performed outside of the hospital. Today, complex outpatient surgeries outside of the hospital are commonplace. They are performed in facilities often called "day surgery centers" or "Ambulatory surgical centers (ASC's)" because patients are able to walk in and walk out the same day. Procedures render patients temporarily incapable of self-preservation by application of nerve blocks, sedation, or anesthesia. Patients in these facilities typically recover quickly.

The IBC identifies the healthcare Group I occupancies as having 24 hour stay. Without 24 stay these surgery centers are being classified as Group B. Essentially this allows you to render an unlimited number of people incapable of self preservation with no more protection than a business office. Since there is no distinct classification for ASC's in the I codes, the total number of these facilities cannot be quantified. These types of facilities contain distinctly different hazards to life and safety than other Business Occupancies, such as:

- Patients incapable of self-preservation require rescue by other occupants or fire personnel.
- Medical staff must stabilize the patient prior to evacuation; therefore, staff may require evacuation as well.
- Use of oxidizing medical gases such oxygen and nitrous oxide
- Prevalence of surgical fires.

Past changes have tried to force these occupancies into the Group I-2 category. This is a poor fit, because these are not hospitals. Other Federal and State jurisdictions have recognized that there is a middle ground somewhere in between Group B and I-2. This proposal provides a scaled approach to protection. Occupancy classification stays as group B. A fire alarm is required in all facilities for increased staff awareness. A sprinkler is required when several people are incapable of self preservation. In larger facilities, a smoke compartment is provided to allow more of a protect in place environment. These allow staff a safer environment to stabilize the patients before evacuation, and protection for fire personnel who may have to evacuate both patients and staff.

An ICC CTC study group was formed last year to examine these facilities and determine what if any changes to the code are necessary. Unfortunately, scheduling did not allow enough time for the study group to complete a proposal for a code change. Hundreds of these facilities are being built every year, and those are the ones that we know about. Please do not wait until 2012 to provide a safer environment for this very sensitive population of patients.

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

PART II – IFC

Committee Action:

Approved as Modified

Modify the proposal as follows:

903.2.2 (IBC [F] 903.2.2) Group B ambulatory health care facilities. An automatic sprinkler system shall be provided for installed throughout all fire areas containing a Group B Ambulatory Health Care Facility occupancies when either of the following conditions are met exist at any given time:

1. Four or more care recipients are ~~rendered~~ incapable of self preservation ~~at any given time~~
2. One or more care recipients that are incapable of self preservation are located at other than the level of exit discharge.

907.2.2 (IBC [F] 907.2.2) (Supp) Group B. A manual fire alarm system ~~that activates the occupant notification system in accordance with Section 907.6~~ shall be installed in Group B occupancies where one of the following conditions exists:

1. The combined Group B occupant load of all floors is 500 or more.
2. The Group B occupant load is more than 100 persons above or below the lowest level of exit discharge.
3. Fire areas containing a Group B occupancy classified as an ambulatory health care facility

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.

~~A manual and automatic fire alarm system shall be installed in all Group B ambulatory health care facilities.~~

907.2.2.2 (IBC [F] 907.2.2.2) Group B - Ambulatory health care facilities. Fire areas containing ambulatory health care facilities shall be provided with an electrically supervised automatic smoke detection system installed within the ambulatory health care facility and in public use areas outside of tenant spaces, including public corridors and elevator lobbies.

Exception: Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 provided the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

Committee Reason: The committee agreed that the proponent's reason statement accurately and adequately substantiates the need for the change. This code change represents a co-operative effort of concerned parties through the ICC Code Technology Committee's Care Study Group to resolve a long-standing problem in how the code deals with the subject facilities. This also correlates with the action taken by the IBC-G Committee in Part I. The modification represents additional consensus on the level of protection that should be afforded these facilities.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Paul K. Heilstedt, PE, FAIA, Chair, representing the ICC Code Technology Committee (CTC) requests Approval as Modified by this public comment for Part II.

Further modify proposal as follows:

903.2.2 (IBC [F] 903.2.2) Ambulatory health care facilities. An automatic sprinkler system shall be installed throughout all fire areas containing a Ambulatory Health Care Facility ~~occupancies~~ when either of the following conditions exist at any given time:

1. Four or more care recipients are rendered incapable of self preservation
2. One or more care recipients that are incapable of self preservation are located at other than the level of exit discharge.

(Portions of proposal not shown remain unchanged)

Commenter's reason: This public comment is submitted as an editorial comment to delete the term "occupancy" as the term "ambulatory care facility" is defined and to further coordinate item 1 of Section 903.2.2 with the approved definition.

The term "rendered" needs to be added in order to make it clear that the facility in question is the cause of and reason why the patient is incapable of self preservation.

Code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/cc/ctc/index.html>. Since its inception in April/2005, the CTC has held fifteen meetings - all open to the public. This public comment is a result of the CTC's investigation of the area of study entitled "Care Facilities". The CTC web page for this area of study is: <http://www.iccsafe.org/cs/cc/ctc/care.html>

Final Action: AS AM AMPC____ D

G25-07/08, Part II

306.2 (IFC [B] 202), 311.2 (IFC 202.1), 311.3 (IFC 202.1), 421.2.1(New), [F] 412.2.6 (IFC 914.8.2), Table [F] 421.2.6 (IFC Table 914.8.2) (New), [F] 412.2.6.1 (IFC 914.8.2.1) (New), [F] 412.2.6.2 (IFC 914.8.2.2) (New)

THIS CODE CHANGE WILL BE HEARD ON THE IFC PORTION OF THE HEARING ORDER.

NOTE: PART I DID NOT RECEIVE A PUBLIC COMMENT AND IS ON THE CONSENT AGENDA. PART I IS REPRODUCED FOR INFORMATIONAL PURPOSES ONLY FOLLOWING ALL OF PART II.

Proposed Change as Submitted:

Proponent: Tom Lariviere, Fire Department, Madison, MS, representing the Joint Fire Service Review Committee

PART II – IFC

1. Revise as follows:

[F] 412.2.6 (IFC 914.8.2) Fire suppression. Aircraft hangars shall be provided with a fire suppression system designed in accordance with ~~as required by NFPA 409~~, based upon the classification for the hangar given in Table 412.2.6.

Exception: When a Fixed Base Operator has separate repair facilities on site, Group II hangars operated by a Fixed Base Operator used for storage of transient aircraft only, ~~as defined in NFPA 409, storing private aircraft without major maintenance or overhaul~~ shall have a fire suppression system, but the system is exempt from foam suppression requirements.

2. Add new table and text as follows:

**[F] TABLE 412.2.6 (IFC TABLE 914.8.2)
HANGAR FIRE SUPPRESSION REQUIREMENTS^{a,b}**

| Maximum Single Fire Area, sq. ft. (m ²) | TYPE OF CONSTRUCTION | | | | | | | | |
|---|----------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | IA | IB | IIA | IIB | IIIA | IIIB | IV | VA | VB |
| >40,001 (3,716) | Group I | Group I | Group I | Group I | Group I | Group I | Group I | Group I | Group I |
| 40,000 (3,716) | Group II | Group II | Group II | Group II | Group II | Group II | Group II | Group II | Group II |
| 30,000 (2,787) | Group III | Group II | Group II | Group II | Group II | Group II | Group II | Group II | Group II |
| 20,000 (1,858) | Group III | Group III | Group II | Group II | Group II | Group II | Group II | Group II | Group II |
| 15,000 (1,394) | Group III | Group III | Group III | Group II | Group III | Group II | Group III | Group II | Group II |
| 12,000 (1,115) | Group III | Group III | Group III | Group III | Group III | Group III | Group III | Group II | Group II |
| 8,000 (743) | Group III | Group III | Group III | Group III | Group III | Group III | Group III | Group III | Group II |
| 5,000 (465) | Group III | Group III | Group III | Group III | Group III | Group III | Group III | Group III | Group III |

- Aircraft hangars with a door height greater than 28 feet shall be provided with fire suppression for a Group I hangar regardless of maximum fire area.
- Groups shall be as classified in accordance with NFPA 409.

[F] 412.2.6.1 (IFC 914.8.2.1) Hazardous Operations. Any Group III aircraft hangar according to Table 914.8.2 that contains hazardous operations including, but not limited to, the following shall be provided with a Group I or Group II fire suppression system in accordance with NFPA 409 as applicable:

1. Doping.
2. Hot work including, but not limited to welding, torch cutting, and torch soldering.
3. Fuel transfer.
4. Fuel tank repair or maintenance not including de-fueled tanks per NFPA 409, inerted tanks or tanks that have never been fueled.
5. Spray finishing operations.
6. Total fuel capacity of all aircraft within the non-sprinklered single fire area in excess of 1,600 gal (6057 L).
7. Total fuel capacity of all aircraft within the maximum single fire area in excess of 7,500 gal (28,390 L) for a hangar with a fire sprinkler system per Section 903.3.1.1.

[F] 412.2.6.2 (IFC 914.8.2.2) Separation of maximum single fire areas. Maximum single fire areas established in accordance with hangar classification and construction type in Table 914.8.2 shall be separated by 2 hour fire walls constructed in accordance with Section 705.

[F] 412.2.1 (IFC 914.8.1) DEFINITIONS. The following word and term shall, for the purposes of this chapter and as used elsewhere in this code, have the meaning shown herein.

FIXED BASE OPERATOR (FBO). A commercial business granted the right by the airport sponsor to operate on an airport and provide aeronautical services such as fueling, hangaring, tie-down and parking, aircraft rental, aircraft maintenance, and flight instruction.

TRANSIENT AIRCRAFT. Aircraft based at another location and is at the transient location for not more than 90 days.

Reason: The current fire suppression requirements found in the IBC and IFC for aircraft hangars are confusing at best. The IBC and IFC require: "Aircraft hangars shall be provided with fire suppression as required by NFPA 409." Neither the IBC nor the IFC gives any guidance when going to NFPA 409 on how to use that standard. In addition, the exception to the fire suppression requirements uses two terms that have no definition. Those terms are: "private aircraft" and "major maintenance or overhaul."

"Private aircraft" is difficult to define. For example, is a Cessna 210 owned by a corporation a private aircraft or the Gulfstream V (which carries over 6,700 gallons of fuel and has a range of that similar to a 737) owned by a celebrity a private aircraft? The FAA does not define aircraft this way and the reference to "private aircraft" is confusing and difficult to enforce and administer.

"Major maintenance or overhaul" is another term that is difficult to define. The FAA cannot even define "major maintenance" in a way intended by the IBC and IFC. The FAA has a document that all aircraft owners and operators have. It is CFR Part 43 Appendix A. There is no definitive list in this document that the code official can use when determining the extent of maintenance in an aircraft hangar. In addition, NFPA 409 makes no mention of "maintenance" for any of its requirements except for certain "hazardous operations" in Group III hangars.

This proposal will eliminate these two terms because they are difficult to define and they are not necessary when determining the fire suppression requirements from NFPA 409. There is an exception for the foam requirements in the IBC and IFC that use these terms. The exception to 914.8.2 is intended for those aircraft hangars that Flight Base Operators (FBO) use for visiting aircraft to an airport. The FBO will have other repair facilities on the airport and the "storage" hangar is intended for short-term storage only inside a hangar from the weather.

In place of the "private aircraft" and "major maintenance" terms, this proposal adds the term "transient aircraft." This better identifies the intent of this type of aircraft hangar. It seems that most frequently, the owner that wants to develop an aircraft hangar that fits the Group II category, will do no "major maintenance" and will only "store" airplanes in their hangar. This becomes a significant enforcement issue after the hangar is built and occupied, as everyone will then only be doing minor repair even though the aircraft engine is in pieces or a wing is lying on the floor of the hangar. NFPA 409 does not use "maintenance" as a criterion to determine the fire suppression requirements for any aircraft hangars except for Group III hangars where certain "hazardous" operations are conducted. Even then, if those "hazardous" operations are done, the group type of the hangar goes from a Group III hangar to a Group II.

The other aspect of maintenance that the IBC and IFC ignore is that of the maintenance of "experimental" aircraft. The experimental aircraft owner will always maintain and repair his or her aircraft as an FAA mechanic "will not" work on an experimental aircraft. An FAA mechanic cannot work on an experimental aircraft because there is no "service manual" for the aircraft like there is for a factory built aircraft.

On every airport in the country where there are T-hangars, one will find experimental aircraft. As the codes currently read, this then becomes an enforcement problem requiring the code official to monitor maintenance in the T-hangars, which is not the intent of NFPA 409. NFPA 409 intends that maintenance be done in the small hangars just like in the large hangars.

Because repair is intended in NFPA 409 in aircraft hangars, this proposal eliminates the S-2 occupancy classification for "storage" aircraft hangars. The S-2 occupancy classification is confusing to the designer and code official and serves no purpose. The S-1 occupancy classification is all that is needed. When one looks at NFPA 409 to determine the fire suppression requirements, one will find that the Group III hangars have no fire suppression requirements except for during certain hazardous operations. NFPA 409 recognizes that in these small aircraft hangars there will be repair operations and has determined that fire suppression is not required due to the small size of the aircraft hangars. As the IBC and IFC are currently worded, if a designer were to select the S-2 occupancy classification, that hangar could not contain any repair operations. This does a disservice to the hangar owner and anyone who may lease or rent an aircraft space in that hangar. A Group III hangar could be as large as 12,000 square feet in area with Type IIB construction without any fire suppression systems and NFPA 409 would allow repair activities in that aircraft hangar.

NFPA 409 also limits the size of the small hangars with the definitions of a "single hangar building" and the "cluster hangar" for Group III aircraft hangars. These two definitions limit the size and location separations of these two types of hangars, which is part of the fire suppression scheme for Group III hangars. NFPA handles the lack of required separation of hangar buildings by requiring two two-hour walls on each hangar building. This seems to be like a "fire wall" as defined by IBC Section 705. This proposal thus adds this requirement for separation of single hangar buildings with a fire wall as defined by IBC Section 705 in lieu of the NFPA 409 requirement of two 2-hour walls.

NFPA 409 specifies fire protection for aircraft hangars based on Group I, Group II or Group III hangar, but the IBC and IFC do not define aircraft hangars using these terms. This proposal adds a table that coordinates the IBC/IFC terms and construction requirements with

the fire protection design requirements found in NFPA 409 for Group I, II and III hangars. This table is based on correlating the NFPA construction and area limits with the IBC and IFC construction requirements. This table combines several tables in NFPA 409 into a single table that allows determination of the group type for aircraft hangars based on construction type and area before proceeding to NFPA 409 for the suppression requirements.

This proposal will simplify the current IBC and IFC requirements for aircraft hangars and make the codes easier to use by both the aircraft hangar designer and the code official.

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

PART II – IFC

Committee Action:

Approved as Modified

Modify the proposal as follows:

**[F] TABLE 412.2.6 (IFC TABLE 914.8.2)
HANGAR FIRE SUPPRESSION REQUIREMENTS ^{a,b,c}**

(No change to table contents)

- a. Aircraft hangars with a door height greater than 28 feet shall be provided with fire suppression for a Group I hangar regardless of maximum fire area.
- b. Groups shall be as classified in accordance with NFPA 409.
- c. Membrane structures complying with Section 3102 of the *International Building Code* shall be classified as a Group IV hangar.

(Portions of proposal not shown remain unchanged)

Committee Reason: The committee agreed that the proponent’s reason statement accurately and adequately substantiates the need for the change. This code change represents a comprehensive effort to resolve a long-standing problem in how to apply the provisions of NFPA 409 as referenced without creating conflict with the construction requirements of the IBC. This also correlates with the action taken by the IBC-G Committee in Part I. The modification provides additional guidance on the appropriate treatment of membrane structures which are often used to shelter aircraft.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Lori Lee Graham, City of Portland, OR, representing herself requests Approval as Modified by this public comment for Part II.

Further modify proposal as follows:

[F] 412.2.6.2 (IFC 914.8.2.2) Separation of maximum single fire areas. Maximum single fire areas established in accordance with hangar classification and construction type in Table 914.8.2 shall be separated by 2 hour fire barriers or fire walls constructed in accordance with Section 706 or 705, respectively.

(Portions of proposal not shown remain unchanged)

Commenter’s Reason: Fire areas can be created by exterior walls, fire walls or fire barriers. The proposal as approved by the committee would not allow the use of fire barriers to create fire areas. This would conflict with the definition of fire areas. It would also mean that every hangar separated by fire walls would be separate buildings for all intents and purposes of the code. If the intent of the proposal was to limit the actual size of the buildings, the table and all other provisions should have limited building size not fire area size.

Final Action: AS AM AMPC_____ D

NOTE: PART I REPRODUCED FOR INFORMATIONAL PURPOSES ONLY – SEE ABOVE

G25-07/08, PART I – IBC GENERAL

Revise as follows:

306.2 (IFC [B] 202) Factory Industrial F-1 Moderate-hazard Occupancy. Factory industrial uses which are not classified as Factory Industrial F-2 Low Hazard shall be classified as F-1 Moderate Hazard and shall include, but not be limited to, the following:

- Aircraft (manufacturing, not to include repair)
- Appliances
- Athletic equipment

Automobiles and other motor vehicles
 Bakeries
 Beverages; over 12-percent alcohol content
 Bicycles
 Boats
 Brooms or brushes
 Business machines
 Cameras and photo equipment
 Canvas or similar fabric
 Carpets and rugs (includes cleaning)
 Clothing
 Construction and agricultural machinery
 Disinfectants
 Dry cleaning and dyeing
 Electric generation plants
 Electronics
 Engines (including rebuilding)
 Food processing
 Furniture
 Hemp products
 Jute products
 Laundries
 Leather products
 Machinery
 Metals
 Millwork (sash & door)
 Motion pictures and television filming (without spectators)
 Musical instruments
 Optical goods
 Paper mills or products
 Photographic film
 Plastic products
 Printing or publishing
 Refuse incineration
 Shoes
 Soaps and detergents
 Textiles
 Tobacco
 Trailers
 Upholstering
 Wood; distillation
 Woodworking (cabinet)

311.2 (IFC [B] 202) Moderate-hazard storage, Group S-1. Buildings occupied for storage uses that are not classified as Group S-2, including, but not limited to, storage of the following:

Aerosols, Levels 2 and 3
 Aircraft ~~repair~~ hangar
 Bags: cloth, burlap and paper
 Bamboos and rattan
 Baskets
 Belting: canvas and leather
 Books and paper in rolls or packs
 Boots and shoes
 Buttons, including cloth covered, pearl or bone
 Cardboard and cardboard boxes
 Clothing, woolen wearing apparel
 Cordage
 Dry boat storage (indoor)
 Furniture
 Furs
 Glues, mucilage, pastes and size
 Grains
 Horns and combs, other than celluloid
 Leather
 Linoleum
 Lumber
 Motor vehicle repair garages complying with the maximum allowable quantities of hazardous materials listed in Table 307.1(1) (see Section 406.6)
 Photo engravings
 Resilient flooring
 Silks
 Soaps
 Sugar
 Tires, bulk storage of
 Tobacco, cigars, cigarettes and snuff
 Upholstery and mattresses
 Wax candles

311.3 (IFC [B] 202) Low-hazard storage, Group S-2. Includes, among others, buildings used for the storage of noncombustible materials such as products on wood pallets or in paper cartons with or without single thickness divisions; or in paper wrappings. Such products are permitted to have a negligible amount of plastic trim, such as knobs, handles or film wrapping. Storage uses shall include, but not be limited to, storage of the following:

- Aircraft hangar
- Asbestos
- Beverages up to and including 12-percent alcohol in metal, glass or ceramic containers
- Cement in bags
- Chalk and crayons
- Dairy products in nonwaxed coated paper containers
- Dry cell batteries
- Electrical coils
- Electrical motors
- Empty cans
- Food products
- Foods in noncombustible containers
- Fresh fruits and vegetables in nonplastic trays or containers
- Frozen foods
- Glass
- Glass bottles, empty or filled with noncombustible liquids
- Gypsum board
- Inert pigments
- Ivory
- Meats
- Metal cabinets
- Metal desks with plastic tops and trim
- Metal parts
- Metals
- Mirrors
- Oil-filled and other types of distribution transformers
- Parking garages, open or enclosed
- Porcelain and pottery
- Stoves
- Talc and soapstones
- Washers and dryers

Reason: Same as Part II.

Cost Impact: Same as Part II.

**PART I – IBC GENERAL
Committee Action:**

Approved as Modified

Modify proposal as follows:

311.2 (IFC [B] 202) Moderate-hazard storage, Group S-1. Buildings occupied for storage uses that are not classified as Group S-2, including, but not limited to, storage of the following:

- Aerosols, Levels 2 and 3
- Aircraft hangar (storage and repair)
- Bags: cloth, burlap and paper
- Bamboos and rattan
- Baskets
- Belting: canvas and leather
- Books and paper in rolls or packs
- Boots and shoes
- Buttons, including cloth covered, pearl or bone
- Cardboard and cardboard boxes
- Clothing, woolen wearing apparel
- Cordage
- Dry boat storage (indoor)
- Furniture
- Furs
- Glues, mucilage, pastes and size
- Grains
- Horns and combs, other than celluloid
- Leather
- Linoleum
- Lumber
- Motor vehicle repair garages complying with the maximum allowable quantities of hazardous materials listed in Table 307.1(1) (see Section 406.6)
- Photo engravings
- Resilient flooring
- Silks
- Soaps
- Sugar

Tires, bulk storage of
Tobacco, cigars, cigarettes and snuff
Upholstery and mattresses
Wax candles

(Portions of proposal not shown remain unchanged)

Committee Reason: The proposal was approved as it was felt that Group S1 is a more appropriate classification and that a Group H classification would be too limiting. The modification clarifies that repairs can occur in Group S-1 occupancies which as originally written would have been unclear.

Assembly Action:

None

G26-07/08

306.2, 306.3, 311.3 (IFC [B] 202)

Proposed Change as Submitted:

Proponent: Gary L. Rencehausen, Lewiston, ID, representing himself

1. Revise as follows:

306.2 (IFC [B] 202) Factory Industrial F-1 Moderate-hazard Occupancy. Factory industrial uses which are not classified as Factory Industrial F-2 Low Hazard shall be classified as F-1 Moderate Hazard and shall include, but not be limited to, the following:

- Aircraft
- Appliances
- Athletic equipment
- Automobiles and other motor vehicles
- Bakeries
- Beverages; over ~~42-~~ 16-percent alcohol content
- Bicycles
- Boats
- Brooms or brushes
- Business machines
- Cameras and photo equipment
- Canvas or similar fabric
- Carpets and rugs (includes cleaning)
- Clothing
- Construction and agricultural machinery
- Disinfectants
- Dry cleaning and dyeing
- Electric generation plants
- Electronics
- Engines (including rebuilding)
- Food processing
- Furniture
- Hemp products
- Jute products
- Laundries
- Leather products
- Machinery
- Metals
- Millwork (sash & door)
- Motion pictures and television filming (without spectators)
- Musical instruments
- Optical goods
- Paper mills or products
- Photographic film
- Plastic products
- Printing or publishing

- Recreational vehicles
- Refuse incineration
- Shoes
- Soaps and detergents
- Textiles
- Tobacco
- Trailers
- Upholstering
- Wood; distillation
- Woodworking (cabinet)

306.3 (IFC [B] 202) Factory Industrial F-2 Low-hazard Occupancy. Factory industrial uses that involve the fabrication or manufacturing of noncombustible materials which during finishing, packing or processing do not involve a significant fire hazard shall be classified as F-2 occupancies and shall include, but not be limited to, the following:

- Beverages; up to and including ~~42-~~ 16-percent alcohol content
- Brick and masonry
- Ceramic products
- Foundries
- Glass products
- Gypsum
- Ice
- Metal products (fabrication and assembly)

311.3 (IFC [B] 202) Low-hazard storage, Group S-2. Includes, among others, buildings used for the storage of noncombustible materials such as products on wood pallets or in paper cartons with or without single thickness divisions; or in paper wrappings. Such products are permitted to have a negligible amount of plastic trim, such as knobs, handles or film wrapping. Storage uses shall include, but not be limited to, storage of the following:

- Aircraft hangar
- Asbestos
- Beverages up to and including ~~42-~~ 16-percent alcohol in metal, glass or ceramic containers
- Cement in bags
- Chalk and crayons
- Dairy products in nonwaxed coated paper containers
- Dry cell batteries
- Electrical coils
- Electrical motors
- Empty cans
- Food products
- Foods in noncombustible containers
- Fresh fruits and vegetables in nonplastic trays or containers
- Frozen foods
- Glass
- Glass bottles, empty or filled with noncombustible liquids
- Gypsum board
- Inert pigments
- Ivory
- Meats
- Metal cabinets
- Metal desks with plastic tops and trim
- Metal parts
- Metals
- Mirrors
- Oil-filled and other types of distribution transformers
- Parking garages, open or enclosed
- Porcelain and pottery
- Stoves
- Talc and soapstones
- Washers and dryers

Reason: I am proposing a change and an alternative, and I will try and explain both.

I am part owner in a small startup winery and we are hoping to relocate into part of an older existing downtown building. For us getting the code change would allow us to build a 2 hour fire wall, opposed to a 3 hour fire wall required by the F-1, moderate hazard class for liquids 12% alcohol and above.

The 12% was a relatively arbitrary number. I spoke with William Stuart the architect who submitted the change to allow up to 12% from the 0% that it was prior to 2000. He stated that not being a avid wine drinker he had simply reached in to the cupboard and pulled out a bottle of Gallo and it listed it's alcohol at 12% and that was what he used as his standard. If his intent was to allow the production and storage of wine in the F-2 class then for the most part he failed...

In my opinion there are two other logical choices for an alcohol % limit. Twenty percent alcohol would be the first choice with 16% being the alternate. I will try to explain both. I don't know how familiar the code council is with the making of wine so I will include a very brief description of the process. In a juice adding a yeast will turn the natural sugar into alcohol. It is a self limiting process, in that most common wine yeast will die off as the alcohol raises to between 12 and 16. % (depending mostly on the type of yeast). A good dry red wine will often finish at 14 to 15 %. (And it may be a little higher at some point during the process) To reach a higher alcohol % the wine needs to be fortified by adding alcohol. Such is the case of Port style wines where brandy is added to bring the alcohol up 18 -20% which is the usual upper limit of fortified wines. I hope that explains my justification for the two higher limit proposals.

From the chart included (Flash Points of Ethanol based Water Solutions) you can see if you extrapolate 15% would be about 120 degrees F. Now it is possible that during the fermentation process the must (the juice, skin and seed solution) might approach 95 to 100 degrees F. This would typically be near the mid point of the fermentation cycle when the alcohol would be in the 8-10% range. As the process continues and must (wine) reaches the 15 % level the fermentation slows down and the temp drops to room temp (65 to 70 degrees F). Were the wine then to be fortified it is here at this temp that alcohol would be added. I might also add here that another byproduct of the fermentation process is the production of CO2 and being heavier than air it floats on top of the fermentation vats. CO2 will not support combustion, in fact one method of checking to insure the fermentation process is still working is to hold a match over the vat, as soon as the match drops below the rim of the vat it goes out.

In conclusion I have added a couple of letters that give a little insight into how an alcohol/water solution is classified as a waste product. It doesn't appear that raising the limit to 16 or 20 % significantly raises the risks in the production of wine. The 16 or 20 % alcohol is still less than the ignitability of wine with the temperatures we see in the production of wine.

I think that raising the limit would not only open up some possibilities for other wineries but also for other downtown areas where a winery might well help in their revitalization.

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

Committee Action:

Disapproved

Committee Reason: Other types of beverages beyond simply wine were not addressed in the reason and the flashpoint data was not provided as noted in the reason. The committee had concerns as to how other alcohol would relate to this new classification in terms of possible unnecessary hazards posed.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment 1:

Gary L. Rencehausen, Lewiston, ID, representing himself requests Approval as Submitted.

Commenter's Reason: I'm not sure how to address "other types of beverages" I would say though that simple wine would include 99 + % of the production of beverages that fall into the category of the 12 to 16 % that I'm trying to change.

Flashpoint data of ethanol based water solutions from EngineeringToolBox.com are: 135 deg. for 10% solution and 105 deg. for 20% solution this gives approximately 129 deg and 117 deg for 12 and 16 % respectively. Given that the ideal storage temp for wines is below 60 deg. and in manufacturing it is unlikely to exceed 85 deg. this seems a safe margin. The term Flashpoint brings to mind images of exploding barrels of wine. This is unlikely to happen, and it does not mean that you can heat a container of wine to 140 degrees or more and toss in a match and it will burn. It is theoretically possible that if you had a closed container half full of wine and heated it up you could collect enough alcohol to flash if a flame was introduced, but it would not burn. Barrels and tanks are kept full (air is not good to wine) so there is no room to collect vaporizing alcohol. Even in an open container the vaporizing alcohol is most likely to dissipate and dilute in the air before it would flash. This proposal is a reasonable and prudent change with a minimum risks to life and health safety issues.

Public Comment 2:

Maureen Traxler, City of Seattle Department of Planning and Development, requests Approval as Submitted.

Commenter's Reason: This is a modest proposal that would ease an unnecessarily restrictive provision. It changes the threshold at which beverages are classified as F-1 or S-1 from 12% to 16% alcohol content. There is very little fire hazard from beverages with alcohol content this low.

This change would only affect regular wines. The highest alcohol content in unfortified wines is found in premium red wines which have alcohol content under 15%. Fortified and port-style wines have a higher alcohol content because brandy or other distilled beverages have been added to them. Brandy is distilled wine with an alcohol content of 40% or more, similar to whiskey.

G27-07/08, which raises the alcohol content to 20%, would include fortified wines. We encourage disapproval of G27, not because of the wine, but because of the amount of higher-alcohol content liquids that are present during the production of fortified wines.

Final Action: AS AM AMPC_____ D

G27-07/08

306.2, 306.3, 311.3, (IFC [B] 202)

Proposed Change as Submitted:

Proponent: Gary L. Rencehausen, Lewiston, ID, representing himself

Revise as follows:

306.2 (IFC [B] 202) Factory Industrial F-1 Moderate-hazard Occupancy. Factory industrial uses which are not classified as Factory Industrial F-2 Low Hazard shall be classified as F-1 Moderate Hazard and shall include, but not be limited to, the following:

- Aircraft
- Appliances
- Athletic equipment
- Automobiles and other motor vehicles
- Bakeries
- Beverages; over ~~42-~~ 20-percent alcohol content
- Bicycles
- Boats
- Brooms or brushes
- Business machines
- Cameras and photo equipment
- Canvas or similar fabric
- Carpets and rugs (includes cleaning)
- Clothing
- Construction and agricultural machinery
- Disinfectants
- Dry cleaning and dyeing
- Electric generation plants
- Electronics
- Engines (including rebuilding)
- Food processing
- Furniture
- Hemp products
- Jute products
- Laundries
- Leather products
- Machinery
- Metals
- Millwork (sash & door)
- Motion pictures and television filming (without spectators)
- Musical instruments
- Optical goods
- Paper mills or products
- Photographic film
- Plastic products
- Printing or publishing
- Recreational vehicles
- Refuse incineration
- Shoes
- Soaps and detergents
- Textiles
- Tobacco
- Trailers
- Upholstering
- Wood; distillation
- Woodworking (cabinet

306.3 (IFC [B] 202) Factory Industrial F-2 Low-hazard Occupancy. Factory industrial uses that involve the fabrication or manufacturing of noncombustible materials which during finishing, packing or processing do not involve a significant fire hazard shall be classified as F-2 occupancies and shall include, but not be limited to, the following:

- Beverages; up to and including ~~42-~~ 20-percent alcohol content
- Brick and masonry
- Ceramic products
- Foundries
- Glass products
- Gypsum
- Ice
- Metal products (fabrication and assembly)

311.3 (IFC [B] 202) Low-hazard storage, Group S-2. Includes, among others, buildings used for the storage of noncombustible materials such as products on wood pallets or in paper cartons with or without single thickness divisions; or in paper wrappings. Such products are permitted to have a negligible amount of plastic trim, such as knobs, handles or film wrapping. Storage uses shall include, but not be limited to, storage of the following:

- Aircraft hangar
- Asbestos
- Beverages up to and including ~~42-~~ 20-percent alcohol in metal, glass or ceramic containers
- Cement in bags
- Chalk and crayons
- Dairy products in nonwaxed coated paper containers
- Dry cell batteries
- Electrical coils
- Electrical motors
- Empty cans
- Food products
- Foods in noncombustible containers
- Fresh fruits and vegetables in nonplastic trays or containers
- Frozen foods
- Glass
- Glass bottles, empty or filled with noncombustible liquids
- Gypsum board
- Inert pigments
- Ivory
- Meats
- Metal cabinets
- Metal desks with plastic tops and trim
- Metal parts
- Metals
- Mirrors
- Oil-filled and other types of distribution transformers
- Parking garages, open or enclosed
- Porcelain and pottery
- Stoves
- Talc and soapstones
- Washers and dryers

Reason: I am proposing a change and an alternative, and I will try and explain both.

I am part owner in a small startup winery and we are hoping to relocate into part of an older existing downtown building. For us getting the code change would allow us to build a 2 hour fire wall, opposed to a 3 hour fire wall required by the F-1, moderate hazard class for liquids 12% alcohol and above.

The 12% was a relatively arbitrary number. I spoke with William Stuart the architect who submitted the change to allow up to 12% from the 0% that it was prior to 2000. He stated that not being an avid wine drinker he had simply reached in to the cupboard and pulled out a bottle of Gallo and it listed it's alcohol at 12 % and that was what he used as his standard. If his intent was to allow the production and storage of wine in the F-2 class then for the most part he failed...

In my opinion there are two other logical choices for an alcohol % limit. Twenty percent alcohol would be the first choice with 16% being the alternate. I will try to explain both. I don't know how familiar the code council is with the making of wine so I will include a very brief description of the process. In a juice adding a yeast will turn the natural sugar into alcohol. It is a self limiting process, in that most common wine yeast will die off as the alcohol raises to between 12 and 16.% (depending mostly on the type of yeast). A good dry red wine will often

finish at 14 to 15%. (And it may be a little higher at some point during the process). To reach a higher alcohol % the wine needs to be fortified by adding alcohol. Such is the case of Port style wines where brandy is added to bring the alcohol up 18 -20 % which is the usual upper limit of fortified wines. I hope that explains my justification for the two higher limit proposals.

From the chart included (Flash Points of Ethanol based Water Solutions) you can see if you extrapolate 15% would be about 120 degrees F. Now it is possible that during the fermentation process the must (the juice, skin and seed solution) might approach 95 to 100 degrees F. This would typically be near the mid point of the fermentation cycle when the alcohol would be in the 8-10% range. As the process continues and must (wine) reaches the 15% level the fermentation slows down and the temp drops to room temp (65 to 70 degrees F). Were the wine then to be fortified it is here at this temp that alcohol would be added. I might also add here that another byproduct of the fermentation process is the production of CO2 and being heavier than air it floats on top of the fermentation vats. CO2 will not support combustion, in fact one method of checking to insure the fermentation process is still working is to hold a match over the vat, as soon as the match drops below the rim of the vat it goes out.

In conclusion I have added a couple of letters that give a little insight into how an alcohol/water solution is classified as a waste product. It doesn't appear that raising the limit to 16 or 20 % significantly raises the risks in the production of wine. The 16 or 20 % alcohol is still less than the ignitability of wine with the temperatures we see in the production of wine.

I think that raising the limit would not only open up some possibilities for other wineries but also for other downtown areas where a winery might well help in their revitalization.

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

Committee Action:

Disapproved

Committee Reason: The proposal was disapproved based upon the action taken on G26-07/08.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment 1:

Gary L. Rencehausen, Lewiston, ID, representing himself requests Approval as Submitted.

Commenter's Reason: Also see my proposed change G-26 for discussion of flashpoint data.

It was my original intent to include the production of Port style in G-27. And though I was aware that you create a port style wine by fortifying a simple wine with a distilled spirit such as brandy (40% alcohol). I didn't actually consider that in order to do that you need to bring that brandy into the area that I was proposing a 20% alcohol limit on. That in itself will prevent the production of Port style wines in the low hazard area. As I stated in my original proposal natural fermented wines usually top out at around 16% alcohol and I used that number for G-26-07/08. In the months since I started this I have discovered at least one winemaker who with some special yeasts and some creative winemaking has produced a very fine natural fermented wine at 19.6%. So I would like to stand by my 20% limit as it will not only allow some experimenting in creative winemaking but will also allow the storage of Port style wines in the low hazard areas. I also see this proposal as a reasonable and prudent change with minimum risk to life and health safety issues.

Public Comment 2:

Nicole L. Umiker, Washington State University requests Approval as Submitted.

Commenter's Reason: To whom it may concern, I'm writing to you in support of making a change to the International Building Code section 306.2 and 306.3 (G-27). In section 306.2, "beverages; over 12 percent alcohol content," are listed as a moderate-hazard occupancy. I propose that this be changed to, "unfortified beverages; over 20 percent alcohol content," on the account that there is not a significant increase in the fire danger of 20% ethanol as compared to 12% ethanol. The purpose of the international fire code is to protect people and property by making codes based on facts and careful consideration. I believe the intent of the architect that decided the 12% cut-off was to include wine in the low-hazard category, however it appears he did not realize still wine can range from 9% to 16% and port wine a range of 18-20% ethanol.

During wine production, juice/wine is in an aqueous solution throughout processing. Grapes are crushed releasing juice which is then fermented into wine. The fermentation process produces carbon dioxide, in addition to ethanol, which excludes oxygen from the fermenting grapes further reducing the risk of fire. There are very few and often no additions made to juice or wine, aside from the gapes, during the entire production process. This sets wine apart from many of the products listed in the moderate-hazard occupancy section 306.2. I recently ran an informal experiment where I took wine at 14% and 20% ethanol and tried lighting it on fire. I held a flame to the surface of wine in a glass and to the surface of wine spread in a thin film on the surface of a countertop. After several minutes I was unsuccessful in getting the wine to ignite.

If beverages are divided into hazard occupancy classes based on alcohol percentage then that percentage should be set at a level that is reasonable for the industries for which it stands to protect and at a percentage above which truly poses moderate fire risk. I'm proposing a change to include beverages with alcohol percentages up to 20% in the low hazard category, a percentage that makes more sense for the industry. I would like the committee to give these arguments careful consideration. The difference in fire danger between 12% wine and that of 16% may prove to be relatively insignificant but the millions of dollars that will be spent by the industry to make their wineries up to code for moderate fire danger occupancy is very significant.

All I ask is that the committee revisits the rational for this arbitrary number of 12% to ensure that codes 306.2 and 306.3 serve public safety and the ability of the wine industry to do business in a reasonable fashion. Attached (table 1) is information regarding the flashpoint of dilute ethanol solutions. Unfortunately, we were unable to obtain reliable ignition temperature data of dilute ethanol solutions.

Thank you for your time,

Nicole L. Umiker
PhD Candidate
Food Science
Washington State University

Winemaker
Clearwater Canyon Cellars

Table: 1

| | 10% ethanol | 20% ethanol |
|---------------------|-------------|-------------|
| Flash Point °C (°F) | 57 (135) | 41 (105) |

*This data came from <http://www.engineeringtoolbox.com>.

Flashpoint: the minimum temperature to which a liquid fuel must be heated so that the vapor pressure is sufficiently high for an explosive mixture to be formed with air when the liquid is allowed to evaporate and is brought into contact with a flame, spark or hot filament. Flash point will not be reached headdress is sufficiently ventilated preventing vapors from accumulating.

Ignition temperature - Minimum temperature to which a substance must be heated before it will spontaneously burn independently of the source of heat.

Final Action: AS AM AMPC____ D

G28-07/08 [F] 307.1 (IFC 202)

THIS CODE CHANGE WILL BE HEARD ON THE IFC PORTION OF THE HEARING ORDER.

Proposed Change as Submitted:

Proponent: Robert J Davidson, Davidson Code Concepts, LLC, representing himself

Revise as follows:

[F] 307.1 (IFC 202) (Supp) High-hazard Group H. High-hazard Group H occupancy includes, among others the use of a building or structure, or a portion thereof, that involves the manufacturing, processing, generation or storage of materials that constitute a physical or health hazard in quantities in excess of those allowed in control areas complying with Section 414, based on the maximum allowable quantity limits for control areas set forth in Tables 307.1(1) and 307.1(2). Hazardous occupancies are classified in Groups H-1, H-2, H-3, H-4 and H-5 and shall be in accordance with this section, the requirements of Section 415 and the *International Fire Code*.

Exceptions: The following shall not be classified as Group H, but shall be classified as the occupancy that they most nearly resemble.

1. Buildings and structures occupied for the application of flammable finishes, provided that such buildings or areas conform to the requirements of Section 416 and the *International Fire Code*.
2. Wholesale and retail sales and storage of flammable and combustible liquids in mercantile occupancies conforming to the *International Fire Code*.
3. Closed piping system containing flammable or combustible liquids or gases utilized for the operation of machinery or equipment.
4. Cleaning establishments that utilize combustible liquid solvents having a flash point of 140°F (60°C) or higher in closed systems employing equipment listed by an approved testing agency, provided that this occupancy is separated from all other areas of the building by 1-hour fire barriers or 1-hour horizontal assemblies or both.
5. Cleaning establishments that utilize a liquid solvent having a flash point at or above 200°F (93°C).
6. Liquor stores and distributors without bulk storage.
7. Refrigeration systems.
8. The storage or utilization of materials for agricultural purposes on the premises.
9. Stationary batteries utilized for facility emergency power, uninterrupted power supply or telecommunication facilities, provided that the batteries are provided with safety venting caps and ventilation is provided in accordance with the *International Mechanical Code*.
10. Corrosives shall not include personal or household products in their original packaging used in retail display or commonly used building materials.

11. Buildings and structures occupied for aerosol storage shall be classified as Group S-1, provided that such buildings conform to the requirements of the *International Fire Code*.
12. Display and storage of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in quantities not exceeding the maximum allowable quantity per control area in Group M or S occupancies complying with Section 414.2.5.
13. The storage of black powder, smokeless propellant and small arms primers in Groups M and R-3 and special industrial explosive devices in Groups B, F, M and S, provided such storage conforms to the quantity limits and requirements prescribed in the *International Fire Code*.
14. Canopies used to shelter dispensing operations where flammable compressed gases are located on the roof of the canopy, provided that such canopies comply with Section 406 and the *International Fire Code*.

Reason: Section 307.1 Applies to buildings or structures. A canopy at a motor fuel-dispensing facility is a structure. This proposed code change is intended to clarify that canopies that are used to shelter dispensing operations where flammable compressed gases are located on the roof of the canopy should not be classified in Group H.

The need for this clarification was identified during a "Hydrogen Fueling Station Permitting Workshop" held on July 10, 2007 that was co-sponsored by the United States Department of Energy and the National Association of State Fire Marshals. Building and fire code officials participating in the workshop believe the plain language of Section 307.1 would require classifying the canopy, (which is enclosed at the roof line on four sides), as an H Group structure, and that an exception should be added as clarification.

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

Committee Action:

Approved as Modified

Modify the proposal as follows:

[F] 307.1 (IFC 202) (Supp) High-hazard Group H. High-hazard Group H occupancy includes, among others the use of a building or structure, or a portion thereof, that involves the manufacturing, processing, generation or storage of materials that constitute a physical or health hazard in quantities in excess of those allowed in control areas complying with Section 414, based on the maximum allowable quantity limits for control areas set forth in Tables 307.1(1) and 307.1(2). Hazardous occupancies are classified in Groups H-1, H-2, H-3, H-4 and H-5 and shall be in accordance with this section, the requirements of Section 415 and the *International Fire Code*.

Exceptions: The following shall not be classified as Group H, but shall be classified as the occupancy that they most nearly resemble:

1. through 13. (No change)
14. Canopies used to shelter dispensing operations where ~~flammable~~ compressed hydrogen gases are located on the roof of the canopy, provided that such canopies comply with Section 406 and the *International Fire Code*.

Committee Reason: The proposal was approved because the committee felt that it provides clarification that weather shelter canopies that store hydrogen gas on their roofs at gaseous motor-fuel dispensing facilities do not create a Group H occupancy. The modification further clarifies the intent of the exception that it applies only to hydrogen, a lighter-than-air flammable gas, and not to all flammable gases.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Jeffrey Shapiro, International Code Consultants and Robert J. Davidson, Davidson Code Concepts, LLC, representing themselves, request Approval as Modified by this public comment.

Further modify proposal as follows:

[F] 307.1 (IFC 202) (Supp) High-hazard Group H. High-hazard Group H occupancy includes, among others the use of a building or structure, or a portion thereof, that involves the manufacturing, processing, generation or storage of materials that constitute a physical or health hazard in quantities in excess of those allowed in control areas complying with Section 414, based on the maximum allowable quantity limits for control areas set forth in Tables 307.1(1) and 307.1(2). Hazardous occupancies are classified in Groups H-1, H-2, H-3, H-4 and H-5 and shall be in accordance with this section, the requirements of Section 415 and the *International Fire Code*.

Hazardous materials stored or used on top of roofs or canopies shall be classified as outdoor storage or use and shall comply with the *International Fire Code*.

Exceptions: The following shall not be classified as Group H, but shall be classified as the occupancy that they most nearly resemble:

1. through 13. (No change)
- ~~14. Canopies used to shelter dispensing operations where compressed hydrogen gases are located on the roof of the canopy, provided that such canopies comply with Section 406 and the *International Fire Code*.~~

Commenter's Reason: It was never the intent of the code to assign a Group H occupancy classification to rooftop or canopy top storage, and by providing an exception to the Group H occupancy classification for hydrogen fuel in such conditions, the implication is that any other material in a similar situation would trigger Group H. To fix this problem, the exception text has been relocated to the main paragraph, and the text has been broadened to clarify the intent of the code for all such storage or use, not just hydrogen.

Final Action: AS AM AMPC____ D

G29-07/08

[F] 307.1 (IFC 202), Chapter 35

THIS CODE CHANGE WILL BE HEARD ON THE IFC PORTION OF THE HEARING ORDER.

Proposed Change as Submitted:

Proponent: Cynthia A. Wilk, State of New Jersey, Department of Community Affairs - Division of Codes and Standards, representing the NJ-DCA Division of Codes and Standards

Revise as follows:

[F] 307.1 (IFC 202) (Supp) High-hazard Group H. High-hazard Group H occupancy includes, among others the use of a building or structure, or a portion thereof, that involves the manufacturing, processing, generation or storage of materials that constitute a physical or health hazard in quantities in excess of those allowed in control areas complying with Section 414, based on the maximum allowable quantity limits for control areas set forth in Tables 307.1(1) and 307.1(2). Hazardous occupancies are classified in Groups H-1, H-2, H-3, H-4 and H-5 and shall be in accordance with this section, the requirements of Section 415 and the *International Fire Code*.

Exceptions: The following shall not be classified as Group H, but shall be classified as the occupancy that they most nearly resemble.

1. Buildings and structures occupied for the application of flammable finishes, provided that such buildings or areas conform to the requirements of Section 416 and the *International Fire Code*.
2. Wholesale and retail sales and storage of flammable and combustible liquids in mercantile occupancies conforming to the *International Fire Code*.
3. Closed piping system containing flammable or combustible liquids or gases utilized for the operation of machinery or equipment.
4. Cleaning establishments that utilize combustible liquid solvents having a flash point of 140°F (60°C) or higher in closed systems employing equipment listed by an approved testing agency, provided that this occupancy is separated from all other areas of the building by 1-hour fire barriers or 1-hour horizontal assemblies or both.
5. Cleaning establishments that utilize a liquid solvent having a flash point at or above 200°F (93°C).
6. Liquor stores and distributors without bulk storage.
7. Refrigeration systems.
8. The storage or utilization of materials for agricultural purposes on the premises.
9. Stationary batteries utilized for facility emergency power, uninterrupted power supply or telecommunication facilities, provided that the batteries are provided with safety venting caps and ventilation is provided in accordance with the *International Mechanical Code*.
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11. Buildings and structures occupied for aerosol storage shall be classified as Group S-1, provided that such buildings conform to the requirements of the *International Fire Code*.
12. Display and storage of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in quantities not exceeding the maximum allowable quantity per control area in Group M or S occupancies complying with Section 414.2.5.
13. The storage of black powder, smokeless propellant and small arms primers in Groups M and R-3 and special industrial explosive devices in Groups B, F, M and S, provided such storage conforms to the quantity limits and requirements prescribed in the *International Fire Code*.
14. Buildings storing mattresses containing polyurethane foam that have been tested and meet the criteria of 16 CFR Part 1633, Standard for the Flammability of Mattress Sets, shall not be considered Group H-3.

2. Add standard to Chapter 35 as follows:

CPSC 16 CFR Part 1633 Consumer Product Safety Commission Standard for the Flammability of Mattress Sets

Reason: Using the definitions set forth in the International Building Code Section 307.2, polyurethane foam has been identified to be a flammable solid. Tests have documented that polyurethane foam meets both the “burns so vigorously and persistently when ignited...” and the “self sustained flame rate of greater than 0.1 inch (2.5mm) per second...” benchmarks¹. This creates a large impact when assigning occupancy groups to storage and mercantile facilities that contain both upholstered furniture and mattresses. The proper application of the code with this new information would be to classify them as H-3 due to the presence of flammable solids. While this may not be widely known or understood by enforcers or the regulated community, it is nevertheless substantiated by current code language and laboratory analysis.

The proposed exception will provide a remedy for all Group S and M occupancies that store, display, and sell mattresses. The CPSC Standard 16 CFR Part 1633 tests the mattress assembly as it is produced which more accurately represents the hazard as a whole. As per section 1633.3(b) of the CPSC Standard, the mattress set is deemed to comply when the test specimen meets both of the following criteria: (1) The peak rate of heat release does not exceed 200 Kilowatts at any time within the 30 minute test and (2) The total heat release does not exceed 15 megajoules for the first ten minutes of the test. Without this exception, facilities that store, display or sell mattresses, like those facilities that store, display or sell upholstered furniture containing polyurethane foam, would be classified as Group H-3 occupancy.

¹ 16 CFR1500.44 Testing For National Association of State Fire Marshals on Poly Foam/ Vtec #100-2519-2/Tested: November 2, 2006. VTEC Laboratories Inc.

Cost Impact: This proposal will reduce the cost of construction.

Committee Action:

Disapproved

Committee Reason: The proposal was disapproved because the committee felt that it was beyond the scope and intent of the definition of flammable solid and an inappropriate attempt to get polyurethane foam designated as a flammable solid based on an inappropriate test standard that is intended for chemicals, not ordinary consumer products containing the foam material. Such a designation could have a negative impact on a variety of consumer issues including requiring otherwise ordinary occupancies to be classified as Group H due to the presence of polyurethane foam or products containing it, such as mattresses and upholstered furnishings. This is also consistent with the action taken on code change F288-07/08.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Robert J Davidson, Davidson Code Concepts, LLC, representing the National Association of State Fire Marshals (NASFM) requests Approval as Modified by this public comment.

Modify proposal as follows:

[F] 307.1 (IFC 202) (Supp) High-hazard Group H. High-hazard Group H occupancy includes, among others the use of a building or structure, or a portion thereof, that involves the manufacturing, processing, generation or storage of materials that constitute a physical or health hazard in quantities in excess of those allowed in control areas complying with Section 414, based on the maximum allowable quantity limits for control areas set forth in Tables 307.1(1) and 307.1(2). Hazardous occupancies are classified in Groups H-1, H-2, H-3, H-4 and H-5 and shall be in accordance with this section, the requirements of Section 415 and the *International Fire Code*.

Exceptions: The following shall not be classified as Group H, but shall be classified as the occupancy that they most nearly resemble.

1. Buildings and structures occupied for the application of flammable finishes, provided that such buildings or areas conform to the requirements of Section 416 and the *International Fire Code*.
2. Wholesale and retail sales and storage of flammable and combustible liquids in mercantile occupancies conforming to the *International Fire Code*.
3. Closed piping system containing flammable or combustible liquids or gases utilized for the operation of machinery or equipment.
4. Cleaning establishments that utilize combustible liquid solvents having a flash point of 140°F (60°C) or higher in closed systems employing equipment listed by an approved testing agency, provided that this occupancy is separated from all other areas of the building by 1-hour fire barriers or 1-hour horizontal assemblies or both.
5. Cleaning establishments that utilize a liquid solvent having a flash point at or above 200°F (93°C).
6. Liquor stores and distributors without bulk storage.
7. Refrigeration systems.
8. The storage or utilization of materials for agricultural purposes on the premises.
9. Stationary batteries utilized for facility emergency power, uninterrupted power supply or telecommunication facilities, provided that the batteries are provided with safety venting caps and ventilation is provided in accordance with the *International Mechanical Code*.
10. Corrosives shall not include personal or household products in their original packaging used in retail display or commonly used building materials.
11. Buildings and structures occupied for aerosol storage shall be classified as Group S-1, provided that such buildings conform to the requirements of the *International Fire Code*.
12. Display and storage of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in quantities not exceeding the maximum allowable quantity per control area in Group M or S occupancies complying with Section 414.2.5.
13. The storage of black powder, smokeless propellant and small arms primers in Groups M and R-3 and special industrial

explosive devices in Groups B, F, M and S, provided such storage conforms to the quantity limits and requirements prescribed in the *International Fire Code*.

14. ~~Buildings storing The use of mattresses containing polyurethane foam that have been tested and meet which comply with the criteria of 16 CFR Part 1633, Standard for the Flammability of Mattress Sets, shall not be considered Group H-3 or the storage or use of other polyurethane foam materials and products within buildings and structures that are protected with an automatic sprinkler system.~~

Commenter's Reason: During the code development hearing for this proposal there was testimony that polyurethane foam is a flammable solid based upon research and testing. Opponents objected to the proposal because they believed the code did not intend to regulate polyurethane foam as a flammable solid and because to do so would have a tremendous affect on numerous occupancies containing polyurethane foam products. There was testimony that the test standard currently contained within the International Codes was intended to apply to chemicals and is not the correct standard to apply to polyurethane foam products. There was industry based testimony that many other agencies don't regulate polyurethane foam as a hazardous material and as a result it should not be regulated by the International Building Code or International Fire Code as a hazardous material.

The National Association of State Fire Marshals and the Joint Fire Service Review Committee both objected to the specifics of the proposal based upon the application of the mattress test standard. The stated reason of those objections were that the referenced test standard applied to mattresses in use, i.e., the test dealt with single mattresses placed upon a frame for use as a bed. It did not address conditions where mattresses might be placed on edge, stacked or in storage. As worded the mattress standard was being misapplied.

The National Association of State Fire Marshals (NASFM) believes that according to the current provisions of the International Building Code and International Fire Code, polyurethane foam is a flammable solid.

Considerable background information was provided directly to the Fire Code Committee prior to the hearings concerning the classification of poly urethane foam as a flammable solid along with a comparison to how the codes are applied to other consumer products that are classified as hazardous materials. None of the committee members challenged the veracity of that information.

This information can be found at: <http://www.firemarshals.org/mission/catastrophic/furniture-stores-andfurniture-warehouses/>

The opponents correctly identified that regulating polyurethane foam as a hazardous material would have a wide impact on occupancies with many potentially being classified as H-3 Group occupancies. NASFM agrees with the potential impact. But NASFM does not agree that it is a legitimate reason to fail to correctly apply the code to a material that laboratory testing has identified as a flammable solid and that has been recognized as contributing significant fuel loads when fires occur.

Only five committee members spoke during committee deliberations. Two of those committee members clearly agreed with the classification of polyurethane foam as a flammable solid and the need for regulation addressing the hazard presented by the polyurethane foam products. One committee member stated that he did not believe he was not convinced that the polyurethane was a flammable solid and that he believed that the proposed language was misapplying the mattress test standard. One committee member repeated the assertions of industry representatives that the proposal was a backdoor attempt to bring polyurethane foam products into the code for regulation and was concerned about the effect on occupancies containing consumer products manufactured with polyurethane foam components. The fifth committee members stated that he believed the proposal was misapplying the test standard and that a proper test standard should be utilized.

None of the opponents or objecting committee members addressed the fact that as currently written, the definition for flammable solids found within the code clearly embraces the chemical properties of polyurethane foam as indicated in industry produced chemical safety MSDS for polyurethane foam and as verified by laboratory testing. The industry produces chemical safety MSDS for these products identifying the material as a "combustible solid" and listing the severe fire hazard the material presents and the fact that the material liquefies and burns in the same manner as a flammable liquid when involved in fire.

There is no question concerning the fire hazard presented by polyurethane foam and consumer products containing polyurethane foam. Research and laboratory testing has verified these hazards over and over. The same industry representatives that testified against proposals G29 and F288 proposed F135, a proposal that would require any mercantile occupancy used primarily for the display and sale of upholstered furniture to be protected with an automatic sprinkler system regardless of size. In testifying the industry representatives stated they were doing so because they wanted to protect the public and emergency responders from the fire hazard presented by the presence of polyurethane foam products. The committee approved the proposal as modified by removing the word primarily so the requirement would apply regardless of how much upholstered furniture was present. Part of the committee reason for approving the motion was:

"The proposal was approved because the committee felt that it is a good first step supported by the furniture industry in attempting to deal with the hazards presented by upholstered furniture."

The hazards presented by the upholstered furniture is due to the fact that polyurethane foam products are a flammable solid based upon descriptions contained within the chemical safety MSDS produced by polyurethane manufacturers, based upon the documented manner in which polyurethane reacts when exposed to sources of ignition and based upon laboratory testing. The committee's decision in F135 conflicts with its written reason for the decision in G29 and F288. Instead of sticking to the science and technical aspects of applying the code to the hazard presented it appears that some committee members allowed the potential effect on other occupancies of recognizing polyurethane foam as a flammable solid utilizing current code language.

This public comment to approve G29 and F288 as modified is intended to address several issues. It correctly applies the CPSC mattress standard by providing an exception for mattresses meeting the standard when positioned for use. The new wording limits the application of the standard to address testimony at the hearings and the decision of the committee. The modified language also builds upon the testimony of the industry representatives when F135 was considered by the committee and the statement of the committee that the requirement for automatic fire sprinkler protection in mercantile occupancies was a good first step to addressing the fire hazard presented by polyurethane foam. It does this by providing an exception from the current code requirements concerning flammable solids for any occupancy protected by an automatic fire sprinkler system.

We note that no one has refuted the position that polyurethane foam presents a severe fire potential and that when involved in fire it endangers lives and occupancies. No one has refuted how readily polyurethane foam will burn when exposed to an ignition source and that even fire retardant treated polyurethane foam products will burn vigorously when exposed to a flame source. No one has proposed changing the definition of a flammable solid currently contained within the code, a definition that clearly applies to products that react the way polyurethane foam does when tested in accordance with the current standard.

IBC [F] 307.2 Definitions "FLAMMABLE SOLID. A solid, other than a blasting agent or explosive, that is capable of causing fire through friction, absorption or moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which has an ignition temperature below 212°F (100°C) or which burns so vigorously and persistently when ignited as to create a serious hazard. A chemical shall be considered a flammable solid as determined in accordance with the test method of CPSC 16 CFR; Part 1500.44, if it ignites and burns with a self-sustained flame at a rate greater than 0.1 inch (2.5 mm) per second along its major axis."

This public comment addresses a recognized fire and life safety hazard and provides an exception that many existing occupancies already meet, that most if not all newly constructed occupancies meet, and that any occupancy can meet by simply limiting the amount of polyurethane material that is present or by installing an automatic fire sprinkler system.

Final Action: AS AM AMPC___ D

G30-07/08

308.3 (IFC [B] 202), 308.3.1(IFC [B] 202)

Proposed Change as Submitted:

Proponent: Roger Severson, RSA Consulting, representing the Oregon Department of Health Services

1. Revise as follows:

308.3 (IFC [B] 202) Group I-2. This occupancy shall include buildings and structures used for medical, surgical, psychiatric, nursing or custodial care ~~on a 24-hour basis for more than five~~ persons who are not capable of self-preservation. This group shall include, but not be limited to, the following:

- Hospitals
- Nursing homes ~~(both intermediate care facilities and skilled nursing facilities)~~
- Mental hospitals
- Detoxification facilities

~~A facility such as the above with five or fewer persons shall be classified as Group R-3 or shall comply with the *International Residential Code*.~~

2. Revise as follows:

308.3.1 (IFC [B] 202) Definitions. The following words and terms shall, for the purposes of this section and as used elsewhere in this code, have the meanings shown herein.

~~CHILD CARE FACILITY FACILITIES.~~ A Child care ~~facility~~ facilities that provides care on a 24-hour basis to more than five children, 2¹/₂ years of age or less, shall be classified as Group I-2.

DETOXIFICATION FACILITY. Detoxification facilities serve patients who are provided treatment for substance abuse on a 24-hour basis and who are incapable of self-preservation or who are harmful to others.

HOSPITALS AND MENTAL HOSPITALS. A building or portion thereof used on a 24-hour basis for the medical, psychiatric, obstetrical, or surgical treatment of inpatients who are incapable of self-preservation.

NURSING HOMES. Nursing homes are long-term care facilities on a 24-hour basis, including both intermediate care facilities and skilled nursing facilities, serving more than five persons and any of the persons are incapable of self-preservation.

Reason: (Note: Sections 308.1 and 308.2 are unchanged. Section 308.3 is amended for greater conformity of specific facility functions by moving the "hourly basis" and the number of persons into definitions specific to each topic.) A new facility title has been added which works in concert with an amendment to Section 304.1, clinic-outpatient. This new facility reference is for Ambulatory Health Care Facilities and completes the package for outpatient care where patients are not capable of self-preservation.

The only existing sub-section in 308.3 is for Child Care Facilities. Because it is written to look like a defined statement, it's section was changed to become a definitions section and the title and content for Child care facilities was added to the new list of definitions.

The reference to R-3 is deleted because I-2 health care facilities, such as these, are not legally capable of operating in R-3 occupancies, regardless of the number of patients.

Cost Impact For facilities abiding by the requirements for federal funding, or for those areas who are modifying the code in a similar respect, the code change proposal will not increase the cost of construction.

However, for areas where outpatient clinics are allowed to provide services that would render patients incapable of self-preservation and be classified as a B occupancy, there would be an increase to the cost of construction.

Additionally, when a facility is not built to the standards required to receive federal funding, and they would then choose to become certified, another additional cost could be imposed upon the facility.

Committee Action:

Approved as Modified

Modify the proposal as follows:

DETOXIFICATION FACILITY. Detoxification facilities serve patients who are provided treatment for substance abuse on a 24-hour basis and who are incapable of self-preservation or who are harmful to themselves or others.

(Portions of proposal not shown remain unchanged)

Committee Reason: This proposal will help to better determine the types of facilities during the plan review process. The modification further clarifies that detoxification facilities focus on not only the patients possibly harming others but also focuses on the fact that they may be a harm to themselves.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Paul K. Heilstedt, PE, FAIA, Chair, representing ICC Code Technology Committee (CTC) requests Disapproval.

Commenter's Reason: The proposal violates one of the fundamental tenants of code development – prescribing requirements within a definition. The proposal deletes the phrase “on a 24 hour basis” from the general description of an I-2 in Section, placing reliance on the user to go to the definition to realize that the occupancy is predicated on a 24 hour basis. As a definition, it is very likely this will be overlooked and needs to be part of the specific description of the occupancy in Chapter 3.

Further, while well intentioned in providing definitions for terms used in the code (detoxification facilities; hospital; mental hospital; and nursing homes) the proposed definitions include further laundry lists of terms that if not all inclusive, will lead to inconsistent application and enforcement.

The CTC is comprehensively looking at all the code requirements within their area of study entitled “Care Facilities” and will be submitting a package of code changes in the 2009/2010 cycle.

Code issues are assigned to the CTC by the ICC Board as “areas of study”. Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/cc/ctc/index.html>. Since its inception in April/2005, the CTC has held fifteen meetings - all open to the public. This public comment is a result of the CTC's investigation of the area of study entitled “Care Facilities”. The CTC web page for this area of study is: <http://www.iccsafe.org/cs/cc/ctc/care.html>

Final Action: AS AM AMPC____ D

G32-07/08 **308.5.1 (IFC [B] 202)**

Proposed Change as Submitted:

Proponent: Sana Touma, City of Mansfield, TX, representing the North Texas Chapter, ICC

Revise as follows:

308.5.1 (IFC [B] 202) (Supp) Adult care facility. A facility that provides accommodations for less than 24 hours for more than five unrelated adults and provides supervision and personal care services shall be classified as Group I-4.

Exception: A facility where occupants are capable of responding to an emergency situation without physical assistance from the staff shall be classified as Group R-3 when providing accommodations for five or fewer, Group B when providing accommodations for more than five and less than 50, and Group A-3 when providing accommodations for 50 or more.

Reason: The purpose of this code change is to clarify and to clearly state that adult care facilities shall be considered as a Group R-3 only when the occupant load does not exceed five persons capable of responding to an emergency and where the length of stay is less than 24 hours. The code historically permitted a small daycare operation to be classified as a Group R-3 and have the same code requirements as a single family home; however the code limited Group R-3 to those facilities providing accommodations to five or less. It is also reasonable and most fitting to classify more than five but less than 50 persons capable of responding to an emergency as a Group B. When the occupant load is 50 or more Group A-3 is the most appropriate choice. This clarification is need for the proposed language in the 2007 Supplement and to clarify that a daycare classified as a Group R-3 is not unlimited to how many people it may accommodate.

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

Committee Action:

Approved as Submitted

Committee Reason: The committee felt that G32-07/08 provided a better approach than G31-07/08. This proposal provides appropriate ranking procedure to determine occupancy classification for differing sizes of adult care facilities.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Paul K. Heilstedt, PE, FAIA, Chair, representing ICC Code Technology Committee (CTC) requests Disapproval.

Commenter's Reason: Unfortunately, while the code committee noted their preference for G32 over G31, the reason for their action is not consistent with their rationale. Code change G32 was disapproved. This proposal includes a change from R-3 to A-3 in the exception to 308.5.1 for adult care facilities where the occupants are capable of responding without physical assistance. The reason for the action states, "The sprinkler criterion for Group R-3 occupancies is more appropriate than that for Group A-3 occupancies due to the abilities of the occupants of these facilities."

However, the approval of G32 basically reinstates the requirement for A-3 while at the same time requires a facility with 5 or less to be sprinklered as an R-3 but when the occupant load increases to 5-50 it is a B and greater than 50 it is an A-3; neither of which is sprinklered. In other words, within the code itself, as the occupant load increases, the level of protection would decrease based on the approval of G32.

The CTC is comprehensively looking at all the code requirements within their area of study entitled "Care Facilities" and will be submitting a package of code changes in the 2009/2010 cycle.

Code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/cc/ctc/index.html>. Since its inception in April/2005, the CTC has held fifteen meetings - all open to the public. This public comment is a result of the CTC's investigation of the area of study entitled "Care Facilities". The CTC web page for this area of study is: <http://www.iccsafe.org/cs/cc/ctc/care.html>

Final Action: AS AM AMPC____ D

G33-07/08, Part I

302.1, 308.1 (IFC 202), 308.6 (IFC 202), 409 (New), Table 503, 508.3.3, Table 508.4, 708.1

Proposed Change as Submitted:

Proponent: Tom Lariviere, Madison Fire Department, MS, representing the Joint Fire Service Review Committee

PART I – IBC GENERAL

1. Add new text as follows:

308.6 (IFC 202) Group I-5. This occupancy includes buildings or structures, or portions thereof, used to provide treatment for more than three persons on an outpatient basis that reduces the patient's ability of taking action for self-preservation without assistance from others due to the actual treatment procedures or due to the use of general anesthesia.

2. Revise as follows:

308.1 (IFC 202) Institutional Group I. Institutional Group I occupancy includes, among others, the use of a building or structure, or a portion thereof, in which people are cared for or live in a supervised environment, having physical limitations because of health or age are harbored for medical treatment or other care or treatment, or in which people are detained for penal or correctional purposes or in which the liberty of the occupants is restricted. Institutional occupancies shall be classified as Group I-1, I-2, I-3, ~~or~~ I-4 and I-5.

3. Revise as follows:

302.1 General. Structures or portions of structures shall be classified with respect to occupancy in one or more of the groups listed below. A room or space that is intended to be occupied at different times for different purposes shall comply with all of the requirements that are applicable to each of the purposes for which the room or space will be occupied. Structures with multiple occupancies or uses shall comply with Section 508. Where a structure is proposed for a purpose that is not specifically provided for in this code, such structure shall be classified in the group that the occupancy most nearly resembles, according to the fire safety and relative hazard involved.

1. Assembly (see Section 303): Groups A-1, A-2, A-3, A-4 and A-5
2. Business (see Section 304): Group B

3. Educational (see Section 305): Group E
4. Factory and Industrial (see Section 306): Groups F-1 and F-2
5. High Hazard (see Section 307): Groups H-1, H-2, H-3, H-4 and H-5
6. Institutional (see Section 308): Groups I-1, I-2, I-3 and I-4 and I-5
7. Mercantile (see Section 309): Group M
8. Residential (see Section 310): Groups R-1, R-2, R-3 and R-4
9. Storage (see Section 311): Groups S-1 and S-2
10. Utility and Miscellaneous (see Section 312): Group U

4. Add new text as follows:

SECTION 409
GROUP I-5

409.1 General. Occupancies in Group I-5 shall comply with the provisions of this section and other applicable provisions of this code.

409.2 Occupancy and tenant separation. Group I-5 occupancies shall be separated from other tenants and occupancies by fire partitions with at least a one-hour fire-resistance rating. Doors in such partitions shall be solid core wood of $1\frac{3}{4}$ inches or equivalent and shall be equipped with a closing device and positive latch. Vision panels in fire partitions or doors, if provided, shall be fixed fire window assemblies in accordance with Table 715.5.

Exception Mixed-use occupancies classified as separated occupancies which meet the requirements of Section 508.3.3.

409.3 Smoke barriers. Smoke barriers shall be provided to subdivide every story used by patients for sleeping or treatment and to divide other stories with an occupant load of 50 or more persons, into at least two smoke compartments.

Exceptions:

1. Facilities of less than 5,000 square feet (465 m²) protected by an approved automatic smoke detection system installed in accordance with Section 907.
2. Facilities of less than 10,000 square feet (930 m²) protected throughout by an approved, supervised automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.

Such stories shall be divided into smoke compartments with an area of not more than 22,500 square feet (2092 m²) and the travel distance from any point in a smoke compartment to a smoke barrier door shall not exceed 200 feet (61 m). The smoke barrier shall be in accordance with Section 709.

409.3.1 Refuge area. On floors not housing patients confined to a bed or litter, a minimum of 6 net square feet (0.56 m²) per occupant shall be provided on each side of each smoke barrier for the total number of occupants in adjoining smoke compartments. On floors housing patients confined to a bed or litter, a minimum of 15 net square feet (2.8 m²) per patient shall be provided within the aggregate area of corridors, patient rooms, treatment rooms, lounge or dining areas and other similar areas on each side of each smoke barrier.

409.3.2 Independent egress. A means of egress shall be provided from each smoke compartment without having to return through the smoke compartment from which means of egress originated.

409.3.3 Adjoining occupancies. An area in an adjoining occupancy shall be permitted to serve as a smoke compartment for a Group I-5 occupancy where all of the following criteria are met:

1. The separating wall and both compartments meet the requirements of Section 409.3 through 409.3.3.
2. The Group I-5 occupancy is less than 22,500 square feet (2092 m²).
3. Access from the Group I-5 occupancy to the other occupancy is unrestricted.

5. Revise as follows:

**TABLE 503
ALLOWABLE HEIGHT AND AREAS^a**
Height limitations shown as stories and feet above grade plane.
Area limitations as determined by the definition of "Area, building," per story

| GROUP | HEIGHT (feet) HGT(S) | TYPE OF CONSTRUCTION | | | | | | | | |
|-------|----------------------------|------------------------|------------------------|---------------------------|---------------------------------------|---------------------------|---------------------------------------|---------------------------|---------------------------|--------------------------------------|
| | | TYPE I | | TYPE II | | TYPE III | | TYPE IV | TYPE V | |
| | | A | B | A | B | A | B | HT | A | B |
| | | UL | 160 | 65 | 55 | 65 | 55 | 65 | 50 | 40 |
| I-5 | <u>S</u> <u>A</u> | <u>UL</u> <u>UL</u> | <u>11</u> <u>UL</u> | <u>5</u> <u>37,500</u> | <u>4^e</u> <u>23,000</u> | <u>5</u> <u>28,500</u> | <u>4^e</u> <u>19,000</u> | <u>5</u> <u>36,000</u> | <u>3</u> <u>18,000</u> | <u>2^e</u> <u>9,000</u> |

e. Type IIB, IIIB and VB shall not be permitted for I-5 occupancies located below the level of exit discharge. No Group I-5 occupancy shall not be located more than one floor below the level of exit discharge in Types IIIA, IV or VA construction.

(Portions of table and footnotes not shown remain unchanged)

6. Revise as follows:

508.3.3 (Supp) Separation. No separation is required between occupancies.

Exceptions:

1. Group H-2, H-3, H-4 or H-5 occupancies shall be separated from all other occupancies in accordance with Section 508.3.3.
2. Group I-5 occupancies shall be separated from all other occupancies in accordance with Section 409.2.

7. Revise as follows:

**TABLE 508.4 (Supp)
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)**

| OCCUPANCY | A ^d , E | | † I-1, I-2, I-3, I-4 | | I-5 | | R ^c | | F-2, S-2 ^{b,c} , U ^c | | B, F-1, M, S-1 | | H-1 | | H-2 | | H-3, H-4, H-5 | |
|--|--------------------|----|----------------------|----|-----|----|----------------|----|--|----|----------------|----|-----|----|-----|----|---------------|----------------|
| | S | NS | S | NS | S | NS | S | NS | S | NS | S | NS | S | NS | S | NS | S | NS |
| A ^d , E ^d | N | N | 1 | 2 | 2 | 2 | 1 | 2 | N | 1 | 1 | 2 | NP | NP | 3 | 4 | 2 | 3 ^a |
| † I-1, I-2, I-3, I-4 | — | — | N | N | 2 | 2 | 1 | NP | 1 | 2 | 1 | 2 | NP | NP | 3 | NP | 2 | NP |
| I-5 | — | — | — | — | N | N | 2 | NP | 2 | 2 | 2 | 2 | NP | NP | 3 | NP | 2 | NP |
| R ^c | — | — | — | — | — | — | N | N | 1 | 2 | 1 | 2 | NP | NP | 3 | NP | 2 | NP |
| F-2, S-2 ^{b,c} , U ^d | — | — | — | — | — | — | — | — | N | N | 1 | 2 | NP | NP | 3 | 4 | 2 | 3 ^a |
| B, F-1, M, S-1 | — | — | — | — | — | — | — | — | — | — | N | N | NP | NP | 2 | 3 | 1 | 2 ^a |
| H-1 | — | — | — | — | — | — | — | — | — | — | — | — | N | NP | NP | NP | NP | NP |
| H-2 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | N | NP | 1 | NP |
| H-3, H-4, H-5 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | N | NP |

S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

N = No separation requirement.

NP = Not permitted.

- a. For Group H-5 occupancies, see Section 903.2.4.2.
- b. Areas used only for private or pleasure vehicles shall be allowed to reduce separation by 1 hour.
- c. See Section 406.1.4.
- d. Commercial kitchens need not be separated from the restaurant seating areas that they serve.
- e. See Section 409.2 for Group I-5 occupancies.

708.1 (Supp) General. The following wall assemblies shall comply with this section.

- 1. Walls separating dwelling units in the same building as required by Section 419.2.
- 2. Walls separating sleeping units in the same building as required by Section 419.2.
- 3. Walls separating tenant spaces in covered mall buildings as required by Section 402.7.2.
- 4. Corridor walls as required by Section 1017.1.
- 5. Elevator lobby separation as required by Section 707.14.1.
- 6. Walls separating Group I-5 occupancies from other occupancies and tenants as required by Section 409.2.

Reason: This proposal establishes a new Group I-5 occupancy for Ambulatory Surgical Care Facilities. Currently the IBC classifies these facilities as Group B occupancies. These facilities typically include patients who are not capable of self-preservation in an emergency. These new provisions will provide a level of safety by bringing the ambulatory surgical centers to a higher level of protection, however not quite provide as high a level of safety equivalent to a Group I-2 occupancy.

It is not sensible, to allow the patients to be in a position of unconsciousness, sometimes for hours, and not provide a higher level of protection. This includes level of safety for fire suppression, construction, flame spread, etc. This proposal establishes this occupancy as a separate occupancy but does not require 24 hour stay. The concept of currently allowing a patient to be totally subject to someone else to provide evacuation and care for them when they are unconscious should not be occurring in a B occupancy. In a B occupancy, occupants are awake, they are aware, they are capable of fending for themselves.

This proposal includes height and area, construction allowances, egress requirements, fire drill and evacuation plans, plumbing requirements, separation requirements, and smoke barrier construction. Fire sprinklers and fire alarm will be required since this occupancy will be an I occupancy.

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

Analysis: Note that the changes proposed in Parts II through V of this change are dependent upon the outcome in Part I.

PART I – IBC GENERAL

Committee Action:

Disapproved

Committee Reason: The committee preferred G23-07/08 to this proposal but there were aspects that were felt to be beneficial. It was suggested that some of the concepts of this proposal should be combined into G23. Generally classifying as a B occupancy instead of I is easier as a whole new certificate of occupancy for an existing building converting to a ambulatory health care facility would not be required. Also, the proposal refers to "general anesthesia" versus other types of anesthesia which can also render people incapable of self preservation.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Tom Lariviere, Madison Fire Department, MS, representing the Joint Fire Service Review Committee requests Approval as Submitted for Part I.

Commenter's Reason: The Code Development Committee disapproved this item because the code change proposal they had already approved placed a Surgical Center into a B occupancy classification in Item G23. However, the difference between a surgical center and a typical B occupancy is that in the surgical center the occupants are not capable of self-preservation as they typically are in a B occupancy. The idea of self-preservation is commonly accepted as general criteria for Group B occupancies. However, facilities where self-preservation is restricted or occupants are incapable are classified into the Group I occupancies and therefore the inclusion of this new occupancy as an I-5 occupancy is appropriate.

Admittedly, when you evaluate the construction requirements of the I-5 occupancy, they are quite similar to a B occupancy. However, when you evaluate the fire and life safety requirements of the I-5 occupancy, they are not similar to a B occupancy, but are similar to an I occupancy. That is because of the need to provide a higher level of safety for occupants who cannot escape on their own. Patients have received anesthesia, patients may not be able to egress on their own, assisted egress of patients creates delays, etc. therefore, the appropriate classification for the ambulatory surgical center is as an I-5 occupancy.

This Public Comment will provide consistency and correlation of the IBC with mandated Federal Regulations for Ambulatory Surgical Centers. Without the inclusion of this information in the I-Codes, a new facility could be constructed and completed only to find out that they need to go back and revise the facility to comply with the Federal regulations. If the I-Codes contain these requirements, it will eliminate confusion and frustration on the part of the owner/developer and eliminate finger pointing after the code official has "approved" the facility.

Final Action: AS AM AMPC____ D

G33-07/08, Part II

Table 803.9, 804.4.1,

Proposed Change as Submitted:

Proponent: Tom Lariviere, Madison Fire Department, MS, representing the Joint Fire Service Review Committee

PART II – IBC FIRE SAFETY

Revise as follows:

**TABLE 803.9 (Supp)
INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY**

| GROUP | SPRINKLERED | | | UNSPRINKLERED | | |
|------------------------|--------------------------------------|-----------|---------------------------|---|-----------|--|
| | Exit enclosures and exit passageways | Corridors | Rooms and enclosed spaces | Exit enclosures and exit passageways ^{a,b} | Corridors | Rooms and enclosed spaces ^c |
| B, E, M, R-1, R-4, I-5 | B | C | C | A | B | C |

(Portions of table and footnotes not shown remain unchanged)

804.4.1 Minimum critical radiant flux. Interior floor finish and floor covering materials in exit enclosures, exit passageways and corridors shall not be less than Class I in Groups I-2 and I-3 and not less than Class II in Groups A, B, E, H, I-4, I-5, M, R-1, R-2 and S. In all areas, floor covering materials shall comply with the DOC FF-1 “pill test” (CPSC 16 CFR, Part 1630).

Exception: Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, Class II materials are permitted in any area where Class I materials are required, and materials complying with the DOC FF-1 “pill test” (CPSC 16 CFR, Part 1630) are permitted in any area where Class II materials are required.

Reason: This proposal establishes a new Group I-5 occupancy for Ambulatory Surgical Care Facilities. Currently the IBC classifies these facilities as Group B occupancies. These facilities typically include patients who are not capable of self-preservation in an emergency. These new provisions will provide a level of safety by bringing the ambulatory surgical centers to a higher level of protection, however not quite provide as high a level of safety equivalent to a Group I-2 occupancy.

It is not sensible, to allow the patients to be in a position of unconsciousness, sometimes for hours, and not provide a higher level of protection. This includes level of safety for fire suppression, construction, flame spread, etc. This proposal establishes this occupancy as a separate occupancy but does not require 24 hour stay. The concept of currently allowing a patient to be totally subject to someone else to provide evacuation and care for them when they are unconscious should not be occurring in a B occupancy. In a B occupancy, occupants are awake, they are aware, they are capable of fending for themselves.

This proposal includes height and area, construction allowances, egress requirements, fire drill and evacuation plans, plumbing requirements, separation requirements, and smoke barrier construction. Fire sprinklers and fire alarm will be required since this occupancy will be an I occupancy.

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

Analysis: Note that the changes proposed in Parts II through V of this change are dependent upon the outcome in Part I.

PART II – IBC FIRE SAFETY

Committee Action:

Disapproved

Committee Reason: The committee agreed that the proposed I-5 requirements were not necessary based on the actions of the IBC General, IBC Means of Egress and IPC Committees, and that these requirements were possibly redundant when compared to other Institutional Group requirements.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Tom Lariviere, Madison Fire Department, representing the Joint Fire Service Review Committee requests Approval as Submitted for Part II.

Commenter's Reason: The Code Development Committee disapproved this item because the code change proposal they had already approved placed a Surgical Center into a B occupancy classification in Item G23. However, the difference between a surgical center and a typical B occupancy is that in the surgical center the occupants are not capable of self-preservation as they typically are in a B occupancy. The idea of self-preservation is commonly accepted as general criteria for Group B occupancies. However, facilities where self-preservation is restricted or occupants are incapable are classified into the Group I occupancies and therefore the inclusion of this new occupancy as an I-5 occupancy is appropriate.

Admittedly, when you evaluate the construction requirements of the I-5 occupancy, they are quite similar to a B occupancy. However, when you evaluate the fire and life safety requirements of the I-5 occupancy, they are not similar to a B occupancy, but are similar to an I occupancy. That is because of the need to provide a higher level of safety for occupants who cannot escape on their own. Patients have received anesthesia, patients may not be able to egress on their own, assisted egress of patients creates delays, etc. therefore, the appropriate classification for the ambulatory surgical center is as an I-5 occupancy.

This Public Comment will provide consistency and correlation of the IBC with mandated Federal Regulations for Ambulatory Surgical Centers. Without the inclusion of this information in the I-Codes, a new facility could be constructed and completed only to find out that they need to go back and revise the facility to comply with the Federal regulations. If the I-Codes contain these requirements, it will eliminate confusion and frustration on the part of the owner/developer and eliminate finger pointing after the code official has "approved" the facility.

Final Action: AS AM AMPC____ D

G33-07/08, Part III

1014.2.3 (IFC [B] 1014.2.3), Table 1016.1 (IFC [B] Table 1016.1), Table 1017.1 (IFC [B] Table 1017.1), 1017.3 (IFC [B] 1017.3)

Proposed Change as Submitted:

Proponent: Tom Lariviere, Madison Fire Department, MS, representing the Joint Fire Service Review Committee

PART III – IBC MEANS OF EGRESS

1. Add new text as follows:

1014.2.3 (IFC [B]1014.2.3) Group I-5. In Group I-5 occupancies, any room or suite of rooms of more than 2,500 square feet (232 m²) shall have at least two exit access doors remotely located from each other.

(Renumber subsequent sections)

2. Revise as follows:

**TABLE 1016.1 (IFC [B] TABLE 1016.1)
CORRIDOR FIRE RESISTANCE RATING EXIT ACCESS TRAVEL DISTANCE**

| OCCUPANCY | WITHOUT SPRINKLER SYSTEM (feet) | WITH SPRINKLER SYSTEM^d (feet) |
|--------------------|--|---|
| I-2, I-3, I-4, I-5 | 150 | 200 |

(Portions of table not shown remain unchanged)

For SI: 1 foot = 304.8 mm.

a. See the following sections for modifications to exit access travel distance requirements:

- Section 402: For the distance limitation in malls.
- Section 404: For the distance limitation through an atrium space.
- Section 1016.2 For increased limitations in Groups F-1 and S-1.
- Section 1025.7: For increased limitation in assembly seating.
- Section 1025.7: For increased limitation for assembly open-air seating.
- Section 1019.2: For buildings with one exit.
- Chapter 31: For the limitation in temporary structures.

- b. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where automatic sprinkler systems in accordance with Section 903.3.1.2 are permitted.
- c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

d. The length of exit access travel between any occupiable room door and the exit shall not exceed 150 feet in Group I-5 occupancies.

**TABLE 1017.1 (IFC [B] TABLE 1017.1)
CORRIDOR FIRE-RESISTANCE RATING**

| OCCUPANCY | OCCUPANT LOAD SERVED BY CORRIDOR | REQUIRED FIRE-RESISTANCE RATING | |
|-----------------------------|----------------------------------|---------------------------------|-----------------------|
| | | Without sprinkler system | With sprinkler system |
| I-2 ^a , I-4, I-5 | All | NP | 0 |

(Portions of table and footnotes not shown remain unchanged)

1017.3 (Supp) (IFC [B] 1017.3) Dead ends. Where more than one exit or exit access doorway is required, the exit access shall be arranged such that there are no dead ends in corridors more than 20 feet (6096 mm) in length.

Exceptions:

1. In ~~Group I-3~~ occupancies in ~~Group I-3~~ of Occupancy Condition 2, 3 or 4 (see Section 308.4), the dead end in a corridor shall not exceed 50 feet (15 240 mm).
2. In ~~occupancies in~~ Group B, E, F, I-1, I-5, M, R-1, R-2, R-4, S, and U occupancies, where the building is equipped throughout with an automatic sprinkler system in accordance with 903.3.1.1, the length of the dead-end corridors shall not exceed 50 feet (15 240 mm).
3. A dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.

Reason: This proposal establishes a new Group I-5 occupancy for Ambulatory Surgical Care Facilities. Currently the IBC classifies these facilities as Group B occupancies. These facilities typically include patients who are not capable of self-preservation in an emergency. These new provisions will provide a level of safety by bringing the ambulatory surgical centers to a higher level of protection, however not quite provide as high a level of safety equivalent to a Group I-2 occupancy.

It is not sensible, to allow the patients to be in a position of unconsciousness, sometimes for hours, and not provide a higher level of protection. This includes level of safety for fire suppression, construction, flame spread, etc. This proposal establishes this occupancy as a separate occupancy but does not require 24 hour stay. The concept of currently allowing a patient to be totally subject to someone else to provide evacuation and care for them when they are unconscious should not be occurring in a B occupancy. In a B occupancy, occupants are awake, they are aware, they are capable of fending for themselves.

This proposal includes height and area, construction allowances, egress requirements, fire drill and evacuation plans, plumbing requirements, separation requirements, and smoke barrier construction. Fire sprinklers and fire alarm will be required since this occupancy will be an I occupancy.

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

Analysis: Note that the changes proposed in Parts II through V of this change are dependent upon the outcome in Part I.

PART III – IBC MEANS OF EGRESS

Committee Action:

Disapproved

Committee Reason: Technical justification was not provided for the new Group I-5 travel distance in Table 1016.1, footnote d. It is not clear which door would be used to measure travel distance. G23-07/08 developed by the Code Technologies Committee may provide a better approach to this issue.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Tom Lariviere, Madison Fire Department, representing the Joint Fire Service Review Committee requests Approval as Submitted for Part III.

Commenter's Reason: The Code Development Committee disapproved this item because the code change proposal they had already approved placed a Surgical Center into a B occupancy classification in Item G23. However, the difference between a surgical center and a typical B occupancy is that in the surgical center the occupants are not capable of self-preservation as they typically are in a B occupancy. The idea of self-preservation is commonly accepted as general criteria for Group B occupancies. However, facilities where self-preservation is restricted or occupants are incapable are classified into the Group I occupancies and therefore the inclusion of this new occupancy as an I-5 occupancy is appropriate.

Admittedly, when you evaluate the construction requirements of the I-5 occupancy, they are quite similar to a B occupancy. However, when you evaluate the fire and life safety requirements of the I-5 occupancy, they are not similar to a B occupancy, but are similar to an I occupancy. That is because of the need to provide a higher level of safety for occupants who cannot escape on their own. Patients have received anesthesia, patients may not be able to egress on their own, assisted egress of patients creates delays, etc. therefore, the appropriate classification for the ambulatory surgical center is as an I-5 occupancy.

This Public Comment will provide consistency and correlation of the IBC with mandated Federal Regulations for Ambulatory Surgical Centers. Without the inclusion of this information in the I-Codes, a new facility could be constructed and completed only to find out that they need to go back and revise the facility to comply with the Federal regulations. If the I-Codes contain these requirements, it will eliminate confusion and frustration on the part of the owner/developer and eliminate finger pointing after the code official has "approved" the facility.

Final Action: AS AM AMPC___ D

G33-07/08, Part IV

IFC 408.6, Table 803.3, 807.1 (IBC [F] 806.1)

Proposed Change as Submitted:

Proponent: Tom Lariviere, Madison Fire Department, MS, representing the Joint Fire Service Review Committee

PART IV – IFC

Revise as follows:

408.6 Group I-2 and I-5 occupancies. Group I-2 and I-5 occupancies shall comply with the requirements of Sections 408.6.1 and 408.6.2 and Sections 401 through 406. Drills are not required to comply with the time requirements of Section 405.4.

TABLE 803.3
INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY

| GROUP | SPRINKLERED | | | UNSPRINKLERED | | |
|------------------------|--------------------------------------|-----------|---------------------------|---|-----------|--|
| | Exit enclosures and exit passageways | Corridors | Rooms and enclosed spaces | Exit enclosures and exit passageways ^{a,b} | Corridors | Rooms and enclosed spaces ^c |
| B, E, M, R-1, R-4, I-5 | B | C | C | A | B | C |

(Portions of table and footnotes not shown remain unchanged)

807.1 (IBC [F] 806.1) General requirements. In occupancies in Groups A, E, I and R-1 and dormitories in Group R-2, curtains, draperies, hangings and other decorative materials suspended from walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 806.2 or be noncombustible.

In Groups I-1, and I-2 and I-5, combustible decorative materials shall meet the flame propagation criteria of NFPA 701 unless the decorative materials, including, but not limited to, photographs and paintings, are of such limited quantities that a hazard of fire development or spread is not present. In Group I-3, combustible decorative materials are prohibited.

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

In Group B and M occupancies, fabric partitions suspended from the ceiling and not supported by the floor shall meet the flame propagation performance criteria in accordance with Section 807.2 and NFPA 701 or shall be noncombustible.

Reason: This proposal establishes a new Group I-5 occupancy for Ambulatory Surgical Care Facilities. Currently the IBC classifies these facilities as Group B occupancies. These facilities typically include patients who are not capable of self-preservation in an emergency. These new provisions will provide a level of safety by bringing the ambulatory surgical centers to a higher level of protection, however not quite provide as high a level of safety equivalent to a Group I-2 occupancy.

It is not sensible, to allow the patients to be in a position of unconsciousness, sometimes for hours, and not provide a higher level of protection. This includes level of safety for fire suppression, construction, flame spread, etc. This proposal establishes this occupancy as a separate occupancy but does not require 24 hour stay. The concept of currently allowing a patient to be totally subject to someone else to provide evacuation and care for them when they are unconscious should not be occurring in a B occupancy. In a B occupancy, occupants are awake, they are aware, they are capable of fending for themselves.

This proposal includes height and area, construction allowances, egress requirements, fire drill and evacuation plans, plumbing requirements, separation requirements, and smoke barrier construction. Fire sprinklers and fire alarm will be required since this occupancy will be an I occupancy.

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

Analysis: Note that the changes proposed in Parts II through V of this change are dependent upon the outcome in Part I.

PART IV – IFC

Committee Action:

Disapproved

Committee Reason: Proponent requested disapproval in favor of code change G23-07/08. This proposal would be in conflict with the Federal threshold of 1 person. Also, this subject is in the process of on-going review by the ICC Code Technology Committee's Care Study Group.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment 1:

Tom Lariviere, Madison Fire Department, MS, representing the Joint Fire Service Review Committee requests Approval as Submitted for Part IV.

Commenter's Reason: The Code Development Committee disapproved this item because the code change proposal they had already approved placed a Surgical Center into a B occupancy classification in Item G23. However, the difference between a surgical center and a typical B occupancy is that in the surgical center the occupants are not capable of self-preservation as they typically are in a B occupancy. The idea of self-preservation is commonly accepted as general criteria for Group B occupancies. However, facilities where self-preservation is restricted or occupants are incapable are classified into the Group I occupancies and therefore the inclusion of this new occupancy as an I-5 occupancy is appropriate.

Admittedly, when you evaluate the construction requirements of the I-5 occupancy, they are quite similar to a B occupancy. However, when you evaluate the fire and life safety requirements of the I-5 occupancy, they are not similar to a B occupancy, but are similar to an I occupancy. That is because of the need to provide a higher level of safety for occupants who cannot escape on their own. Patients have received anesthesia, patients may not be able to egress on their own, assisted egress of patients creates delays, etc. therefore, the appropriate classification for the ambulatory surgical center is as an I-5 occupancy.

This Public Comment will provide consistency and correlation of the IBC with mandated Federal Regulations for Ambulatory Surgical Centers. Without the inclusion of this information in the I-Codes, a new facility could be constructed and completed only to find out that they need to go back and revise the facility to comply with the Federal regulations. If the I-Codes contain these requirements, it will eliminate confusion and frustration on the part of the owner/developer and eliminate finger pointing after the code official has "approved" the facility.

Public Comment 2:

Tom Lariviere, Madison Fire Department, MS, representing the Joint Fire Service Review Committee requests Approval as Modified by this public comment for Part IV.

Modify proposal by adding new section as follows:

SECTION 610 **EMERGENCY SHOWER AND EYE WASH**

610.1 General. In laboratories in Group I-2 and I-5 occupancies where corrosive or infectious materials are used that would necessitate the immediate flushing with water after an exposure, an emergency shower and eye wash station shall be installed and maintained in accordance with the *International Plumbing Code* Section 411.

(Portions of proposal not shown remain unchanged)

Commenter's Reason: The Code Development Committee disapproved this item because the code change proposal that they believed that a B occupancy classification was more appropriate for a Surgical Center based on their approval on G23. However, the difference between a surgical center and a typical B occupancy is that in the surgical center the occupants are not capable of self-preservation as they are in a B occupancy. This is a general criteria for all Group I occupancies, and therefore the inclusion of this new occupancy as an I-5 occupancy is appropriate.

When you evaluate the construction requirements of the I-5 occupancy, they are quite similar to a B occupancy. When you evaluate the fire and life safety requirements of the I-5 occupancy, they are quite similar to an I occupancy. That is because of the need to provide a different level of safety for occupants who cannot escape on their own. Patients have received anesthesia, patients may not be able to egress on their own, assisted egress of patients creates delays, etc. Therefore, the appropriate classification for the ambulatory surgical center is as an I-5 occupancy.

The proposal is being submitted with one revision. That is the addition of IFC Section 610.1. This revision is necessary to correlate with the requirements in IPC 411 for eye wash stations, and is consistent with Code Change Item F102.

This Public Comment will provide consistency and correlation of the IBC with mandated Federal Regulations for Ambulatory Surgical Centers. Without the inclusion of this information in the I-Codes, a new facility could be constructed and completed only to find out that they need to go back and revise the facility to comply with the Federal regulations. If the I-Codes contain these requirements, it will eliminate confusion and frustration on the part of the owner/developer and eliminate finger pointing after the code official has "approved" the facility.

Final Action: AS AM AMPC____ D

G33-07/08, Part V
IPC Table 403.1 (IBC Table [P] 2902.1)

Proposed Change as Submitted:

Proponent: Tom Lariviere, Madison Fire Department, MS, representing the Joint Fire Service Review Committee

PART V – IPC

Revise table as follows:

TABLE 403.1 (IBC TABLE [P] 2902.1)
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^a
(See Sections 403.2 and 403.3)

| NO. | CLASSIFICATION | OCCUPANCY | DESCRIPTON | WATER CLOSETS (URINALS SEE SECTION 419.2) | | LAVATORIES | | BATHTUBS/SHOWERS | DRINKING FOUNTAINS (SEE SECTION 410.1) | OTHER |
|-----|----------------|-----------------|--|---|--------|-------------------------|--------|------------------|--|--------------------------|
| | | | | Male | Female | Male | Female | | | |
| 5 | Institutional | I-2, <u>I-5</u> | Hospitals, ambulatory nursing home patients ^b | 1 per room ^c | | 1 per room ^c | | 1 per 15 | 1 per 100 | 1 service sink per floor |

(Portions of table and footnotes not shown remain unchanged)

Reason: This proposal establishes a new Group I-5 occupancy for Ambulatory Surgical Care Facilities. Currently the IBC classifies these facilities as Group B occupancies. These facilities typically include patients who are not capable of self-preservation in an emergency. These new provisions will provide a level of safety by bringing the ambulatory surgical centers to a higher level of protection, however not quite provide as high a level of safety equivalent to a Group I-2 occupancy.

It is not sensible, to allow the patients to be in a position of unconsciousness, sometimes for hours, and not provide a higher level of protection. This includes level of safety for fire suppression, construction, flame spread, etc. This proposal establishes this occupancy as a separate occupancy but does not require 24 hour stay. The concept of currently allowing a patient to be totally subject to someone else to provide evacuation and care for them when they are unconscious should not be occurring in a B occupancy. In a B occupancy, occupants are awake, they are aware, they are capable of fending for themselves.

This proposal includes height and area, construction allowances, egress requirements, fire drill and evacuation plans, plumbing requirements, separation requirements, and smoke barrier construction. Fire sprinklers and fire alarm will be required since this occupancy will be an I occupancy.

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

Analysis: Note that the changes proposed in Parts II through V of this change are dependent upon the outcome in Part I.

PART V – IPC

Committee Action:

Disapproved

Committee Reason: There is not a need to add Group I-5 to the table as unconscious people have no impact on plumbing fixture requirements.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Tom Lariviere, Madison Fire Department, representing the Joint Fire Service Review Committee requests Approval as Submitted for Part V.

Commenter's Reason: The Code Development Committee disapproved this item because the code change proposal they had already approved placed a Surgical Center into a B occupancy classification in Item G23. However, the difference between a surgical center and a typical B occupancy is that in the surgical center the occupants are not capable of self-preservation as they typically are in a B occupancy. The idea of self-preservation is commonly accepted as general criteria for Group B occupancies. However, facilities where self-preservation is restricted or occupants are incapable are classified into the Group I occupancies and therefore the inclusion of this new occupancy as an I-5 occupancy is appropriate.

Admittedly, when you evaluate the construction requirements of the I-5 occupancy, they are quite similar to a B occupancy. However, when you evaluate the fire and life safety requirements of the I-5 occupancy, they are not similar to a B occupancy, but are similar to an I occupancy. That is because of the need to provide a higher level of safety for occupants who cannot escape on their own. Patients have received anesthesia, patients may not be able to egress on their own, assisted egress of patients creates delays, etc. therefore, the appropriate classification for the ambulatory surgical center is as an I-5 occupancy.

This Public Comment will provide consistency and correlation of the IBC with mandated Federal Regulations for Ambulatory Surgical Centers. Without the inclusion of this information in the I-Codes, a new facility could be constructed and completed only to find out that they need to go back and revise the facility to comply with the Federal regulations. If the I-Codes contain these requirements, it will eliminate confusion and frustration on the part of the owner/developer and eliminate finger pointing after the code official has "approved" the facility.

Final Action: AS AM AMPC_____ D

G35-07/08

308.2 (IFC [B] 202), 310.1 (IFC [B] 202)

Proposed Change as Submitted:

Proponent: Tom Lariviere, Fire Department, Madison, MS, representing the Joint Fire Service Review Committee

Revise as follows:

308.2 (IFC [B] 202) Group I-1. This occupancy shall include buildings, structures or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following:

- Residential board and care facilities
- Assisted living facilities
- Halfway houses
- Group homes
- Congregate care facilities
- Social rehabilitation facilities
- Alcohol and drug centers
- Convalescent facilities

A facility such as the above with housing five or fewer persons shall be classified as a Group R-3 or shall comply with the ~~International Residential Code~~ in accordance with Section 101.2. A facility such as above, housing at least six and not more than 16 persons, shall be classified as Group R-4.

310.1 (IFC [B] 202) (Supp) Residential Group R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the *International Residential Code* in accordance with Section 101.2. Residential occupancies shall include the following:

R-1 Residential occupancies containing sleeping units where the occupants are primarily transient in nature, including:

- Boarding houses (transient)
- Hotels (transient)
- Motels (transient)

Congregate living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

- Apartment houses
- Boarding houses (not transient)
- Convents
- Dormitories
- Fraternities and sororities
- Hotels (nontransient)
- Live/work units
- Monasteries
- Motels (nontransient)
- Vacation timeshare properties

Congregate living facilities with 16 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

- Buildings that do not contain more than two dwelling units.
- Adult care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.
- Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.

Congregate living facilities with 16 or fewer persons.
~~Adult care and child care facilities that are within a single family home are permitted to comply with the *International Residential Code*.~~

Exception: Occupancies complying with the *International Residential Code* shall not be required to be classified as Group R-3 provided that the building is protected by an automatic extinguishing system installed in accordance with Section 903.3.1.1, 903.3.1.2 or 903.3.1.3.

R-4 Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code, or shall comply with the *International Residential Code*.

Reason: The proposal will require that the design of these facilities will stay within the IBC. The IRC does not require sprinklers and many of the occupants of a small facility for the mentally retarded are not capable of self preservation in an emergency.

This proposal will allow these facilities to be constructed either as an R-3 under the IBC which will require a fire sprinkler system, or as a one-family dwelling under the IRC provided a fire sprinkler system is installed.

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

Committee Action:

Disapproved

Committee Reason: Based upon the fact that such facilities are already classified as Group R-3 occupancies the allowance of using the IRC is appropriate without the need for sprinklers. Such an exception would create confusion as to how to apply the IRC.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Tom Lariviere, Fire Department, Madison, MS, representing the Joint Fire Service Review Committee requests Approval as Modified by this public comment.

Replace proposal as follows:

308.2 (IFC [B] 202) Group I-1. This occupancy shall include buildings, structures or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following:

- Residential board and care facilities
- Assisted living facilities
- Halfway houses
- Group homes
- Congregate care facilities
- Social rehabilitation facilities
- Alcohol and drug centers
- Convalescent facilities

A facility such as the above ~~with housing~~ five or fewer persons shall be classified as Group R-3 or shall comply with the *International Residential Code* ~~provided the building is protected by an automatic extinguishing system installed in accordance with Sections 404.2 903.3.1.1, 903.3.1.2 or 903.3.1.3.~~ A facility such as above, housing at least six and not more than 16 persons, shall be classified as Group R-4.

Commenter's Reason: The Code Development Committee disapproved this item. Their disapproval was based on their desire to allow the use of the IRC for construction of these occupancies. This Public Comment retains the ability to use the IRC provided the facility is sprinklered.

This new wording was approved by the Code Development Committee in Item G36 where the same concept applies.

These occupancies, even though housing less than six occupants, still have the same clientele as the I-1 occupancy. The facility is still a Group Home, a Congregate Care Facility, or an Assisted Living Facility, etc. Fire sprinklers are a very appropriate life safety feature when the occupant load is 6 or more, and is just as important when the occupant is less than 6. Many of the occupants in these facilities have limited capability or delayed response for self-preservation in an emergency.

This Public Comment will allow these facilities to be constructed either as an R-3 under the IBC which will require a fire sprinkler system, or as a one-family dwelling under the IRC provided a fire sprinkler system is installed.

Final Action: AS AM AMPC_____ D

G36-07/08

310.1 (IFC [B] 202)

Proposed Change as Submitted:

Proponent: Tom Lariviere, Fire Department, Madison, MS, representing the Joint Fire Service Review Committee

Revise as follows:

310.1 (IFC [B] 202) (Supp) Residential Group R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the *International Residential Code* in accordance with Section 101.2. Residential occupancies shall include the following:

R-1 Residential occupancies containing sleeping units where the occupants are primarily transient in nature, including:

- Boarding houses (transient)
- Hotels (transient)
- Motels (transient)

Congregate living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

- Apartment houses
- Boarding houses (not transient)
- Convents

Dormitories
Fraternities and sororities
Hotels (nontransient)
Live/work units
Monasteries
Motels (nontransient)
Vacation timeshare properties

Congregate living facilities with 16 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two dwelling units.
Adult care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.
Child care facilities that provide accommodations for five or fewer persons of any age for less than 24 hours.
Congregate living facilities with 16 or fewer persons.

Adult care and child care facilities that are within a single-family home are permitted to comply with the *International Residential Code*

R-4 Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code, ~~or shall comply with the *International Residential Code*.~~

Exception: Facilities complying with the *International Residential Code* need not meet the construction requirements of a Group R-3 provided that the building is protected by an automatic extinguishing system installed in accordance with Section 903.3.1.1 or 903.3.1.2.

Reason: R-4 occupancies can house residents who cannot evacuate within a reasonable amount of time. This change would restrict builders from using the less restrictive IRC unless the home is equipped with a fire sprinkler system. This proposal will require a fire sprinkler system in all R-4 occupancies. A fire sprinkler system is required by federal regulations for any of these facilities that may also be licensed.

Cost Impact: This proposal will increase the cost of construction, unless the facility is also desiring compliance with federal regulations.

Committee Action:

Approved as Modified

Modify the proposal as follows:

R-4 Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code or shall comply with the *International Residential Code* provided the building is protected by an automatic extinguishing system installed in accordance with Section 903.2.7

~~**Exception:** Facilities complying with the *International Residential Code* need not meet the construction requirements of a Group R-3 provided that the building is protected by an automatic extinguishing system installed in accordance with Section 903.3.1.1 or 903.3.1.2.~~

(Portions of proposal not shown remain unchanged)

Committee Reason: The proposal was approved based upon the proponent's reason which is concerned with the life safety of occupants in Group R-4 occupancies this relates to both their ability to evacuate quickly and the number of occupants. The modification is felt to be cleaner language than the currently proposed exception. The meaning of the language is the same. There were some concerns expressed by committee members that proper justification for requiring sprinklers was not provided by the proponent.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment 1:

Tom Lariviere, Madison Fire Department representing the Joint Fire Service Review Committee requests Approval as Modified by this public comment.

Further modify proposal as follows:

R-4 Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code or shall comply with the *International Residential Code* provided the building is protected by an automatic extinguishing system installed in accordance with Section ~~903.2.7~~ 903.3.1.1 or 903.3.1.2.

(Portions of proposal not shown remain unchanged)

Commenter's Reason: The typical method of requiring fire sprinklers is to reference the 903.3.xxx sections which refer to the appropriate NFPA standard. In the approved item from the committee the included reference sent the reader to Section 903.2.7 which requires sprinklers in R occupancies. This creates confusion since initially the code is saying construct under the IRC, but sprinkler like an R. When using the IRC, there are no occupancy classifications, therefore none of the building is an R occupancy, therefore you could argue that the sprinkler requirement did not apply.

This Public Comment will eliminate any confusion and send the reader to the appropriate sections for either a NFPA 13 or 13R fire sprinkler system.

Section 903.3.1.3 is not included since it is not appropriate for this occupancy. This occupancy is not a single-family dwelling. This occupancy is a business and includes staff and up to 16 occupants.

This Public Comment will provide consistency and correlation of the I-Codes with mandated Federal Regulations for R-4 occupancies. In other words, the Federal Regulations require fire sprinklers, and NFPA 13D is not acceptable. Without the inclusion of this information, a new facility could be constructed and completed only to find out that they need to go back and modify the fire sprinkler installation. If the I-Codes contain this requirement, it will eliminate confusion and frustration on the part of the owner/developer and eliminate finger pointing after the code official has "approved" the facility.

Public Comment 2:

Gene Boecker, Code Consultants, Inc. requests Disapproval.

Commenter's Reason: The proposal should be disapproved, and the existing provisions of Section 310.1 (as shown in the 2007 Supplement) should be maintained.

First, the code change is adding requirements into the definition of the R-4. Code requirements should be located in other areas of the code as applicable – not in the Occupancy description. It is inappropriate and not within ICC format to require sprinkler protection in order to achieve a certain occupancy classification. If an existing group home facility is being altered and a permit is requested but the facility does not have a sprinkler, the proposed text would mean that there is no proper occupancy classification.

Second, the proposal uses no technical justification for the rationale. The supporting statement is speculation and not supported by documentation or study. Without technical justification we should not be making changes to the code. Many people in assisted living facilities have ample control of their abilities to be able to evacuate in an effective manner. The R-4 classification limits the occupant load to 16 persons.

Third, the code change seeks to add sprinkler protection without the appropriate level of protection according to the NPDA 13 committee work. As written, the original proposal would only allow an NFPA 13 or NFPA 13R system to be used. The committee approved language gives less guidance. Consequently there is no direction that would allow the NFPA 13D system – appropriate for residential occupancies with occupant loads up to 16. Before we make changes of this nature, it should be clearly demonstrated that the fact that there are 6 people in an assisted living facility is sufficiently different that special protection according to NFPA 13R is required. While residential sprinkler protection is being pursued for all residential occupancies this provision does not demonstrate that the level of protection being requested is appropriate.

The proposal is flawed on several levels and should be returned to the proponent for additional work before becoming a part of the code and posing potentially significant increases in cost for assisted living units across the country.

Public Comment 3:

Steven Orlowski National Association of Home Builders (NAHB) requests Disapproval.

Commenter's Reason: There are several problems with the proposed code change, first and foremost is the lack of any statistical data. The proponents reasoning states that these occupancies can house individuals who cannot evacuate within a reasonable time, yet fails to provide any studies or reports to substantiate this claim. Furthermore, one of the requirements to be classified R-4 occupancy is the occupants must meet the same level of self sufficiency as those housed in a I-1 use group, in which they must be able to evacuate during an emergency without the assistance from staff. If the concern is over the occupants ability to vacate in a timely matter, or if the occupant needs assistance this is a reclassification of use group from an R-4 to an I-2. This proposal is based on personal opinion rather than facts. As stated in the report on public hearing, there was no justification for adding the requirement of sprinklers which should be reason enough to disapprove the committee's action.

As for the comment on federal regulations which require these occupancies to be equipped with fire sprinkler systems in order to receive federal funding is a licensing issue and not a building code issue. To receive federal funding, there are more requirements that must be met beyond a fire suppression system and not all R-4 occupancies request funding from the federal government. There is nothing that would prohibit the building owner from installing a fire sprinkler system voluntarily. If the building owner wishes to receive federal funding then they should meet the federal requirements. If they elect not to seek federal funding they should not be required to meet the federal requirements. The code should not be used as a vessel to enforce licensing requirements established at the national or local level.

Final Action: AS AM AMPC_____ D

G37-07/08

312.1 (IFC [B] 202)

Proposed Change as Submitted:

Proponent: Ronald Braun, CBO, City of Woodinville, WA, representing himself.

Revise as follows:

312.1 (IFC [B] 202) General. Buildings and structures of an accessory character and miscellaneous structures not classified in any specific occupancy shall be constructed, equipped and maintained to conform to the requirements of this code commensurate with the fire and life hazard incidental to their occupancy. Group U shall include, but not be limited to, the following:

- Agricultural buildings
- Aircraft hangars, accessory to a one- or two-family residence (see Section 412.3)
- Barns
- Carports
- Fences more than 6 feet (1829 mm) high
- Grain silos, accessory to a residential occupancy
- Greenhouses
- Livestock shelters
- Playground equipment over 10 feet high
- Private garages
- Retaining walls
- Sheds
- Stables
- Tanks
- Towers

Reason: This would be a new category in the Utility and Miscellaneous structures use and occupancy classification. There is an exempt provision in 105.2 IBC that has been amended in several jurisdictions to include commercial parks equipment. This provision placed in the body of the code will cause reviews for these structures to take place as many are becoming 3 and 4 stories tall, calling themselves "challenge courses" and like structures. This is an emerging industry and therefore presents an immediate need for use classification. Since the current code is silent on this type of use, logical reason suggests that playground equipment (structures) be identified to its use and current provisions located elsewhere in the body of the code applied. The ten foot height limitation was chosen as representing a one story maximum height limitation for falling from guard free playground equipment. There are current standards (ACCT) for these kinds of courses. Until ICC can evaluate the ACCT standards, current code provisions and standards should be used.

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

Committee Action:

Disapproved

Committee Reason: The language used implies outdoor playground equipment versus such equipment within a building. The criteria "over 10 feet high" would include elements such as basketball nets which seems inappropriate.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Ronald Braun, CBO, City of Woodinville, WA, representing himself requests Approval as Modified by this public comment.

Modify proposal as follows:

312.1 (IFC [B] 202) General. Buildings and structures of an accessory character and miscellaneous structures not classified in any specific occupancy shall be constructed, equipped and maintained to conform to the requirements of this code commensurate with the fire and life hazard incidental to their occupancy. Group U shall include, but not be limited to, the following:

Agricultural buildings
 Aircraft hangars, accessory to a one- or two-family residence (see Section 412.3)
 Barns
 Carports
 Fences more than 6 feet (1829 mm) high
 Grain silos, accessory to a residential occupancy
 Greenhouses
 Livestock shelters
~~Playground equipment over 10 feet high~~
Non-R-3 playground equipment over 10 feet high with occupiable platform
 Private garages
 Retaining walls
 Sheds
 Stables
 Tanks
 Towers

Commenter's Reason: Please read into the record to the Final Hearings this code change modification to G37-07/08 originally submitted August 20, 2007. After careful consideration, I realized that further language was needed to clarify the intent of the code proposal. While the supporting information specified the intent of the original proposal, the hearings committee ruled on the language provided and voted to disapprove the action.

Two modifications have been added to clarify the intent of the proposal. The first is that it does not apply to R3 occupancies and the second is that there needs to be an occupiable platform over 10 feet to this commercial play structure that presents a fall hazard as recognized by Consumer Product Safety Commission (CPSC) report publication 325. I have included a picture of a typical style of such a structure (see exhibit #1). These play structures (challenge courses, confidence courses or raised fortresses known by the industry) get much taller and complex than the one shown.

There will be some committee members that will say that these types of structures are already covered in the IBC within the meaning of the U occupancy. Some committee members may view these structures as exempt in Chapter 1 such as our County's Construction Code 16.02.240(11) (see exhibit#2) modified Chapter 1.

I ask the final action committee and membership to place these commercial structures within the Occupancies listed in Chapter 3 as a separate U occupancy sub-type "Non-R-3 playground equipment over 10 feet high with occupiable platforms". I welcome any alternative proposals that can further clarify the intent for this emerging industry.

Staff and committee members can also call me on the record during the hearings if they wish. Phone # 206-459-7726 - cell



Final Action: AS AM AMPC____ D

G40-07/08

402.2

Proposed Change as Submitted:

Proponent: Don Lee, DLR Group, representing himself

Revise as follows:

402.2 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

COVERED MALL BUILDING. A single building enclosing single or multiple tenants and occupancies with a number of tenants and occupants such as retail stores, drinking and dining establishments, entertainment and amusement facilities, passenger transportation terminals, offices, and other similar uses wherein two or more tenants have a main entrance into one or more malls. For the purpose of this chapter, anchor buildings shall not be considered as a part of the covered mall building.

MALL. A roofed or covered common pedestrian area within a covered mall building that serves as access for ~~two or more~~ tenants and not to exceed three levels that are open to each other.

Reason: The code currently literally applies Section 402 to multiple tenants. This limits the use of the section when it comes to single tenant facilities when in fact those are under single management. The ability to use Section 402 for a single tenant is currently used for airport terminal buildings.

The definition of the covered mall seems to limit the occupancy classification by the use of the tem “such as” rather than restricting the occupancies allowed. As such it has not given any restriction to the occupancy of the covered mall. This is reinforced by 402.1, Exception 1 which states the foyers and lobbies in B, R-1 and R-2 occupancies are not required to comply with 402. To clarify the intent of the code we propose deleting the list of facilities without adding occupancy limitations.

The mall definition also refers to two or more tenants and unnecessarily omits the single tenant facility. Delete the reference to the number of tenants without substitution.

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

Committee Action:

Disapproved

Committee Reason: The proposal would not address malls including aspects such as transportation terminals. Generally the revision would make the covered mall building requirements more confusing.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Don Lee, DLR Group, representing himself requests Approval as Modified by this public comment.

Modify proposal as follows:

402.2 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

COVERED MALL BUILDING. A single building enclosing single or multiple tenants, and ~~occupancies with occupants of single or multiple occupancies, having a main entrance into one or more malls.~~ Types of tenants include, but are not limited to: retail stores, drinking and dining establishments, entertainment and amusement facilities, passenger transportation terminals, offices, and other similar uses. For the purpose of this chapter, anchor buildings shall not be considered as a part of the covered mall building.

MALL. A roofed or covered common pedestrian area within a covered mall building that serves as access for tenants and not to exceed three levels that are open to each other.

Commenter's Reason: The code currently literally applies Section 402 to multiple tenants. This limits the use of the section when it comes to single tenant facilities when in fact those are under single management. The definition of the covered mall seems to limit the occupancy classification by the use of the tem “such as” rather than restricting the occupancies allowed. As such it has not given any restriction to the occupancy of the covered mall. The change to list types of tenants is more in line with not implying any occupancy restrictions.

The mall definition also referred to two or more tenants and unnecessarily omits the single tenant facility. Delete the reference to the number of tenants without substitution.

Final Action: AS AM AMPC___ D

G43-07/08

402.9

Proposed Change as Submitted:

Proponent: Jerry J. Barbera, Port of Seattle Airport Building Department, representing himself

Delete and substitute as follows:

~~**402.9 (Supp) Smoke control.** Where a covered mall building contains an atrium, a smoke control system shall be provided in accordance with Section 404.4.~~

~~**Exception:** A smoke control system is not required in covered mall buildings, when an atrium connects only two stories.~~

402.9 Smoke control. A smoke control system complying with Section 909 shall be provided in covered malls that connect more than two stories.

Reason: The purpose of this proposal is to have a simple requirement that defines when “malls” need to have a smoke control system,. The provisions for smoke control in Atriums in Section 404.4 were modified for the 2003 IBC supposedly cleared this all up, but it was little better than before and is still written in a manner to confuse rather than elucidate the code’s intent. The many public comments in the 2006/2007 Code Development Cycle to try to fix this up, graphically showed that it is still a problem.

It is believed that the proposal above makes it clearer that the point that a Mall needs a smoke control system is exactly when it is required for Atriums.

That “when” was gleaned from the 2006 IBC Code Commentary, which interpreted the words “*where required for atriums*” [emphasis is mine], to mean more than 2 stories because the exception to Section 404.4 includes the exception from smoke control, “*Smoke control is not required for atriums that connect only two stories.*” Therefore, one must conclude that smoke control is required when a mall is also over two stories!

An Atrium, like a Mall, can include combinations of floors and mezzanines. Atriums could theoretically have a two-story condition with more than 3 levels even if they were only two stories high with a mezzanine on the first story and they would not need a smoke control system. Contrast that with a Mall, which can also have floors or mezzanines, but they all count towards the maximum of “three levels” specified in the definition of a MALL in Section 402. Even though a mall could consist of combinations of floors (including basements, which is a story) and mezzanines up to three levels, by this proposal, there would only be two unique combinations with three levels – i.e., three stories (including a basement) or two stories plus a mezzanine – that would trigger a sprinkler system.

Cost Impact: There will be no increased cost impact at all and, in fact, the exact condition when sprinklers are required would be defined, lessening the chance that designers or code official feel they have to provide a sprinkler system that wasn’t needed.

Committee Action:

Approved as Submitted

Committee Reason: The language clarifies when a smoke control system is intended to be required. Sending the reader back to the atrium provisions is confusing as the definition of an atrium specifically excludes malls.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Sarah A. Rice, C.B.O., Schirmer Engineering Corporation requests Disapproval.

Commenter’s Reason: Though it was the proponent’s intent to add clarity to the provision, the resulting language actually adds another level of confusion to what has been a confusing provision. The trigger for the installation of a smoke control system in covered mall building has been when there is an “atrium,” as defined in the IBC and designed in accordance with Section 404, in the covered mall building. The language that was approved by the committee will make a smoke control system required not just when there is an “atrium” in the covered mall building but whenever “more than two stories are connected in the building – regardless of whether or not the opening is an “atrium.” If the proposed language were to appear in the 2009 IBC, it could be literally be interpreted to mandate a smoke control whenever three stories are connected regardless of whether or not the “connection” is protected by code compliant means, i.e., an elevator, or utility shaft in a 2 hour enclosure still would connect three stories, but that “connection” is not an “atrium” and should not in any way trigger a smoke control system.

The language approved in the 2006-2007 Code Development Cycle needs to be retained. The 2007 Supplement reads

“402.9 Smoke control. Where a covered mall building contains an atrium, a smoke control system shall be provided in accordance with Section 404.4.

Exception: A smoke control system is not required in covered mall buildings, when an atrium connects only two stories.

The language in the Supplement was clear and concise that a smoke control system is required when a covered mall has an "atrium" regulated by Section 404.4.

Final Action: AS AM AMPC___ D

G45-07/08

403.1

Proposed Change as Submitted:

Proponent: Lawrence G. Perry, AIA, representing Building Owners and Managers Association (BOMA) International

Revise as follows:

403.1 Applicability. The provisions of this section shall apply to buildings with an occupied floor located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

Exception: The provisions of this section shall not apply to the following buildings and structures:

1. Airport traffic control towers in accordance with Section 412.
2. Open parking garages in accordance with Section 406.3.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1.
4. Low-hazard special industrial occupancies in accordance with Section 503.1.1.
5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415.
6. Buildings having an occupied floor level located more than 420 feet (128 m) above the lowest level of fire department vehicle access, where designed using the ICC Performance Code for Buildings and Facilities.

Reason: There will undoubtedly again this cycle be a large number of code change proposals seeking to introduce new code requirements for 'mega' high-rise buildings. To date, these issues have been addressed in a piecemeal fashion, with no concerted effort to assess the impact and effectiveness of the various pieces, or to validate requirements based on any rational cost-benefit analysis.

By allowing the use of the ICC *Performance Code*, any new mega high-rise building will require review and analysis by all of the 'stakeholders' in the project.

This code change has been noted as 'increasing the cost' of construction; while use of the Performance Code will likely incur additional up-front design costs, the impact on the construction cost will depend on the design solutions utilized to meet the agreed-upon objectives for the project.

Note that in many cases, the performance-based design will likely utilize portions of the 'prescriptive' I-codes and reference standards. The local jurisdiction (both the building and fire department) are active stakeholders in the process, and will have an active role in determining the goals and objectives for the project, and in approving the resulting design solutions.

The above paragraphs are the reason statement included in the a similar code change submitted last cycle. During last cycle, code changes were approved that:

- Increase by a factor of 7 the required bond strength of spray-applied fire resistant materials (SFRM) in buildings greater than 420' in height, while making no changes to code provisions for alternate methods of protection (such as gypsum board), and without consideration of the cost impact or any explanation of the 'threat' this change supposedly mitigates.
- Add an additional exit stair to buildings above 420' in height, without any consideration of cost, occupant load, or the effect on egress times.

It has become even clearer that the current direction of the I-codes is to simply make buildings greater than 420' in height unfeasible. In certain markets, this is an unrealistic 'solution', and the direction of the IBC over the last several cycles shows that an alternative is needed.

BOMA International believes that the ICC *Performance Code* provides an appropriate framework for all parties to work together as a team to ensure that new very tall buildings are built in a safe, cost-effective manner. This change, as revised from the similar proposal last cycle, will allow the use of the *Performance Code* as an option, rather than as a mandate, for buildings greater than 420' in height.

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

Committee Action:

Approved as Submitted

Committee Reason: Allowing the use of the ICCPC as an option for High rise buildings greater than 420 in building height seems appropriate and provides a full package for design including a comprehensive administrative process.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Mike Ashley, CBO, Alliance for Fire and Smoke Containment and Control (AFSCC) requests Approval as Modified by this public comment.

Modify proposal as follows:

403.1 Applicability. The provisions of this section shall apply to buildings with an occupied floor located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

Exception: The provisions of this section shall not apply to the following buildings and structures:

1. Airport traffic control towers in accordance with Section 412.
2. Open parking garages in accordance with Section 406.3.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1.
4. Low-hazard special industrial occupancies in accordance with Section 503.1.1.
5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415.
6. Buildings having an occupied floor level located more than 420 feet (128 m) above the lowest level of fire department vehicle access, where designed using the *ICC Performance Code for Buildings and Facilities*, provided the fire-resistance ratings specified in Table 601 for buildings required to be of Type IA construction shall not be reduced.

Commenter's Reason: We are submitting this Public Comment because of our concerns about allowing buildings designed in accordance with the ICC Performance Code for Buildings and Facilities to be exempt from the high-rise provisions specified in Section 403. The International Building Code (IBC) is a prescriptive code which may contain performance elements, however, the ICC Performance Code is an entirely performance based code which is intended to stand alone so that jurisdictions desiring to adopt it may do so but they are not mandated to adopt it when they adopt the IBC. However, this code change proposal without any modifications will force a local jurisdiction to accept a super high-rise building (those buildings greater than 420 feet in height) designed in accordance with the ICC Performance Code based on this proposed new Exception 6. In our opinion, the ICC Performance Code should either be adopted by those jurisdictions that wish to apply it and have the expertise to deal with it or it should be allowed as an alternate method in accordance with Section 104.11.

Furthermore, if it is acceptable to exempt super high-rise buildings from the high-rise provisions when they are designed in accordance with the ICC Performance Code, why wouldn't it also be appropriate to allow any high-rise building to be designed in accordance with the ICC Performance Code in lieu of meeting the provisions in Section 403 since buildings of lesser height pose a lesser risk?

In any event, should the ICC Class A voting membership believe that it is appropriate to allow this exception, we believe that there should be a proviso incorporated into the exception which we have included as a part of this Public Comment. Our proposed modification to the new Exception 6 will specify that if the ICC Performance Code is used, the fire-resistance ratings specified in Table 601 for buildings required to be of Type IA construction shall not be allowed to be reduced. This is consistent with the current allowances for reductions in fire-resistance ratings in Section 403.3.1 Type of Construction in the Supplement. This section does not allow for a reduction in the minimum fire-resistance ratings of the building's elements specified in Table 601 for buildings that are greater than 420 feet in height. We believe that those minimum fire-resistance ratings should still be maintained even if the ICC Performance Code analysis indicates that certain required fire-resistance ratings may be reduced. These buildings are just too tall and pose such a significant risk to the building occupants should an uncontrolled fire condition develop that it is crucial to maintain a minimum degree of fire-resistance. This will help to assure that the building will remain standing in order to allow the occupants to be safely evacuated and the fire fighters to do their job without having to be worried about the building construction collapsing around them.

This Public Comment may also be a suitable alternative to Code Change Proposal G51-07/08 which was recommended for disapproval. That code change proposal was submitted by the ICC Ad Hoc Committee on Terrorism Resistant Buildings to require an analysis in accordance with the ICC Performance Code based on an approved design fire without automatic sprinkler system activation. In that proposal it was also specified that the fire-resistance rating of the structural frame could not be less than the fire-resistance ratings prescribed in Table 601. We believe that the Reason statement for that code change proposal further justifies the modifications proposed in this Public Comment.

In conclusion, should the ICC Class A voting membership believe that it is reasonable to allow a super high-rise building designed in accordance with the ICC Performance Code to be exempt from the provisions of Section 403 for High-Rise Buildings, then it is our opinion that they should approve this code change proposal which still prescribes minimum fire-resistance ratings for the building elements based on those required for Type IA construction for these very tall buildings.

Final Action: AS AM AMPC_____ D

G46-07/08

[F] 403.2.1 (New), 403.2.1.1 (New), [F] 403.2.1.1.1 (New), [F] 403.2.1.2 (New), [F] 403.2.2 (New) [IFC 914.3.1.1 (New), IFC 914.3.1.1.1 (New), IFC 914.3.1.1.1.1 (New), IFC 914.3.1.1.2 (New), IFC 914.3.1.2 (New); IFC 509.1 (IBC [F] 911.1)

THIS CODE CHANGE WILL BE HEARD ON THE IFC PORTION OF THE HEARING ORDER.

Proposed Change as Submitted:

Proponent: Gary Lewis, Chair, representing the ICC Ad Hoc Committee on Terrorism Resistant Buildings

1. Add new text as follows:

[F] 403.2.1 (IFC 914.3.1.1) Sprinkler riser redundancy and isolation. All buildings that are more than 420 feet (128 m) in height shall have all risers supplying automatic sprinkler systems interconnected to each other at the top and bottom most floor of each vertical riser zone. The interconnections shall be at least as large as the largest riser supplied.

[F] 403.2.1.1 (IFC 914.3.1.1.1) Number of risers and separation. A minimum of two sprinkler water supply risers shall be provided in each vertical riser zone of the building. Sprinkler water supply risers shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between the nearest portion of the sprinkler water supply risers.

[F] 403.2.1.1.1 (IFC 914.3.1.1.1.1) Hydraulic design evaluations. Independent hydraulic design evaluations shall be completed utilizing individual water supply risers for each vertical riser zone. System hydraulic design shall not be based upon redundancy of water supply risers for each vertical riser zone.

[F] 403.2.1.2 (914.3.1.1.2) Control valves. Manual and remote control valves shall be provided on all riser piping supplying automatic sprinkler systems at every third floor of the building served. This requirement is independent of sprinkler floor control valves required by Section 903.4.3.

[F] 403.2.2 (IFC 914.3.1.2) Water supply to required fire pumps. Required fire pumps shall draw from a minimum of two independent street level water mains located in different streets.

Exception: When the street level water main is a looped or gridded system, two taps may be drawn from the same main provided the main is valved such that an interruption on one side of the loop or grid can be isolated so that the water supply will continue without interruption through at least one of the taps. Each tap shall be sized to supply the required flow. The taps shall be located as remote from one another as is practicable given the site conditions.

2. Revise as follows:

IFC 509.1 (IBC [F] 911.1) (Supp) Features. Where required by other sections of this code and in all buildings classified as high-rise buildings by the *International Building Code*, a fire command center for fire department operations shall be provided. The location and accessibility of the fire command center shall be approved by the fire department. The fire command center shall be separated from the remainder of the building by not less than a 1-hour fire barrier constructed in accordance with Section 706 of the *International Building Code* or horizontal assembly constructed in accordance with Section 711 of the *International Building Code*, or both. The room shall be a minimum of 96 square feet (9 m²) with a minimum dimension of 8 feet (2438 mm). A layout of the fire command center and all features required by this section to be contained therein shall be submitted for approval prior to installation. The fire command center shall comply with NFPA 72 and shall contain the following features:

1. The emergency voice/alarm communication system unit.
2. The fire department communications system.
3. Fire-detection and alarm system annunciator system.
4. Annunciator visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air-handling systems.
6. The fire-fighter=s control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking stairway doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, means of egress, fire protection systems, fire-fighting equipment and fire department access.
13. Work table.
14. Generator supervision devices, manual start and transfer features.
15. Public address system, where specifically required by other sections of this code.
16. Elevator fire recall switch in accordance with ASME A17.1.
17. Elevator emergency or standby power selector switch(es), where emergency or standby power is provided.
18. Controls and status indicators for remote control valves on vertical sprinkler/standpipe risers

Reason: The purpose of this proposed change is to increase the reliability of fire suppression systems in very tall buildings, those that exceed 420 feet in height, by requiring looping of sprinkler uses and independent street-level water feeds.

The difficulty of fighting fires in very tall buildings ranges from hard to virtually impossible. Accordingly, the reliable functioning of required sprinkler systems is critically important. The National Institute of Standards and Technology (NIST) World Trade Center (WTC) Report documented that the proximate cause of the collapse was a building contents fire that raged out of control, in part at least, because the building's fire sprinkler systems were non-functional due to the initial aircraft attack. Events far less dramatic could knock out or make a sprinkler riser inoperative, thereby leaving the structure very vulnerable to fire.

Recommendation 12 of the NIST WTC report calls for the redundancy of active fire suppression systems to be increased to accommodate the greater risks associated with increasing building height and population. This proposal seeks to do that by providing two water feeds to each floor designed such that the system will function as intended if one of those feeds is damaged or otherwise interrupted.

It is interesting to note that existing standards for water mains in residential subdivisions call for looping and valving to ensure that no more than 20 homes could be cut off by a water main break. Such a break would create a fire suppression risk for 4 people (the average occupancy of one home) or no more than 80 people (assuming all 20 homes catch fire). In contrast, we do not require looping and valving to isolate failure in buildings that might contain 10,000 occupants. This proposal seeks to correct that problem.

Proposed new Subsection 403.2.1 requires the interconnection (looping) of sprinkler risers in each vertical zone.

Proposed new Subsection 403.2.1.1 requires two risers for every zone and specifies a separation distance to reduce the possibility that one incident could incapacitate both risers.

Proposed new Subsection 403.2.1.1.1 ensures that the sprinkler system will be designed to function as intended and required from either riser. This is consistent with the goal of providing redundancy.

Proposed new Subsection 403.2.1.2 requires riser control valves at every third floor of the building. This provision supports the stated intent of this code change by ensuring that a riser break (or other problem eliminating the riser's functionality) will not leave more than two floors without the required sprinkler protection. Standpipe control valves are already required to be monitored and NFPA 14 requires redundancy. However, the control valves required by new section 403.2.1.2 are in addition to the control valves required by NFPA 14. Along with the redundant sprinkler riser that is required by section 403.2.1, the valves required by this new section will assure that any riser break will not leave more than two floors without the required sprinkler protection.

These new valves raise the possibility that someone will inadvertently close one or more. Accordingly, a proposed amendment to Section 911.1 of the Code requires that these automatic valves be able to be monitored from the fire command center by the use of status indicators. This will make it possible to monitor continuously all riser valves from one location and correct any problem from that location.

New Subsection 403.2.2 requires fire pumps to be fed from two independent water mains in separate streets. This will greatly reduce the possibility of the loss of water due to a main break, given the valving which is a feature of public water systems.

Bibliography:

National Institute of Standards and Technology. Final Report of the National Construction Safety Team on the Collapses of the World Trade Center Towers. United States Government Printing Office: Washington, D.C. September 2005.

Cost Impact: This proposal will increase the cost of construction for very tall buildings, but the additional cost is warranted by the additional risk inherent in such buildings.

Committee Action:

Disapproved

Committee Reason: Fire protection system design criteria and information belong in Chapter 9. The utility and effectiveness of top and bottom sprinkler riser interconnection is questionable. It is also questionable as to the availability of remotely controlled sprinkler riser valves. Proposed Section 403.2.2 needs correlation with Section 903.3.5.2. The ICC Code Technology Committee agrees with the need for redundancy but disagrees with the approach taken in this proposal. There is also a NIST task group working on this topic.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Paul K. Heilstedt, PE, FAIA, Chair, ICC Code Technology Committee (CTC), Gerry Jones/Herman Brice, Co-chairs, NIBS/MMC Committee for Translating the NIST World Trade Center Investigation Recommendations into Building Codes and Gary Lewis, Chair, representing the ICC Ad Hoc Committee on Terrorism Resistant Buildings request Approval as Modified by this public comment.

Modify proposal as follows:

~~**[F] 403.2.1 (IFC 914.3.1.1) Number of sprinkler risers and system design redundancy and isolation.** All buildings that are more than 420 feet (128 m) in height shall have all risers supplying automatic sprinkler systems interconnected to each other at the top and bottom-most floor of each vertical riser zone. The interconnections shall be at least as large as the largest riser supplied. Each sprinkler system zone in buildings that are more than 420 feet (128 m) in height shall be supplied by a minimum of two risers. Each riser shall supply sprinklers on alternate floors. If more than two risers are provided for a zone, sprinklers on adjacent floors shall not be supplied from the same riser.~~

~~**[F] 403.2.1.1 (IFC 914.3.1.1.1) Number of risers and separation.** A minimum of two sprinkler water supply risers shall be provided in each vertical riser zone of the building. Sprinkler water supply risers shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between the nearest portion of the sprinkler water supply risers.~~

~~**[F] 403.2.1.1 (IFC 914.3.1.1.1) Riser location.** Sprinkler risers shall be placed in stair enclosures which are remotely located in accordance with Section 1015.2.~~

~~**[F] 403.2.1.1.1 (IFC 914.3.1.1.1.1) Hydraulic design evaluations.** Independent hydraulic design evaluations shall be completed utilizing individual water supply risers for each vertical riser zone. System hydraulic design shall not be based upon redundancy of water supply risers for each vertical riser zone.~~

~~**[F] 403.2.1.2 (914.3.1.1.2) Control valves.** Manual and remote control valves shall be provided on all riser piping supplying automatic sprinkler systems at every third floor of the building served. This requirement is independent of sprinkler floor control valves required by Section 903.4.3.~~

[F] 403.2.2 (IFC 914.3.1.2) Water supply to required fire pumps. Required fire pumps shall be supplied by connections to draw from a minimum of two independent street level water mains located in different streets. Separate supply piping shall be provided between each connection to water main and the pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

Exception: ~~When the street level water main is a looped or gridded system, two taps may be drawn from Two connections to the same main shall be permitted provided the main is valved such that an interruption on one side of the loop or grid can be isolated so that the water supply will continue without interruption through at least one of the connections taps. Each tap shall be sized to supply the required flow. The taps shall be located as remote from one another as is practicable given the site conditions.~~

(Portions of proposal not shown remain unchanged)

Commenter's Reason: The purpose of this public comment is to increase the reliability of fire sprinkler systems in very tall buildings, those that exceed 420 feet in height, by requiring a minimum of two risers for each sprinkler zone and pumps to be supplied by a minimum of two connections to the municipal distribution system.

The difficulty of fighting fires in very tall buildings ranges from difficult to virtually impossible with the sprinkler system impaired. Accordingly, the reliable functioning of sprinkler systems is critical. Various Events could cause a sprinkler riser to be impaired, thereby leaving the structure highly vulnerable to fire.

Recommendation 12 of the NIST WTC report calls for the redundancy of active fire suppression systems to be increased to accommodate the greater risks associated with increasing building height and population. This proposal seeks to do that by requiring two risers designed such that, if one riser is taken out of service, the other will be able to supply sprinklers on the floors above and below. This will impede any fire spread and allow the fire department time to respond and extinguish the fire. At the Meridian Plaza fire in Philadelphia, the further spread of an out of control fire occurring on floors not protected by sprinklers was prevented by the operation of ten sprinklers when the fire reached a floor which had been retrofitted with sprinklers.

403.2.1 requires a minimum of two sprinkler risers in each sprinkler zone.

403.2.1.1 requires the risers to be located in protected stair enclosures and specifies a separation distance to reduce the possibility that one incident could incapacitate both risers which is consistent with the approach used in the code for stair enclosure separation.

403.2.2 is text similar to the original proposal which requires fire pumps to be fed from two water mains in separate streets. This will greatly reduce the possibility of the loss of water due to a main break, given the valving which is a feature of public water systems: with the goal of providing redundancy. The exception is revised to provide performance language which is not specific to a specific configuration (looped or gridded in the original proposal) and eliminates the subjective connection remoteness criteria.

Code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/cc/ctc/index.html>. Since its inception in April/2005, the CTC has held fifteen meetings - all open to the public. This public comment is a result of the CTC's investigation of the area of study entitled "NIST World Trade Center Recommendations". The CTC web page for this area of study is: <http://www.iccsafe.org/cs/cc/ctc/WTC.html>

Final Action: AS AM AMPC___ D

G49-07/08

403.3.1

Proposed Change as Submitted:

Proponent: Lee Kranz, City of Bellevue, WA, representing the Washington Association of Building Officials (WABO), Technical Development Subcommittee

Revise as follows:

403.3.1 (Supp) Type of construction. The following reductions in the minimum fire resistance rating of the building elements in Table 601 shall be permitted as follows:

1. For buildings not greater than 420 feet (128 m) in height, the fire resistance rating of the building elements in Type IA construction shall be permitted to be reduced to the minimum fire resistance ratings for the building elements in Type IB.

Exception: In Seismic Design Categories D, E, and F, The required fire-resistance rating of the structural frame and bearing walls columns supporting floors shall not be permitted to be reduced.

2. In other than Groups F-1, M and S-1, the fire resistance rating of the building elements in Type IB construction shall be permitted to be reduced to the fire resistance ratings in Type IIA.

Exception: In Seismic Design Categories D, E, and F, the required fire-resistance rating of the structural frame and bearing walls shall not be permitted to be reduced.

3. The height and area limitations of a building containing building elements with reduced fire resistance ratings shall be permitted to be the same as the building without such reductions.

Reason: The reduction in fire resistance rating allowed in this section has created an unacceptable level of safety for building occupants due to higher potential for catastrophic building collapse in the event of a fire. In mid- and high-rise construction the structural frame and/or bearing walls may serve as the sole support system for the building. In many building designs these systems may be non-redundant and support significant axial loads at the lower floor levels which will tend to increase the risk of premature failure when subjected to fire. By maintaining the fire resistance rating for the structural frame and bearing walls a higher level of safety for occupants, fire fighters and emergency responders is maintained.

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

Committee Action:

Disapproved

Committee Reason: Technical justification was not provided to warrant such a significant change to the fire resistive requirements for the structural elements of high rise buildings. This proposal would go beyond the protection of just the columns but instead would include the structural frame and bearing walls.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment 1:

Mike Ashley, CBO, Alliance for Fire and Smoke Containment and Control (AFSCC) requests Approval as Modified by this public comment.

Modify proposal as follows:

403.3.1 (Supp) Type of construction. The following reductions in the minimum fire resistance rating of the building elements in Table 601 shall be permitted as follows:

1. For buildings not greater than 420 feet (128 m) in height, the fire resistance rating of the building elements in Type IA construction shall be permitted to be reduced to the minimum fire resistance ratings for the building elements in Type IB.

~~**Exception:** In Seismic Design Categories D, E, and F, The required fire-resistance rating of the structural frame and bearing walls shall not be permitted to be reduced.~~

2. In other than Groups F-1, M and S-1, the fire resistance rating of the building elements in Type IB construction shall be permitted to be reduced to the fire resistance ratings in Type IIA.

~~**Exception:** In Seismic Design Categories D, E, and F, the required fire resistance rating of the structural frame and bearing walls shall not be permitted to be reduced.~~

3. The height and area limitations of a building containing building elements with reduced fire resistance ratings shall be permitted to be the same as the building without such reductions.

Commenter's Reason: The purpose of this Public Comment is to eliminate the reference to the Seismic Design Categories D, E and F in the proposed exception to the allowable reductions in minimum fire resistance ratings for building elements in high rise buildings and to expand the exception to Item 1 of Section 403.3.1 Type of Construction to apply to all high rise buildings not greater than 420 feet in height required to be of Type IA construction. For most occupancies found in high rise buildings these would include buildings greater than 12 stories and 160 feet in height. By deleting the reference to Seismic Design Categories D, E and F as being applied to this exception, the exception would apply regardless of the seismic design category. So in other words it would apply to all high rise buildings having to be of Type IA construction.

Basically, this exception as modified by this Public Comment would not allow the required fire resistance ratings of the structural frame and bearing walls to be reduced in these high rise buildings not greater than 420 feet in height. Currently, the code will not allow any reduction in fire resistance ratings for super high rise buildings (those buildings greater than 420 feet in height). However, the code does allow for a reduction in the type of construction for buildings less than 420 feet in height from Type IA construction to Type IB construction except that the columns supporting floors are not allowed to have their required fire resistance rating reduced. Certainly that provides an enhanced level of structural protection to these buildings which can still be very tall, yet it does not provide for a complete package of structural integrity during severe fire events. This exception as revised by this Public Comment would accomplish that by not permitting the required fire resistance rating of the structural frame, as well as the bearing walls which provide the same function as columns, to be reduced. The structural frame includes not only the columns but those beams that connect directly to the columns to provide overall structural rigidity and integrity to the entire building structure. Certainly, this will provide an enhanced level of fire and life safety protection to the occupants, as well as to the emergency responders, in these high rise buildings should an uncontrolled fire event occur.

Public Comment 2:

Mike Ashley, CBO, Alliance for Fire and Smoke Containment and Control (AFSCC) requests Approval as Modified by this public comment.

Modify proposal as follows:

403.3.1 (Supp) Type of construction. The following reductions in the minimum fire resistance rating of the building elements in Table 601 shall be permitted as follows:

1. For buildings not greater than 420 feet (128 m) in height, the fire resistance rating of the building elements in Type IA construction shall be permitted to be reduced to the minimum fire resistance ratings for the building elements in Type IB.

Exceptions:

1. The required fire-resistance rating of the columns supporting floors shall not be permitted to be reduced.
2. In Seismic Design Categories D, E, and F, the required fire-resistance rating of the structural frame and bearing walls shall not be permitted to be reduced.
2. In other than Groups F-1, M and S-1, the fire resistance rating of the building elements in Type IB construction shall be permitted to be reduced to the fire resistance ratings in Type IIA.

Exception: In Seismic Design Categories D, E, and F, the required fire-resistance rating of the structural frame and bearing walls shall not be permitted to be reduced.

3. The height and area limitations of a building containing building elements with reduced fire resistance ratings shall be permitted to be the same as the building without such reductions.

Commenter's Reason: We believe that the modifications proposed by this Public Comment implement the original proponent's intent to address the needs of high rise buildings located in areas of the country with relatively high seismic activity that result in buildings being classified in Seismic Design Categories D, E or F. The problems we had with the original code change proposal which we expressed during the testimony in Palm Springs, CA. was that, in effect, the Exception to Item 1 of Section 403.3.1 Type of Construction actually made the Exception less restrictive than it was originally intended to be in those buildings that did not fall into a Seismic Design Category D, E or F. That is because the Exception specified that the required fire resistance rating of columns supporting floors was not allowed to be reduced in buildings of Type IA Construction less than 420 feet in height regardless of the Seismic Design Category. Introducing the Seismic Design Categories limitations yet expanding the Exception so that the reduced fire-resistance ratings did not apply to the structural frame and bearing walls (which obviously includes the columns) would have allowed the columns in buildings of other Seismic Design Categories to have their fire-resistance ratings reduced. So by maintaining that original Exception, the proponent's proposed modifications to that Exception can be designated as a second Exception so that it specifically addresses the structural frame (including columns) as well as bearing walls in any building in a Seismic Design Category D, E or F that qualifies as a high rise building. Then this would also be consistent with the proposed Exception to Item 2 of Section 403.3.1.

The end result of the modifications proposed in this Public Comment is that buildings required to be of Type IA Construction but which are less than 420 feet in height and classified as high rise buildings are not allowed to have the required fire resistance rating of their columns that support floors reduced to that permitted in Type IB Construction. Nor would buildings in Seismic Design Categories D, E and F be allowed to have their structural frame and bearings wall fire resistance ratings reduced from Type IA Construction to Type IB Construction and for occupancies other than Groups F-1, M and S-1 from Type IB to Type IIA Construction in Seismic Design Categories D, E and F.

We believe that this makes a lot of good sense to maintain a degree of built in fire resistive protection in these high rise buildings in those areas where a seismic event may cause the loss of the water supply to the building and which may also cause significant damage to the automatic sprinkler system which may render it in operative or in adequate to control a fire that may follow the earthquake. Although Section 903.3.5.2 Secondary Water Supply would require an onsite water supply for the automatic sprinkler system demand for buildings in Seismic Design Categories C, D, E, or F, that water supply duration is only specified for a minimum of 30 minutes for light hazard occupancies classified in accordance with NFPA 13. This may not be sufficient time to control a fire that may result after the earthquake, especially given the fact that the fire department may not be able to respond in a timely manner to support the sprinkler system after a major earthquake. Furthermore, the sprinkler system may be disrupted by the seismic event so that the water supply would be of little or no value, thus requiring manual fire suppression efforts to control the fire. In those cases it is critical that the key structural elements of the building not have their fire resistance reduced so that they are able to withstand what may turn out to be an uncontrolled fire condition.

We certainly agree with the proponent of the original code change proposal that this code change proposal as modified by this Public Comment will provide a higher level of safety for occupants, fire fighters and emergency responders in the event of an uncontrolled fire condition.

Public Comment 3:

Lee Kranz, City of Bellevue, WA, representing the Washington Association of Building Officials (WABO), Technical Development Subcommittee requests Approval as Modified by this public comment.

Modify proposal as follows:

403.3.1 (Supp) Type of construction. The following reductions in the minimum fire resistance rating of the building elements in Table 601 shall be permitted as follows:

1. For buildings not greater than 420 feet (128 m) in height, the fire resistance rating of the building elements in Type IA construction shall be permitted to be reduced to the minimum fire resistance ratings for the building elements in Type IB.

Exception: In Seismic Design Categories D, E, and F, the required fire-resistance rating of the structural frame and bearing walls shall not be permitted to be reduced.

2. In other than Groups F-1, M and S-1, the fire resistance rating of the building elements in Type IB construction shall be permitted to be reduced to the fire resistance ratings in Type IIA.

Exception: In Seismic Design Categories D, E, and F, The required fire-resistance rating of the structural frame and bearing walls shall not be permitted to be reduced.

3. The height and area limitations of a building containing building elements with reduced fire resistance ratings shall be permitted to be the same as the building without such reductions.

Commenter's Reason: Based on public testimony and General Committee comments, this proposal has been modified to not reference seismic design categories as their inclusion creates a less safe building for areas of the country that have lower seismic activity. Water supply reliability for sprinkler protection was mentioned as technical justification to exempt the structural frame and bearing walls from reductions #1 & #2 in 403.3.1. The code currently allows buildings as tall as 420 feet to have structural frame with a fire-resistance-rating of only one-hour. One-hour protection may consist of cold-formed steel bearing walls with one layer of 5/8" Type X gypsum wallboard on each side, which seems very limited protection for a 419 foot tall building of unlimited area.

Evacuation of high-rise buildings can take much longer than one hour, and many buildings are designed not to evacuate occupants immediately. The integrity of the structural frame and bearing walls must be protected until the occupants have time to travel to safety.

Final Action: AS AM AMPC_____ D

G53-07/08

[F] 403.7

THIS CODE CHANGE WILL BE HEARD ON THE IFC PORTION OF THE HEARING ORDER.

Proposed Change as Submitted:

Proponent: Tom Lariviere, Fire Department, Madison, MS, representing the Joint Fire Service Review Committee

Revise as follows:

~~[F] 403.7 **Emergency responder radio Fire department communications system.** A two-way fire department communications system shall be provided for fire department use in accordance with Section 907.2.12.3.~~

An emergency responder radio communications system shall be installed where required to provide the required level of radio coverage for emergency responders by allowing radio frequencies to be transmitted and received throughout the building. Amplifiers shall be able to handle the frequencies in operation by the local emergency responder agencies. A permanent sign shall be installed in the fire command center indicating the presence of the amplification system and the frequencies served.

Reason: To allow the emergency services to communicate properly throughout the building during an emergency. This proposal will replace the typical hardwired communications system with a radio system that will work with the FD radio system and provide adequate radio communications

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

Committee Action:

Approved as Modified

Modify the proposal as follows:

~~[F] 403.7 **Emergency responder radio.** An emergency responder radio communications system shall be installed where required to provide the required level of radio coverage for emergency responders by allowing radio frequencies to be transmitted and received throughout the building. Amplifiers shall be able to handle the frequencies in operation by the local emergency responder agencies. A permanent sign shall be installed in the fire command center indicating the presence of the amplification system and the frequencies served. in accordance with Section 511.1 of the *International Fire Code*.~~

Committee Reason: The proposal was approved for coordination with the action taken on code change F87-07/08. The modification makes a simple reference to the correct section of the *International Fire Code* that contains radio communications system requirements for new buildings.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment 1:

Tim Pate, City & County of Broomfield Building Department representing the Colorado Chapter of ICC requests Disapproval.

Commenter's Reason:

1. The proponent has requested installation of Emergency Responder Radio Communication System (ERRCS) in lieu of two way communication system in high rise buildings. For many decades, two way communication systems (phone jacks and handsets) have been installed in high rise buildings. These systems are installed per requirements of the NFPA 72 which has specific provisions for the listing of the equipment, installation of the equipment and similar. After installation of the two way communication system, these systems remain in place without any modification and are tested on a regular basis as required by NFPA 72.

2. There are no standards for installation of the proposed Emergency Responder Radio Communication System. There are no assurances that after an ERRCS has been installed the system would perform as required. Consequently, these systems have to be installed on a trial and error basis until they are accepted as a result of field tests.
3. The Emergency Responder Radio Communication System may have to be upgraded regularly to accommodate tenant finish work. Tenant finish work occurs continually in high rise office buildings requiring ERRCS to be tested to verify system performance on a continual basis.
4. Installation of Emergency Responder Radio Communication System (ERRCS) is proposed under F-87. A separate proposal is submitted requesting disapproval of F-87. Disapproval of G-53 is to coordinate G-53 with F-87

Public Comment 2:

Lawrence G. Perry, AIA, Building Owners and Managers Association (BOMA) International requests Disapproval.

Commenter's Reason: This public comment is submitted as a 'place-holder'. In the event that proposal F87-07/08 is ultimately disapproved, the changes this proposal makes to Section 403.7 will not be necessary, and would create a gap in the code if they were to be approved. If F87-07/08 is approved with content similar to that originally proposed, then this comment will not be moved.

Public Comment 3:

Russ Wayman, San Carlos, CA, representing himself requests Disapproval.

Commenter's Reason: Installation of Emergency Responder Radio Communication is proposed under F-87. A separate proposal is submitted to disapprove F-87.
Disapproval of G-53 is to coordinate G-53 with F-87.

Final Action: AS AM AMPC____ D

**G54-07/08
403.10**

Proposed Change as Submitted:

Proponent: Ed Donoghue, Edward Donoghue Associates Inc. (EADAI)

Revise as follows:

403.10 (Supp) Fire service access elevator. In buildings with an occupied floor more than 120 feet (36 576 mm) above the lowest level of fire department vehicle access, a minimum of ~~one~~ three fire service access elevators shall be provided in accordance with Section 3007.

Reason: This particular proposal focuses upon the number of fire service access elevators that should be provided. More specifically the Fire Service must be able to count on at least two elevators at all times upon arrival at the fire scene. Past experience during fires of this type (high-rise), is that on many occasions elevators are not available due to shut downs for various reasons. For this reason, there should be **three** fire service access elevators, to provide the probability of having a minimum of two upon arrival. These would include car shut down because of problems in operation, routine maintenance, modernization programs, EMS operations in the building prior to their arrival and many other reasons to numerous to recount.

Background. As a result of the September 11, 2001 attacks on the World Trade Center, code provisions for emergency egress from tall buildings are being re-examined. There is renewed interest in the use of elevators for both occupant egress and fire fighters access. Therefore a Workshop on the Use of Elevators in Fires and Other Emergencies was held March 2-4, 2004, in Atlanta, Georgia. The workshop was cosponsored by American Society of Mechanical Engineers (ASME International), National Institute of Standards and Technology (NIST), International Code Council (ICC), National Fire Protection Association (NFPA), U.S. Access Board, and the International Association of Fire Fighters (IAFF).

The workshop focused on two general topics:

- (1) Use of Elevators by Fire fighters and
- (2) Use of Elevators by Occupants during Emergencies

To follow up on the ideas generated at the workshop, 2 task groups were formed; one for each topic. Their goals are:

- Review the suggestions from the Workshop on the Use of Elevators in Fires and other Emergencies.
- Develop a prioritized list of issues.
- Conduct a hazard analysis of the prioritized list of issues to see if there are any residual hazards.
- Draft code revisions for those issues that survive the process and the task group members still want addressed.

The membership of these task groups is broad and includes representatives from the elevator industry and manufacturers of devices such as fire alarms, the fire service, model codes and standards development organizations, and the accessibility community as well as fire protection engineers, architects and specialists in human factors and behavior. Since February 2005 the groups have each been conducting a hazard analysis on their assigned topic. The results of the hazard analysis focused upon the fire fighter needs is nearing completion.

The task group studied 16 different cases. In these cases a particular hazard followed by a cause/trigger was reviewed. The result of the hazard interacting with cause/trigger events may create a particular incident/effect. To address possible incident/effects corrective actions are proposed. Such corrective actions are then reviewed to see if they create any residual hazards. The hazard analysis then carries out each of the residual hazards with additional corrective actions until the hazard is mitigated. It is strictly a hazard analysis (i.e. not probabilistic) and certain assumptions were made such as a single fire start in a high rise building.

The code changes generated by this analysis are related both to the summary of corrective actions resulting from the hazard analysis and the existing language related to fire service access elevators placed into the 2007 supplement.

These proposals will work with the 2007 supplement requirements for fire service access elevators to address these concerns. It should be noted that the hazard analysis assumed a lobby to be directly connected with the fire service access elevator thus making the result of the analysis consistent with the philosophical approach found in the 2007 Supplement.

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

Committee Action:

Disapproved

Committee Reason: This proposal was disapproved with a concern of the impact of a minimum requirement of 3 elevators in a small footprint high-rise building. Generally 3 fire service access elevators was felt to be excessive.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Brian Black, BBlack Codes, Inc. representing the National Elevator Industry, Inc. requests Approval as Modified by this public comment.

Modify proposal as follows:

403.10 (Supp) Fire service access elevator. In buildings with an occupied floor more than 120 feet (36 576 mm) above the lowest level of fire department vehicle access, a minimum of three fire service access elevators servicing each occupied floor, or all elevators, whichever is less, shall be provided in accordance with Section 3007.

Commenter's Reason: A survey of firefighters across the country indicates that the number of elevators used for firefighting operations varies from 1 to 6. Experienced firefighters have stated that the Fire Service must be able to count on at least two elevators at all times. Past experience during fires of this type (high-rise), is that on many occasions elevators are not available due to shut downs for various reasons. These would include car shut down because of problems in operation, routine maintenance, modernization programs, EMS operations in the building prior to their arrival and other reasons. Therefore, there should be three fire service access elevators, to provide the probability of having a minimum of two upon arrival. In buildings with fewer than 3 elevators, there is no requirement to add additional elevator(s). This addresses the concern of the committee where a building has a small footprint and would have fewer than 3 elevators.

Final Action: AS AM AMPC_____ D

G55-07/08

403.10 (New)

THIS CODE CHANGE WILL BE HEARD ON THE IBC FIRE SAFETY PORTION OF THE HEARING ORDER.

Proposed Change as Submitted:

Proponent: Greg Lake, Sacramento Metropolitan Fire District, representing the California Fire Chiefs Association (Cal Chiefs)

Add new text as follows:

403.10 Elevator hoistway shaft enclosure integrity. For buildings greater than 420 feet in height above grade plane, the fire-resistance rating of the elevator hoistway enclosure walls shall be determined by meeting the conditions of acceptance specified in ASTM E119 with the hose stream test conducted at the end of the fire test for the original test specimen to determine the integrity of the wall.

(Renumber subsequent sections)

Reason: Cal Chiefs has decided to submit this code change proposal as a result of discussions which occurred during the Public Hearings held at the ICC Final Action Hearings on Code Change Proposals G70-06/07 submitted by the Masonry Alliance for Codes and Standards (MACS) and G73-06/07 submitted by the Ad Hoc Committee on Terrorism Resistant Buildings to address the issue of the physical integrity of elevator hoistway and exit stairway shaft enclosures in super high rise buildings (those buildings greater than 420 in height). Both code changes received significant debate but were subsequently disapproved. However, the Class A voting membership was able to successfully

overturn the Committee's recommendation for disapproval of Code Change G70-06/07 but was unsuccessful in achieving the necessary two-thirds majority vote for approval of the code change. We believe that code change had merit so we reviewed it and revised it to better clarify it and make it more enforceable in our opinion based on this code change submittal.

It is clear in the NIST Final Report of the National Construction Safety Team on the collapse of the World Trade Center Towers which can be found on the NIST website at www.NIST.gov that there is a need to provide a means for determining minimum structural integrity criteria for the means of egress in very tall buildings which may include elevator hoistways for elevators that may be used for emergency access by emergency responders, or as a method of emergency evacuation, especially for people with disabilities. Recommendation 18 in Chapter 9 of the NIST Report stated the following:

"NIST recommends that egress systems (i.e. stairs, elevators, exits) should be designed ... (2) to maintain their functional integrity and survivability under foreseeable building-specific or large-scale emergencies..."

Item B in this recommendation further states:

"The design, functional integrity, and survivability of the egress and other life safety systems, (e.g., stairwell and elevator shafts...) should be enhanced by considering accidental structural loads such as those induced by overpressures (e.g., gas explosions), impacts, or major hurricanes and earthquakes, in addition to fire separation requirements... The stairwells and elevator shafts... should have adequate structural integrity to withstand accidental structural loads and anticipated risks."

In other words, the exit stairway shaft enclosures should be "hardened" beyond what they may be today based on the fire tests currently prescribed in ASTM E119.

We believe that the most direct and effective approach at this time based on the use of nationally recognized standards to determine the structural integrity of the exit stairway shaft enclosure walls is to specify that when the fire-resistance rating for the wall assembly is determined in accordance with ASTM E119, that it is based on the hose stream test portion of the test being conducted at the end of the fire-resistance test for the original test specimen. That is one of three options prescribed in ASTM E119 for when the hose stream test is to be applied. Another option for applying the hose stream test for wall assemblies having a fire-resistance rating of 1-hour or more is to test a second test specimen for one-half the duration of the fire-resistance rating determined by the original test specimen but for not more than 1-hour and then apply the hose stream test. So for a 2-hour fire-resistance rated wall which would be required for these shaft enclosures, the hose stream test under that option would be applied after a 1-hour fire-resistance test has been conducted on a duplicate test specimen of the original 2-hour fire-resistance rated wall assembly. It is obvious to us that if we specify the hose stream test to be conducted at the end of the fire-resistance test for the original test specimen, the wall must be substantially more robust and "hardened" in order to withstand the "impact, erosion, and cooling effects of a hose stream" as specified in Section 11.1 of ASTM E119. The purpose of the hose stream test is also explained in Appendix X5 Commentary to ASTM E119. Section X5.9 Integrity states: "In this hose stream test, the ability of the construction to resist disintegration under adverse conditions is examined."

As representatives of the fire service, we are very concerned that the elevator hoistway enclosures in these very tall buildings be sufficiently "hardened" to assure that they will withstand various impacts and stresses that may occur during an uncontrolled fire. This is especially important since we may be utilizing the elevators to assist in evacuation of the occupants of the building. In the NIST Report it was estimated that the evacuation of a fully occupied World Trade Center Tower would have taken approximately 4 hours. And, of course, we may need to deal with evacuation of disabled occupants utilizing these elevators as well. Also, the responding fire department may also utilize these elevators to gain access to the fire floor since the stairways may not be practical. It was also noted in the NIST Report that it was estimated that the fire department response using the stairways to gain access to the 58th floor of a hypothetical 60 story building for fire fighting operations and rescue purposes would require at least 90 minutes provided the fire department personnel were not carrying any equipment or breathing apparatus but could take as much as 120 minutes if the emergency responders were in fact carrying equipment and breathing apparatus.

It is also important to note that the elevators will also be used for accessible means of egress as required by Section 1007.2.1 of the International Building Code (IBC). Thus, the physically disabled occupants of the building may be relying on being assisted during evacuation or rescued via the elevators so it is critically important that the elevator shafts have sufficient structural integrity during adverse fire exposure conditions to increase the probabilities that they can be utilized throughout the duration of the fire until it has been suppressed and ultimately extinguished.

In conclusion, Cal Chiefs strongly supports the need to "harden" the elevator hoistway enclosures in these super high rise buildings in order to provide adequate fire and life safety for not only the occupants of the building but also for the responding fire department and other emergency personnel who may be using those elevators to gain access to the fire floor, as well as to assist in evacuation of the occupants. We believe that this code change proposal will provide that additional degree of integrity for "hardening" these elevator hoistway enclosures.

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

Committee Action:

Disapproved

Committee Reason: The committee agreed that the hose stream requirements within ASTM E119 were subjective with respect to when the hose stream should be applied and how the results should be interpreted. Further, the committee indicated that there was a lack of substantiating documentation to show that the robustness of elevator hoistway enclosure walls was a problem.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Gini Kruppner, University of California at Merced, representing the California Fire Chiefs Association requests Approval as Modified by this public comment.

Modify proposal as follows:

403.10 Elevator hoistway shaft enclosure integrity. For buildings greater than 420 feet in height above grade plane, the fire-resistance rating of the elevator hoistway enclosure walls shall be determined by meeting the conditions of acceptance specified in ASTM E119 or UL 263 with the hose stream test conducted at the end of the fire test for the original test specimen to determine the integrity of the wall.

Commenter's Reason: The Cal Chiefs believe it is time for the International Building Code (IBC) to respond to one of the more critical recommendations made in the NIST Final Report of the National Construction Safety Team on the Collapse of the World Trade Center Towers. This particular code change proposal specifically addresses the need to "harden" the elevator hoistway shaft enclosures in super high rise buildings to provide additional structural integrity beyond that presently provided for in the code.

ICC Code proposal G55 07/08 attempts to use the existing ASTM E119 standard hose stream test to assure a heightened level of robustness or hardening of elevator shaft walls, without introducing new test standards. ASTM E119 is an established standard and includes the option to apply the hose stream test at the end of the fire test. (ASTM E119 Section 11.3). This is a simple and inexpensive approach to address the recommendations of the NIST World Trade Center Report listed in the original reason statement. Similar proposals have been narrowly defeated the past two code change cycles with the last Fire Safety Committee vote for disapproval being 7-5.

One of the concerns of the Committee was the "hose stream requirements within ASTM E119 were subjective with respect to when the hose stream should be applied and how the results should be interpreted." If one looks at the code change, one will see that the statement is incorrect. As indicated in the proposal it clearly states that the hose stream test is to be applied at the end of the fire-resistance test of the original test specimen. For example, if the shaft enclosure wall is required to have a 2-hour fire-resistance rating, the hose stream test is to be applied immediately after the 2-hour fire-resistance test has been performed on that specific wall assembly rather than on a duplicate test specimen as permitted by ASTM E119. There is no subjectivity on when the hose stream test is applied. The code change proposal states "at the end of the fire resistance test of the original specimen."

There is also nothing subjective on how the results should be interpreted. Per Section 16.1.2 of ASTM E119, which covers the acceptance criteria for passing the hose stream test, it states, "the assembly shall be considered to have failed the hose stream test if an opening develops that permits a projection of water from the stream beyond the unexposed surface during the time of the hose stream test."

There should be no confusion when the hose stream test should be applied to meet this requirement nor how to interpret the results of passing the hose stream test.

There is also some misunderstanding as to what the hose stream test represents. The test is not intended to replicate the use of hose streams by fire service personnel. It is a controlled water application at a specified pressure and duration based on the timed fire exposure. The hose stream was originally developed to address the brittleness of cast and wrought iron after fire exposure. Unlike mild steel, these materials will fail in a brittle manner when exposed to a fire condition. The intent of the hose stream test today is to assess the effects caused by the impact, erosion and cooling of the tested specimen. Applying the hose stream at the end of the required fire test is a simple, yet effective approach to assuring that the integrity of vertical opening protection for elevators in super high rise buildings will be maintained.

Part of the committee's reasoning for disapproval was also cited as "there was a lack of documentation showing that the robustness of stairway and elevator shaft enclosure walls was a problem". We would suggest that the NIST report took into account the findings of the investigation and did not add the recommendation for shaft hardening without cause.

Other opponents have stated that this proposal would eliminate gypsum products from being used. Since gypsum board is already undergoing and passing the hose stream test, we find it perplexing how this would somehow eliminate this product from meeting this requirement.

Prior to voting for disapproval, the committee did approve a modification to include UL 263 as an alternative and equal standard to ASTM E119. This Public Comment reflects this suggestion from the Fire Safety Committee.

In conclusion, we believe that this approach has an overall negligible increase in cost while providing a shaft enclosure that can be depended upon to withstand a modest amount of increased impact, provide erosion resistance from fire hose streams and sprinkler water spray and not be adversely affected by the rapid cooling effects of water. This is a reasonable approach to a recommendation that elevator hoistway enclosures be enhanced to account for unforeseeable emergencies.

Final Action: AS AM AMPC_____ D

G57-07/08

403.12 (New)

THIS CODE CHANGE WILL BE HEARD ON THE IBC FIRE SAFETY PORTION OF THE HEARING ORDER.

Proposed Change as Submitted:

Proponent: Greg Lake, Sacramento Metropolitan Fire District, representing the California Fire Chiefs Association (Cal Chiefs)

Add new text as follows:

403.12 Exit stairway shaft enclosure integrity. For buildings greater than 420 feet in height above grade plane, the fire-resistance rating of the exit stairway enclosure walls shall be determined by meeting the conditions of acceptance specified in ASTM E119 with the hose stream test conducted at the end of the fire test for the original test specimen to determine the integrity of the wall.

(Renumber subsequent sections)

Reason: Cal Chiefs has decided to submit this code change proposal as a result of discussions which occurred during the Public Hearings held at the ICC Final Action Hearings on Code Change Proposals G70-06/07 submitted by the Masonry Alliance for Codes and Standards (MACS) and G73-06/07 submitted by the Ad Hoc Committee on Terrorism Resistant Buildings to address the issue of the physical integrity of exit stairway shaft enclosures in super high rise buildings (those buildings greater than 420 in height). Both code changes received significant debate but were subsequently disapproved. However, the Class A voting membership was able to successfully overturn the Committee's recommendation for disapproval of Code Change G70-06/07 but was unsuccessful in achieving the necessary two-thirds majority vote for approval of the code change. We believe that code change had merit so we reviewed it and revised it to better clarify it and make it more enforceable in our opinion based on this code change submittal.

It is clear in the NIST Final Report of the National Construction Safety Team on the collapse of the World Trade Center Towers which can be found on the NIST website at www.NIST.gov that there is a need to provide a means for determining minimum structural integrity criteria for the means of egress in very tall buildings which includes the exit stairways, as well as elevator hoistways for elevators that may be used for emergency access by emergency responders, or as a method of emergency evacuation, especially for people with disabilities. Recommendation 18 in Chapter 9 of the NIST Report stated the following:

"NIST recommends that egress systems (i.e. stairs, elevators, exits) should be designed ... (2) to maintain their functional integrity and survivability under foreseeable building-specific or large-scale emergencies..."

Item B in this recommendation further states:

"The design, functional integrity, and survivability of the egress and other life safety systems, (e.g., stairwell and elevator shafts...) should be enhanced by considering accidental structural loads such as those induced by overpressures (e.g., gas explosions), impacts, or major hurricanes and earthquakes, in addition to fire separation requirements... The stairwells and elevators shafts... should have adequate structural integrity to withstand accidental structural loads and anticipated risks."

In other words, the exit stairway shaft enclosures should be "hardened" beyond what they may be today based on the fire tests currently prescribed in ASTM E119.

We believe that the most direct and effective approach at this time based on the use of nationally recognized standards to determine the structural integrity of the exit stairway shaft enclosure walls is to specify that when the fire-resistance rating for the wall assembly is determined in accordance with ASTM E119, that it is based on the hose stream test portion of the test being conducted at the end of the fire-resistance test for the original test specimen. That is one of three options prescribed in ASTM E119 for when the hose stream test is to be applied. Another option for applying the hose stream test for wall assemblies having a fire-resistance rating of 1-hour or more is to test a second test specimen for one-half the duration of the fire-resistance rating determined by the original test specimen but for not more than 1-hour and then apply the hose stream test. So for a 2-hour fire-resistance rated wall which would be required for these shaft enclosures, the hose stream test under that option would be applied after a 1-hour fire-resistance test has been conducted on a duplicate test specimen of the original 2-hour fire-resistance rated wall assembly. It is obvious to us that if we specify the hose stream test to be conducted at the end of the fire-resistance test for the original test specimen, the wall must be substantially more robust and "hardened" in order to withstand the "impact, erosion, and cooling effects of a hose stream" as specified in Section 11.1 of ASTM E119. The purpose of the hose stream test is also explained in Appendix X5 Commentary to ASTM E119. Section X5.9 Integrity states: "In this hose stream test, the ability of the construction to resist disintegration under adverse conditions is examined."

As representatives of the fire service, we are very concerned that the stairway exit enclosures in these very tall buildings be sufficiently "hardened" to assure that they will withstand various impacts and stresses that may occur during an uncontrolled fire. This is especially important since we may be utilizing the stairs to assist in evacuation of the occupants of the building. In the NIST Report it was estimated that the evacuation of a fully occupied World Trade Center Tower would have taken approximately 4 hours. And, of course, we may need to deal with evacuation of disabled occupants utilizing these exit stairways as well. Also, the responding fire department may also utilize these exit stairways to gain access to the fire floor. It was also noted in the NIST Report that it was estimated that the fire department response using the stairways to gain access to the 58th floor of a hypothetical 60 story building for fire fighting operations and rescue purposes would require at least 90 minutes provided the fire department personnel were not carrying any equipment or breathing apparatus but could take as much as 120 minutes if the emergency responders were in fact carrying equipment and breathing apparatus.

In conclusion, Cal Chiefs strongly supports the need to "harden" the exit stairway enclosures in these super high rise buildings in order to provide adequate fire and life safety for not only the occupants of the building but also for the responding fire department and other emergency personnel who may be using those stairs to gain access to the fire floor, as well as to assist in evacuation of the occupants. We believe that this code change proposal will provide that additional degree of integrity for "hardening" these exit stair enclosures.

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

Committee Action:

Disapproved

Committee Reason: Consistent with proposed code change G55, the committee agreed that the hose stream requirements within ASTM E119 were subjective with respect to when the hose stream should be applied and how the results should be interpreted. Further, the committee indicated that there was a lack of substantiating documentation to show that the robustness of exit stairway enclosure walls was a problem.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Gini Kruppner, University of California at Merced, representing the California Fire Chiefs Association requests Approval as Modified by this public comment.

Modify proposal as follows:

403.12 Exit stairway shaft enclosure integrity. For buildings greater than 420 feet in height above grade plane, the fire-resistance rating of the exit stairway enclosure walls shall be determined by meeting the conditions of acceptance specified in ASTM E119 or UL 263 with the hose stream test conducted at the end of the fire test for the original test specimen to determine the integrity of the wall.

Commenter's Reason: The Cal Chiefs believe it is time for the International Building Code (IBC) to respond to one of the more critical recommendations made in the NIST Final Report of the National Construction Safety Team on the Collapse of the World Trade Center Towers. This particular code change proposal specifically addresses the need to "harden" the exit stairway shaft enclosures in super high rise buildings to provide additional structural integrity beyond that presently provided for in the code.

ICC Code proposal G57 07/08 attempts to use the existing ASTM E119 standard hose stream test to assure a heightened level of robustness or hardening of exit stairway shaft walls, without introducing new test standards. ASTM E119 is an established standard and includes the option to apply the hose stream test at the end of the fire test. (ASTM E119 Section 11.3). This is a simple and inexpensive approach to address the recommendations of the NIST World Trade Center Report listed in the original reason statement. Similar proposals have been narrowly defeated the past two code change cycles with the last Fire Safety Committee vote for disapproval being 6-5.

One of the concerns of the Committee was the "hose stream requirements within ASTM E119 were subjective with respect to when the hose stream should be applied and how the results should be interpreted." If one looks at the code change, one will see that the statement is incorrect. As indicated in the proposal it clearly states that the hose stream test is to be applied at the end of the fire-resistance test of the original test specimen. For example, if the shaft enclosure wall is required to have a 2-hour fire-resistance rating, the hose stream test is to be applied immediately after the 2-hour fire-resistance test has been performed on that specific wall assembly rather than on a duplicate test specimen as permitted by ASTM E119. There is no subjectivity on when the hose stream test is applied. It says "at the end of the fire resistance test of the original specimen".

There is nothing subjective on how the results should be interpreted. Per Section 16.1.2 of ASTM E119, which covers the acceptance criteria for passing the hose stream test, it states, "the assembly shall be considered to have failed the hose stream test if an opening develops that permits a projection of water from the stream beyond the unexposed surface during the time of the hose stream test."

There should be no confusion when the hose stream test should be applied to meet this requirement nor how to interpret the results of passing the hose stream test.

There is also some understanding as to what the hose stream test represents. The test is not intended to replicate the use of hose streams by fire service personnel. It is a controlled water application at a specified pressure and duration based on the timed fire exposure. The hose stream was originally developed to address the brittleness of cast and wrought iron after fire exposure. Unlike mild steel, these materials will fail in a brittle manner when exposed to a fire condition. The intent of the hose stream test today is to assess the effects caused by the impact, erosion and cooling of the tested specimen. Applying the hose stream at the end of the required fire test is a simple, yet effective approach to assuring that vertical paths of egress and the integrity of vertical opening protection for them in super high rise buildings will be maintained.

Part of the committee's reasoning for disapproval was also cited as "there was a lack of documentation showing that the robustness of stairway and elevator shaft enclosure walls was a problem". We would suggest that the NIST report took into account the findings of the investigation and did not add the recommendation for shaft hardening without cause.

Other opponents have stated that this proposal would eliminate gypsum products from being used. Since gypsum board is already undergoing and passing the hose stream test, we find it perplexing how this would somehow eliminate this product from meeting this requirement.

Prior to the vote for disapproval, the committee approved a modification to include UL 263 as an alternative and equal test standard to ASTM E119. This Public Comment includes the committee's recommendation.

In conclusion, we believe that this approach has an overall negligible increase in cost while providing a shaft enclosure that can be depended on to withstand a modest amount of increased impact, provide erosion resistance from fire hose streams and sprinkler water spray and not be adversely affected by the rapid cooling effects of water. This is a reasonable approach to a recommendation that the protection of the vertical egress elements be enhanced to account for unforeseeable emergencies.

Final Action: AS AM AMPC_____ D

G58-07/08, Part I

403.12.1, 707.14.1, 3002.3 (New), 3006.4, Chapter 35 (New)

NOTE: PART II DID NOT RECEIVE A PUBLIC COMMENT AND IS ON THE CONSENT AGENDA. PART II IS REPRODUCED FOR INFORMATIONAL PURPOSES ONLY FOLLOWING ALL OF PART I.

Proposed Change as Submitted:

Proponent: Gary Lewis, Chair, representing the ICC Ad Hoc Committee on Terrorism Resistant Buildings

PART I – IBC GENERAL

1. Revise as follows:

403.12.1 Stairway communications and monitoring system. The following stairway communication and monitoring systems shall be installed at every fifth floor of each required stairway and connected to an approved constantly attended station:

1. A Telephone or other two-way communications system connected to an approved constantly attended station shall be provided at not less than every fifth floor in each required stairway where the doors to the stairway are locked.
2. Video surveillance system installed in accordance with NFPA 731.

2. Revise as follows:

707.14.1 (Supp) Elevator lobby. An enclosed elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than three stories. The lobby shall separate the elevator shaft enclosure doors from each floor by fire partitions equal to the fire-resistance rating of the corridor and the required opening protection. Elevator lobbies shall have at least one means of egress complying with Chapter 10 and other provisions within this code. In buildings with an occupied floor more than 75 feet above the lowest level of fire department vehicle access, the elevator lobby shall be provided with a video surveillance system installed in accordance with NFPA 731.

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 707.2 are not required to have enclosed elevator lobbies.
3. 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. In other than Group I-2 and I-3, and buildings having occupied floors located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access, 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.
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.
6. Enclosed elevator lobbies are not required where the elevator hoistway is pressurized in accordance with Section 707.14.2.

3. Add new text as follows:

3002.3 Elevator hoistway monitoring. In buildings with an occupied floor more than 75 feet above the lowest level of fire department vehicle access, the elevator hoistway shall be provided with a video surveillance system installed in accordance with NFPA 731 at the top of each elevator hoistway mounted to look down the hoistway in the direction of the top of the elevator cab. A reflective material shall be mounted to the top of the elevator cab such that the reflection will be observable by the video surveillance system at the lowest stop of the elevator cab. The reflector shall be no less than two inches (5.1cm) by 12 inches (30.5 cm).

(Renumber subsequent sections)

4. Revise as follows:

3006.4 (Supp) Machine rooms and machinery spaces. Elevator machine rooms and machinery spaces shall be enclosed with fire barriers constructed in accordance with Section 706 or horizontal assemblies constructed in accordance with Section 711, or both. The fire-resistance rating shall not be less than the required rating of the hoistway enclosure served by the machinery. Openings in the fire barriers shall be protected with assemblies having a fire protection rating not less than that required for the hoistway enclosure doors. In buildings with an occupied floor more than 75 feet above the lowest level of fire department vehicle access, the machine room shall be provided with smoke detectors and a video surveillance system installed in accordance with NFPA 731.

Exceptions:

1. Where machine rooms and machinery spaces do not abut and have no openings to the hoistway enclosure they serve the fire barriers constructed in accordance with 706 or horizontal assemblies constructed in accordance with Section 711, or both, shall be permitted to be reduced to a 1-hour fire- resistance rating.
2. In buildings 4 stories or less, above grade plane when machine room and machinery spaces do not abut and have no openings to the hoistway enclosure they serve, the machine room and machinery spaces are not required to be fire-resistance rated.

5. Add standard to Chapter 35:

NFPA 731 The Standard for the Installation of Electronic Premises Security Systems

Reason: The purpose of this change is to increase the ability of firefighters, and other emergency responders, to develop a clear picture of conditions throughout the building which will enable them to better manage evacuation, fire suppression and other emergency response activities. The purpose is also to enhance the safety of emergency responders by enabling them to maintain better situational awareness.

The National Institute of Standards and Technology's (NIST) report on the World Trade Center (WTC) tragedy amply documented the tactical and informational difficulties experienced by emergency responders and occupants during the WTC event. Similar difficulties occur in much smaller events and they place lives at risk.

The Code already requires many systems which enhance emergency responder and occupant awareness. Their use can be improved and they can be further supplemented. Recommendations 13, 14, and 15 of the WTC Report outline a number of valuable measures which are reasonable and practical. To the extent appropriate, this proposal seeks to incorporate those provisions into the Code.

This proposal seeks to improve responder awareness of conditions in the building to assist in management of an incident, improve the existing fire command center to enhance its value, require the off-site transmission of the key data available in the center, require redundancy of key emergency circuits and improve the robustness and the location of the center.

Awareness is improved by requiring control center monitoring of:

1. Video surveillance in stairway shafts, elevator lobbies, elevator hoistways, and elevator machine rooms as well as any other video in the building,
2. Remote controls and status indicators for risers and remote control valves.
3. Status indicators for all smoke detectors.

The value of the fire control center already required by the Code is enhanced by the additional monitoring made possible, and a strengthened "Emergency Resource Manual" which will now include operating instructions for emergency systems as well as information on the emergency aspects of HVAC systems, elevator controls, communication systems and utilities. The center is retitled the emergency command center to reflect its role in managing emergencies other than fire emergencies.

New language at the end of amended Section 911.1 requires the ability to transmit the information available in the center to off-site fire command facilities including mobile facilities.

There will those opponents that will claim that that the amount of information generated by the video monitoring in a large building will cause "information overload". They will question the ability of the staff in the fire command center to observe all of the required video feeds at once. In response to this, please be aware that there is commercial off-the-shelf "intelligent software" that is available such that the staff of the fire command center need not observe all of these feeds; the software is "event driven" and will select information that is pertinent and display just this information. This software is currently available off-the-shelf from companies such as Johnson Control and Honeywell. The Port Authority of New York and New Jersey is currently installing a system to monitor the perimeter of the Newark airport by the use of **ONE** video screen. Clearly the perimeter of this airport is substantially larger than the portions of the building that are required to be monitored as a result of this code change. By requiring these video feeds, the situational awareness of the staff in the fire command center is substantially increased. While researching the availability of this software, we were informed by Mr. Alan Reiss the building manager of the World Trade Center, that he was unaware of the magnitude of the event on September 11, 2001. In fact, he commented that the people at home watching the television had a better situational awareness than he did because of the lack of information available at the fire command center. This has to be changed and this proposal will change it.

Bibliography:

National Institute of Standards and Technology. Final Report of the National Construction Safety Team on the Collapses of the World Trade Center Towers. United States Government Printing Office: Washington, D.C. September 2005.

Cost Impact: These proposed amendments will increase the cost of construction, but, the increase will be modest when viewed as a percentage of total construction costs.

Analysis: Review of proposed new standard NFPA 731-06 indicated that, in the opinion of ICC Staff, the standard **did** comply with ICC standards criteria.

PART I – IBC GENERAL

Committee Action:

Disapproved

Committee Reason: The requirements were felt to be overly restrictive and the standard did not provide the technical information needed. Statistics do not seem to support the need for such a monitoring system.

Assembly Action:

None

Individual Consideration Agenda

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

Public Comment:

Gary Lewis, Chair, representing the ICC Ad Hoc Committee on Terrorism Resistant Buildings requests Approval as Modified by this public comment for Part I.

Replace proposal as follows:

1. IBC Revise as follows:

403.12.1 Stairway communications and monitoring system. The following stairway communication and monitoring systems shall be installed at every fifth floor of each required stairway and connected to an approved constantly attended station:

1. ~~A Telephone or other two-way communications system connected to an approved constantly attended station shall be provided at not less than every fifth floor in each required stairway where the doors to the stairway are locked.~~
2. Video surveillance system installed in accordance with NFPA 731.

2. IBC Revise as follows:

707.14.1 (Supp) Elevator lobby. An enclosed elevator lobby shall be provided at each floor where an elevator shaft enclosure connects more than three stories. The lobby shall separate the elevator shaft enclosure doors from each floor by fire partitions equal to the fire-resistance rating of the corridor and the required opening protection. Elevator lobbies shall have at least one means of egress complying with Chapter 10 and other provisions within this code. In buildings with an occupied floor more than 75 feet above the lowest level of fire department vehicle access, the elevator lobby shall be provided with a video surveillance system installed in accordance with NFPA 731.

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 707.2 are not required to have enclosed elevator lobbies.
3. 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. In other than Group I-2 and I-3, and buildings having occupied floors located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access, 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.
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.
6. Enclosed elevator lobbies are not required where the elevator hoistway is pressurized in accordance with Section 707.14.2.

3. IBC Add standard to Chapter 35:

NFPA 731 The Standard for the Installation of Electronic Premises Security Systems

4. IFC Revise as follows:

509.1 (IBC [F] 911.1) (Supp.) Features. Where required by other sections of this code and in all buildings classified as high-rise buildings by the *International Building Code*, a fire command center for fire department operations shall be provided. The location and accessibility of the fire command center shall be approved by the fire department. The fire command center shall be separated from the remainder of the building by not less than a 1-hour fire barrier constructed in accordance with Section 706 of the *International Building Code* or horizontal assembly constructed in accordance with Section 711 of the *International Building Code*, or both. The room shall be a minimum of 96 square feet (9 m²) with a minimum dimension of 8 feet (2438 mm). A layout of the fire command center and all features required by this section to be contained therein shall be submitted for approval prior to installation. The fire command center shall comply with NFPA 72 and shall contain the following features:

1. The emergency voice/alarm communication system unit.
2. The fire department communications system.
3. Fire-detection and alarm system annunciator system.
4. Annunciator visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air-handling systems.
6. The fire-fighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking stairway doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, means of egress, fire protection systems, fire-fighting equipment and fire department access.
13. Work table.
14. Generator supervision devices, manual start and transfer features.
15. Public address system, where specifically required by other sections of this code.
16. Elevator fire recall switch in accordance with ASME A17.1.
17. Elevator emergency or standby power selector switch(es), where emergency or standby power is provided.
18. Video monitoring for video surveillance systems required by the *International Building Code*.

Commenter's Reason: This proposal is the work of the ICC Ad Hoc Committee on Terrorism Resistant Buildings (TRB). The TRB has scaled back this proposal so as not to be over restrictive. This was based on the February 18 – March 1, 2008 Public Hearings on the 2006 Edition of the International Building Code General Committee Hearing results. The hearing results noted that this proposal was disapproved because “The requirements were felt to be overly restrictive and the standard did not provide the technical information needed. Statistics do not seem to support the need for a monitoring system.”

As such the TRB has revised the proposal for monitoring requirements to be applicable to every fifth floor of high rise buildings and video monitoring at all elevator lobbies for buildings with occupied floors above 75 feet. The TRB consider this a reasonable compromise to the code committee's concerns without sacrificing the safety aspects of the intent of original proposal. As proposed, the requirement would meet the intent of the NIST WTC Report in that the monitoring system will increase the ability of firefighters, and other emergency responders, to develop a clear picture of conditions of every fifth floor of high rise buildings and the elevator lobbies. This in turn will enable those persons to better manage evacuation, fire suppression, and other emergency activities. The proposal is in line with NIST WTC Recommendations on items 13, 14, and 15. Since the TRB supports the requirement of a video a monitoring system, it was determined that the reference to and use of NFPA Standard 731 is appropriate.

Bottom line, the video monitoring system will provide fire and emergency responders' immediate information on the life safety condition and status of the areas noted. Having such ability will exceed any expense incurred for the installation of the video monitoring system - the expense is minor to the benefit of the system. (Note: Regardless of this requirement, electronic data access systems can be installed for a reasonable cost in most buildings today). A video monitoring system will provide fire and emergency responders with accurate and up to date information on the condition and activities of the given areas for emergency responders to make tactical decisions under emergency conditions. With that said, the TRB committee encourages consideration and support for this proposal.

Final Action: AS AM AMPC____ D

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

G58-07/08, PART II – IFC

Revise as follows:

509.1 (IBC [F] 911.1) (Supp) Features. Where required by other sections of this code and in all buildings classified as high-rise buildings by the *International Building Code*, a ~~fire emergency~~ command center for ~~fire department~~ emergency operations shall be provided. The location and accessibility of the ~~fire emergency~~ command center shall be approved by the fire department. The ~~fire emergency~~ command center shall be separated from the remainder of the building by not less than a 1-hour fire barrier constructed in accordance with Section 706 of the *International Building Code* or horizontal assembly constructed in accordance with Section 711 of the *International Building Code*, or both. The room shall be a minimum of 96 square feet (9 m²) with a minimum dimension of 8 feet (2438 mm). A layout of the ~~fire emergency~~ command center and all features required by this section to be contained therein shall be submitted for approval prior to installation. The ~~fire emergency~~ command center shall comply with NFPA 72 and shall contain the following features:

1. The emergency voice/alarm communication system unit.
2. The fire department communications system.
3. Fire-detection and alarm system annunciator system.
4. Annunciator visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air-handling systems.
6. The fire-fighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking stairway doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Building emergency resource manual approved by the fire department that includes emergency operation instructions and schematic building plans indicating the typical floor plan and detailing the building core, means of egress, as well as the layout and operating instructions for the emergency aspects of fire protection systems, HVAC systems, elevator controls, communication systems, utilities, fire-fighting equipment and fire department access.
13. Work table.
14. Generator supervision devices, manual start and transfer features.
15. Public address system, where specifically required by other sections of this code.
16. Elevator fire recall switch in accordance with ASME A17.1.
17. Elevator emergency or standby power selector switch(es), where emergency or standby power is provided.
18. Video monitoring for video surveillance system required by the *International Building Code* and any others used to monitor conditions or activities in the building.
19. Status indication of smoke detectors and video surveillance system for elevator machine rooms.
20. Controls and valve status indicators for remote control valves on sprinkler/standpipe vertical risers.

In buildings that are more than 420 feet (128 m) in height, systems and equipment for features 1, 2, 3, 4, 7, 15, and 20 shall be provided with redundant circuitry during normal and emergency operating modes and shall have the ability to transmit and communicate off-site, including mobile access, if required by the Fire Department.

Reason: Same as Part I.

Cost Impact: Same as Part I.

PART II – IFC

Withdrawn by Proponent

G59-07/08

403.14 (New), [F] 909.2 (IFC 909.2), 1020.1.7

Proposed Change as Submitted:

Proponent: Tony Crimi, A.C. Consulting Solutions, Inc., representing the International Firestop Council

1. Add new text as follows:

403.14 Stair pressurization. Every required interior exit stairway serving floors more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access shall comply with the requirements of Sections 909.20 and 1020.1.7, and shall be pressurized to a minimum of 0.15 inch of water (37 Pa) and a maximum of 0.35 inch of water (87 Pa) relative to the building measured with all stairway doors closed under maximum anticipated stack pressures.