2018 GROUP A PUBLIC COMMENT AGENDA

OCTOBER 24 - 31, 2018
GREATER RICHMOND CONVENTION CENTER
RICHMOND, VA
Proposed Change as Submitted

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

2018 International Wildland-Urban Interface Code
Revise as follows

503.2 Ignition-resistant building material. Ignition-resistant building materials shall comply with any one of the following:

1. Material shall be tested on all sides the front and back faces either with the extended ASTM E84 (UL 723) test or ASTM E 2768, except panel products shall be permitted to test only the front and back faces. Panel products shall be tested with a ripped or cut longitudinal gap of \( \frac{1}{16} \) inch (3.2 mm). Materials that, when tested in accordance with the test procedures set forth in ASTM E84 or UL 723, extended for a test period of 30 minutes, or with ASTM E 2768, and shall comply with the following:

1.1. Flame spread. Material shall exhibit a flame spread index not exceeding 25 and shall not show evidence of progressive combustion following the extended 30-minute test.

1.2. Flame front. Material shall exhibit a flame front that does not progress more than \( 10 \frac{1}{2} \) feet (3200 mm) beyond the centerline of the burner at any time during the extended 30-minute test. This shall be considered evidence of no significant progressive combustion.

1.3. Weathering. Ignition-resistant building materials shall maintain their performance in accordance with this section under conditions of use. Materials shall meet the performance requirements for weathering (including exposure to temperature, moisture and ultraviolet radiation) contained in the following standards, as applicable to the materials and the conditions of use:


1.3.2. ASTM D 7032 for wood-plastic composite materials.

1.3.3. ASTM D 6662 for plastic lumber materials.

1.4. Identification. Materials shall bear identification showing the fire test results.

Exception: Materials composed of a combustible core and a noncombustible exterior covering made from either aluminum at a minimum 0.019 inch (0.48 mm) thickness or corrosion-resistant steel at a minimum 0.0149 inch (0.38 mm) thickness shall not be required to be tested with a ripped or cut longitudinal gap.

2. Noncombustible material. Material that complies with the requirements for noncombustible materials in Section 202.

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. Fire-retardant-treated wood roof coverings. Roof assemblies containing fire-retardant-treated wood shingles and shakes that comply with the requirements of Section 1505.6 of the International Building Code and classified as Class A roof assemblies as required in Section 1505.2 of the International Building Code.

Reason: This proposal makes 4 changes, discussed below:

First:

It makes no sense to test “all sides” of a product when it becomes physically impossible to distinguish between the ends and no ASTM E84 specimen (which is 24 feet long by 2 feet wide) can be obtained from the ends. When a specimen is presented for testing, if all sides look the same, a lab can’t tell which is a second side. Testing front and back is feasible but other sides are not (because the maximum ASTM E84 thickness is 4 inches). In order to test a “2 by 4” specimen a simple calculation is that you would have to cut it into 864 pieces that are 2 x 4, and 4 inches thick, and somehow fasten them together: that is obviously ridiculous. It makes perfect sense to test the front and the back sides to ensure that the same fire performance is present on each side and that requirement is proposed to be retained.

Second:
The requirement to test with a rip or gap is not contained in either ASTM E84 or ASTM E2768 and is simply supposed to differentiate between fire retardant treated wood materials and coated materials. However, there is evidence that impregnation with fire retardant (as for fire retardant treated wood or FRTW) is not a guarantee that the additive penetrates uniformly throughout the wood and yet FRTW is not required to be tested on more than one side or with a gap or rip. That makes no sense. In fact, also, some coated products will be able to meet the requirements with the gap or rip so nothing is gained by adding that requirement. If there is concern about the implications of using coated wood products exceptions can (and should) be placed where the use of coated products is inappropriate, especially as decking materials.

Third:

ASTM E2768 was developed by ASTM E05 (committee on fire standards) specifically for the purpose of giving instructions on how to conduct ASTM E84 when extended to 30 minutes. In fact ASTM E84 states that materials required to be tested to meet the extended ASTM E84 to a 30-minute duration are covered by ASTM E2768. No other standard or code requirement explains how to test for "significant progressive combustion".

ASTM E2768 contains a section that explains how to assess the pass/fail criteria and it states as follows under "conditions of classification":

13.1 The test method has the following conditions of classification for a material or product to be classified as meeting the requirements of this standard:

13.1.1 The flame spread index shall be 25 or less as determined for the initial 10 min test period,

13.1.2 The flame front shall not progress more than 10.5 ft (3.2 m) beyond the centerline of the burners at any time during the 30 min test period. This is considered evidence of no significant progressive combustion in this test method.

13.2 For materials or products that are not homogeneous or symmetrical about their longitudinal axis, only surfaces that have been individually tested shall be eligible to be classified and reported as meeting the conditions of classification of this standard.

Consequently, the changes proposed to items 1.1 and 1.2 are consistent with the statements in ASTM E84 and ASTM E2768.

Fourth:

The exception is proposed to be eliminated because it is unnecessary if the requirement to test with a rip or gap is deleted.

A report on ASTM E2768 tests conducted by a fire test lab (QAI) is attached and it shows that when the flame front does not progress more than 10.5 ft beyond the centerline of the burners this is considered evidence of no significant progressive combustion. Also, no rip or gap used, because that is not what is required by ASTM E2768. Two pages of a similar report (title page and page 7) from another fire test lab (Intertek) also shows that the same criterion is used for both issues.

Cost Impact: The code change proposal will decrease the cost of construction
This will eliminate unnecessary testing that represents a barrier without adding fire safety.
Public Hearing Results

Committee Action: Disapproved

Committee Reason: The committee stated that the proposed revisions to the testing requirements do not match the original intent of the section. The change from testing on all sides to just the front and back faces is an unacceptable reduction in requirements and does not represent actual use and exposure of different types of materials and the cutting of these products during installation. (Vote: 12-2)

Assembly Action: None

WUIC3-18

Individual Consideration Agenda

Public Comment 1:

Proponent: Tim Earl, representing GBH International (tearl@gbhinternational.com) requests As Modified by This Public Comment.

Replace as follows:

2018 International Wildland-Urban Interface Code

503.2 Ignition-resistant building material. Ignition-resistant building materials shall comply with any one of the following:

1. Material shall be tested on all sides with the extended ASTM E84 (UL 723) test or ASTM E 2768, except panel products shall be permitted to test only the front and back faces. Panel products shall be tested with a ripped or cut longitudinal gap of \( \frac{1}{8} \) inch (3.2 mm). Materials that, when tested in accordance with the test procedures set forth in ASTM E84 or UL 723 for a test period of 30 minutes, or with ASTM E 2768, comply with the following:
   1.1. Flame spread. Material shall exhibit a flame spread index not exceeding 25 and shall not show evidence of progressive combustion following the extended 30-minute test.
   1.2. Flame front. Material shall exhibit a flame front that does not progress more than 10\( \frac{1}{2} \) feet (3200 mm) beyond the centerline of the burner at any time during the extended 30-minute test. This shall be considered evidence of no significant progressive combustion.
   1.3. Weathering. Ignition-resistant building materials shall maintain their performance in accordance with this section under conditions of use. Materials shall meet the performance requirements for weathering (including exposure to temperature, moisture and ultraviolet radiation) contained in the following standards, as applicable to the materials and the conditions of use:
      1.3.2. ASTM D 7032 for wood-plastic composite materials.
      1.3.3. ASTM D 6662 for plastic lumber materials.
   1.4. Identification. Materials shall bear identification showing the fire test results.

Exception: Materials composed of a combustible core and a noncombustible exterior covering made from either aluminum at a minimum 0.019 inch (0.48 mm) thickness or corrosion-resistant steel at a minimum 0.0149 inch (0.38 mm) thickness shall not be required to be tested with a ripped or cut longitudinal gap.

2. Noncombustible material. Material that complies with the requirements for noncombustible materials in Section 202.

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. Fire-retardant-treated wood roof coverings. Roof assemblies containing fire-retardant-treated wood shingles and shakes that comply with the requirements of Section 1505.6 of the International Building Code and classified as Class A roof assemblies as required in Section 1505.2 of the International Building Code.

Commenter’s Reason: There is disagreement over whether all sides of these products need to be tested, and the committee disapproved the original code change for that reason.
However, during ASTM E84 task group meetings, all commercial test labs present agreed that their interpretation of “significant progressive combustion” is the flame front progressing more than 10 1/2 feet beyond the centerline of the burner at any time during the extended 30-minute test.

Because the assessment of “significant progressive combustion” is an important point that needs clarification, this Public Comment retains only that portion of the original code proposal.

Cost Impact: The net effect of the public comment and code change proposal will not increase or decrease the cost of construction. This proposal simply adds language to explicitly state how labs are currently assessing the absence of “significant progressive combustion.” It has no cost impact.

Public Comment 2:

Proponent: Marcelo Hirschler, representing GBH International (mmh@gbhint.com) requests As Modified by This Public Comment.

Replace as follows:

2018 International Wildland-Urban Interface Code

503.2 Ignition-resistant building material. Ignition-resistant building materials shall comply with any one of the following:

1. Material shall be tested on all sides with the extended ASTM E84 (UL 723) test or ASTM E 2768, except panel products shall be permitted to test only the front and back faces. Panel products shall be tested with a ripped or cut longitudinal gap of / 16 inch (3.2 mm). Materials that, when tested in accordance with the test procedures set forth in ASTM E84 or UL 723 for a test period of 30 minutes, or with ASTM E 2768, comply with the following:

1.1. Flame spread. Material shall exhibit a flame spread index not exceeding 25 and shall not show evidence of progressive combustion following the extended 30-minute test.

1.2. Flame front. Material shall exhibit a flame front that does not progress more than 10 1/2 feet (3200 mm) beyond the centerline of the burner at any time during the extended 30-minute test. This shall constitute evidence of no progressive combustion following the extended 30-minute test, as required in Item 1.1.

1.3. Weathering. Ignition-resistant building materials shall maintain their performance in accordance with this section under conditions of use. Materials shall meet the performance requirements for weathering (including exposure to temperature, moisture and ultraviolet radiation) contained in the following standards, as applicable to the materials and the conditions of use:

1.3.2. ASTM D 7032 for wood-plastic composite materials.
1.3.3. ASTM D 6662 for plastic lumber materials.

1.4. Identification. Materials shall bear identification showing the fire test results.

Exception: Materials composed of a combustible core and a noncombustible exterior covering made from either aluminum at a minimum 0.019 inch (0.48 mm) thickness or corrosion-resistant steel at a minimum 0.0149 inch (0.38 mm) thickness shall not be required to be tested with a ripped or cut longitudinal gap.

2. Noncombustible material. Material that complies with the requirements for noncombustible materials in Section 202.
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. Fire-retardant-treated wood roof coverings. Roof assemblies containing fire-retardant-treated wood shingles and shakes that comply with the requirements of Section 1505.6 of the International Building Code and classified as Class A roof assemblies as required in Section 1505.2 of the International Building Code.

Commenter’s Reason: This public comment simply changes nothing more in the existing code than adding the clarification that, if the flame front does not progress beyond 10.5 feet that is evidence of no progressive combustion as required by 1.1. The logic goes as follows:
1. ASTM E84 is a 10-minute test and not a 30-minute test.

2. ASTM E84 states that, when the test is conducted for 30 minutes (meaning the extended ASTM E84 test, for an additional 20 minutes), it is conducted in accordance with ASTM E2768.

3. ASTM E2768 is the 30-minute test method, and it states, as shown below, that when the flame front does not progress more than 10.5 feet beyond the centerline of the burners that is considered evidence of no significant progressive combustion.

4. All fire testing labs have used this concept for many years and they present the results of the extended ASTM E84 test with two results: flame spread index (after 10 minutes) and maximum flame front (after 30 minutes).

This public comment makes no changes to the required rip or gap or to the requirement for testing all sides as shown in the code at present.

ASTM E84 explicitly states that the extended test to 30 minutes is to be conducted in accordance with ASTM E2768. ASTM E2768 was developed by ASTM E05 (committee on fire standards) specifically for the purpose of giving instructions on how to conduct ASTM E84 when extended to 30 minutes. In fact ASTM E84 states that materials required to be tested to meet the extended ASTM E84 to a 30-minute duration are covered by ASTM E2768. No other standard or code requirement explains how to test for significant progressive combustion.

ASTM E2768 contains a section that explains how to assess the pass/fail criteria and it states as follows under conditions of classification:

13.1 The test method has the following conditions of classification for a material or product to be classified as meeting the requirements of this standard:

13.1.1 The flame spread index shall be 25 or less as determined for the initial 10 min test period,

13.1.2 The flame front shall not progress more than 10.5 ft (3.2 m) beyond the centerline of the burners at any time during the 30 min test period. This is considered evidence of no significant progressive combustion in this test method.

13.2 For materials or products that are not homogeneous or symmetrical about their longitudinal axis, only surfaces that have been individually tested shall be eligible to be classified and reported as meeting the conditions of classification of this standard.

**Cost Impact:** The net effect of the public comment and code change proposal will decrease the cost of construction. This will result in a recognition of the unnecessary additional requirement, which is not used by any fire testing lab.
IWUIC: 503.2

**Proposed Change as Submitted**

**Proponent:** Thomas Meyers, Building Intuition, LLC, representing Self (codeconsultant@gmail.com)

**2018 International Wildland-Urban Interface Code**

Revise as follows

**503.2 Ignition-resistant building material.** Ignition-resistant building materials shall comply with any one of the following:

1. Material shall be tested on all sides with the extended ASTM E84 (UL 723) test or ASTM E 2768, except panel products shall be permitted to test only the front and back faces. Panel products shall be tested with a ripped or cut longitudinal gap of \( \frac{1}{8} \) inch (3.2 mm). Materials that, when tested in accordance with the test procedures set forth in ASTM E84 or UL 723 for a test period of 30 minutes, or with ASTM E 2768, comply with the following:

   1.1. Flame spread. Material shall exhibit a flame spread index not exceeding 25 and shall not show evidence of progressive combustion following the extended 30-minute test.
   1.2. Flame front. Material shall exhibit a flame front that does not progress more than 10\( \frac{1}{2} \) feet (3200 mm) beyond the centerline of the burner at any time during the extended 30-minute test.
   1.3. Weathering. Ignition-resistant building materials shall maintain their performance in accordance with this section under conditions of use. Materials shall meet the performance requirements for weathering (including exposure to temperature, moisture and ultraviolet radiation) contained in the following standards, as applicable to the materials and the conditions of use:

      1.3.2. ASTM D 7032 for wood-plastic composite materials.
      1.3.3. ASTM D 6662 for plastic lumber materials.
   1.4. Identification. Materials shall bear identification showing the fire test results.

**Exception:** Materials composed of a combustible core and a noncombustible exterior covering made from either aluminum at a minimum 0.019 inch (0.48 mm) thickness or corrosion-resistant steel at a minimum 0.0149 inch (0.38 mm) thickness shall not be required to be tested with a ripped or cut longitudinal gap.

2. Noncombustible material. Material that complies with the requirements for noncombustible materials in Section 202.

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. Fire-retardant-treated wood roof coverings. Roof assemblies containing fire-retardant-treated wood shingles and shakes that comply with the requirements of Section 1505.6 of the International Building Code and classified as Class A roof assemblies as required in Section 1505.2 of the International Building Code.

**Reason:** Recent cladding fires involving metal composite materials (MCM’s), such as the Grenfell Tower in London, raises questions about the validity of allowing materials to be evaluated contrary to actual end use conditions. MCM’s are frequently installed with exposed cores at joints, intersections, and corners. The effect of the exposed core on potential ignition and fire spread should be part of the testing evaluation as it realistically represents actual construction practices.

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

No cost change anticipated for existing, compliant products. Additional costs applied to certain products requiring retesting may occur at manufacturer discretion.
Public Hearing Results

Committee Action: Disapproved

Committee Reason: The committee stated that the deletion of the exception did not address the difference between materials and an assembly and did not agree with the resulting requirement that all products have to be tested ripped or gaped. (Vote: 12-2)

Assembly Action: None

Individual Consideration Agenda

Public Comment 1:

Proponent: Thomas Meyers, Building Intuition, LLC, representing Self (codeconsultant@gmail.com) requests As Submitted.

Commenter's Reason: The original change is intended to address metal composite materials (MCM's), particularly those that use thin metal covering over combustible core materials. Installation of these materials frequently results in exposed core materials at corners, fenestration openings, panel seams, and architectural reveals. Exposed cores at electrical outlet boxes were believed to be the origin of large scale cladding fires in the Middle East. It seems intuitive that one would want to ensure the performance of the plastic core materials when MCM's are installed in areas with wildland-urban interface. Elimination of this exception would force testing of the panel material with some of the combustible core exposed.

During testimony, the committee seemed confused by testimony implying that elimination of this section would affect other materials. The exception is clearly for metal clad materials with combustible cores, most commonly known as MCM's. Regardless, the fire performance of any exterior cladding material using a combustible core should be properly verified and tested as-installed to ensure the performance needed to protect the community and its building infrastructure.

Cost Impact: The net effect of the public comment and code change proposal will not increase or decrease the cost of construction.

Materials that have already been appropriately and successfully tested will remain available for installation. The effect of this code change will only be on materials that previously took advantage of the exception.
503.2 Ignition-resistant building material. Ignition-resistant building materials shall comply with any one of the following:

1. Material shall be tested on all sides, the front and back faces either with the extended ASTM E84 (UL 723) test, extended for a test period of 30 minutes, or ASTM E2768, except panel products shall be permitted to test only the front and back faces with ASTM E2768. Panel products shall be tested with a ripped or cut longitudinal gap of \( \frac{1}{8} \) inch (3.2 mm). Materials that, when tested in accordance with the test procedures set forth in ASTM E84 or UL 723 for a test period of 30 minutes, or with ASTM E2768, shall comply with the following:

   1.1. Flame spread. Material shall exhibit a flame spread index not exceeding 25 and shall not show evidence of progressive combustion following the extended 30-minute test.

   1.2. Flame front. Material shall exhibit a flame front that does not progress more than \( 10\frac{1}{2} \) feet (3200 mm) beyond the centerline of the burner at any time during the extended 30-minute test. This shall be considered evidence of no significant progressive combustion.

   1.3. Weathering. Ignition-resistant building materials shall maintain their performance in accordance with this section under conditions of use. Materials shall meet the performance requirements for weathering (including exposure to temperature, moisture and ultraviolet radiation) contained in the following standards, as applicable to the materials and the conditions of use:


       1.3.2. ASTM D 7032 for wood-plastic composite materials.

       1.3.3. ASTM D 6662 for plastic lumber materials.

   1.4. Identification. Materials shall bear identification showing the fire test results.

   Exception: Materials composed of a combustible core and a noncombustible exterior covering made from either aluminum at a minimum 0.019 inch (0.48 mm) thickness or corrosion-resistant steel at a minimum 0.0149 inch (0.38 mm) thickness shall not be required to be tested with a ripped or cut longitudinal gap.

2. Noncombustible material. Material that complies with the requirements for noncombustible materials in Section 202.

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. Fire-retardant-treated wood roof coverings. Roof assemblies containing fire-retardant-treated wood shingles and shakes that comply with the requirements of Section 1505.6 of the International Building Code and classified as Class A roof assemblies as required in Section 1505.2 of the International Building Code.

Reason: It makes no sense to test “all sides” of a product when it becomes physically impossible to distinguish between the ends and no ASTM E84 specimen (which is 24 feet long by 2 feet wide) can be obtained from the ends. When a specimen is presented for testing, if all sides look the same, a lab can’t tell which is a second side. Testing front and back is feasible but other sides are not (because the maximum ASTM E84 thickness is 4 inches). In order to test a 2 by 4” specimen a simple calculation is that you would have to cut it into 864 pieces that are 2 x 4, and 4 inches thick, and somehow fasten them together: that is obviously ridiculous. It makes perfect sense to test the front and the back sides to ensure that the same fire performance is present on each side and that requirement is proposed to be retained. ASTM E2768 was developed by ASTM E05 (committee on fire standards) specifically for the purpose of giving instructions on how to conduct ASTM E84 when extended to 30 minutes. In fact ASTM E84 states that materials required to be tested to meet the extended ASTM E84 to a 30-minute duration are covered by ASTM E2768. ASTM E2768 contains a section that explains how to assess the pass/fail criteria and it states as follows under “conditions of classification”: 

2018 ICC PUBLIC COMMENT AGENDA
13.1 The test method has the following conditions of classification for a material or product to be classified as meeting the requirements of this standard:

13.1.1 The flame spread index shall be 25 or less as determined for the initial 10 min test period,

13.1.2 The flame front shall not progress more than 10.5 ft (3.2 m) beyond the centerline of the burners at any time during the 30 min test period. This is considered evidence of no significant progressive combustion in this test method.

13.2 For materials or products that are not homogeneous or symmetrical about their longitudinal axis, only surfaces that have been individually tested shall be eligible to be classified and reported as meeting the conditions of classification of this standard.

Consequently, the changes proposed to items 1.1 and 1.2 are consistent with the statements in ASTM E84 and ASTM E2768.

No other standard contains information on how to assess "no significant progressive combustion".

**Cost Impact:** The code change proposal will decrease the cost of construction. This will reduce the amount of testing required by eliminating unnecessary tests on all sides of homogeneous wood specimens.
**Public Hearing Results**

**Committee Action:** Disapproved  
**Committee Reason:** The committee did not agree with the change from testing on all sides to just the front and back faces. It was stated that the section description needs to address the requirements for the material ends and sides.  
(Vote: 13-1)

**Assembly Action:** None

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**Individual Consideration Agenda**

**Public Comment 1:**

**Proponent:** Marcelo Hirschler, representing GBH International (mmh@gbhint.com) requests As Modified by This Public Comment.

Replace as follows:

**2018 International Wildland-Urban Interface Code**

503.2 Ignition-resistant building material. Ignition-resistant building materials shall comply with any one of the following:

1. Material shall be tested on all sides with the extended ASTM E84 (UL 723) test or ASTM E 2768, except panel products shall be permitted to test only the front and back faces. Panel products shall be tested with a ripped or cut longitudinal gap of \( \frac{\pi}{16} \) inch (3.2 mm). Materials that, when tested in accordance with the test procedures set forth in ASTM E84 or UL 723 for a test period of 30 minutes, or with ASTM E 2768, comply with the following:

   1.1. Flame spread. Material shall exhibit a flame spread index not exceeding 25 and shall not show evidence of progressive combustion following the extended 30-minute test.
   1.2. Flame front. Material shall exhibit a flame front that does not progress more than 10\( \frac{1}{2} \) feet (3200 mm) beyond the centerline of the burner at any time during the extended 30-minute test.
   1.3. Weathering. Ignition-resistant building materials shall maintain their performance in accordance with this section under conditions of use. Materials shall meet the performance requirements for weathering (including exposure to temperature, moisture and ultraviolet radiation) contained in the following standards, as applicable to the materials and the conditions of use:

      1.3.2. ASTM D 7032 for wood-plastic composite materials.
      1.3.3. ASTM D 6662 for plastic lumber materials.
   1.4. Identification. Materials shall bear identification showing the fire test results.

**Exception:** Materials composed of a combustible core and a noncombustible exterior covering made from either aluminum at a minimum 0.019 inch (0.48 mm) thickness or corrosion-resistant steel at a minimum 0.0149 inch (0.38 mm) thickness shall not be required to be tested with a ripped or cut longitudinal gap.

2. Noncombustible material. Material that complies with the requirements for noncombustible materials in Section 202.
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. Fire-retardant-treated wood roof coverings. Roof assemblies containing fire-retardant-treated wood shingles and shakes that comply with the requirements of Section 1505.6 of the International Building Code and classified as Class A roof assemblies as required in Section 1505.2 of the International Building Code.

**Commenter’s Reason:** This public comment makes two (associated) changes to existing code language:
1. It eliminates the requirement for the "rip or gap" because the product should be tested as it will be used and not altered.

2. It eliminates the exception, which is unnecessary since it simply exempts some products from having to be tested with a "rip or gap" and become meaningless if that requirement disappears.

**Cost Impact:** The net effect of the public comment and code change proposal will decrease the cost of construction. This will prevent unnecessary testing of products in a manner different from the way they are being used.