

T. Eric Stafford

From: T. Eric Stafford <testafford@charter.net>
Sent: Monday, March 30, 2020 1:48 PM
To: 'Madani, Mo'
Subject: Comment for Rule Workshop

Mo...please accept the comment below to Section R806.5, Item 5 for the 2020 Florida Building Code, Residential.

Proposed Change:

5. Insulation shall comply with Item 5.3 and Item 5.1. As an alternative, where air-permeable insulation is located on top of the attic floor or on top of the attic ceiling, insulation shall comply with Item 5.2. ~~be located in accordance with the following:~~

5.1. Item 5.1.1, 5.1.2, 5.1.3 or 5.1.4 shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing. ~~Where air permeable insulation is located on top of the attic floor or on top of the attic ceiling Item 5.2 shall be met.~~

Rationale: Based on email correspondence with proponent (see email string below with Joe Lstiburek), the intent of the original code change was for Item 5.2 to be an alternative to complying with Item 5.1. However, the current language could be interpreted to indicate that 5.1.1, 5.1.2, 5.1.3 or 5.1.4 have to be met and where air-permeable insulation is located as indicated, 5.2 also has to be met. As indicated by the proponent, that was not the intent. The intent is that Item 5.2 is an alternative to Items 5.1 and 5.3. This comment simply makes clear what the proponent intended and is generally consistent with the wording in the 2018 IRC.

Let me know if you have any questions.

Eric

From: Joe Lstiburek <joe@buildingscience.com>
Sent: Friday, March 27, 2020 2:17 PM
To: Madani, Mo <Mo.Madani@myfloridalicense.com>
Cc: T. Eric Stafford <testafford@charter.net>
Subject: Re: FBC Code Mod 8329

We do not need to cite item 5.3...it refers to rigid board insulation....text could be as follows...

"5. Insulation shall comply with Item 5.1 and Item 5.3. As an alternative, where air-permeable insulation is located on the top of the attic floor or on top of the attic ceiling, insulation shall comply with item 5.2."

On Mar 27, 2020, at 3:05 PM, Madani, Mo <Mo.Madani@myfloridalicense.com> wrote:

Mo...please send this to Joe. It keeps getting kicked back.

Joe...how about this clarification:

5. Insulation shall comply with Item 5.3 and Item 5.1. As an alternative, where air-permeable insulation is located on top of the attic floor or on top of the attic ceiling, insulation shall comply with Item 5.3 and Item 5.2. be located in accordance with the following:

5.1. Item 5.1.1, 5.1.2, 5.1.3 or 5.1.4 shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing. ~~Where air permeable insulation is located on top of the attic floor or on top of the attic ceiling Item 5.2 shall be met.~~

You may prefer a different way to state this. This is just a suggestion.

Let me know what you think.

Eric

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From: Joe Lstiburek <joe@buildingscience.com>
Sent: Friday, March 27, 2020 12:53 PM
To: T. Eric Stafford <testafford@charter.net>
Cc: Madani, Mo <Mo.Madani@myfloridalicense.com>
Subject: Re: FBC Code Mod 8329

Eric, you are correct. Item 5.2 was to be an alternative to Item 5.1. Joseph

From: T. Eric Stafford [<mailto:testafford@charter.net>]
Sent: Friday, March 27, 2020 1:21 PM
To: joe@buildingscience.com
Cc: Madani, Mo
Subject: FBC Code Mod 8329

Joe...working on a project for Florida and have a question regarding Section R806.5, Item 5 in the FBC Residential. The text of your modification is below. Just want to be clear that you intended Item 5.2 to be an alternate to Item 5.1 and not that 5.1 and 5.2 have to be met? The 2018 IRC makes it clear that 5.2 is an alternate to 5.1. The way the language is shown below, it seems to indicate that 5.1.1, 5.1.2, 5.1.3 or 5.1.4 have to be met and where air-permeable insulation is located as indicated, 5.2 also has to be met. Based on the way the IRC is written, I don't think that was the intent but this is not my area of expertise.

Can you please clarify. Perhaps some revised wording would make it clear.

Eric Stafford

5. Insulation shall be located in accordance with the following:

5.1. Item 5.1.1, 5.1.2, 5.1.3 or 5.1.4 shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing. Where air-permeable insulation is located on top of the attic floor or on top of the attic ceiling Item 5.2 shall be met.

5.1.1. Where air-impermeable insulation is provided, it shall be applied in direct contact with the underside of the structural roof sheathing.

5.1.2. Where air-permeable insulation is provided inside the building thermal envelope, it shall be installed in accordance with Section 5.1.1. In addition to the air-permeable installed directly below the structural sheathing, rigid board or sheet insulation shall be installed directly above the structural roof sheathing in accordance with the R-values in Table R806.5 for condensation control.

5.1.3. Where both air-impermeable and air-permeable insulation are provided, the air-impermeable insulation shall be applied in direct contact with the underside of the structural roof sheathing in accordance with Item 5.1.1 and shall be in accordance with the R-values in Table R806.5 for condensation control. The air-permeable insulation shall be installed directly under the air impermeable insulation.

5.1.4. Alternatively, sufficient rigid board or sheet insulation shall be installed directly above the structural roof sheathing to maintain the monthly average temperature of the underside of the structural roof sheathing above 45°F (7°C). For calculation purposes, an interior air temperature of 68°F (20°C) is assumed and the exterior air temperature is assumed to be the monthly average outside air temperature of the three coldest months.

5.2. In Climate Zones 1, 2 and 3, air-permeable insulation installed in unvented attics on the top of the attic floor, or on top of the ceiling shall meet the following requirements:

5.2.1. An approved vapor diffusion port shall be installed not more than 12 inches (305 mm) from the highest point of the roof, measured vertically from the highest point of the roof to the lower edge of the port.

5.2.2. The port area shall be greater than or equal to 1:600 of the ceiling area. Where there are multiple ports in the attic, the sum of the port areas shall be greater than or equal to the area requirement.

5.2.3. The vapor-permeable membrane in the vapor diffusion port shall have a vapor permeance rating of greater than or equal to 20 perms when tested in accordance with Procedure A of ASTM E96.

5.2.4. The vapor diffusion port shall serve as an air barrier between the attic and the exterior of the building.

5.2.5. The vapor diffusion port shall protect the attic against the entrance of rain and snow.

5.3. Where preformed insulation board is used as the air-impermeable insulation layer, it shall be sealed at the perimeter of each individual sheet interior surface to form a continuous layer.

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