To: MHCC  
From: Kevin Kauffman, AO  
Home Innovation Research Labs, 400 Prince George’s Blvd, Upper Marlboro, MD 20774  
Date: February 10, 2014  
Subject: Circulation of Final Results of MHCC Letter Ballot II - Actions as taken at December 2-4, 2014 MHCC meeting - Part 3280, 3282, and 3285

Below are the final results from the letter ballot of actions as taken at the December 2-4, 2014 MHCC meeting which took place in Washington DC.

21 Members Eligible to Vote  
19 Ballots Received  
2 Ballots not Returned - Theresa Desfosses and Greg Scott

The number of votes required to pass an item with at least a 2/3s majority is based on the number of ballots returned minus the number of abstentions. All items on this ballot except Ballot Item II-5 (Log 90) received the required number of affirmative votes, thus those items passed. The MHCC Meeting Action on Item II-5 (Log 90) only received 12 affirmative out of 19 ballots received and has failed. Thus Log 90 still needs an action from the MHCC and will be discussed further at the next MHCC meeting. The committee members were afforded an opportunity to change their votes based on circulation of the initial voting results and comments received.

The final voting results are summarized in the table below.

<table>
<thead>
<tr>
<th>Ballot Item No.</th>
<th>Log No.</th>
<th>Section</th>
<th>MHCC Meeting Action</th>
<th>Final Letter Ballot Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>II-1</td>
<td>85</td>
<td>3280.801</td>
<td>Disapprove</td>
<td>Affirm 18 Negative 1 Abstain 0 Pass</td>
</tr>
<tr>
<td>II-2</td>
<td>86</td>
<td>3280.806</td>
<td>Disapprove</td>
<td>Affirm 18 Negative 1 Abstain 0 Pass</td>
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<tr>
<td>II-3</td>
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<td>II-4</td>
<td>89</td>
<td>3282.8</td>
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<td>Affirm 19 Negative 0 Abstain 0 Pass</td>
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<tr>
<td>II-5</td>
<td>90</td>
<td>3285.2</td>
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<td>Affirm 12 Negative 7 Abstain 0 Fail</td>
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<tr>
<td>II-6</td>
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<td>II-7</td>
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<td>Affirm 19 Negative 0 Abstain 0 Pass</td>
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<tr>
<td>II-8</td>
<td>93-A</td>
<td>3280.709</td>
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<tr>
<td>II-9</td>
<td>93-B</td>
<td>3285.503</td>
<td>Approve as Modified</td>
<td>Affirm 18 Negative 1 Abstain 0 Pass</td>
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<tr>
<td>II-10</td>
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</tr>
<tr>
<td>II-11</td>
<td>95</td>
<td>3280.102</td>
<td>Approve as Modified</td>
<td>Affirm 17 Negative 1 Abstain 1 Pass</td>
</tr>
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<td>Ballot Item No.</td>
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<tr>
<td>II-12</td>
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<td>3280.2</td>
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<tr>
<td>II-13</td>
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<td>18 1 0 Pass</td>
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<td>19 0 0 Pass</td>
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<td>II-20</td>
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</table>

All comments received are organized by Log Number and can be seen below.
Letter Ballot Comments

Ballot Item II-1: Log 85 - Section 3280.801
MHCC Meeting Action - Disapprove
Final Letter Ballot Results - 18 Affirm, 1 Negative, and 0 Abstain
Comment(s) Received - 1
   Affirmative - None
   Negative - 1
      • Michael Lubliner - The most current NEC requirements help to reduce electrical safety problems and should be required in MHCSS to protect young children and make homes more comparable to site built.

   Abstain - None

Ballot Item II-2: Log 86 - Section 3280.806
MHCC Meeting Action - Disapprove
Final Letter Ballot Results - 18 Affirm, 1 Negative, and 0 Abstain
Comment(s) Received - 2
   Affirmative - 1
      • James Demitrus - Tamper proof receptacles have been in the National Electric Code (NEC) for medical facilities since 1981, then in residential use since 2008. That's 35 years of use so there are few surprises about benefits or shortcomings. There is a common complaint about the difficulty inserting plugs in some receptacles, a lack of consistent quality. According to the NFPA; 2400 children suffer from electrical shock annually and between 6 to 12 die. The NFPA contents that the tamper proof feature adds $0.50 to the cost of a receptacle. The average 1500 sq. ft. home has about forty receptacles that increases construction costs $20. The retail cost of a tamper proof receptacle begins at $1.20. A modest cost for so much safety.

   Negative - 1
      • Michael Lubliner - The most current NEC requirements help to reduce electrical safety problems and should be required in MHCSS to protect young children and make homes more comparable to site built.

   Abstain - None
Ballot Item II-5: Log 90 - Section 3285.2

MHCC Meeting Action - Approve as Modified

Final Letter Ballot Results - 12 Affirm, 7 Negative, and 0 Abstain

Comment(s) Received - 7

Affirmative - None

Negative - 7

- Debra Blake - Engineered designed plans are required for unique foundation systems not addressed by the manufacturer’s installation manual. An alternative method designed by a registered engineer is appropriate without the need for DAPIA review and approval. This is consistent with practices currently in place for accessory structures and other designs not directly related to the actual construction of the home.

- Dominic Frisina - My vote is consistent with how I voted at the meeting.

- Rick Hanger - The committee action to approve as modified leaves the DAPIA approval in the text. I have returned this ballot with a negative response to the committee action due to the following; (1) These types of installations are fairly rare and (2) when they do occur, there are already systems in place to ensure a safe and quality installation, (3) the current practice, regardless of the current standards, does not include the DAPIA in the approval process, (4) there is limited added value being provided by the DAPIA as the process already includes approval by a licensed professional, (5) the required DAPIA approval adds increased time to the overall approval process, and (6) the DAPIA may not have the resources/ability to complete any necessary site visits and inspections.

- Jeffrey Legault - The original proposal should have been approved by the committee. Alternative foundation designs approved by the LAHJ and a P.E. should not need DAPIA approval.

- David Tompos - Requiring the homeowner to obtain a DAPIA approval in addition to a professional engineers seal creates an unnecessary cost and delay in the process. This log should be approved as submitted without the modification.

- Manuel Santana - This motion should be rejected because requiring the homeowner to obtain DAPIA approval after they have already obtained a engineered foundation design suitable for local approval does not benefit anyone and will only cost the homeowner additional time and money. The language should revert back to that which was originally proposed with Log #90.

- Michael Wade - My opinion is that the DAPIA should not be required to get involved in "home specific" situations. Foundation/installation designs that are DAPIA approved typically are general designs that can be adhered to during a normal installation. When site-specific situations require going outside the parameters of the information provided within the Installation Instructions from the home manufacturer, a local Professional Engineer must/should be contacted along with the Local Authority Having Jurisdiction. The locals will have a better feel for the necessary modifications/needs of the situation (and in most cases they will have actual access to the home, for site visits), while it will be difficult for a DAPIA sitting in an office which is probably located in another state to know all of the contributing variables involved in the specific situation.
Bringing the DAPIA into the loop also presents unwanted additional cost to the situation, which typically would be absorbed by the home owner.

Abstain - None

Balloon Item II-9: Log 93-B - Section 3285.503

MHCC Meeting Action - Approve as Modified

Final Letter Ballot Results - 18 Affirm, 1 Negative, and 0 Abstain

Comment(s) Received - 1

Affirmative - None

Negative - 1

- Dominic Frisina - My vote is consistent with how I voted at the meeting.

Abstain - None

Balloon Item II-11: Log 95 - Section 3280.102

MHCC Meeting Action - Approve as Modified

Final Letter Ballot Results - 17 Affirm, 1 Negative, and 1 Abstain

Comment(s) Received - 1

Affirmative - None

Negative - 1

- Frank Walter - Four proposed definitions are not now in the MHCSS or in the proposed revisions with this ballot. They are: “Air, exhaust”, “Air outdoor”, “Exhaust system”, and “Natural ventilation”. Mechanical ventilation, supply system, and ventilation are all included in the current or proposed text. It is proper to include their definitions in the MHCSS.

Air, exhaust: The phrase is not part of the text. The word “exhaust” is used as a verb in 3280.103(b)(1).

Air, outdoor: The phrase is not part of the text. The phrase “expel air” is used in 3280.103(b)(2).

Exhaust system: The phrase was part of your proposed new sub-section 3280.103(d) - Ventilation Supply and Exhaust System(s) Airflow Measurement, which was removed by the committee.

Natural ventilation: The phrase is not part of the text.

Unless the above four phrases are in the current/proposed text, they should be administratively deleted from the proposal. It is my understanding that the HUD Secretary will not introduce new words into a “Definitions” section of the MHCSS, unless the words are in the current or proposed text. In accordance with the Federal Administrative Procedures Act, they should be administratively removed from the proposal.

Abstain - None
Ballot Item II-13: Log 97 - Section 3280.707

MHCC Meeting Action - Disapprove

Final Letter Ballot Results - 18 Affirm, 1 Negative, and 0 Abstain

Comment(s) Received - 1

Affirmative - None

Negative - 1

- Michael Lubliner - If log 94 is approved then 97 is resolved, since 94 eliminates the special MH listing for all heat producing appliances. If log 94 is rejected then log 97 must be re-balloted, and just focus on eliminating special MH listing for Non-fuel burning only. This is an issue that HUD should have addressed as an interpretation without the need for a MHCC ballot years ago when I first raised it during the tankless gas water heater proposal discussion.

Abstain - None
Ballot Item II-18: Log 103 - Section 3280.808

MHCC Meeting Action - Approve as Modified

Final Letter Ballot Results - 19 Affirm, 0 Negative, and 0 Abstain

Comment(s) Received - 1

Affirmative - 1

- James Demitrus - This section used rigid, referring to conduit in a way that is too vague. According to the NEC, rigid describes only galvanized steel, aluminum and PVC conduits. Steel and aluminum conduits are seldom found in residential use because they are too costly, require expensive tools to thread, bend and labor intensive to install. PVC is the only rigid conduit in common use because it is water proof, easy to install, economical and requires only common hand tools. The most common residential conduit is electro metallic tubing (EMT). As with PVC, EMT is widely available, easy to install, economical and requires common hand tools. During discussion, the term "rigid" was removed to allow flexible conduit. There should be some limitations on the maximum length allowed. By its nature flexible conduit, the uneven interior surface and tendency to coil, increases the resistance to wires bring pulled in. The longer the length the greater the chance of damage to the wires. It is an excellent product for protecting wires around obstructions and where bends are too tight for other rigid conduits. Of the 18 types of conduits/wireways, only a few are appropriate for residential use. Log 103 states that "wire shall be suitable for wet locations". Today all building wire is a type of thermoplastic or synthetic material, all are suitable for wet locations. Forty years ago some wire used impregnated paper or fabric over the rubber insulation that was unsuitable for wet or damp locations. Consider a change to "conductors suitable for the intended use".

Negative - None

Abstain - None

Ballot Item II-20: Log 105 - Section 3282.8

MHCC Meeting Action - Disapprove

Final Letter Ballot Results - 19 Affirm, 0 Negative, and 0 Abstain

Comment(s) Received - 1

Affirmative - 1

- James Demitrus - Using 400 sq. ft. as a standard to differentiate RV's from HUD homes seems to be inadequate. There must be a way to use building standards to develop a concise description of HUD housing

Negative - None

Abstain - None