INTERNATIONAL WILDLAND-URBAN INTERFACE CODE

WUIC2-06/07
102.1

Proposed Change as Submitted:

Proponent: Rebecca Baker, Jefferson County, CO, Chair, ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin)

SECTION 102
AUTHORITY OF THE CODE OFFICIAL

102.1 Powers and duties of the code official. The code official is hereby authorized and directed to enforce the provisions of this code. The code official shall have the authority to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions. Such interpretations, policies, and procedures shall be in compliance with the intent and purpose of this code. Such policies and procedures shall not have the effect of waiving requirements specifically provided for in this code. ~~to administer and enforce this code, or designated sections thereof, and all ordinances of the jurisdiction pertaining to designated wildland-urban interface areas. For such purposes, the code official shall have the powers of a law enforcement officer.~~

102.2 Interpretations, rules and regulations. (No change to current text)

102.3 Liability of the code official. The code official, member of the board of appeals or employee charged with the enforcement of this code, acting in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered personally liable for damages that may accrue to persons or property as a result of an act or by reason of an act or omission in the discharge of such duties. A suit brought against the code official or employee because of such act or omission performed by the code official or employee in the enforcement of any provision of such codes or other pertinent laws or ordinances implemented through the enforcement of this code or enforced by the code enforcement agency shall be defended by this jurisdiction until final termination of such proceedings, and any judgment resulting therefrom shall be assumed by this jurisdiction. The code enforcement agency or its parent jurisdiction shall not be held as assuming any liability by reason of the inspections authorized by this code or any permits or certificates issued under this code.

102.4 Other agencies: (No change to current text)

102.5 Applications and permits. The code official is authorized to receive applications, review construction documents and issue permits for construction regulated by this code, issue permits for operations regulated by this code, inspect the premises for which such permits have been issued and enforce compliance with the provisions of this code.

Reason: Consistency and coordination among the I-Codes is one of the cornerstones of the ICC Code Development Process. This holds true for not only the technical code provisions but also for the administrative code provisions as contained in Chapter 1 of all the I-Codes.

In response to concerns raised by the ICC membership since publication of the first editions of the I-Codes, the ICC Board established the Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin) to review Chapter 1 administrative provisions in each code in the International Codes family and improve the correlation among the I-Codes through the code development process. In order to ensure that this correlation process will continue in an orderly fashion, it is also anticipated that future code development and maintenance of the administrative provisions of the I-Codes family will be overseen by a single, multi-discipline code development committee.

The AHC-Admin is submitting a series of code change proposals designed to provide consistent and correlated administrative provisions among the I-Codes using existing I-Code texts, as noted. The intent of this correlation effort is not to have absolutely identical text in each of the I-Codes but, rather, text that has the same intent in accomplishing the administrative tasks among the I-Codes. While some proposed text may be "new" because it was judged by the AHC to be necessary to this particular code, it is not new to the I-Code family, since it already exists in one or more of the International Codes. Unless otherwise noted, there are no technical changes being proposed to these sections. A comparative matrix of current I-Codes Chapter 1 text may be found on the ICC website at www.iccsafe.org/cs/cc/admin/index.html.

This proposal focuses on the authority of the code official. A section-by-section discussion follows:

102.1: The purpose of this proposed change is to provide correlation with current Section 104.1 of the *International Building Code*, *International Residential Code*, *International Existing Building Code*, and Section 302.1 of the *ICC Electrical Code---Administrative Provisions* the texts of which the AHC-Admin felt provide a more comprehensive and orderly approach than the current text of this section. A similar correlating proposal has been submitted to the *International Fire Code*, *International Mechanical Code*, *International Private Sewage Disposal Code, International Property Maintenance Code*, *International Plumbing Code* and *International Fuel Gas Code.*

102.3: The purpose of this proposed change is to provide correlation with Section 104.8 of the *International Building Code*, *International Residential Code*, *International Existing Building Code.*

The revision will afford important protection to not only code enforcement staff but also to members of the appeals board who typically serve voluntarily and might not personally have the liability protection afforded by the revised text.

A similar correlating proposal has been submitted to the *International Mechanical Code*, *International Plumbing Code, International Fire Code* and *International Private Sewage Disposal Code.*

102.5: The purpose of this proposed change is to add an important administrative provision not that does not currently exist in the IWUIC, the general source text for which is Section 104.2 of the *International Building Code, International Residential Code* and *International Existing Building Code* and Section 104.3 of the *International Fuel Gas Code*, *International Mechanical Code*, *International Plumbing Code,* and *International Private Sewage Disposal Code.* The specific source text for it is Section 104.2 of the *International Fire Code.*

This section establishes the important authority and responsibility of the code official to receive, review and act on permit applications required by the code. It also requires that all premises for which permits are issued must be inspected either before or after the permit is issued to determine compliance with the code provisions and terms of the permit.

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

Committee Action: **Disapproved**

Committee Reason: Based on testimony, the committee attempted to modify the proposal to satisfy some of the concerns expressed, which included, in Section 102.1, deletion of the words "...and directed..." in the first sentence, deletion of the last underlined sentence and retention of the last struck sentence of the current text. However, consensus among the committee could not be reached on the modifications and it was suggested that the proponent submit a public comment to provide the noted revisions.

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:

Rebecca Baker, Chair, Jefferson County, CO representing the ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes, requests Approved as Modified.

Modify proposal as follows:

102.1 Powers and duties of the code official. The code official is hereby authorized ~~and directed~~ to enforce the provisions of this code. The code official shall have the authority to render interpretations of this code and to adopt policies and procedures in order to clarify the application of its provisions. Such interpretations, policies, and procedures shall not have the effect of waiving requirements specifically provided for in this code.

(Portions of the proposal not shown remain unchanged)

Commenter's Reason: The ICC Ad-Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin) was tasked with reviewing Chapter 1 administrative provisions in each of the I-Codes and attempting to correlate applicable provisions through the code development process.

The IFC Committee discussed several modifications to this code change and suggested a public comment to move them forward. One was a concern over the addition of the words "and directed" in Section 102.1 and that phrase is being proposed to be stricken as requested by the IFC Committee.

The IFC Committee also suggested deletion of the last added sentence in Section 102.1 that reads "Such policies and procedures shall not have the effect of waiving requirements specifically provided for in this code." The AHC-Admin feels that that sentence should remain in order to provide correlation with the same sentence in IFC Section 104.1.

Finally, the IFC Committee suggested that the stricken last sentence of the current text of Section 102.1 that read "For such purposes, the code official shall have the powers of a law enforcement officer." be reinstated. The AHC-Admin feels that that sentence should remain deleted in order to provide correlation with the IFC Section 104.1 which does not include that text and because the granting of the powers of a law enforcement officer is usually a function of state government and therefore outside the scope of this model code.

No other modifications are being proposed to the original proposal. In addition to promoting consistency and addressing the IFC Committee's concerns, it provides vital language in Sections 102.3 and 102.5 that is needed to give reasonable protections to those enforcing this code and to the citizen volunteers who serve their community on boards of appeals without remuneration.

Final Action: AS AM AMPC____ D

WUIC3-06/07
102.4, 102.5 (Both New)

Proposed Change as Submitted:

Proponent: Rebecca Baker, Jefferson County, CO, Chair, ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin)

Add new text as follows:

102.4 Subjects not regulated by this code. Where no applicable standards or requirements are set forth in this code, or are contained within other laws, codes, regulations, ordinances or policies adopted by the jurisdiction, compliance with applicable standards of other nationally recognized safety standards, as approved, shall be deemed as prima facie evidence of compliance with the intent of this code.

102.5 Matters not provided for. Requirements that are essential for the public safety of an existing or proposed activity, building or structure, or for the safety of the occupants thereof, which are not specifically provided for by this code shall be determined by the building official consistent with the necessity to establish the minimum requirements to safeguard the public health, safety and general welfare.

Reason: Consistency and coordination among the I-Codes is one of the cornerstones of the ICC Code Development Process. This holds true for not only the technical code provisions but also for the administrative code provisions as contained in Chapter 1 of all the I-Codes.

In response to concerns raised by the ICC membership since publication of the first editions of the I-Codes, the ICC Board established the Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin) to review Chapter 1 administrative provisions in each code in the International Codes family and improve the correlation among the I-Codes through the code development process. In order to ensure that this correlation process will continue in an orderly fashion, it is also anticipated that future code development and maintenance of the administrative provisions of the I-Codes family will be overseen by a single, multi-discipline code development committee.

The AHC-Admin is submitting a series of code change proposals designed to provide consistent and correlated administrative provisions among the I-Codes using existing I-Code texts, as noted. The intent of this correlation effort is not to have absolutely identical text in each of the I-Codes but, rather, text that has the same intent in accomplishing the administrative tasks among the I-Codes. While some proposed text may be "new" because it was judged by the AHC to be necessary to this particular code, it is not new to the I-Code family, since it already exists in one or more of the International Codes. Unless otherwise noted, there are no technical changes being proposed to these sections. A comparative matrix of current I-Codes Chapter 1 text may be found on the ICC website at www.iccsafe.org/cs/cc/admin/index.html.

Although both of these proposed sections provide a useful administrative provision, their content is very similar in that they both deal with those instances when the code or other adopted laws or standards simply do not provide adequate requirements for the protection of public safety. The primary difference between the two texts is that Section 102.4 uses any appropriate nationally recognized safety standard to fill the gap while Section 102.5 uses the judgment and authority of the code official.

Note that both of the proposed sections currently appear in the *International Fire Code,* as indicated in the individual reason statements below.

102.4: The purpose of this proposed change is to provide a needed administrative provision not currently in the IBC, the source text for which is Section 102.7 of the *International Fire Code* and Section 102.8 of the *ICC Electrical Code---Administrative Provisions.*

The section will provide the code official with an effective tool to accomplish the task of reasonable enforcement by providing guidance for situations in which no specific standard or requirement is designated in the code or otherwise adopted by the jurisdiction.

A similar correlating proposal has also been submitted to the *International Existing Building Code*, *International Residential Code*, *International Mechanical Code*, *International Plumbing Code, International Private Sewage Disposal Code*, *International Energy Conservation Code, International Property Maintenance Code* and *International Fuel Gas Code.*

102.5: The purpose of this proposed change is to provide a needed administrative provision not currently in the IBC, the source text for which is Section 102.8 of the *International Fire Code* and Section 102.9 of the *International Fuel Gas Code*, *International Plumbing Code, International Mechanical Code*, and *International Private Sewage Disposal Code*.

Evolving technology in our society will sometimes result in a situation or circumstance that the code does not cover. The reasonable application of the code to such hazardous, unforeseen conditions will be provided through this section. Clearly, such a section is needed and the code official's experience and judgment must be used. The proposed section, however, would not override requirements that may be preferred when the code provides alternative methods. Additionally, the section can be used to implement the general performance-oriented language of the code in specific enforcement situations.

A similar correlating proposal has also been submitted to the *International Existing Building Code*, *International Residential Code*, *International Energy Conservation Code* and *International Property Maintenance Code.*

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

Committee Action: **Approved as Modified**

Modify proposal as follows:

102.4 Subjects not regulated by this code. Where no applicable standards or requirements are set forth in this code, or are contained within other laws, codes, regulations, ordinances or policies adopted by the jurisdiction, compliance with applicable standards of other nationally recognized safety standards, as approved, shall be deemed as prima facie evidence of compliance with the intent of this code.

102.5 Matters not provided for. Requirements that are essential for the public safety of an existing or proposed activity, building or structure, or for the safety of the occupants thereof, which are not specifically provided for by this code shall be determined by the ~~building~~ code official consistent with the necessity to establish the minimum requirements to safeguard the public health, safety and general welfare.

Committee Reason: The proposal will provide needed administrative provisions that will give the code official a tool by which to deal with matters that are not included in the code. The editorial modification recognizes that the IWUIC has no specifically-named title for the code official.

Assembly Action: **None**

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:

Craig Connor, Building Quality, requests Disapproval.

Commenter's Reason:

The code should not regulate "subjects not regulated by this code". All similar code changes in the other codes were defeated (G13, EC10, FG4, M2, P3, PSD4, RB5, PM2).

Final Action: AS AM AMPC____ D

WUIC4-06/07
102

Proposed Change as Submitted:

Proponent: Rebecca Baker, Jefferson County, CO, Chair, ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin)

Add new section as follows:

SECTION 102
ENFORCEMENT AGENCY

102.1 Creation of enforcement agency. The department of [NAME OF DEPARTMENT] is hereby created and the official in charge thereof shall be known as the code official.

102.2 Appointment. The code official shall be appointed by the chief appointing authority of the jurisdiction.

102.3 Deputies. In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the code official shall have the authority to appoint a deputy(s). Such employees shall have powers as delegated by the code official.

(Renumber subsequent sections)

Reason: Consistency and coordination among the I-Codes is one of the cornerstones of the ICC Code Development Process. This holds true for not only the technical code provisions but also for the administrative code provisions as contained in Chapter 1 of all the I-Codes.

In response to concerns raised by the ICC membership since publication of the first editions of the I-Codes, the ICC Board established the Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin) to review Chapter 1 administrative provisions in each code in the International Codes family and improve the correlation among the I-Codes through the code development process. In order to ensure that this correlation process will continue in an orderly fashion, it is also anticipated that future code development and maintenance of the administrative provisions of the I-Codes family will be overseen by a single, multi-discipline code development committee.

The AHC-Admin is submitting a series of code change proposals designed to provide consistent and correlated administrative provisions among the I-Codes using existing I-Code texts, as noted. The intent of this correlation effort is not to have absolutely identical text in each of the I-Codes but, rather, text that has the same intent in accomplishing the administrative tasks among the I-Codes. While some proposed text may be "new" because it was judged by the AHC to be necessary to this particular code, it is not new to the I-Code family, since it already exists in one or more of the International Codes. Unless otherwise noted, there are no technical changes being proposed to these sections. A comparative matrix of current I-Codes Chapter 1 text may be found on the ICC website at www.iccsafe.org/cs/cc/admin/index.html.

The purpose of this proposal is to provide a means for creating an agency within the adopting jurisdiction to enforce the provisions of the code. This section does not now exist in the IWUIC as it does in the *International Building Code*, *International Existing Building Code*, *International Residential Code*, *International Fire Code*, *International Mechanical Code*, *International Plumbing Code, International Private Sewage Disposal Code*, *International Fuel Gas Code,* and *International Property Maintenance Code.* A section-by-section discussion follows:

102.1: This section creates the enforcement agency for the code, provides the jurisdiction with the opportunity to name the agency and establishes that the official in charge of the agency will be named the "code official". In actuality, the person who is in charge of the agency could be the fire code official, building official or any other enforcement official that the jurisdiction chooses. For the purpose of the code, however, that person is referred to as the "code official."

102.2: This section establishes that the code official is to be appointed by the chief appointing officer of the adopting jurisdiction. This could be the mayor, city manager, county executive or other municipal executive with the legal authority to do so.

102.3: This section provides the code official with the authority to appoint one or more other individuals to assist with the administration and enforcement of the code. These individuals would have the authority and responsibility as designated by the code official.

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

Analysis: If this code change is approved, the final number of this new section will be correlated with all other approved code changes affecting Chapter 1 of this code.

Committee Action: **Disapproved**

Committee Reason: The committee was not convinced that creating a separate administrative agency to enforce this code was necessary.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Rebecca Baker, Chair, Jefferson County, CO, representing ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes, requests Approval as Submitted.

Commenter's Reason: The ICC Ad-Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin) was tasked with reviewing Chapter 1 administrative provisions in each of the I-Codes and attempting to correlate applicable provisions through the code development process.

The language proposed by code change WUIC4-06/07 creating an administrative agency to enforce this code was deemed "not necessary" by the IFC Committee. This disapproval came before the fact that in the Committee Reason statements for its approval of subsequent code changes WUIC8- ("The proposal provides needed administrative provisions that would enhance the code's ability to function as a stand-alone document. ") and WUIC13-06/07 ("The proposal provides needed administrative provisions that would enhance the code's ability to function as a stand-alone document, especially in the absence of a building code."), the IFC Committee clearly stated the need for the code to "...function as a stand-alone document...". It is precisely because of that stated need for the IWUIC to be adoptable and function as a stand-alone document that this new section should be added to the code as originally proposed by the AHC-Admin. We request support for approval as submitted.

Final Action: AS AM AMPC____ D

WUIC9-06/07
107

Proposed Change as Submitted:

Proponent: Proponent: Rebecca Baker, Jefferson County, CO, Chair, ICC Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin)

Revise as follows:

SECTION 107
INSPECTION AND ENFORCEMENT

107.1 Inspection.
107.1.1 General. (No change to current text)

107.1.2 Authority to inspect. (No change to current text)

107.1.2.1 Approved Inspection agencies. The code official is authorized to accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualifications and reliability.

107.1.2.2 Inspection requests. It shall be the duty of the holder of the permit or their duly authorized agent to notify the code official when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this code.

107.1.2.3 Approval required. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the code official. The code official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the permit holder or his or her agent wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the code official.

107.1.3 Reinspections. (No change to current text)

107.2 Enforcement.

107.2.1 Authorization to issue corrective orders and notices. (No change to current text)

107.2.2 Service of orders and notices. (No change to current text)

107.3 Right of entry. (No change to current text)

107.4 Compliance with orders and notices.

107.4.1 General compliance. (No change to current text)

107.4.2 Compliance with tags. (No change to current text)

107.4.3 Removal and destruction of signs and tags. (No change to current text)

107.4.4 Citations. (No change to current text)

107.4.5 Unsafe conditions. (No change to current text)

107.4.6 Prosecution of violation. If the notice of violation is not complied with promptly, the code official is authorized to request the legal counsel of the jurisdiction to institute the appropriate proceeding at law or in equity to restrain, correct or abate such violation, or to require the removal or termination of the unlawful occupancy of the building or structure in violation of the provisions of this code or of the order or direction made pursuant thereto.

107.4.7 Violation penalties. Persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the approved construction documents or directive of the code official, or of a permit or certificate used under provisions of this code, shall be guilty of a [SPECIFY OFFENSE], punishable by a fine of not more than [AMOUNT] dollars or by imprisonment not exceeding [NUMBER OF DAYS], or both such fine and imprisonment. Each day that a violation continues after due notice has been served shall be deemed a separate offense.

107.4.8 Abatement of violation. In addition to the imposition of the penalties herein described, the code official is authorized to institute appropriate action to prevent unlawful construction or to restrain, correct or abate a violation; or to prevent illegal occupancy of a structure or premises; or to stop an illegal act, conduct of business or occupancy of a structure on or about any premises.

Reason: Consistency and coordination among the I-Codes is one of the cornerstones of the ICC Code Development Process. This holds true for not only the technical code provisions but also for the administrative code provisions as contained in Chapter 1 of all the I-Codes.

In response to concerns raised by the ICC membership since publication of the first editions of the I-Codes, the ICC Board established the Ad Hoc Committee on the Administrative Provisions in the I-Codes (AHC-Admin) to review Chapter 1 administrative provisions in each code in the International Codes family and improve the correlation among the I-Codes through the code development

process. In order to ensure that this correlation process will continue in an orderly fashion, it is also anticipated that future code development and maintenance of the administrative provisions of the I-Codes family will be overseen by a single, multi-discipline code development committee.

The AHC-Admin is submitting a series of code change proposals designed to provide consistent and correlated administrative provisions among the I-Codes using existing I-Code texts, as noted. The intent of this correlation effort is not to have absolutely identical text in each of the I-Codes but, rather, text that has the same intent in accomplishing the administrative tasks among the I-Codes. While some proposed text may be "new" because it was judged by the AHC to be necessary to this particular code, it is not new to the I-Code family, since it already exists in one or more of the International Codes. Unless otherwise noted, there are no technical changes being proposed to these sections. A comparative matrix of current I-Codes Chapter 1 text may be found on the ICC website at www.iccsafe.org/cs/cc/admin/index.html.

This proposal focuses on enhancement of the inspections and enforcement provisions. A section-by-section discussion follows:

107.1.2.1: The purpose of this change is to provide a needed administrative tool not currently in the IWUIC , the source text for which is the current text of Section 109.4 of the *International Building Code* and *International Existing Building Code*, Section 106.2 of the *International Fire Code*, Section 109.2 of the *International Residential Code*, and Section 702.5 of the *ICC Electrical Code---Administrative Provisions.*

This section would provide a useful administrative tool that makes it clear that the determination as to whether to accept an agency report rests with the code official and that the reporting agency must be acceptable to the code official.

A similar correlating proposal has also been submitted to the *International Mechanical Code, International Fuel Gas Code* and *International Private Sewage Disposal Code.*

107.1.2.2: The purpose of this proposed change is to provide a needed administrative provision not currently in the IWUIC, the source text for which is Section 109.5 of the *International Building Code* and *International Existing Building Code,* Section 109.3 of the *International Residential Code* and Section 706.2 of the *ICC Electrical Code---Administrative Provisions.*

This section would provide the code official with a useful administrative tool that would make it clear that it is the responsibility of the permit holder to arrange for the required inspections when completed work is ready, thus providing sufficient time for the code official to schedule an inspection visit. It also establishes the responsibility for keeping work open for inspection and providing all means needed to accomplish the inspection.

A similar correlating proposal has also been submitted to the *International Fire Code*, *International Fuel Gas Code, International Plumbing Code*, *International Private Sewage Disposal Code*, and *International Mechanical Code.*

107.1.2.3: The purpose of this proposed change is to provide a needed administrative provision not currently in the IWUIC, the source text for which is Section 109.6 of the *International Building Code* and *International Existing Building Code,* Section 109.4 of the *International Residential Code* and Section 702.1.8 of the *ICC Electrical Code---Administrative Provisions.*

This section would provide the code official with a useful administrative tool that would enhance the code official's control over projects by establishing that work cannot progress beyond the point of a required inspection without the code official's approval and that any item not approved cannot be concealed until it has been corrected and approved by the code official.

A similar correlating proposal has also been submitted to the *International Fire Code*, *International Fuel Gas Code, International Plumbing Code*, *International Private Sewage Disposal Code*, and *International Mechanical Code.*

107.4.6: The purpose of this proposed change is to provide a needed administrative provision not currently in the IWUIC, the source text for which is Section 113.3 of the *International Building Code, International Residential Code* and *International Existing Building Code* and Section 108.3 of the *International Fuel Gas Code*, *International Mechanical Code*, *International Plumbing Code,* and *International Private Sewage Disposal Code.*

The section provides the code official with an important administrative tool by making a clear statement that violations will not be tolerated and that the code official has the authority to pursue legal means to correct the violation through the use of the legal counsel of the jurisdiction.

A similar correlating proposal has also been submitted to the *International Energy Conservation Code.*

107.4.7: The purpose of this proposed change is to provide a needed administrative provision not currently in the IWUIC, the source text for which is Section 113.4 of the *International Building Code, International Residential Code* and *International Existing Building Code* and Section 108.4 of the *International Fuel Gas Code*, *International Mechanical Code*, *International Plumbing Code,* and *International Private Sewage Disposal Code.*

The section provides the code official with an important administrative tool by prescribing a standard fine or other penalty as deemed appropriate by the jurisdiction. Additionally, the section codifies the principle that "each day that a violation continues . . . shall be deemed a separate offense" for the purpose of applying the prescribed penalty in order to facilitate the prompt resolution.

A similar correlating proposal has also been submitted to the *International Energy Conservation Code.*

107.4.8: The purpose of this proposed change is to provide a needed administrative provision not currently in the IWUIC, the source text for which is Section 109.3.1 of the IFC and Section 108.6 of the *International Fuel Gas Code*, *International Mechanical Code*, *International Plumbing Code,* and *International Private Sewage Disposal Code.*

The section would make it clear that, despite the assessment of a penalty in the form of a fine or imprisonment against a violator, the violation itself must still be corrected. Failure to make the necessary corrections would result in the violator being subject to additional penalties as described in proposed Section 108.4.

A similar correlating proposal has also been submitted to the *International Building Code*, *International Existing Building Code*, *International Residential Code* and *International Energy Conservation Code.*

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

Committee Action: **Approved as Submitted**

Committee Reason: The proposal provides needed administrative provisions that will provide correlation with the IFC and will enhance the inspection process and the enforcement of the code by providing reasonable penalties for violating the code.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment 1:

Paul Hayward, Farmington City, requests Approval as Modified by this public comment.

Modify proposal as follows:

107.1.2.2 Inspection requests. It shall be the duty of the holder of the permit or ~~their~~ duly authorized agent to notify the code official when work is ready for inspection. It shall be the duty of the permit holder to provide access to and means for inspections of such work that are required by this code.

(Portions of proposal not shown remained unchanged)

Commenter's Reason: If someone is a "duly authorized "agent, for whom are they performing duties or representing? Would it not be the permit holder? The word "their" may be eliminated, since it is extraneous.

Public Comment 2:

Paul Hayward, Farmington City, requests Approval as Modified by this public comment.

Modify proposal as follows:

107.1.2.3 Approval required. Work shall not be done beyond the point indicated in each successive inspection without first obtaining the approval of the code official. The code official, upon notification, shall make the requested inspections and shall either indicate the portion of the construction that is satisfactory as completed, or notify the permit holder or ~~his or her~~ agent wherein the same fails to comply with this code. Any portions that do not comply shall be corrected and such portion shall not be covered or concealed until authorized by the code official.

(Portions of proposal not shown remained unchanged)

Commenter's Reason: While we agree with the proposal, the code provision doesn't need to specify gender. It's safe to assume that the permit holder's agent will be either a "his or her" and it reads just the same without the added provision specifying gender.

Final Action: AS AM AMPC____ D

WUIC20-06/07
202

Proposed Change as Submitted:

Proponent: Kate Dargan, California Department of Forestry & Fire Protection, representing Office of the State Fire Marshal

1. Add new definition as follows:

SECTION 202
DEFINITIONS

IGNITION-RESISTANT MATERIAL is any product which, when tested in accordance with ASTM E 84 for a period of 30 minutes, shall have a flame spread of not over 25 and show no evidence of progressive combustion. In addition, the flame front shall not progress more than 10 1/2 feet (3200 mm) beyond the centerline of the burner at any time during the test. Materials shall pass the accelerated weathering test and be identified as Exterior type, in accordance with ASTM D 2898 and ASTM D 3201. All materials shall bear identification showing the fire performance rating thereof. That identification shall be issued by ICC-ES/ICBOES or other approved testing facility. Fire-Retardant Pressure-Treated Wood or noncombustible materials shall satisfy the intent of this section. The code official may use other definitions of ignition-resistant material that reflect wildfire exposure to building materials and/or their materials performance in resisting ignition.

2. Add standards to Chapter 7 as follows:

ASTM

D 2898–04 Standard Test Methods for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing
D 3201–94 Standard Test Methods for Hygroscopic Properties of Fire-Retardant-Treated Wood and Wood-Base Products

Reason: Add new requirements to the code. The resistance to ignition of building materials in wildland urban interface situations is more important than the longer term fire resistance rating of those materials. Most building fire loss in wildland urban interface areas is a result of ember/brand intrusion or entrapment, or short term exposure to radiated heat or direct flame impingement. Adding this factor to the UWIC formula allows more accurate determination of relative fire protection values.

This code change proposal is consistent with the findings of the report commissioned by the California Department of Forestry & Fire Protection, Office of the State Fire Marshal which studied data from over 3000 structures burned in the 2003 Southern California wildfires [Fire At the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004] which demonstrated that cost effective construction technologies – and underlying testing technology - exist which can substantially reduce the likelihood of sustained ignition of structures during UWI fire incidents. Likewise data from San Diego County also support these proposals in that areas which were tested by the 2003 fires where homes were constructed under recent local code provisions consistent with those being proposed for the ICC UWI Code displayed significantly higher survival rates than those built before those regulations were enacted.

Bibliography: Fire at the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004

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

Note: The following analysis was not in the Code Change Proposal book but was published in the "Errata to the 2006/2007 Proposed Changes to the International Codes and Analysis of Proposed Referenced Standards" provided at the code development hearings:

Analysis: Review of the proposed new standards indicated that, in the opinion of ICC staff, the standards did comply with ICC standards criteria.

Committee Action: Disapproved

Committee Reason: Based on testimony, the committee attempted to modify the proposal to satisfy some of the concerns expressed, which included possible restraint of trade issues, the limited applicability of the standards to wood products only, questionable application of a flame spread test to determine ignition resistance, inclusion of technical requirements as well as alternatives and exceptions within a definition contrary to code style, the use of permissive language (e.g., "may") and lack of clarity as to the "other definitions" that could be used by the code official. However, because consensus among the committee could not be reached and the scope of the modifications needed to address all concerns was so extensive, the proposal was disapproved with the suggestion that the proponent could submit a public comment to provide the needed revisions.

Assembly Action: None

Individual Consideration Agenda

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

Public Comment 1:

Kate Dargan, California Department of Forestry and Fire Protection (Cal-Fire), requests Approval as Modified by this public comment.

Replace proposal with the following:

1. Add new definition to Chapter 2 as follows:

IGNITION-RESISTANT BUILDING MATERIAL. A type of building material which resists ignition or sustained flaming combustion sufficiently so as to reduce losses from wildland-urban interface conflagrations under worst-case weather and fuel conditions with wildfire exposure of burning embers and small flames, as prescribed in Section 503.

2. Revise Section 503.1 of the current text as follows

SECTION 503

IGNITION RESISTANT CONSTRUCTION AND MATERIAL

503.1 General. Buildings and structures hereafter constructed, modified or relocated into or within wildland-urban interface areas shall meet the construction requirements in accordance with Table 503.1. Class 1, Class 2 or Class 3, ignition resistant construction shall be in accordance with Section 504, 505 and 506, respectively. Materials prescribed herein as Ignition-Resistant Building Material shall be determined in accordance with Section 503.2.

3. Add new text as follows:

503.2 Ignition-Resistant Building Material. Ignition-Resistant Building Material shall be determined in accordance with the test procedures set forth in ASTM E 84 or as listed in Section 503.3.

503.2.1 Flame Spread. Flame spread index shall not exceed 25 and show no evidence of progressive combustion after 30 minutes.

503.2.2 Flame Front. Flame front shall not progress more than 10 1/2 feet (3200 mm) beyond the centerline of the burner at any time during the test.

503.2.3 Weathering. Ignition-Resistant Building Materials shall maintain their performance in accordance with this section under conditions of use. Materials consisting of wood shall pass the accelerated weathering test and be identified as Exterior type, in accordance with ASTM D 2898 and ASTM D 3201. All materials shall bear identification showing the fire performance rating thereof.

503.3 Alternative methods for determining Ignition-Resistant Material. Any one of the following shall be considered an ignition-resistant material.

503.3.1 Non-combustible Material. Material which is in accordance with Section 202.

503.3.2 Fire-retardant-treated wood roof coverings. Fire-retardant-treated wood shingles and shakes as prescribed in Sections 1505.6 and tested in accordance with Class A roof assemblies as required in Section 1505 of the International Building Code.

503.3.3 Fire-retardant-treated wood. Fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the International Building Code.

4. Add referenced standards to Chapter 7 as follows:

ASTM D 2898–04 Standard Test Methods for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing.

ASTM D 3201–94 Standard Test Methods for Hygroscopic Properties of Fire-Retardant-Treated Wood and Wood-Base Products.

Commenter's Reason: The addition of this Ignition-Resistant Building Material definition, with supporting code sections, will improve the code in three ways: 1) Incorporating this definition into the existing IWUIC Ch. 5 concept of Ignition-Resistant Construction will add a new ability to use building materials with improved ignition or burning characteristics and reduce interface losses; 2) This definition will allow for a reduction of prescriptive references to particular types or classes of materials, and; 3) Adding the concept of Ignition-Resistant Building Material to Ignition-Resistant Construction will provide missing incentives to develop and allow the use of new materials and products with increased ignition or burning performance.

The use of 1-hour fire-resistive construction in WUIC Ch. 5 and the California OSFM test standards (referenced in proposals WUIC30–06/07, WUIC39–06/07, etc.) all provide effective protection in certain wildfire exposure circumstances. However, readily ignitable and burnable materials can pass these tests, for example wall cladding consisting of untreated wood over a 1-hour assembly. Adding this definition will allow for materials having improved ignitability performance to be used in conjunction with, or as an alternative to, the existing test standards. The standard definition of "ignitability" refers to ignition "under specified conditions" and it has been reported that fuel bed arrangements or geometries can dominate fire behavior and the probability of flaming ignition is related to extremely low fuel moisture. Therefore, a definition of Ignition-Resistant Material needs to include the general conditions under which the material is expected to be effective and, as most interface fire losses occur in conflagrations under extreme conditions, worst case conditions should be the general performance goal.

The IWUIC defines Ignition Resistant Construction without specifying the performance characteristics or materials which are to be used. IWUIC Sections 504 and 505 specify the use of 1-hour fire-resistive construction, non-combustible construction and most recently fire-retardant-treated wood. The performance based definition of Ignition-Resistant Material proposed here can be incorporated into IWUIC Ch. 5. This will allow newly developed products, or existing materials such as fire-retardant-treated wood, that are shown to have superior performance to be used without further changes to the code and without a continuation of listing particular types or classes of materials. Moving IWUIC Ch. 5 towards a more performance based approach with the proposed definition will provide an incentive for the development of new products, materials, or methods to reduce building ignitions.

The scope of this comment is consistent with the scope of the WUIC20 06–07 proposal and the committee concerns. The technical requirements, alternatives, etc. have been moved from the definition to an implementation section in a manner similar to IBC Sections 702 and 703 for "Fire-Resistive Rating" and permissive language with alternative definitions has been eliminated. There is no test standard that reflects building ignition from exterior wildfire exposure, which has a large burning ember component and a very short duration (1 to 2 minute) peak radiant heat flux. The ASTM E-84 basis for the proposed IWUIC Section 503.2 derives from the fact that these criteria have been used for years to produce a product (1997 California Building Code Section 207 defined fire-retardant-treated wood) with the superior burning performance similar to that envisioned by the proposed definition. There is a good probability that these same test criteria applied to non-wood materials will result in new products which have the desired performance. This proposal allows for the expansion of building material applicability for Ignition-Resistant Construction which is currently restricted to non-combustible materials and fire-retardant-treated wood.

Bibliography:

The Story: California Fire Siege 2003. State of California, Resources Agency & U.S.D.A. Forest Service
Finding of Emergency: Regarding Phase II – Wildland-Urban Interface Fire Ares Building Standards. 2005. California Department of Forestry and Fire Protection, OSFM
Nine-Point Criteria Analysis: Regarding Phase II – Wildland-Urban Interface Fire Ares Building Standards. 2005. California Department of Forestry and Fire Protection, OSFM
Ignition Handbook. 2003. Vytenis Babrauskas.
Introduction to Fire Dynamics. 1985. Dougal Drysdale.
Preventing Disaster: Home Ignitability in the Wildland-Urban Interface. 2000. Jack Cohen.
Relating Flame Radiation to Home Ignition. 2004. Jack Cohen.

Public Comment 2:

Marcelo M. Hirschler, GBH International, requests Approved as Modified by this public comment.

Replace proposal with the following:

1. Add new definition to chapter 2, as follows:

Ignition-resistant material. Material suitable for use in ignition-resistant construction within urban wildland interface areas due to its superior ignition, heat release and flame spread properties.

2. Add new text as follows:

503.2 Ignition-resistant materials. The resistance to ignition of building materials in wildland urban interface situations is an alternate approach to the fire resistance of such materials. Most building fire loss in wildland urban interface areas is a result of ember/brand intrusion or entrapment, or short term exposure to radiated heat or direct flame impingement.

Commenter's Reason: The IWUIC discusses ignition-resistant construction but it does not describe what materials would be appropriate for such construction. The committee explained that there were problems with the definition originally proposed. The comment brings in a direct tie-in with Chapter 5, which discusses ignition-resistant construction. The definition in this comment avoids the concerns expressed by the committee with regard to the originally proposed definition, including 'possible restraint of trade issues, the limited applicability of the standards to wood products only, questionable application of a flame spread test to determine ignition resistance, inclusion of technical requirements as well as alternatives and exceptions within a definition contrary to code style, the use of permissive language (e.g., "may") and lack of clarity as to the "other definitions" that could be used by the code official'. The actual requirements for each type of material would be found in Chapter 5 and this definition simply points out that "ignition-resistant materials" are ones that offer a significant fire safety improvement over traditional building construction materials by meeting fire test requirements.

Final Action: AS AM AMPC____ D

WUIC22-06/07
504.2.1 (New)

Proposed Change as Submitted:

Proponent: Kate Dargan, California Department of Forestry & Fire Protection, representing Office of the State Fire Marshal

Add new text as follows:

504.2.1 Roof valleys. When provided, valley flashings shall be not less than 0.016-inch (0.41 mm) (No. 28 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36 inches (914 mm) wide underlayment consisting of one layer of No. 72 ASTM cap sheet running the full length of the valley.

Reason: Add new requirement to the Code.

Analysis of fire loss data has shown valleys to be a point of acute vulnerability. These valleys collect debris and retain moisture. Erosion and corrosion combine to attack this weak point and the subsequent fire burns through the minimum underlayment. This change addresses both the durability of the surface of the valley and the redundant protection afforded by enhanced underlayment.

This code change proposal is consistent with the findings of the report commissioned by the California Department of Forestry & Fire Protection, Office of the State Fire Marshal which studied data from over 3000 structures burned in the 2003 Southern California wildfires [Fire At the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004] which demonstrated that cost effective construction technologies – and underlying testing technology - exist which can substantially reduce the likelihood of sustained ignition of structures during UWI fire incidents. Likewise data from San Diego County also support these proposals in that areas which were tested by the 2003 fires where homes were constructed under recent local code provisions consistent with those being proposed for the ICC UWI Code displayed significantly higher survival rates than those built before those regulations were enacted.

Bibliography: Fire at the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004

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

Committee Action: **Approved as Modified**

Modify proposal as follows:

504.2.1 Roof valleys. When provided, valley flashings shall be not less than 0.019 inch ~~0.016 inch~~ (0.48 ~~41~~ mm) (No.26 ~~28~~ galvanized sheet gage) corrosion-resistant metal installed over a minimum 36 inches (914 mm) wide underlayment consisting of one layer of ~~No.~~ 72 ~~ASTM cap sheet~~ pound (32.4 kg) mineral-surfaced, nonperforated cap sheet complying with ASTM D3909 running the full length of the valley.

Committee Reason: The proposal provides important protection for roof valleys where embers may collect and ignite the roof. The modification provides correlation with Chapter 15 of the IBC and clarifies the type of covering required. Though not submitted for committee review, ASTM 3909 is already a referenced standard in the IBC and the committee felt that it is an appropriate reference for this section as well and will provide the code official with a useful tool for code enforcement.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment 1:

Paul Hayward, Farmington City, representing Bonneville Chapter ICC, requests Approved as Modified by this public comment.

Modify proposal as follows:

504.2.1 Roof valleys. ~~When provided, v~~ Valley flashings shall be not less than 0.019 inch (0.48 mm) (No.26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36 inches (914 mm) wide underlayment consisting of one layer of 72 pound (32.4 kg) mineral-surfaced, nonperforated cap sheet complying with ASTM D3909 running the full length of the valley.

Commenter's Reason: As long as we're dealing with this section, it ought to be improved. The code doesn't contemplate regulating when things are not done. The term "when provided" isn't necessary. It's akin to a driver's manual stating "When driving, wear your seat belt." The same message and requirement is set forth by simply stating in the driver's handbook, "Wear you seat belt." It IS NOT the intent to require minimum thickness of valley flashings that are NOT provided, is it?

Public Comment 2:

Brian Sause, representing National Association of Home Builders (NAHB), requests Disapproval.

Commenter's Reason: There is no technical justification demonstrating that other types of valley linings permitted by the IRC in Section R905.2.8.2 will not provide sufficient protection of the roof valleys in the wildland urban interface areas when combined with the approved corrosion resistant metal linings and flashing for asphalt shingles.

Final Action: AS AM AMPC____ D

WUIC23-06/07
504.3

Proposed Change as Submitted:

Proponent: Kate Dargan, California Department of Forestry & Fire Protection, representing Office of the State Fire Marshal

Revise as follows:

504.3 Protection of eaves. Eaves and soffits shall be protected on the exposed underside by ignition-resistant materials or by materials approved for a minimum of 1-hour fire-resistance-rated construction, 2-inch (51 mm) nominal dimension lumber, or 1-inch (25.4 mm) nominal fire-retardant-treated lumber or 3/4-inch (19 mm) nominal fire-retardant-treated plywood, identified for exterior use and meeting the requirements of Section 2303.2 of the *International Building Code*. Fascias are required and shall be protected on the backside by ignition-resistant materials or by materials approved for a minimum of 1-hour fire-resistance-rated construction or 2-inch (51 mm) nominal dimension lumber.

Reason: Add new requirement to the Code.

Experience and testing indicates eave and soffit failures in wildland-urban interface fire situations are a result of ember/brand intrusion or entrapment, or short-term exposure to radiated heat or direct flame impingement. Using ignition- resistant materials should significantly reduce these failures.

This code change proposal is consistent with the findings of the report commissioned by the California Department of Forestry & Fire Protection, Office of the State Fire Marshal which studied data from over 3000 structures burned in the 2003 Southern California wildfires [Fire At the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004] which demonstrated that cost effective construction technologies – and underlying testing technology - exist which can substantially reduce the likelihood of sustained ignition of structures during UWI fire incidents. Likewise data from San Diego County also support these proposals in that areas which were tested by the 2003 fires where homes were constructed under recent local code provisions consistent with those being proposed for the ICC UWI Code displayed significantly higher survival rates than those built before those regulations were enacted.

Bibliography: Fire at the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004

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

Committee Action: **Disapproved**

Committee Reason: The proponent requested disapproval for further work on a definition of ignition-resistant material.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Marcelo M. Hirschler, GBH International, representing American Fire Safety Council, requests Approval as Modified by this public comment.

1. Replace proposal with the following modification to current text:

504.3 Protection of eaves, soffits and fascia. Eaves, soffits and fascia shall be protected in accordance with Sections 504.3.1 and 504.3.2.

504.3.1 Eave and soffit protection. Eaves and soffits shall be protected on the exposed underside by materials complying with one of the following:

1. Approved non combustible materials,
2. Materials approved for a minimum of 1-hour fire-resistance-rated construction,
3. 2-inch (51 mm) nominal dimension lumber, ~~or~~
4. 1-inch (25.4 mm) nominal fire-retardant-treated lumber, ~~or~~
5. 3/4-inch (19 mm) nominal fire-retardant-treated plywood, identified for exterior use and meeting the requirements of Section 2303.2 of the *International Building Code*,
6. Listed materials that
   - 6.1. Exhibit the following performance when tested in accordance with the California Office of State Fire Marshal standard SFM 12-7A-3 test: absence of flame penetration of the eaves at any time, absence of structural failure of the eaves subassembly at any time and absence of sustained flaming or glowing combustion at the conclusion of the 40 minute test observation period, and
   - 6.2. Exhibit no change in the fire performance in accordance with the California Office of State Fire Marshal standard SFM 12-7A-3 test after the material has been subjected to the standard rain test ASTM D 2898.

504.3.2 Fascia protection. Fascias are required and shall be protected on the backside by materials complying with one of the following:

1. Approved non combustible materials,
2. Materials approved for a minimum of 1-hour fire-resistance-rated construction ~~or~~ ,
3. 2-inch (51 mm) nominal dimension lumber,
4. Listed materials that
   - 4.1. Exhibit the following performance when tested in accordance with the California Office of State Fire Marshal standard SFM 12-7A-3 test: absence of flame penetration of the eaves at any time, absence of structural failure of the eaves subassembly at any time and absence of sustained flaming or glowing combustion at the conclusion of the 40 minute test observation period, and
   - 4.2. Exhibit no change in the fire performance in accordance with the California Office of State Fire Marshal standard SFM 12-7A-3 test after the material has been subjected to the standard rain test ASTM D 2898.

2. Add referenced standard to Chapter 7 as follows:

SFM California Department of Forestry & Fire Prevention
Office of the State Fire Marshal
PO Box 944246
Sacramento, CA 94244-2450

12-7A-3Fire Resistive Standards for Eaves

Commenter's Reason: The state of California issued a set of 5 standards which were intended for use as "ignition-resistant materials" in exterior construction in wildland areas. As explained by the committee, and as introduced during the public proposal hearings by the proponent of this comment, the concept of "ignition-resistant materials" is put in words by the requirements attached to these various test methods, for exterior walls (SFM 12-7A-1), exterior windows (SFM 12-7-A-2), eaves (SFM 12-7-A-3), roofs (SFM 12-7-A-4) and decks (SFM 12-7-A-5). Proposal WUIC 39 was accepted by the committee and it introduced the California State Fire Marshal test for decks. The present comment uses the corresponding test for eaves and other comments deal with decks and exterior walls. This comment does not have requirements based on any specific composition of material but on performance only.

The eaves test involves a test of an eaves assembly, in triplicate, using a gas burner at 300 kW. The burner is centered with respect to the width of the eaves-wall assembly and is placed at 0.75 in. (20 mm) from the wall, with 12 in. (300 mm) from the floor to the top of the burner. The test duration is 10 minutes, unless there is flame penetration of the eaves before the end of the 10-min period. If penetration does not occur, observation continues for an additional 30 min or until all combustion has ceased. The report includes a description of the eaves material, details of the construction of the eaves, moisture content of the framing, and point of flame penetration.

The use of this test will allow the home builder and home user a choice of materials that are of improved fire performance with regard to ordinary construction materials without needing to be based on materials that resist a 1 hour fire resistance test (ASTM E 119) since it has been shown by a report commissioned by the California Department of Forestry & Fire Protection, Office of the State Fire Marshal, which studied data from over 3000 structures burned in the 2003 Southern California wildfires [Fire At the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004], that cost effective construction technologies – and underlying testing technology - exist which can substantially reduce the likelihood of sustained ignition of structures during urban wildland interface fire incidents. Likewise data from San Diego County (California) also support these proposals in that areas which were tested by the 2003 fires where homes were constructed under recent local code provisions consistent with the CA State Fire Marshal tests, and which displayed significantly higher survival rates than those built before those regulations were enacted.

Final Action: AS AM AMPC____ D

WUIC24-06/07
504.4

Proposed Change as Submitted:

Proponent: Kate Dargan, California Department of Forestry & Fire Protection, representing Office of the State Fire Marshal

Revise as follows:

504.4 Gutters and downspouts. Gutters and downspouts shall be constructed of noncombustible material. Gutters shall be provided with an approved means to prevent the accumulation of leaves and debris in the gutter.

Reason: Add new requirement to the Code.

Debris accumulated in gutters can ignite and carry fire to particularly vulnerable roof edge features. Providing a means or device which prevents or removes such accumulation should significantly reduce such fire extension.

This code change proposal is consistent with the findings of the report commissioned by the California Department of Forestry & Fire Protection, Office of the State Fire Marshal which studied data from over 3000 structures burned in the 2003 Southern California wildfires [Fire At the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004] which demonstrated that cost effective construction technologies – and underlying testing technology - exist which can substantially reduce the likelihood of sustained ignition of structures during UWI fire incidents. Likewise data from San Diego County also support these proposals in that areas which were tested by the 2003 fires where homes were constructed under recent local code provisions consistent with those being proposed for the ICC UWI Code displayed significantly higher survival rates than those built before those regulations were enacted.

Bibliography: Fire at the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004

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

Committee Action: **Approved as Submitted**

Committee Reason: The proposal will provide improved protection for roof edges from ignition by burning accumulated combustible materials caught in the gutter. The committee suggested that specifying that the gutter cover also be noncombustible would be preferred.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment 1:

Paul Hayward, Farmington City, representing Bonneville Chapter ICC, requests Approval as Modified by this public comment.

Modify proposal as follows:

504.4 Gutters and downspouts. Gutters and downspouts shall be constructed of noncombustible material. Gutters shall be provided with ~~an approved~~ noncombustible means to prevent the accumulation of leaves and debris in the gutter.

Commenter's Reason: This committee also preferred to have the word noncombustible in the sentence. This is one of two suggested ways of accomplishing their desire.

Public Comment 2:

Paul Hayward, Farmington City, representing Bonneville Chapter ICC, requests Approval as Modified by this public comment.

Modify proposal as follows:

504.4 Gutters and downspouts. Gutters and downspouts shall be constructed of noncombustible material.
Gutters shall be provided with an approved noncombustible means to prevent the accumulation of leaves and debris in the gutter.

Commenter's Reason: This committee also preferred to have the word noncombustible in the sentence. This is one of two suggested ways of accomplishing their desire.

Public Comment 3:

Brian Sause, National Association of Home Builders (NAHB), requests Disapproval.

Commenter's Reason: As submitted, this provision is not enforceable. There is no standard on which to determine if a gutter guard is "approved" leaving this determination to the discretion of the building official.

Questions arise on what type of material the guard is designed or approved to protect from entering a gutter. Gutters may be become clogged by materials other than the leaves they are designed for. If tree cover in the wildland urban interface area is primarily coniferous trees such as pines, spruces and firs, needles will potentially pass through openings in the guards, fill gutters, and clog drain spouts despite the presence of a guard. Organic litter from conifers is also subject to clogging. Litter in the form of flowers, seeds, buds, and bark continuously fall from the forest past most gutter guards and often clog the gutter or the guard itself, causing water to overflow.

Although the guard may clog more slowly, it will need to be periodically maintained and inspected for debris. We do not want homeowners believing their gutters are maintenance free and definitely can not assure them that all guards work. As in maintaining a defensible space, the responsibility for maintaining debris and gutters ultimately resides with the homeowner. Fulfilling this responsibility may actually be hindered by the presence of a guard. This is a maintenance issue that does not belong in the code.

Finally, without a fire rating of the guard itself, and without assurance that flying embers can not pass through a gutter guard and ignite smaller material within, we simply can not rely on them as a preventative measure in the code.

Final Action: AS AM AMPC____ D

WUIC25-06/07
504.5

Proposed Change as Submitted:

Proponent: Joseph Holland, Hoover Treated Wood Products

Revise as follows:

504.5 Exterior walls. Exterior walls of buildings or structures shall be constructed with materials approved for a minimum of 1-hour fire-resistance-rated construction on the exterior side or constructed with approved noncombustible materials.

Exception: Heavy timber or log wall construction or fire-retardant-treated wood on the exterior side. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the *International Building Code*.

Such material shall extend from the top of the foundation to the underside of the roof sheathing.

Reason: Add fire-retardant-treated wood to the list of recognized materials.

The purpose of the code is to increase the survivability of a structure in a wildland fire scenario. The requirements reduce the possibility of fire penetrating the structure via the wall, deck, roof, and eaves by mandating ignition-resistant construction. In addition the code requires an automatic fire sprinkler system, if the structure is penetrated by fire the sprinkler system is activated.
FRTW is recognized as an ignition-resistance material. Fire-retardant-treated wood is permitted for the roof, eave, and for appendages and projections in the WUI code. This exposure is similar to the exposure expected for appendages and projections.

There are two exposures to the structure from a wildland fire: flying brands and heat from the vegetation. According to Appendix G, the flame front from the wildfire moves through an area very quickly, usually no more than 6 minutes. FRTW will perform very well under the conditions found in this type of fire. It has a very low flame spread, less than 25 (typically in the 10 to 15 range), and will self extinguish once the source of ignition is removed or consumed. In addition, a fire cannot be started with FRTW. Insurance companies consider the product slow burning. Because of the enhanced fire protection requirements of Section 504 the fire load will be very low preventing continued burning once the fire has passed through.

In addition, it will not propagate fire. Burning brands will be consumed in a short time period and the exposed FRTW will self extinguish.
This application is already recognized for the wildland areas in California.

Bibliography: Emergency express terms by the California Department of Forestry (CDF) & Fire Protection Office of the State Fire Marshal (SFM) to the California Code of Regulations, Title 24 California Building Code (CBC), Part 2 and the California Referenced Standards Code (CRSC), Part 12 regarding Phase II - Wildland-Urban Interface Fire Areas Building Standards. Attached

Cost Impact: The code change proposal will not increase the cost of construction. It may save money. It gives designers and building owners another method to comply with the code requirements.

Committee Action: **Disapproved**

Committee Reason: The proposal does not include any criteria for a minimum material thickness to resist fire exposure. No technical documentation was submitted to demonstrate that this material will perform in this application.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Joseph Holland, Hoover Treated Wood Products, requesting Approved as Submitted.

Commenter's Reason: While the lack of a minimum thickness for noncombustible materials does not appear to be a problem, the committee felt a minimum thickness for FRTW was necessary. The WUIC is not a standalone code. Section 101.3 Objective specifically states, "This code shall supplement the jurisdiction's building and fire codes…." The IBC in Table 1405.2 contains information for minimum thickness of materials used for wall coverings. It contains minimum thicknesses of many noncombustible materials and wood products and should be used in conjunction with the WUIC.

It is not practicable to list the thickness of all noncombustible and FRTW wood products in this section.

Appendix G of the WUIC summarizes the phases of a forest fire. It's intensity and duration is significantly different from a fire in the interior of a building. Recognition of this difference is seen in the California regulation recently adopted. The difference is explained in the terms fire resistance and ignition resistant. The WUIC currently recognizes both concepts. It requires either 1-hour fire resistant rated assembly (fire endurance) or noncombustible (ignition resistant). The fire endurance is based on a fire test for exposure to an interior fire as outlined in ASTM E119. Ignition resistant is demonstrated by a material's inability to spread fire (noncombustible) or if combustible, its ability to resist the spread of fire and its ability to self extinguish once the source of ignition is consumed or removed (FRTW). In a forest fire scenario the ignition resistance of a material is of utmost importance.

FRTW has been used in building construction for over 60 years. It has been recognized by the building code for more than 40 years. It has an excellent record. It is an ignition resistant material. A fire cannot be started with FRTW. It will self extinguish if involved in an external source of fire when the source is removed.

Final Action: AS AM AMPC____ D

WUIC26-06/07
504.5

Proposed Change as Submitted:

Proponent: Kate Dargan, California Department of Forestry & Fire Protection, representing Office of the State Fire Marshal

Revise as follows:

504.5 Exterior walls. Exterior walls of buildings or structures shall be constructed with ignition-resistant materials or with materials approved for a minimum of 1-hour fire-resistance-rated construction on the exterior side, or constructed with heavy timber or log wall construction, or constructed with approved noncombustible materials.

~~**Exception:** Heavy timber or log wall construction.~~

Such material shall extend from the top of the foundation to the underside of the roof sheathing.

Reason: Add new requirement to the Code, and clarify the Code by elimination of the Exception.

Experience and testing indicates wall failures in wildland-urban interface fire situations are a result of ember/brand intrusion or entrapment, or short-term exposure to radiated heat or direct flame impingement. Using ignition-resistant materials should significantly reduce these failures. This text change eliminates the need for the exception by including the heavy timber and /or log wall as affirmative options.

This code change proposal is consistent with the findings of the report commissioned by the California Department of Forestry & Fire Protection, Office of the State Fire Marshal which studied data from over 3000 structures burned in the 2003 Southern California wildfires [Fire At the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004] which demonstrated that cost effective construction technologies – and underlying testing technology - exist which can substantially reduce the likelihood of sustained ignition of structures during UWI fire incidents. Likewise data from San Diego County also support these proposals in that areas which were tested by the 2003 fires where homes were constructed under recent local code provisions consistent with those being proposed for the ICC UWI Code displayed significantly higher survival rates than those built before those regulations were enacted.

Bibliography: Fire at the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004

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

Committee Action: **Disapproved**

Committee Reason: For consistency with the action on WUIC20-06/07. The proponent requested disapproval for further work on a definition of ignition-resistant material.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Marcelo M. Hirschler, GBH International, representing American Fire Safety Council, requests Approved as Modified by this comment.

1. Replace proposal with the following modification to current text:

504.5 Exterior walls. Exterior walls of buildings or structures shall be heavy timber or log wall construction or shall be constructed with materials complying with one of the following:

1. Approved non combustible materials,
2. Materials approved for a minimum of 1-hour fire-resistance-rated construction on the exterior side, ~~or constructed with approved noncombustible materials.~~
3. Listed materials that
   - 3.1. Exhibit the following performance when tested in accordance with the California Office of State Fire Marshal standard SFM 12-7A-1 test: absence of flame penetration through the wall assembly at any time, absence of structural failure of the wall assembly at any time and absence of sustained flaming or glowing combustion at the conclusion of the 70 minute test observation period, and
   - 3.2. Exhibit no change in the fire performance in accordance with the California Office of State Fire Marshal standard SFM 12-7A-1 test after the material has been subjected to the standard rain test ASTM D 2898.

~~Exception: Heavy timber or log wall construction~~

Such material shall extend from the top of the foundation to the underside of the roof sheathing.

2. Add referenced Standard to Chapter 7, as follows:

SFM **California Department of Forestry & Fire Prevention**
Office of the State Fire Marshal
PO Box 944246
Sacramento, CA 94244-2450

12-7A-3 Fire Resistive Standards for Exterior Wall Siding and Sheathing

Commenter's Reason: The state of California issued a set of 5 standards which were intended for use as "ignition-resistant materials" in exterior construction in wildland areas. As explained by the committee, and as introduced during the public proposal hearings by the proponent of this comment, the concept of "ignition-resistant materials" is put in words by the requirements attached to these various test methods, for exterior walls (SFM 12-7A-1), exterior windows (SFM 12-7-A-2), eaves (SFM 12-7-A-3), roofs (SFM 12-7-A-4) and decks (SFM 12-7-A-5). Proposal WUIC 39 was accepted by the committee and it introduced the California State Fire Marshal test for decks. The present comment uses the corresponding test for exterior walls and other comments deal with decks and eaves. This comment does not have requirements based on any specific composition of material but on performance only.

The exterior walls test involves a test of an exterior wall assembly, in triplicate, using a gas burner at 150 kW. The burner is centered with respect to the width of the cladding-wall assembly and is placed at 0.75 in. (20 mm) from the wall, with 12 in. (300 mm) from the floor to the top of the burner. The test duration is 10 minutes, unless there is flame penetration of the cladding-wall assembly before the end of the 10-min period. If penetration does not occur, observation continues for an additional 60 min or until all combustion has ceased. The report includes a description of the wall cladding material, sheathing materials, details of the construction of the wall module assembly, moisture content of the framing, and point of flame penetration.

The use of this test will allow the home builder and home user a choice of materials that are of improved fire performance with regard to ordinary construction materials without needing to be based on materials that resist a 1 hour fire resistance test (ASTM E 119) since it has been shown by a report commissioned by the California Department of Forestry & Fire Protection, Office of the State Fire Marshal, which studied data from over 3000 structures burned in the 2003 Southern California wildfires [Fire At the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004], that cost effective construction technologies – and underlying testing technology - exist which can substantially reduce the likelihood of sustained ignition of structures during urban wildland interface fire incidents. Likewise data from San Diego County (California) also support these proposals in that areas which were tested by the 2003 fires where homes were constructed under recent local code provisions consistent with the CA State Fire Marshal tests, and which displayed significantly higher survival rates than those built before those regulations were enacted.

Final Action: AS AM AMPC____ D

WUIC27-06/07
504.6

Proposed Change as Submitted:

Proponent: Joseph Holland, Hoover Treated Wood Products

Revise as follows:

504.6 Unenclosed underfloor protection. Buildings or structures shall have all underfloor areas enclosed to the ground with exterior walls in accordance with Section 504.5.

Exception: Complete enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction or fire-retardant-treated wood. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the *International Building Code*.

Reason: Add fire-retardant-treated wood to the list of recognized materials.

The purpose of the code is to increase the survivability of a structure in a wildland fire scenario. The requirements reduce the possibility of fire penetrating the structure via the wall, deck, roof, and eaves by mandating ignition-resistant construction. In addition the code requires an automatic fire sprinkler system, if the structure is penetrated by fire the sprinkler system is activated.

FRTW is recognized as an ignition-resistance material. Fire-retardant-treated wood is permitted for the roof, eave, and for appendages and projections in the WUI code. This exposure is similar to the exposure expected for appendages and projections.

There are two exposures to the structure from a wildland fire: flying brands and heat from the vegetation. According to Appendix G, the flame front from the wildfire moves through an area very quickly, usually no more than 6 minutes. FRTW will perform very well under the conditions found in this type of fire. It has a very low flame spread, less than 25 (typically in the 10 to 15 range), and will self extinguish once the source of ignition is removed or consumed. In addition, a fire cannot be started with FRTW. Insurance companies consider the product slow burning. Because of the enhanced fire protection requirements of Section 504 the fire load will be very low preventing continued burning once the fire has passed through.

In addition, it will not propagate fire. Burning brands will be consumed in a short time period and the exposed FRTW will self extinguish.

Cost Impact: The code change proposal will not increase the cost of construction. It may save money. It gives designers, and building owners another method to comply with the code requirements.

Committee Action: **Disapproved**

Committee Reason: For consistency with the action on WUIC25-06/07.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Joseph Holland, Hoover Treated Wood Products, requests Approved as Submitted.

Commenter's Reason: While the lack of a minimum thickness for noncombustible materials does not appear to be a problem, the committee felt a minimum thickness for FRTW was necessary. The WUIC is not a standalone code. Section 101.3 Objective specifically states, "This code shall supplement the jurisdiction's building and fire codes…." The IBC in Table 1405.2 contains information for minimum thickness of materials used for wall coverings. It contains minimum thicknesses of many noncombustible materials and wood products and should be used in conjunction with the WUIC. In addition, the structural load on the floor is going to dictate the size of the framing members.

It is not practicable to list the thickness of all noncombustible and FRTW wood products in this section.

Appendix G of the WUIC summarizes the phases of a forest fire. It's intensity and duration is significantly different from a fire in the interior of a building. Recognition of this difference is seen in the California regulation recently adopted. The difference is explained in the terms fire resistance and ignition resistant. The WUIC currently recognizes both concepts. It requires either 1-hour fire resistant rated assembly (fire endurance) or noncombustible (ignition resistant). The fire endurance is based on a fire test for exposure to an interior fire as outlined in ASTM E119. Ignition resistant is demonstrated by a material's inability to spread fire (noncombustible) or if combustible, its ability to resist the spread of fire and its ability to self extinguish once the source of ignition is consumed or removed (FRTW). In a forest fire scenario the ignition resistance of a material is of utmost importance.

FRTW has been used in building construction for over 60 years. It has been recognized by the building code for more than 40 years. It has an excellent record. It is an ignition resistant material. A fire cannot be started with FRTW. It will self extinguish if involved in an external source of fire when the source is removed.

Final Action: AS AM AMPC____ D

WUIC29-06/07
504.11

Proposed Change as Submitted:

Proponent: Joseph Holland, Hoover Treated Wood Products

Revise as follows:

504.11 Detached accessory structures. Detached accessory structures located less than 50 feet (15 240 mm) from a building containing habitable space shall have exterior walls constructed with materials approved for a minimum of 1-hour fire-resistance-rated construction, heavy timber, log wall construction, or constructed with approved noncombustible materials or fire-retardant-treated wood on the exterior side. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the *International Building Code*.

When the detached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas enclosed to within 6 inches (152 mm)of the ground, with exterior wall construction in accordance with Section 504.5 or underfloor protection in accordance with Section 504.6.

Exception: The enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy-timber construction or fire-retardant-treated wood on the exterior side. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the *International Building Code*.

See Section 504.2 for roof requirements.

Reason: Add fire-retardant-treated wood to the list of recognized materials.

The purpose of the code is to increase the survivability of a structure in a wildland fire scenario. The requirements reduce the possibility of fire penetrating the structure via the wall, deck, roof, and eaves by mandating ignition-resistant construction. In addition the code requires an automatic fire sprinkler system, if the structure is penetrated by fire the sprinkler system is activated.
FRTW is recognized as an ignition-resistance material. Fire-retardant-treated wood is permitted for the roof, eave, and for appendages and projections in the WUI code. This exposure is similar to the exposure expected for appendages and projections.

There are two exposures to the structure from a wildland fire: flying brands and heat from the vegetation. According to Appendix G, the flame front from the wildfire moves through an area very quickly, usually no more than 6 minutes. FRTW will perform very well under the conditions found in this type of fire. It has a very low flame spread, less than 25 (typically in the 10 to 15 range), and will self extinguish once the source of ignition is removed or consumed. In addition, a fire cannot be started with FRTW. Insurance companies consider the product slow burning. Because of the enhanced fire protection requirements of Section 504 the fire load will be very low preventing continued burning once the fire has passed through

Cost Impact: The code change proposal will not increase the cost of construction. It may save money. It gives designers and building owners another method to comply with the code requirements.

Committee Action: **Disapproved**

Committee Reason: For consistency with the action on WUIC25- and 27-06/07. The committee was also concerned that detached accessory structures can be of considerable size.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Joseph Holland, Hoover Treated Wood Products, requests Approved as Submitted.

Commenter's Reason: While the lack of a minimum thickness for noncombustible materials does not appear to be a problem, the committee felt a minimum thickness for FRTW was necessary. The WUIC is not a standalone code. Section 101.3 Objective specifically states, "This code shall supplement the jurisdiction's building and fire codes…." The IBC in Table 1405.2 contains information for minimum thickness of materials used for wall coverings. It contains minimum thicknesses of many noncombustible materials and wood products and should be used in conjunction with the WUIC.

It is not practicable to list the thickness of all noncombustible and FRTW wood products in this section.

Appendix G of the WUIC summarizes the phases of a forest fire. It's intensity and duration is significantly different from a fire in the interior of a building. Recognition of this difference is seen in the California regulation recently adopted. The difference is explained in the terms fire resistance and ignition resistant. The WUIC currently recognizes both concepts. It requires either 1-hour fire resistant rated assembly (fire endurance) or noncombustible (ignition resistant). The fire endurance is based on a fire test for exposure to an interior fire as outlined in ASTM E119. Ignition resistant is demonstrated by a material's inability to spread fire (noncombustible) or if combustible, its ability to resist the spread of fire and its ability to self extinguish once the source of ignition is consumed or removed (FRTW). In a forest fire scenario the ignition resistance of a material is of utmost importance.

FRTW has been used in building construction for over 60 years. It has been recognized by the building code for more than 40 years. It has an excellent record. It is an ignition resistant material. A fire cannot be started with FRTW. It will self extinguish if involved in an external source of fire when the source is removed.

Final Action: AS AM AMPC____ D

WUIC30-06/07

Proposed Change as Submitted:

Proponent: Kate Dargan, California Department of Forestry & Fire Protection, representing Office of the State Fire Marshal

1. Add new text as follows:

504.12 Decking. Decking, surfaces, stair treads, risers, and landings of decks, porches, and balconies where any portion of such surface is within 10 feet (3048 mm) of the primary structure shall comply with one of the following methods. The use of paints, coatings, stains, or other surface treatments shall not be considered an approved method of protection as required in this chapter:

1. Shall be constructed of Ignition Resistant Materials and pass the performance requirements of SFM 12-7A-4, Parts A and B.
2. Shall be constructed with heavy timber, exterior fire retardant treated wood or approved non-combustible materials.
3. Shall pass the performance requirements of SFM 12-7A-4, Part A, 12-7A-4.7.5.1 only with a net peak heat release rate of 25kW/sq-ft for a 40 minute observation period and:
   - 3.1. Decking surface material shall pass the accelerated weathering test and be identified as Exterior type, in accordance with ASTM E 84; and
   - 3.2. The exterior wall covering to which it the deck is attached and within 10 (3048 mm) feet of the deck shall be constructed of approved noncombustible or ignition resistant material.

Exception: Walls are not required to comply if the decking surface material conforms to ASTM E-84 Class B flame spread.

2. Add referenced standard to Chapter 7 as follows:

SFM California Department of Forestry & Fire Prevention
Office of the State Fire Marshal
PO Box 944246
Sacramento, CA 94244-2450

12-7A-4 Decking Test Standard.

Reason: Add new requirement to the Code. This change reflects the increased concern with decks contributing to structural losses in the wildland-urban interface. Testing and experience with catastrophic fires during the last decade, combined with the proliferation of synthetic decking materials, resulted in the California State Fire Marshal's Office developing Chapter 7A of the California Building Code. This section is a verbatim result of that three-year effort which included stakeholder input from across the country.

This code change proposal is consistent with the findings of the report commissioned by the California Department of Forestry & Fire Protection, Office of the State Fire Marshal which studied data from over 3000 structures burned in the 2003 Southern California wildfires [Fire At the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004] which demonstrated that cost effective construction technologies – and underlying testing technology - exist which can substantially reduce the likelihood of sustained ignition of structures during UWI fire incidents. Likewise data from San Diego County also support these proposals in that areas which were tested by the 2003 fires where homes were constructed under recent local code provisions consistent with those being proposed for the ICC UWI Code displayed significantly higher survival rates than those built before those regulations were enacted.

Bibliography: Fire at the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004

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

Analysis: Results of the review of the proposed standard will be posted on the ICC website by August 20, 2006.

Note: The following analysis was not in the Code Change Proposal book but was published in the "Errata to the 2006/2007 Proposed Changes to the International Codes and Analysis of Proposed Referenced Standards" provided at the code development hearings:

Analysis: Review of the proposed new standard indicated that, in the opinion of ICC staff, the standard did not comply with ICC standards criteria, Sections 3.6.2.11 and 3.6.3.2.

Committee Action: **Disapproved**

Committee Reason: The proposal would create conflict with other deck provisions in Section 504.7. There is no definition of ignition resistant material and it is unclear as to the use of the term "chapter" in the charging paragraph of Section 504.12.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Marcelo M. Hirschler, GBH International representing American Fire Safety Council, requests Approved as Modified by this public comment.

1. Replace proposal with the following:

504.12 Decking. Decking, surfaces, stair treads, risers, and landings of decks, porches, and balconies where any portion of such surface is within 10 feet (3048 mm) of the primary structure shall be constructed of one of the following.

1. Approved noncombustible materials,
2. A minimum of 1-hour fire resistance-rated construction,
3. Heavy timber construction,
4. Fire retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the *International Building Code* or
5. Listed materials that
   - 5.1. Exhibit the following performance when tested in accordance with Part A of the California Office of State Fire Marshal standard SFM 12-7A-5 test: a heat release rate per unit surface not exceeding 25 kW/ft^2 (269 kW/m^2), no falling particles that are burning, no sustained flaming or glowing combustion at the conclusion of the 40 minute test observation period and no structural failure of any deck board,
   - 5.2. Exhibit the following performance when tested in accordance with Part B of the California Office of State Fire Marshal standard SFM 12-7A-5 test: no falling particles that are burning, no sustained flaming or glowing combustion at the conclusion of the 40 minute test observation period and no structural failure of any deck board,
   - 5.3. Achieve the fire performance requirements listed above without the use of coating materials, and
   - 5.4. Exhibit no change in the fire performance in accordance with the California Office of State Fire Marshal test SFM 12-7A-5 after the material has been subjected to the standard rain test ASTM D 2898.

2. Add referenced standard to Chapter 7 as follows:

SFM California Department of Forestry & Fire Prevention
Office of the State Fire Marshal
PO Box 944246
Sacramento, CA 94244-2450

12-7A-5 Fire Resistive Standards for Decks and Other Horizontal Ancillary Structures

Commenter's Reason: The state of California issued a set of 5 standards which were intended for use as "ignition-resistant materials" in exterior construction in wildland areas. As explained by the committee, and as introduced during the public proposal hearings by the proponent of this comment, the concept of "ignition-resistant materials" is put in words by the requirements attached to these various test methods, for exterior walls (SFM 12-7A-1), exterior windows (SFM 12-7-A-2), eaves (SFM 12-7-A-3), roofs (SFM 12-7-A-4) and decks (SFM 12-7-A-5). Proposal WUIC 39 was accepted by the committee and it introduced the California State Fire Marshal test for decks. The present comment uses the same test for decks and other comments deal with exterior walls and eaves. This comment does not have requirements based on any specific composition of material but on performance only.

The decks test involves a test of a deck assembly, in triplicate, using a gas burner at 80 kW. The burner is centered directly under the middle deck board, midway between the joists. The distance from the top of the burner to the bottom of the deck boards is 27 in. (690 mm). The test duration is 3 minutes, unless there is accelerated flaming combustion or structural failure of the deck assembly before the end of the 3-min period. If such failure does not occur, observation continues for an additional 40 min or until all combustion has ceased. The report includes a description of the deck board material, details of the construction of the deck assembly, peak rate of heat release, description of any flaming drops or particles falling from the deck and time at which any significant flame events occur. SFM 12-7-A-5 also contains a second test, whereby the deck assembly is exposed to a burning brand (Type A) as used in the ASTM E 108 roof test.

The Type A brand is the most severe brand used in ASTM E 108 roof tests and roof assemblies or roof coverings meeting this requirement are the only ones permitted in section 504 of the International Wildland Code (for which this new decking sub-section was proposed), as follows:

"504.2 Roof covering. Roofs shall have a Class A roof covering or a Class A roof assembly. For roof coverings where the profile allows a space between the roof covering and roof decking, the space at the eave ends shall be firestopped to preclude entry of flames or embers."

The use of this test will allow the home builder and home user a choice of materials that are of improved fire performance with regard to ordinary construction materials without needing to be based on materials that resist a 1 hour fire resistance test (ASTM E 119) since it has been shown by a report commissioned by the California Department of Forestry & Fire Protection, Office of the State Fire Marshal, which studied data from over 3000 structures burned in the 2003 Southern California wildfires [Fire At the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004], that cost effective construction technologies – and underlying testing technology - exist which can substantially reduce the likelihood of sustained ignition of structures during urban wildland interface fire incidents. Likewise data from San Diego County (California) also support these proposals in that areas which were tested by the 2003 fires where homes were constructed under recent local code provisions consistent with the CA State Fire Marshal tests, and which displayed significantly higher survival rates than those built before those regulations were enacted.

Final Action: AS AM AMPC____ D

WUIC32-06/07

505.2.1 (New)

Proposed Change as Submitted:

Proponent: Kate Dargan, California Department of Forestry & Fire Protection, representing Office of the State Fire Marshal

Add new text as follows:

505.2.1 Roof valleys. When provided, valley flashings shall be not less than 0.016-inch (0.41 mm) (No. 28 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36 inches (914 mm) wide underlayment consisting of one layer of No. 72 ASTM cap sheet running the full length of the valley.

Reason: Add new requirements to the Code.

Analysis of fire loss data has shown valleys to be a point of acute vulnerability. These valleys collect debris and retain moisture. Erosion and corrosion combine to attack this weak point and the subsequent fire burns through the minimum underlayment. This change addresses both the durability of the surface of the valley and the redundant protection afforded by enhanced underlayment.

This code change proposal is consistent with the findings of the report commissioned by the California Department of Forestry & Fire Protection, Office of the State Fire Marshal which studied data from over 3000 structures burned in the 2003 Southern California wildfires [Fire At the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004] which demonstrated that cost effective construction technologies – and underlying testing technology - exist which can substantially reduce the likelihood of sustained ignition of structures during UWI fire incidents. Likewise data from San Diego County also support these proposals in that areas which were tested by the 2003 fires where homes were constructed under recent local code provisions consistent with those being proposed for the ICC UWI Code displayed significantly higher survival rates than those built before those regulations were enacted.

Bibliography: Fire at the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004

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

Committee Action: **Approved as Modified**

Modify the proposal as follows:

505.2.1 Roof valleys. When provided, valley flashings shall be not less than 0.019 inch ~~0.016 inch~~ (0.48 ~~41~~ mm) (No.26 ~~28~~ galvanized sheet gage) corrosion-resistant metal installed over a minimum 36 inches (914 mm) wide underlayment consisting of one layer of ~~No.~~ 72 ~~ASTM cap sheet~~ pound (32.4 kg) mineral-surfaced, nonperforated cap sheet complying with ASTM D3909 running the full length of the valley.

Committee Reason: For consistency with the action on WUIC22-06/07. The proposal provides important protection for roof valleys where embers may collect and ignite the roof. The modification provides correlation with Chapter 15 of the IBC and clarifies the type of covering required. Though not submitted for committee review, ASTM 3909 is already a referenced standard in the IBC and the committee felt that it is an appropriate reference for this section as well and will provide the code official with a useful tool for code enforcement.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Brian Sause, National Association of Home Builders (NAHB), requests Disapproval.

Commenter's Reason: There is no technical justification demonstrating that other types of valley linings permitted by the IRC in Section R905.2.8.2 will not provide sufficient protection of the roof valleys in the wildland urban interface areas when combined with the approved corrosion resistant metal linings and flashing for asphalt shingles.

Final Action: AS AM AMPC____ D

WUIC33-06/07
505.4

Proposed Change as Submitted:

Proponent: Kate Dargan, California Department of Forestry & Fire Protection, representing Office of the State Fire Marshal

Revise as follows:

505.4 Gutters and downspouts. Gutters and downspouts shall be constructed of noncombustible material. Gutters shall be provided with an approved means to prevent the accumulation of leaves and debris in the gutter.

Reason: Add new requirement to the Code.

Debris accumulated in gutters can ignite and carry fire to particularly vulnerable roof edge features. Providing a means or device which prevents or removes such accumulation should significantly reduce such fire extension.

This code change proposal is consistent with the findings of the report commissioned by the California Department of Forestry & Fire Protection, Office of the State Fire Marshal which studied data from over 3000 structures burned in the 2003 Southern California wildfires [Fire At the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004] which demonstrated that cost effective construction technologies – and underlying testing technology - exist which can substantially reduce the likelihood of sustained ignition of structures during UWI fire incidents. Likewise data from San Diego County also support these proposals in that areas which were tested by the 2003 fires where homes were constructed under recent local code provisions consistent with those being proposed for the ICC UWI Code displayed significantly higher survival rates than those built before those regulations were enacted.

Bibliography: Fire at the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004

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

Committee Action: **Approved as Submitted**

Committee Reason: For consistency with the action on WUIC24-06/07. The proposal will provide improved protection for roof edges from ignition by burning accumulated combustible materials caught in the gutter. The committee suggested that specifying that the gutter cover also be noncombustible would be preferred.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Brian Sause, National Association of Home Builders (NAHB), requests Disapproval.

Commenter's Reason: As submitted, this provision is not enforceable. There is no standard on which to determine if a gutter guard is "approved" leaving this determination to the discretion of the building official.

Questions arise on what type of material the guard is designed or approved to protect from entering a gutter. Gutters may be become clogged by materials other than the leaves they are designed for. If tree cover in the wildland urban interface area is primarily coniferous trees such as pines, spruces and firs, needles will potentially pass through openings in the guards, fill gutters, and clog drain spouts despite the presence of a guard. Organic litter from conifers is also subject to clogging. Litter in the form of flowers, seeds, buds, and bark continuously fall from the forest past most gutter guards and often clog the gutter or the guard itself, causing water to overflow.

Although the guard may clog more slowly, it will need to be periodically maintained and inspected for debris. We do not want homeowners believing their gutters are maintenance free and definitely can not assure them that all guards work. As in maintaining a defensible space, the responsibility for maintaining debris and gutters ultimately resides with the homeowner. Fulfilling this responsibility may actually be hindered by the presence of a guard. This is a maintenance issue that does not belong in the code.

Finally, without a fire rating of the guard itself, and without assurance that flying embers can not pass through a gutter guard and ignite smaller material within, we simply can not rely on them as a preventative measure in the code.

Final Action: AS AM AMPC____ D

WUIC34-06/07
505.5

Proposed Change as Submitted:

Proponent: Joseph Holland, Hoover Treated Wood Products

Revise as follows:

505.5 Exterior walls. Exterior walls of buildings or structures shall be constructed with materials approved for a minimum of 1-hour fire-resistance-rated construction on the exterior side or constructed with approved noncombustible materials.

Exception: Heavy timber or log wall construction or fire-retardant-treated wood on the exterior side. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the *International Building Code*.

Such material shall extend from the top of the foundation to the underside of the roof sheathing.

Reason: Add fire-retardant-treated wood to the list of recognized materials.

The purpose of the code is to increase the survivability of a structure in a wildland fire scenario. The requirements reduce the possibility of fire penetrating the structure via the wall, deck, roof, and eaves by mandating ignition-resistant construction. In addition the code requires an automatic fire sprinkler system, if the structure is penetrated by fire the sprinkler system is activated.

FRTW is recognized as an ignition-resistance material. Fire-retardant-treated wood is permitted for the roof, eave, and for appendages and projections in the WUI code. This exposure is similar to the exposure expected for appendages and projections.

There are two exposures to the structure from a wildland fire: flying brands and heat from the vegetation. According to Appendix G, the flame front from the wildfire moves through an area very quickly, usually no more than 6 minutes. FRTW will perform very well under the conditions found in this type of fire. It has a very low flame spread, less than 25 (typically in the 10 to 15 range), and will self extinguish once the source of ignition is removed or consumed. In addition, a fire cannot be started with FRTW. Insurance companies consider the product slow burning. Because of the enhanced fire protection requirements of Section 505 the fire load will be very low preventing continued burning once the fire has passed through.

In addition, it will not propagate fire. Burning brands will be consumed in a short time period and the exposed FRTW will self extinguish.

This application is already recognized for the wildland areas in California.

Bibliography: Emergency express terms by the California Department of Forestry (CDF) & Fire Protection Office of the State Fire Marshal (SFM) to the California Code of Regulations, Title 24 California Building Code (CBC), Part 2 and the California Referenced Standards Code (CRSC), Part 12 regarding Phase II - Wildland-Urban Interface Fire Areas Building Standards.

Cost Impact: The code change proposal will not increase the cost of construction. It may save money. It gives designers and building owners another method to comply with the code requirements.

Committee Action: **Disapproved**

Committee Reason: For consistency with the action on WUIC25-06/07. The proposal does not include any criteria for a minimum material thickness to resist fire exposure. No technical documentation was submitted to demonstrate that this material will perform in this application.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Joseph Holland, Hoover Treated Wood Products, requests Approved as Submitted.

Commenter's Reason: While the lack of a minimum thickness for noncombustible materials does not appear to be a problem, the committee felt a minimum thickness for FRTW was necessary. The WUIC is not a standalone code. Section 101.3 Objective specifically states, "This code shall supplement the jurisdiction's building and fire codes…." The IBC in Table 1405.2 contains information for minimum thickness of materials used for wall coverings. It contains minimum thicknesses of many noncombustible materials and wood products and should be used in conjunction with the WUIC.

It is not practicable to list the thickness of all noncombustible and FRTW wood products in this section.

Appendix G of the WUIC summarizes the phases of a forest fire. It's intensity and duration is significantly different from a fire in the interior of a building. Recognition of this difference is seen in the California regulation recently adopted. The difference is explained in the terms fire resistance and ignition resistant. The WUIC currently recognizes both concepts. It requires either 1-hour fire resistant rated assembly (fire endurance) or noncombustible (ignition resistant). The fire endurance is based on a fire test for exposure to an interior fire as outlined in ASTM E119. Ignition resistant is demonstrated by a material's inability to spread fire (noncombustible) or if combustible, its ability to resist the spread of fire and its ability to self extinguish once the source of ignition is consumed or removed (FRTW). In a forest fire scenario the ignition resistance of a material is of utmost importance.

FRTW has been used in building construction for over 60 years. It has been recognized by the building code for more than 40 years. It has an excellent record. It is an ignition resistant material. A fire cannot be started with FRTW. It will self extinguish if involved in an external source of fire when the source is removed.

Final Action: AS AM AMPC____ D

WUIC35-06/07
505.5

Proposed Change as Submitted:

Proponent: Kate Dargan, California Department of Forestry & Fire Protection, representing Office of the State Fire Marshal

Revise as follows:

505.5 Exterior walls. Exterior walls of buildings or structures shall be constructed with ignition-resistant materials or with materials approved for a minimum of 1-hour fire-resistance-rated construction on the exterior side, or constructed with heavy timber or log wall construction, or constructed with approved noncombustible materials.

~~**Exception:** Heavy timber or log wall construction.~~

Such material shall extend from the top of the foundation to the underside of the roof sheathing.

Reason: Add new requirement to the Code, and clarify the Code by elimination of the Exception.

Experience and testing indicates wall failures in wildland urban interface fire situations are a result of ember/brand intrusion or entrapment, or short term exposure to radiated heat or direct flame impingement. Using ignition resistant materials should significantly reduce these failures. This text change eliminates the need for the exception by including the heavy timber and /or log wall as affirmative options.

This code change proposal is consistent with the findings of the report commissioned by the California Department of Forestry & Fire Protection, Office of the State Fire Marshal which studied data from over 3000 structures burned in the 2003 Southern California wildfires [Fire At the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004] which demonstrated that cost effective construction technologies – and underlying testing technology - exist which can substantially reduce the likelihood of sustained ignition of structures during UWI fire incidents. Likewise data from San Diego County also support these proposals in that areas which were tested by the 2003 fires where homes were constructed under recent local code provisions consistent with those being proposed for the ICC UWI Code displayed significantly higher survival rates than those built before those regulations were enacted.

Bibliography: Fire at the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004

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

Committee Action: **Disapproved**

Committee Reason: For consistency with the action on WUIC20- and 26-06/07. The proponent requested disapproval for further work on a definition of ignition-resistant material.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Marcelo M. Hirschler, GBH International, American Fire Safety Council, requests Approved as Modified by this comment.

1. Replace proposal with following modification to current text.

505.5 Exterior walls. Exterior walls of buildings or structures shall be heavy timber or log wall construction or shall be constructed with materials complying with one of the following:

1. Approved non combustible materials,
2. Materials approved for a minimum of 1-hour fire-resistance-rated construction on the exterior side ~~or constructed with approved noncombustible materials.~~,
3. Listed materials that
   - 3.1. Exhibit the following performance when tested in accordance with the California Office of State Fire Marshal standard SFM 12-7A-1 test: absence of flame penetration through the wall assembly at any time, absence of structural failure of the wall assembly at any time and absence of sustained flaming or glowing combustion at the conclusion of the 70 minute test observation period, and
   - 3.2. Exhibit no change in the fire performance in accordance with the California Office of State Fire Marshal standard SFM 12-7A-1 test after the material has been subjected to the standard rain test ASTM D 2898.

~~Exception: Heavy timber or log wall construction~~

Such material shall extend from the top of the foundation to the underside of the roof sheathing.

2. Add referenced standard to Chapter 7 as follows:

SFM California Department of Forestry & Fire Prevention
Office of the State Fire Marshal
PO Box 944246
Sacramento, CA 94244-2450

12-7A-3 Fire Resistive Standards for Exterior Wall Siding and Sheathing

Commenter's Reason: The state of California issued a set of 5 standards which were intended for use as "ignition-resistant materials" in exterior construction in wildland areas. As explained by the committee, and as introduced during the public proposal hearings by the proponent of this comment, the concept of "ignition-resistant materials" is put in words by the requirements attached to these various test methods, for exterior walls (SFM 12-7A-1), exterior windows (SFM 12-7-A-2), eaves (SFM 12-7-A-3), roofs (SFM 12-7-A-4) and decks (SFM 12-7-A-5). Proposal WUIC 39 was accepted by the committee and it introduced the California State Fire Marshal test for decks. The present comment uses the corresponding test for exterior walls and other comments deal with decks and eaves. This comment does not have requirements based on any specific composition of material but on performance only.

The exterior walls test involves a test of an exterior wall assembly, in triplicate, using a gas burner at 150 kW. The burner is centered with respect to the width of the cladding-wall assembly and is placed at 0.75 in. (20 mm) from the wall, with 12 in. (300 mm) from the floor to the top of the burner. The test duration is 10 minutes, unless there is flame penetration of the cladding-wall assembly before the end of the 10-min period. If penetration does not occur, observation continues for an additional 60 min or until all combustion has ceased. The report includes a description of the wall cladding material, sheathing materials, details of the construction of the wall module assembly, moisture content of the framing, and point of flame penetration.

The use of this test will allow the home builder and home user a choice of materials that are of improved fire performance with regard to ordinary construction materials without needing to be based on materials that resist a 1 hour fire resistance test (ASTM E 119) since it has been shown by a report commissioned by the California Department of Forestry & Fire Protection, Office of the State Fire Marshal, which studied data from over 3000 structures burned in the 2003 Southern California wildfires [Fire At the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004], that cost effective construction technologies – and underlying testing technology - exist which can substantially reduce the likelihood of sustained ignition of structures during urban wildland interface fire incidents. Likewise data from San Diego County (California) also support these proposals in that areas which were tested by the 2003 fires where homes were constructed under recent local code provisions consistent with the CA State Fire Marshal tests, and which displayed significantly higher survival rates than those built before those regulations were enacted.

Final Action: AS AM AMPC____ D

WUIC37-06/07
505.6

Proposed Change as Submitted:

Proponent: Joseph Holland, Hoover Treated Wood Products

Revise as follows:

505.6 Unenclosed underfloor protection. Buildings or structures shall have all underfloor areas enclosed to the ground, with exterior walls in accordance with Section 505.5.

Exception: Complete enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy timber construction or fire-retardant-treated wood. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the *International Building Code*.

Reason: Add fire-retardant-treated wood to the list of recognized materials.

The purpose of the code is to increase the survivability of a structure in a wildland fire scenario. The requirements reduce the possibility of fire penetrating the structure via the wall, deck, roof, and eaves by mandating ignition-resistant construction. In addition the code requires an automatic fire sprinkler system, if the structure is penetrated by fire the sprinkler system is activated.
FRTW is recognized as an ignition-resistance material. Fire-retardant-treated wood is permitted for the roof, eave, and for appendages and projections in the WUI code. This exposure is similar to the exposure expected for appendages and projections.

There are two exposures to the structure from a wildland fire: flying brands and heat from the vegetation. According to Appendix G, the flame front from the wildfire moves through an area very quickly, usually no more than 6 minutes. FRTW will perform very well under the conditions found in this type of fire. It has a very low flame spread, less than 25 (typically in the 10 to 15 range), and will self extinguish once the source of ignition is removed or consumed. In addition, a fire cannot be started with FRTW. Insurance companies consider the product slow burning. Because of the enhanced fire protection requirements of Section 505 the fire load will be very low preventing continued burning once the fire has passed through.

In addition, it will not propagate fire. Burning brands will be consumed in a short time period and the exposed FRTW will self extinguish.
This application is already recognized for the wildland areas in California.

Bibliography: Emergency express terms by the California Department of Forestry (CDF) & Fire Protection Office of the State Fire Marshal (SFM) to the California Code of Regulations, Title 24 California Building Code (CBC), Part 2 and the California Referenced Standards Code (CRSC), Part 12 regarding Phase II - Wildland-Urban Interface Fire Areas Building Standards. Attached.

Cost Impact: The code change proposal will not increase the cost of construction. It may save money. It gives designers and building owners another method to comply with the code requirements.

Committee Action: **Disapproved**

Committee Reason: For consistency with the action on WUIC25- and 27-06/07.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Joseph Holland, Hoover Treated Wood Products, requests Approved as Submitted.

Commenter's Reason: While the lack of a minimum thickness for noncombustible materials does not appear to be a problem, the committee felt a minimum thickness for FRTW was necessary. The WUIC is not a standalone code. Section 101.3 Objective specifically states, “This code shall supplement the jurisdiction’s building and fire codes….” The IBC in Table 1405.2 contains information for minimum thickness of materials used for wall coverings. It contains minimum thicknesses of many noncombustible materials and wood products and should be used in conjunction with the WUIC. In addition, the structural load on the floor is going to dictate the size of the framing members.

It is not practicable to list the thickness of all noncombustible and FRTW wood products in this section.
Appendix G of the WUIC summarizes the phases of a forest fire. It’s intensity and duration is significantly different from a fire in the interior of a building. Recognition of this difference is seen in the California regulation recently adopted. The difference is explained in the terms fire resistance and ignition resistant. The WUIC currently recognizes both concepts. It requires either 1-hour fire resistant rated assembly (fire endurance) or noncombustible (ignition resistant). The fire endurance is based on a fire test for exposure to an interior fire

as outlined in ASTM E119. Ignition resistant is demonstrated by a material's inability to spread fire (noncombustible) or if combustible, its ability to resist the spread of fire and its ability to self extinguish once the source of ignition is consumed or removed (FRTW). In a forest fire scenario the ignition resistance of a material is of utmost importance.

FRTW has been used in building construction for over 60 years. It has been recognized by the building code for more than 40 years. It has an excellent record. It is an ignition resistant material. A fire cannot be started with FRTW. It will self extinguish if involved in an external source of fire when the source is removed.

Final Action: AS AM AMPC____ D

WUIC39-06/07
505.7, Chapter 7

Proposed Change as Submitted:

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

1. Revise as follows:

505.7 Appendages and projections. Unenclosed accessory structures attached to buildings with habitable spaces and projections, such as decks, shall be constructed of one of the following:

1. Approved noncombustible materials,
2. A minimum of 1-hour fireresistance-rated construction,
3. Heavy timber construction, ~~or constructed of approved noncombustible materials or~~
4. Fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the *International Building Code* or~~.~~
5. Listed materials that:
   - 5.1. Exhibit the following performance when tested in accordance with Part A of the California Office of State Fire Marshal standard SFM 12-7A-5 test: a heat release rate per unit surface not exceeding 25 kW/ft^2 (269 kW/m^2), no falling particles that are burning, no sustained flaming or glowing combustion at the conclusion of the 40 minute test observation period and no structural failure of any deck board,
   - 5.2. Exhibit the following performance when tested in accordance with Part B of the California Office of State Fire Marshal standard SFM 12-7A-5 test: no falling particles that are burning, no sustained flaming or glowing combustion at the conclusion of the 40 minute test observation period and no structural failure of any deck board,
   - 5.3. Achieve the fire performance requirements listed above without the use of coating materials, and
   - 5.4. Exhibit no change in the fire performance in accordance with the California Office of State Fire Marshal test SFM 12-7A-5 after the material has been subjected to the standard rain test ASTM D 2898.

When the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 505.5.

2. Add referenced standards to Chapter 7 as follows:

SFM California Department of Forestry & Fire Prevention
Office of the State Fire Marshal
PO Box 944246
Sacramento, CA 94244-2450

12-7A-5 Fire Resistance Standards for Decks and Other Horizontal Ancillary Structures

ASTM

D2898–04 Standard Test Methods for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing

Reason: The California Office of the State Fire Marshal has issued a change in the regulations affecting new buildings in the wildland urban interface area. In order to provide for such regulations, a fire test was developed by the University of California at Berkeley, which then became SFM 12 7A-5. This standard contains two test methods: (a) a heat release test where a sand burner (300 mm x 300 mm, or 1 ft by 1 ft, similar to the burner in room-corner tests such as NFPA 286) at an output of 80 kW is placed 690 mm (27 in.) under the deck and (b) a burning brand test, similar to ASTM E 108. In the heat release test, measurements of heat release are made by oxygen consumption calorimetry. A material passes if the peak heat release rate is less than 269 kW/m^2 (note the correct conversion of units to 269 kW/m^2 from 25 kW/ft^2), there is no evidence of sustained flaming or glowing combustion of any kind at the end of the 40 minute observation period and there is no structural failure of any deck board.

This SFM 12 7A-5 test is being used by nationally recognized test laboratories to develop results for materials that exhibit a good fire performance, and the materials listed would protect the building from an exterior wildland fire in a manner similar to that of fire retardant treated wood.

The use of coating materials is not appropriate for exterior decks as the only way of improving fire performance of flooring materials for long-term use, as it may not have sufficient long-term durability.

The suggested added weathering test, ASTM D 2898 (Standard Test Methods for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing), is already referenced in the International Building Code and has been the standard weathering test in codes for many years, and is therefore not attached, but can be obtained from ASTM headquarters if required for information by the committee.
Cost Impact: The code change proposal will not increase the cost of construction.

Analysis: Results of the review of the proposed standards will be posted on the ICC website by August 20, 2006.

Note: The following analysis was not in the Code Change Proposal book but was published in the "Errata to the 2006/2007 Proposed Changes to the International Codes and Analysis of Proposed Referenced Standards" provided at the code development hearings:

Analysis: Review of the proposed new ASTM standard indicated that, in the opinion of ICC staff, the standard did comply with ICC standards criteria. Review of the proposed new SFM standard indicated that, in the opinion of ICC staff, the standard did not comply with ICC standards criteria, Sections 3.6.2.11 and 3.6.3.2.

Committee Action: **Approved as Submitted**

Committee Reason: The proposal provides reasonable alternative design options with specific performance requirements.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment 1:

Joseph B. Zicherman, Fire Cause Analysis, representing The Trex Company, requests Approved as Modified by this public comment.

Modify proposal as follows:

505.7 Appendages and projections. Unenclosed accessory structures attached to buildings with habitable spaces and projections, such as decks, shall be constructed of one of the following:

1. Approved noncombustible materials,
2. A minimum of 1-hour fireresistance-rated construction,
3. Heavy timber construction
4. Fire-retardant-treated wood identified for exterior use and meeting the requirements of Section 2303.2 of the *International Building Code* or ~~.~~
5. Listed materials that:
   - 5.1. ~~Exhibit the following performance~~ When tested in accordance with Part A of the California Office of State Fire Marshal standard SFM 12-7A-5 test shall exhibit a heat release rate per unit surface not exceeding 25 kW/ft^2 (269 kW/m^2), ~~no falling particles that are burning, no sustained flaming or glowing combustion at the conclusion of the~~ for a 40 minute test observation period ~~and no structural failure of any deck board,~~
   - 5.2. Exhibit performance confirming to ASTME-84 B flame spread. ~~the following performance when tested in accordance with Part B of the California Office of State Fire Marshal standard SFM 12-7A-5 test: no falling particles that are burning, no sustained flaming or glowing combustion at the conclusion of the 40 minute test observation period and no structural failure of any deck board,~~
   - 5.3. Achieve the fire performance requirements listed above without the use of coating materials, and
   - 5.4. Exhibit no change in the fire performance in accordance with the California Office of State Fire Marshal test SFM 12-7A-5 after the material has been subjected to the standard rain test ASTM D 2898.

When the attached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 505.5.

Commenter's Reason: We are in agreement with the intent of code change proposal WUIC39-06/07 which was approved at the Orlando meeting. We are proposing the modifications presented here because as proposed, Sections 5.1 and 5.2 as drafted currently and accepted at the Orlando meeting, are not appropriate for inclusion in the ICC WUI Code. The reasons they should not be included in the code as written are as follows:

(a) The proposed language for Section 5.1 differs from the manner in which the California SFM 12-7A-5 decking standard has been adopted for code enforcement in the state of California, where the threats posed to communities by wildfires are the greatest. Therefore, the fire test performance standards for decking adopted by California State Fire Marshal can be used as a model for adoption by other states in the United States.

Currently *only* the first acceptance criteria - peak heat release rate less than or equal to 25 kW/ft^2 (269 kW/m^2), of Part A: Under-flame test of the SFM standard – has been approved as a test method to be used to determine the acceptability of decking materials.

For a variety of technical reasons, including those discussed below, Part B of Standard 12-7A-5 – as called for in proposed section 5.2 is ***not*** being used for enforcement purposes.

(b) The Burning Brand test method – Part B in the 12-7A-5 standard - as currently written is inconsistent with the findings of a working group comprised of San Diego County Fire Marshal's office, building code officials, experts in fire technology from the University of California (who developed the standard in question), and decking industry representatives. This test was intended to be true-to-life, aimed at estimating a materials resistance to the threats posed by wildfires. However, the size of the burning brands utilized in the test present a fire and heat exposure above and beyond the reasonable limit that a deck would experience in a real wildfire. Accordingly, the Burning Brand test as it's currently written has not been accepted by any fire protection or building code organization as a performance standard for decking.

(c) The inclusion of a revised section 5.2 as presented above adds ASTM E84 Class B flamespread rating as an additional fire performance standard for decking. This test has a long history of acceptance within the fire protection community as a means to assess the relative tendency of materials to burn upon exposure to flames. The measure proposed is also consistent with enforcement practices in place in regulated WUI areas in California.

Public Comment 2:

Michael D. Fischer, The Kellen Company, representing Composite Lumber Manufacturer's Association, requests Disapproval.

Commenter's Reason: WUIC 39 is similar to proposal WUIC 30, submitted by the CAL OSFM. While WUIC 39 was disapproved by the WUIC committee, WUIC 30 was approved after minimal debate to the surprise and dismay of representatives of the composite lumber industry.

CLMA is opposed to WUIC 39 for the following reasons:

1. The CA OSFM standard was developed as a governmental regulation, and not appropriate for adoption outside of California.
2. The CA OSFM standard does not comply with ICC procedures for consensus standards development.
3. CLMA is actively participating in the development of standards with ASTM and expects to bring forward appropriate national standards addressing urban-wildland interface issues.
4. CLMA has worked with the CA OSFM during workshops held in conjunction with CA rulemaking. WUIC 39 does not reflect the outcome of the deliberations and technical recommendations of that process.

Final Action: AS AM AMPC____ D

WUIC42-06/07
505.11

Proposed Change as Submitted:

Proponent: Joseph Holland, Hoover Treated Wood Products

Revise as follows:

505.11 Detached accessory structures. Detached accessory structures located less than 50 feet (15 240 mm) from a building containing habitable space shall have exterior walls constructed with materials approved for a minimum of 1-hour fire-resistance-rated construction, heavy timber, log wall construction, or constructed with approved noncombustible materials or fire-retardant-treated wood on the exterior side. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the *International Building Code*.

When the detached structure is located and constructed so that the structure or any portion thereof projects over a descending slope surface greater than 10 percent, the area below the structure shall have all underfloor areas enclosed to within 6 inches (152 mm) of the ground, with exterior wall construction in accordance with Section 505.5 or underfloor protection in accordance with Section 505.6.

Exception: The enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction or heavy-timber construction or fire-retardant-treated wood on the exterior side. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the *International Building Code*.

See Section 505.2 for roof requirements.

Reason: Add fire-retardant-treated wood to the list of recognized materials.

The purpose of the code is to increase the survivability of a structure in a wildland fire scenario. The requirements reduce the possibility of fire penetrating the structure via the wall, deck, roof, and eaves by mandating ignition-resistant construction. In addition the code requires an automatic fire sprinkler system, if the structure is penetrated by fire the sprinkler system is activated.
FRTW is recognized as an ignition-resistance material. Fire-retardant-treated wood is permitted for the roof, eave, and for appendages and projections in the WUI code. This exposure is similar to the exposure expected for appendages and projections.

There are two exposures to the structure from a wildland fire: flying brands and heat from the vegetation. According to Appendix G, the flame front from the wildfire moves through an area very quickly, usually no more than 6 minutes. FRTW will perform very well under the conditions found in this type of fire. It has a very low flame spread, less than 25 (typically in the 10 to 15 range), and will self extinguish once the source of ignition is removed or consumed. In addition, a fire cannot be started with FRTW. Insurance companies consider the product slow burning. Because of the enhanced fire protection requirements of Section 505 the fire load will be very low preventing continued burning once the fire has passed through.

In addition, it will not propagate fire. Burning brands will be consumed in a short time period and the exposed FRTW will self extinguish.
This application is already recognized for the wildland areas in California.

Bibliography: Emergency express terms by the California Department of Forestry (CDF) & Fire Protection Office of the State Fire Marshal (SFM) to the California Code of Regulations, Title 24 California Building Code (CBC), Part 2 and the California Referenced Standards Code (CRSC), Part 12 regarding Phase II - Wildland-Urban Interface Fire Areas Building Standards. Attached.

Cost Impact: The code change proposal will not increase the cost of construction. It may save money. It gives designers and building owners another method to comply with the code requirements.

Committee Action: **Disapproved**

Committee Reason: For consistency with the action on WUIC25-, 27- and 29-06/07. The committee was also concerned that detached accessory structures can be of considerable size.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Joseph Holland, Hoover Treated Wood Products, requests Approved as Submitted.

Commenter's Reason: While the lack of a minimum thickness for noncombustible materials does not appear to be a problem, the committee felt a minimum thickness for FRTW was necessary. The WUIC is not a standalone code. Section 101.3 Objective specifically states, "This code shall supplement the jurisdiction's building and fire codes…." The IBC in Table 1405.2 contains information for minimum thickness of materials used for wall coverings. It contains minimum thicknesses of many noncombustible materials and wood products and should be used in conjunction with the WUIC. In addition, the structural load on the floor walls, roof is going to dictate the size of the framing members.

It is not practicable to list the thickness of all noncombustible and FRTW wood products in this section.
Appendix G of the WUIC summarizes the phases of a forest fire. It's intensity and duration is significantly different from a fire in the interior of a building. Recognition of this difference is seen in the California regulation recently adopted. The difference is explained in the terms fire resistance and ignition resistant. The WUIC currently recognizes both concepts. It requires either 1-hour fire resistant rated assembly (fire endurance) or noncombustible (ignition resistant). The fire endurance is based on a fire test for exposure to an interior fire as outlined in ASTM E119. Ignition resistant is demonstrated by a material's inability to spread fire (noncombustible) or if combustible, its ability to resist the spread of fire and its ability to self extinguish once the source of ignition is consumed or removed (FRTW). In a forest fire scenario the ignition resistance of a material is of utmost importance.

FRTW has been used in building construction for over 60 years. It has been recognized by the building code for more than 40 years. It has an excellent record. It is an ignition resistant material. A fire cannot be started with FRTW. It will self extinguish if involved in an external source of fire when the source is removed.

Final Action: AS AM AMPC____ D

WUIC45-06/07
506.2.1 (New)

Proposed Change as Submitted:

Proponent: Kate Dargan, California Department of Forestry & Fire Protection, representing Office of the State Fire Marshal

Add new text as follows:

506.2.1 Roof valleys. When provided, valley flashings shall be not less than 0.016-inch (0.41 mm) (No. 28 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36 inches (914 mm) wide underlayment consisting of one layer of No. 72 ASTM cap sheet running the full length of the valley.

Reason: Add new requirements to the Code.

Analysis of fire loss data has shown valleys to be a point of acute vulnerability. These valleys collect debris and retain moisture. Erosion and corrosion combine to attack this weak point and the subsequent fire burns through the minimum underlayment. This change addresses both the durability of the surface of the valley and the redundant protection afforded by enhanced underlayment.

This code change proposal is consistent with the findings of the report commissioned by the California Department of Forestry & Fire Protection, Office of the State Fire Marshal which studied data from over 3000 structures burned in the 2003 Southern California wildfires [Fire At the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004] which demonstrated that cost effective construction technologies – and underlying testing technology - exist which can substantially reduce the likelihood of sustained ignition of structures during UWI fire incidents. Likewise data from San Diego County also support these proposals in that areas which were tested by the 2003 fires where homes were constructed under recent local code provisions consistent with those being proposed for the ICC UWI Code displayed significantly higher survival rates than those built before those regulations were enacted.

Bibliography: Fire at the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004

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

Committee Action: **Approved as Modified**

Modify proposal as follows:

506.2.1 Roof valleys. When provided, valley flashings shall be not less than 0.019 inch ~~0.016 inch~~ (0.48 ~~44~~ mm) (No.26 ~~28~~ galvanized sheet gage) corrosion-resistant metal installed over a minimum 36 inches (914 mm) wide underlayment consisting of one layer of ~~No.~~ 72 ~~ASTM cap sheet~~ pound (32.4 kg) mineral-surfaced, nonperforated cap sheet complying with ASTM D3909 running the full length of the valley.

Committee Reason: For consistency with the action on UWIC22- and 32-06/07. The proposal provides important protection for roof valleys where embers may collect and ignite the roof. The modification provides correlation with Chapter 15 of the IBC and clarifies the type of covering required. Though not submitted for committee review, ASTM 3909 is already a referenced standard in the IBC and the committee felt that it is an appropriate reference for this section as well and will provide the code official with a useful tool for code enforcement.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Brian Sause, National Association of Home Builders (NAHB), requests Disapproval.

Commenter's Reason: There is no technical justification demonstrating that other types of valley linings permitted by the IRC in Section R905.2.8.2 will not provide sufficient protection of the roof valleys in the wildland urban interface areas when combined with the approved corrosion resistant metal linings and flashing for asphalt shingles.

Final Action: AS AM AMPC____ D

WUIC46-06/07
506.3

Proposed Change as Submitted:

Proponent: Kate Dargan, California Department of Forestry & Fire Protection, representing Office of the State Fire Marshal

Revise as follows:

506.3 Unenclosed underfloor protection. Buildings or structures shall have all underfloor areas enclosed to ~~the ground~~ grade with exterior walls in accordance with Section 505.5.

Exception: Complete enclosure may be omitted where the underside of all exposed floors and all exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction, ignition-resistant materials or heavy timber construction.

Reason: Clarify the Code; and add new requirements to the Code.

The change from using the term, “the ground”, to using the word “grade” is editorial and consistent with common Code usage. The change adding “ignition-resistant materials”, is simply recognition of testing and experience which indicates structures in the wildland

urban interface fail as a result of ember/brand intrusion or entrapment, or short term exposure to radiated heat or direct flame impingement. Using ignition-resistant materials should significantly reduce these failures.

This code change proposal is consistent with the findings of the report commissioned by the California Department of Forestry & Fire Protection, Office of the State Fire Marshal which studied data from over 3000 structures burned in the 2003 Southern California wildfires [Fire At the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004] which demonstrated that cost effective construction technologies – and underlying testing technology - exist which can substantially reduce the likelihood of sustained ignition of structures during UWI fire incidents. Likewise data from San Diego County also support these proposals in that areas which were tested by the 2003 fires where homes were constructed under recent local code provisions consistent with those being proposed for the ICC UWI Code displayed significantly higher survival rates than those built before those regulations were enacted.

Bibliography: Fire at the Urban Wildland Interface – IFB Number 5CA334189/FCA – 05-6369 of 7-28-2004

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

Committee Action: **Approved as Submitted**

Committee Reason: For consistency with the action on WUIC24- and 33-06/07.

Assembly Action: **None**

Individual Consideration Agenda

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

Public Comment:

Brian Sause, National Association of Home Builders (NAHB), requests Disapproval.

Commenter's Reason: As submitted, this provision is not enforceable. There is no standard on which to determine if a gutter guard is "approved" leaving this determination to the discretion of the building official.

Questions arise on what type of material the guard is designed or approved to protect from entering a gutter. Gutters may be become clogged by materials other than the leaves they are designed for. If tree cover in the wildland urban interface area is primarily coniferous trees such as pines, spruces and firs, needles will potentially pass through openings in the guards, fill gutters, and clog drain spouts despite the presence of a guard. Organic litter from conifers is also subject to clogging. Litter in the form of flowers, seeds, buds, and bark continuously fall from the forest past most gutter guards and often clog the gutter or the guard itself, causing water to overflow.

Although the guard may clog more slowly, it will need to be periodically maintained and inspected for debris. We do not want homeowners believing their gutters are maintenance free and definitely can not assure them that all guards work. As in maintaining a defensible space, the responsibility for maintaining debris and gutters ultimately resides with the homeowner. Fulfilling this responsibility may actually be hindered by the presence of a guard. This is a maintenance issue that does not belong in the code.

Finally, without a fire rating of the guard itself, and without assurance that flying embers can not pass through a gutter guard and ignite smaller material within, we simply can not rely on them as a preventative measure in the code.

Final Action: AS AM AMPC____ D