



MANUFACTURED HOUSING CONSENSUS COMMITTEE

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MHCC
Outstanding Log Items
2016-2017 Cycle

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Table of Contents

Proposed Change Status Summary.....	1
Proposed Changes	2
Log # 80 - § 3280.406 (new section)	2
Log # 119 - § 3280.508(b) Heat loss, heat gain and cooling load calculations	5
Log # 120 - § 3280.508(b) Heat loss, heat gain and cooling load calculations	6
Log # 121 - § 3280.508(d) Heat loss, heat gain and cooling load calculations	7
Log # 122 - § 3280.511(a)(1) Comfort cooling certificate and information	8
Log # 123 - § 3280.511(a)(2) Comfort cooling certificate and information	10
Log # 135 - § 3285.603 Water supply	11
Log # 140 - § 3280.403 Requirements for Windows, 3280.404, & 3280.405	12
Log # 141 - § 3286.409 Obtaining inspection	16
Log # 142 - § 3286.103 DAPIA-approved installation instructions.	17
Log # 143 - § 3280.711 Instructions.....	18

Proposed Change Status Summary

LogID	Section	Action	Current Status
80	3280.406 Air chamber test methods		Tabled pending EPA Action
119	3280.508(b) Heat loss, heat gain and cooling load calculations		Pending MHCC Final Action
120	3280.508(b) Heat loss, heat gain and cooling load calculations		Pending MHCC Final Action
121	3280.508(d) Heat loss, heat gain and cooling load calculations		Pending MHCC Final Action
122	3280.511(a)(1) Comfort cooling certificate and information		Pending MHCC Final Action
123	3280.511(a)(2) Comfort cooling certificate and information		Pending MHCC Final Action
140	3280.404 Requirement for Windows		Received by Secretariat
141	3286.409 Obtaining inspection		Received by Secretariat
142	3286.103 DAPIA-approved installation instructions		Received by Secretariat
143	3280.711 Instructions		Received by Secretariat

Proposed Changes

Log # 80 - § 3280.406 (new section)	Date:
Submitter:	James P. Van Schoyck, PFS Corporation
Requested Action:	Add text to Subpart E, Testing to read as follows:
Proposed Change:	<p>Add text to Subpart E, Testing to read as follows:</p> <p>Sec. 3280.406 Air chamber test methods <u>(Primary and Secondary)</u> for certification and qualification of formaldehyde emission levels.</p> <p>(a) Preconditioning. Preconditioning of plywood or particleboard panels for air chamber tests shall be initiated as soon as practicable but not in excess of 30 days after the plywood or particleboard is produced or surface-finished, whichever is later, using randomly selected panels.</p> <p>(1) If preconditioning is to be initiated more than two days after the plywood or particleboard is produced or surface-finished, whichever is later, the panels must be dead-stacked or air-tight wrapped until preconditioning is initiated.</p> <p>(2) Panels selected for testing in the air chamber shall not be taken from the top or bottom of the stack.</p> <p>(b) Primary method testing. Primary method Testing shall be conducted in accordance with the Standard Test Method for Determining Formaldehyde Levels from Wood Products Under Defined Test Conditions Using a Large Chamber, ASTM E-1333-90, with the following exceptions:</p> <p>(1) The chamber shall be operated indoors.</p> <p>(2) Plywood and particleboard panels shall be individually tested in accordance with the following loading ratios: (i) Plywood--0.29 Ft2/Ft3, and (ii) Particleboard--0.13 Ft2/Ft3.</p> <p>(3) Temperature to be maintained inside the chamber shall be 77 (deg) plus or minus 2 (deg) F.</p> <p>(4) The test concentration (C) shall be standardized to a level (C_o) at a temperature (t_o) of 77 (deg)F and 50 percent relative humidity (H_o) by the following formula: $C = C_o \times [1 + Ax (H - H_o)] \times e^{-R(1/t - 1/t_o)}$</p> <p>where:</p> <p>C = Test formaldehyde concentration C_o = Standardized formaldehyde concentration e = Natural log base R = Coefficient of temperature (9799) t = Actual test condition temperature (°K) t_o = Standardized temperature (° K) A = Coefficient of humidity (0.0175) H = Actual relative humidity (%) H_o = Standardized relative humidity (%)</p> <p>The standardized level (C_o) is the concentration used to determine compliance with Sec. 3280.308(a).</p> <p>(5) The air chamber shall be inspected and recalibrated at least annually to insure its proper operation under test conditions.</p> <p><u>(c) Secondary method testing. Secondary method testing is defined as specified in ASTM D6007-02, with the additional conditions specified below:</u></p> <p><u>(1) The secondary method shall be operated using the testing conditions and loading rates specified in ASTM D6007-02, and the conditioning time used to establish equivalence with the primary method. In addition, when testing panels, the secondary method shall be operated by testing nine specimens representing evenly distributed portions of an entire panel. The nine specimens shall be tested in groups of three specimens, resulting in three test results, which shall be averaged to represent one data point for the panel.</u></p>

	<p>(2) <u>Equivalence between the secondary method and the primary method must be established, at least once each year, for each testing laboratory used for CFR 3280 compliance. Minimum requirements for an equivalence demonstration shall include at least ten comparison sample sets, which compare the results of the primary and secondary methods.</u></p> <p>The following parameters must be met in the comparison:</p> <p>(i) <u>For the primary method, each comparison sample shall consist of the result of simultaneously testing an appropriate number of panels (factoring in the loading rate) from the same batch of panels tested by the secondary method.</u></p> <p>(ii) <u>For the secondary method, each comparison sample shall consist of testing nine specimens representing evenly distributed portions of an entire panel. The nine specimens shall be tested in groups of three specimens (factoring in the loading rate), resulting in three test results, which shall be averaged to represent one data point for the panel, and matched to their respective primary method comparison sample result.</u></p> <p>(iii) <u>The ten comparison sample sets shall consist of testing a minimum of five sample sets in each of at least two of the following ranges of formaldehyde concentrations, as measured by the primary method:</u></p> <p>a. <u>Lower range: less than 0.07 ppm</u></p> <p>b. <u>Intermediate range: 0.07 to less than 0.15 ppm</u></p> <p>c. <u>Upper range: 0.15 to 0.30 ppm</u></p> <p>(3) <u>The average and standard deviation of the difference of all comparison sets shall be calculated as follows. For each of the two ranges used for testing, the following computations shall be performed:</u></p> <p>(i) <u>Denote the number of sets in the given range by n.</u></p> <p>(ii) <u>Compute the difference for the i th set by D_i, where i ranges from 1 to n.</u></p> <p>(iii) <u>Compute the average, X, and standard deviation, S, of the differences according to the following formulas:</u></p> <p>*** Insert Equations here***</p> <p>(4) <u>The secondary method shall be considered equivalent to the primary method if the following condition is met for both tested ranges:</u></p> <p>$[X] + 0.88 S \leq C$</p> <p><u>0.026 for the lower range;</u> <u>0.038 for the intermediate range; and 0.052 for the upper range.</u></p> <p>(5) <u>Equivalence must be established between the primary and secondary method to represent the range in emissions based on the emission standards specified in section (c), (2), (iii).</u></p> <p>[49 FR 32012, Aug. 9, 1984, as amended at 58 FR 55009, Oct 25, 1993]</p>
<p>Reason:</p>	<p>Currently Section 3280.406 "Air chamber test method for certification and qualification of formaldehyde emission levels" required the Formaldehyde Emission Level test to be performed in accordance with ASTM E1333 "Test method for Determining Formaldehyde Levels from Wood Products Under Defined Test Conditions Using a Large Chamber." PFS Corporation is requesting an alternate test method to the standard ASTM E1333 test. There are two (2) most recent formaldehyde emissions limitation programs in the United States and they are:</p> <ol style="list-style-type: none"> 1. California Air Resources Board (CARB) "ATCM to Reduce Formaldehyde Emission From Composite Wood Products"

	<p>2. Environmental Protection Agency (EPA) Public Law 11-199 <i>"Title VI – Formaldehyde Standards from Composite Wood Products."</i></p> <p>Both CARB and EPA specify the use of ASTM E1333 but also allow the use of ASTM D6007 test method after equivalence has been proven between the two. Note - the equivalence is based on satisfactory compliance with minimum allowable variation between the ASTM E1333 test results and the ASTM D6007 test results which are determined on the same sample. PFS testing laboratory conducted the correlation protocol using our ASTM D6007 small chamber (Moblehyde) test apparatus. The Mobledehyde is a CARB approved secondary method. A copy of the PFS Corporation correlation test results showing compliance with requirement is Attachment A. Note: Supporting material is available for review at NFPA Headquarters.</p>
Substantiating Documents:	Yes
Additional Cost:	No
Cost Benefit Explanation:	<p>The reasons for this request is that the ASTM D6007 is a more efficient test method because the sample size is smaller and the test is completed in less time. This difference reduces sample preparation time, shipping and handling costs, and the time to conduct the emission measurement which is a big savings to the HUD manufacture program.</p> <p>Because the small chamber testing takes approximately 14 fewer hours than large chamber and the amount of lab area required is smaller - the cost savings is significant. During a 24 hour period - the small chamber has allowed for PFS to generate \$6,000.00 in testing fees using three small chambers vs. \$600.00 using the large chamber method. We allow for the small chambers to run via computer controlled data acquisition for over-night testing. This eliminates need for staff over-time.</p>
Subcommittee Recommendation:	
MHCC Action:	
MHCC Modification of Proposed Change:	
MHCC Reason:	
Current Status:	Tabled, pending EPA Action
Log History:	

Log # 119 - § 3280.508(b) Heat loss, heat gain and cooling load calculations		Date: 12/31/2014
Submitter:	Gary Clark	
Requested Action:	Revised Text	
Proposed Change:	The calculation of the manufactured home's transmission heat loss coefficient (Uo) must be in accordance with the fundamental principles of the <u>1997 latest edition of the ASHRAE Handbook of Fundamentals, Inch-Pound Edition</u> , and, at a minimum, must address all the heat loss or heat gain considerations in a manner consistent with the calculation procedures provided in the document, Overall U-values and Heating/Cooling Loads—Manufactured Homes—February 1992-PNL 8006, HUD User No. 0005945.	
Reason:	Section 3280.508 and some other sections within the regulation refer to ASHRAE 1997 Handbook for data. Reference to the most current version should be used.	
Substantiating Documents:	No	
Additional Cost:	Unknown	
Cost Benefit Explanation:	Unknown	
Subcommittee Recommendation:		
MHCC Action:		
MHCC Modification of Proposed Change:		
MHCC Reason:		
Current Status:	Pending MHCC Final Action	
Log History:	1/19/2016 – MHCC Motion: Table until next meeting. 8/19/2015 – MHCC Motion: Table until next meeting.	

Log # 120 - § 3280.508(b) Heat loss, heat gain and cooling load calculations		Date: 12/31/2014
Submitter:	Gary Clark	
Requested Action:	Revised Text	
Proposed Change:	The calculation of the manufactured home's transmission heat loss coefficient (Uo) must be in accordance with <u>ACCA Manual J</u> or the fundamental principles of the 1997 <u>latest edition of ASHRAE Handbook of Fundamentals, Inch-Pound Edition</u> , and, at a minimum, must address all the heat loss or heat gain considerations in a manner consistent with the calculation procedures provided in the document, Overall U-values and Heating/Cooling Loads—Manufactured Homes—February 1992-PNL 8006, HUD User No. 0005945.	
Reason:	Section 3280.508(b) refers to a HUD document from 1992. The section should refer to the 2011 edition of ACCA Manual J which addresses the latest and most pertinent load calculations for manufactured homes.	
Substantiating Documents:	No	
Additional Cost:	Unknown	
Cost Benefit Explanation:	Unknown	
Subcommittee Recommendation:		
MHCC Action:		
MHCC Modification of Proposed Change:		
MHCC Reason:		
Current Status:	Pending MHCC Final Action	
Log History:	1/19/2016 – MHCC Motion: Table until next meeting. 8/19/2015 – MHCC Motion: Table until next meeting.	

Log # 121 - § 3280.508(d) Heat loss, heat gain and cooling load calculations		Date: 12/31/2014
Submitter:	Gary Clark	
Requested Action:	Revised Text	
Proposed Change:	<p>(d) <i>High efficiency heating and cooling equipment credit.</i> The calculated transmission heat loss coefficient (Uo) used for meeting the requirement in §3280.506(a) may be adjusted for heating and cooling equipment above that required by the National Appliance Energy Conservation Act of 1987 (NAECA) by applying the following formula:</p> <p>Uo adjusted = Uo standard×[1+(0.6) (heating efficiency increase factor)+(cooling multiplier) (cooling efficiency increase factor)]</p> <p>where:</p> <p>Uo standard = Maximum Uo for Uo Zone required by §3280.506(a)</p> <p>Uo adjusted = Maximum Uo standard adjusted for high efficiency HVAC equipment</p> <p>Heating efficiency increase factor = The increase factor in heating equipment efficiency measured by based on the certified Annual Fuel Utilization Efficiency (AFUE), or the Heating Seasonal Performance Factor (HSPF) for heat pumps, above that required by NAECA (indicated as “NAECA” in formula). The formula is heating efficiency increase factor = AFUE (HSPF) home - AFUE (or HSPF) NAECA divided by AFUE (HSPF) NAECA.</p> <p>Cooling efficiency increase factor = the increase factor in the cooling equipment efficiency measured by based on the certified Seasonal Energy Efficiency Ratio (SEER) above that required by NAECA.</p> <p>The formula being cooling equipment=SEER home—SEER NAECA divided by SEER NAECA.</p>	
Reason:	Section 3280.508(d) mentions that the cooling efficiency increase factor is based upon “cooling equipment efficiency measured...” and a similar phrase is used for heating efficiency as well. This should be changed to be based upon the certified rating, so that it is in accordance with the U.S. Department of Energy requirements. Field measurement should not be required/allowed.	
Substantiating Documents:	No	
Additional Cost:	Unknown	
Cost Benefit Explanation:	Unknown	
Subcommittee Recommendation:		
MHCC Action:		
MHCC Modification of Proposed Change:		
MHCC Reason:		
Current Status:	Pending MHCC Final Action	
Log History:	<p>1/19/2016 – MHCC Motion: Table until next meeting.</p> <p>8/19/2015 – MHCC Motion: Table until next meeting.</p>	

Log # 122 - § 3280.511(a)(1) Comfort cooling certificate and information		Date: 12/31/2014
Submitter:	Gary Clark	
Requested Action:	Revised Text	
Proposed Change:	<p>(1) <i>Alternative I.</i> If a central air conditioning system is provided by the home manufacturer, the heat gain calculation necessary to properly size the air conditioning equipment shall be in accordance with procedures outlined in the 2011 edition of ACCA Manual J, or chapter 22 of the 1989 latest edition of the ASHRAE Handbook of Fundamentals, with an assumed location and orientation. The following shall be supplied in the Comfort Cooling Certificate:</p> <p>Air Conditioner Manufacturer Air Conditioner Model</p> <p>Certified Capacity ___ BTU/Hr. in accordance with the appropriate Air Conditioning and Refrigeration Institute Standards</p> <p>The central air conditioning system provided with this home has been sized, assuming an orientation of the front (hitch) end of the home facing ___ and is designed on the basis of a 75 °F indoor temperature and an outdoor temperature of _ °F dry bulb and _ °F wet bulb.</p> <p>Example Alternate I</p> <p style="text-align: center;">COMFORT COOLING CERTIFICATE</p> <p>Manufactured Home Mfg Plant Location Manufactured Home Model Air Conditioner Manufacturer</p> <p>Certified Capacity ___ BTU/Hr. in accordance with the appropriate Air Conditioning and Refrigeration Institute Standards.</p> <p>The central air conditioning system provided with this home has been sized assuming an orientation of the front (hitch end) of the home facing ____. On this basis, the system is designed to maintain an indoor temperature of 75 °F when outdoor temperatures are _ °F dry bulb and _ °F wet bulb.</p> <p>The temperature to which this home can be cooled will change depending upon the amount of exposure of the windows to the sun's radiant heat. Therefore, the home's heat gains will vary dependent upon its orientation to the sun and any permanent shading provided. Information concerning the calculation of cooling loads at various locations, window exposures and shadings are provided in the 2011 edition of ACCA Manual J, or chapter 22 of the 1989 the latest edition of the ASHRAE Handbook of Fundamentals.</p>	
Reason:	Section 3280.511 refers to chapter 22 of ASHRAE 1989 Fundamentals for heat gain. The section should refer to the 2011 edition of ACCA Manual J which addresses load calculations for manufactured homes, or at a minimum the latest version of the ASHRAE fundamentals. The reference to the 1989 edition is located in several sections of 24 CFR part 3280 and needs to be revised.	
Substantiating Documents:	No	
Additional Cost:	Unknown	
Cost Benefit Explanation:	Unknown	
Subcommittee Recommendation:		

MHCC Action:	
MHCC Modification of Proposed Change:	
MHCC Reason:	
Current Status:	Pending MHCC Final Action
Log History:	1/19/2016 – MHCC Motion: Table until next meeting. 8/19/2015 – MHCC Motion: Table until next meeting.

Log # 123 - § 3280.511(a)(2) Comfort cooling certificate and information		Date: 12/31/2014
Submitter:	Gary Clark	
Requested Action:	New Text	
Proposed Change:	<p><i>Alternative 2.</i> For each home suitable for a central air cooling system, the manufacturer shall provide the following statement: "This air distribution system of this home is suitable for the installation of a central air conditioning system."</p> <p style="text-align: center;">Example Alternate 2 COMFORT COOLING CERTIFICATE</p> <p>Manufactured Home Manufacturer Plant Location Manufactured Home Model</p> <p>This air distribution system of this home is suitable for the installation of central air conditioning.</p> <p>The supply air distribution system installed in this home is sized for Manufactured Home Central Air Conditioning System of up to ___ B.T.U./Hr. rated capacity which are certified in accordance with the appropriate Air Conditioning and Refrigeration Institute Standards. When the air circulators of such air conditioners are rated at 0.3 inch water column static pressure or greater for the cooling air delivered to the manufactured home supply air duct system.</p> <p>Information necessary to calculate cooling loads at various locations and orientations is provided in the special comfort cooling information provided with this manufactured home.</p>	
Reason:	The "Comfort Cooling Certificate" refers to static of 0.3 in.w.c for a given capacity. Instead, the certificate should refer to static at a nominal airflow in CFM. The MHCC should discuss this section further and consider implementing changes to this section.	
Substantiating Documents:	No	
Additional Cost:	Unknown	
Cost Benefit Explanation:	Unknown	
Subcommittee Recommendation:		
MHCC Action:		
MHCC Modification of Proposed Change:		
MHCC Reason:		
Current Status:	Pending MHCC Final Action	
Log History:	<p>1/19/2016 – MHCC Motion: Table until next meeting.</p> <p>8/19/2015 – MHCC Motion: Table until next meeting.</p>	

Log # 135 - § 3285.603 Water supply		Date: 12/18/2015
Submitter:	Debra Blake	
Requested Action:	Revised Text	
Proposed Change:	<p>§3285.603 Water supply. <i>(e) Testing procedures.</i> (1) The water system must be inspected and tested for leaks after completion at the site. The installation instructions must provide testing requirements that are consistent with § 3280.612 of this chapter. <u>In accordance with the piping manufacturer's instructions</u></p>	
Reason:	This change is needed because certain piping materials are not made to be tested by subjecting the system to air at 100 psi for 15 minutes without loss of pressure. CVPC materials, in particular, could be damaged or explode by this force of air. Piping manufacturers provide pressure test instructions that are different than the HUD-Code requirements in 3280.612 as referenced in the current 3285.603 language.	
Substantiating Documents:	Yes	
Additional Cost:	No	
Cost Benefit Explanation:	The proposed testing method change adds no additional cost.	
Subcommittee Recommendation:		
MHCC Action:		
MHCC Modification of Proposed Change:		
MHCC Reason:		
Current Status:	Pending Recommendation from Regulatory Subcommittee	
Log History:	1/19/2016 – MHCC Motion: Refer to Regulatory Subcommittee.	

Log # 140 - § 3280.403 Requirements for Windows, 3280.404, & 3280.405	Date: 03/25/2016
Submitter:	David Tompos
Requested Action:	Revised Text
Proposed Change:	<p>§3280.403 Requirements for windows, sliding glass doors, and skylights.</p> <p>(a) <i>Scope.</i> This section establishes the requirements for prime windows and sliding glass doors, except that windows used in an entry door are components of the door and are excluded from these requirements.</p> <p>(b)(1) <i>Standard.</i> All primary windows and sliding glass doors shall comply with AAMA 1701.2-9512, Voluntary Standard Primary Window and Sliding Glass Door for Utilization in Manufactured Housing, <u>or AAMA/WDMA/CSA 101/I.S.2/A440-11 North American Fenestration Standard/Specification for windows, doors, and skylights</u>, except the exterior and interior pressure tests must be conducted at the meeting or exceeding the minimum design wind loads required for components and cladding specified in §3280.305(c)(1).</p> <p>(2) All skylights must comply with AAMA/WDMA/CSA/101/I.S.2/A440-0811: North American Fenestration Standard/Specifications for Windows, Doors and Skylights (incorporated by reference, see §3280.4). Skylights must withstand the roof loads for the applicable Roof Load Zone specified in §3280.305(c)(3), and the following wind loads:</p> <p>(i) For Wind Zone I, the wind loads specified in §3280.305(c)(1)(i); and</p> <p>(ii) For Wind Zones II and III, the wind loads specified for exterior roof coverings, sheathing, and fastenings in §3280.305(c)(1)(ii).</p> <p>(c) <i>Installation.</i> All primary windows, sliding glass doors, and skylights must be installed in a manner that allows proper operation and provides protection against the elements, as required by §3280.307.</p> <p>(d) <i>Glass.</i> (1) Safety glazing materials, where used shall meet Standard for Safety Glazing Materials used in Buildings—Safety Performance Specifications and Methods of Test, ANSI Z97.1-2004<u>2009</u> (incorporated by reference, see §3280.4).</p> <p>(2) Sealed insulating glass, where used, must meet all performance requirements for Class C in accordance with ASTM E 774-97, Standard Specification for the Classification of the Durability of Sealed Insulating Glass Units. The sealing system must be qualified in accordance with ASTM E 773-97, Standard Test Methods for Accelerated Weathering of Sealed Insulating Glass Units. Each glass unit must be permanently identified with the name of the insulating glass manufacturer.</p> <p>(e) <i>Certification.</i> All primary windows and sliding glass doors to be installed in manufactured homes must be certified as complying with AAMA 1701.2-9512 <u>or AAMA/WDMA/CSA 101/I.S.2/A440-11</u>. This certification must be based on tests conducted meeting or exceeding the minimum design wind loads specified in §3280.305(c)(1).</p> <p>(1) All such windows and doors must show evidence of certification by affixing a quality certification label to the product in accordance with ANSI Z34.1-1993, Third Party Certification Programs for Products, Processes, and Services <u>from an independent product certification body accredited to ISO/IEC 17065-2012, Conformity Assessment – Requirements for bodies certifying products, processes and services.</u></p> <p>(2) In determining certifiability of the products, an independent quality assurance agency shall conduct pre-production specimen tests in accordance with AAMA 1701.2-9512 <u>or AAMA/WDMA/CSA 101/I.S.2/A440-11</u>. Further, such agency must inspect the product manufacturer's facility at least twice per year.</p> <p>(3) All skylights installed in manufactured homes must be certified as complying with AAMA/WDMA/CSA 101/I.S.2/A440-0811: North American Fenestration Standard/Specifications for Windows, Doors, and Skylights (incorporated by reference, see §3280.4). This certification must be based on applicable loads specified in paragraph (b) of this section.</p> <p>(f) <i>Protection of primary window and sliding glass door openings in high wind areas.</i> For homes designed to be located in Wind Zones II and III, manufacturers shall design exterior walls surrounding the primary window and sliding glass door openings to allow for the installation of shutters or other protective covers, such as plywood, to</p>

cover these openings. Although not required, the Department encourages manufacturers to provide the shutters or protective covers and to install receiving devices, sleeves, or anchors for fasteners to be used to secure the shutters or protective covers to the exterior walls. If the manufacturer does not provide shutters or other protective covers to cover these openings, the manufacturer must provide to the homeowner instructions for at least one method of protecting primary window and sliding glass door openings. This method must be capable of resisting the design wind pressures specified in §3280.305 without taking the home out of conformance with the standards in this part. These instructions must be included in the printed instructions that accompany each manufactured home. The instructions shall also indicate whether receiving devices, sleeves, or anchors, for fasteners to be used to secure the shutters or protective covers to the exterior walls, have been installed or provided by the manufacturer.

§3280.404 Standard for egress windows and devices for use in manufactured homes.

(a) *Scope and purpose.* The purpose of this section is to establish the requirements for the design, construction, and installation of windows and approved devices intended to be used as an emergency exit during conditions encountered in a fire or similar disaster.

(b) *Performance.* Egress windows including auxiliary frame and seals, if any, shall meet all requirements of AAMA 1701.2-~~95~~12, Voluntary Standard Primary Window and Sliding Glass Door for Utilization in Manufactured Housing and AAMA Standard 1704-12, Voluntary Standard Egress Window Systems for Utilization in Manufactured Housing, ~~except the~~ or AAMA/WDMA/CSA 101/I.S.2/A440-11 North American Fenestration Standard/Specification for windows, doors, and skylights.

(1) Loading. Exterior and interior pressure tests for components and cladding must be conducted ~~at the meeting or exceeding the minimum~~ design wind loads required by §3280.305(c)(1).

(2) Dimensions. All egress systems shall have a minimum clear horizontal dimension of 20 in. and a minimum clear vertical dimension of 24 in. with a clear opening of 5 ft².

(c) *Installation.* (1) The installation of egress windows or devices shall be installed in a manner which allows for proper operation and provides protection against the elements. (See §3280.307.)

(2) An operational check of each installed egress window or device must be made at the manufactured home factory. All egress windows and devices must be capable of being opened to the minimum required dimensions by normal operation of the window without binding or requiring the use of tools. Any window or device failing this check must be repaired or replaced. A repaired window must conform to its certification. Any repaired or replaced window or device must pass the operational check.

(3) Windows that require the removal of the sash to meet egress size requirements are prohibited.

(d) *Operating instructions.* Operating instructions shall be affixed to each egress window and device and carry the legend "Do Not Remove."

(e) *Certification of egress windows and devices.* Egress windows and devices shall be listed in accordance with the procedures and requirements of AAMA Standard 1701.2-~~95~~12 and AAMA 1704-~~1985~~12 or AAMA/WDMA/CSA 101/I.S.2/A440-11, this certification must be based on tests conducted ~~at the meeting or exceeding the minimum~~ design wind loads specified in §3280.305(c)(1).

(1) All such windows must show evidence of certification by affixing a quality certification label to the product from an independent product certification body accredited to ISO/IEC 17065-2012, Conformity Assessment – Requirements for bodies certifying products, processes and services.

(f) *Protection of egress window openings in high wind areas.* For homes designed to be located in Wind Zones II and III, manufacturers shall design exterior walls

surrounding the egress window openings to allow for the installation of shutters or other protective covers, such as plywood, to cover these openings. Although not required, the Department encourages manufacturers to provide the shutters or protective covers and to install receiving devices, sleeves, or anchors for fasteners to be used to secure the shutters or protective covers to the exterior walls. If the manufacturer does not provide shutters or other protective covers to cover these openings, the manufacturer must provide to the homeowner instructions for at least one method of protecting egress window openings. This method must be capable of resisting the design wind pressures specified in §3280.305 without taking the home out of conformance with the standards in this part. These instructions must be included in the printed instructions that accompany each manufactured home. The instructions shall also indicate whether receiving devices, sleeves, or anchors, for fasteners to be used to secure the shutters or protective covers to the exterior walls, have been installed or provided by the manufacturer.

§3280.405 Standard for swinging exterior passage doors for use in manufactured homes.

(a) *Introduction.* This standard applies to all exterior passage door units, excluding sliding doors and doors used for access to utilities and compartments. This standard applies only to the door frame consisting of jambs, head and sill and the attached door or doors.

(b) *Performance requirements.* The design and construction of exterior door units must meet all requirements of AAMA 1702.2-~~9512~~, Voluntary Standard Swinging Exterior Passage Door for Utilization in Manufactured Housing or AAMA/WDMA/CSA 101/I.S.2/A440-11 North American Fenestration Standard/Specification for windows, doors, and skylights.

(c) *Materials and methods.* Any material or method of construction shall conform to the performance requirements as outlined in paragraph (b) of this section. Plywood shall be exterior type and preservative treated in accordance with ~~NWWDA I.S.4-09~~ WDMA I.S.4-09, Water Repellent Preservative Non-Pressure Treatment for Millwork.

(d) *Exterior doors.* All swinging exterior doors shall be installed in a manner which allows proper operation and provides protection against the elements (see §3280.307).

(e) *Certification.* All swinging exterior doors to be installed in manufactured homes must be certified as complying with AAMA 1702.2-~~9512~~, Voluntary Standard Swinging Exterior Passage Door for Utilization in Manufactured Housing or AAMA/WDMA/CSA 101/I.S.2/A440-11 North American Fenestration Standard/Specification for windows, doors, and skylights.

(1) All such doors must show evidence of certification by affixing a quality certification label to the product ~~in accordance with ANSI Z34.1-1993, Third Party Certification Programs for Products, Processes, and Services.~~ from an independent product certification body accredited to ISO/IEC 17065-2012, Conformity Assessment – Requirements for bodies certifying products, processes and services.

(2) In determining certifiability of the products, an independent quality assurance agency must conduct a pre-production specimen test in accordance with AAMA 1702.2-~~9512~~, Voluntary Standard Swinging Exterior Passage Door for Utilization in Manufactured Housing or AAMA/WDMA/CSA 101/I.S.2/A440-11 North American Fenestration Standard/Specification for windows, doors, and skylights.

Reason:	Currently the federal standards do not allow windows and doors that are certified to the same national testing standards used by traditional site-built IRC coded homes. This revision would give consumers the same options, for windows and doors, as the site-built residential industry. In addition, these revisions update several out-of-date reference standards.
Substantiating Documents:	No
Additional Cost:	No
Cost Benefit Explanation:	Currently the federal standards do not allow windows and doors that are certified to the same national testing standards used by traditional site-built IRC coded homes. This

	revision would give consumers the same options, for windows and doors, as the site-built residential industry. In addition, these revisions update several out-of-date reference standards.
Subcommittee Recommendation:	
MHCC Action:	
MHCC Modification of Proposed Change:	
MHCC Reason:	
Current Status:	Received by Secretariat.
Log History:	

Log # 141 - § 3286.409 Obtaining inspection		Date: 3/31/2016
Submitter:	Lois Starkey	
Requested Action:	Revised Text	
Proposed Change:	<p>(a) <i>Inspection obligations.</i> Ten business days prior to the completion of installation, the installer must arrange for a third-party inspection of the work performed, in accordance with subpart F of this part, unless the installer and retailer who contracted with the purchaser for the sale of the home agree, in writing, that during the same time period the retailer will arrange for the inspection. Such inspection must be performed as soon as practicable by an inspector who meets the qualifications set forth in § 3286.511. The scope of the inspections that are required to be performed is addressed in § 3286.505.</p> <p>(b) <i>Contract rights not affected.</i> Failure to arrange for an inspection of a home within 5 <u>10</u> business days will not affect the validity or enforceability of any sale or contract for the sale of any sale manufactured home</p>	
Reason:	The change is needed to correct a typographical error. Inspection obligations to arrange for an inspection are not intended to impact the contract rights, validity, or enforceability of the sale or contract for sale of any manufactured home.	
Substantiating Documents:	No	
Additional Cost:	No	
Cost Benefit Explanation:	There is no cost and the benefit is more clarity.	
Subcommittee Recommendation:		
MHCC Action:		
MHCC Modification of Proposed Change:		
MHCC Reason:		
Current Status:	Received by Secretariat.	
Log History:		

Log # 142 - § 3286.103 DAPIA-approved installation instructions.		Date: 3/31/2016
Submitter:	Lois	
Requested Action:	Starkey	
Proposed Change:	<p>(a) <i>Providing instructions to purchaser or lessee.</i> (1) For each manufactured home sold or leased to a purchaser or lessee, the retailer must provide the purchaser or lessee with a copy of the manufacturer's DAPIA-approved installation instructions for the home, <u>a copy of which is shipped with the home in accordance with 3285.2.</u> (2) If the installation requires a design that is different from that provided by the manufacturer in paragraph (a)(1) of this section, the installation design and instructions must be prepared and certified by a professional engineer or registered architect, that have been approved by the manufacturer and the DAPIA as providing a level of protection for residents of the home that equals or exceeds the protection provided by the federal installation standards in this chapter. <u>The design and instructions must be provided to the purchaser or lessee.</u></p> <p>(b) <i>Providing instructions to installer.</i> When the retailer or manufacturer agrees to provide any set up in connection with the sale of the home, the retailer or manufacturer must provide <u>to the licensed installer</u> a copy of the approved installation instructions required in paragraph (a)(1) of this section or, as applicable, installation design and instructions required in paragraph (a)(2) of this section, to each company or, in the case of sole proprietor, to each individual who performs setup or installation work on the home.</p>	
Reason:	<p>This change is needed to clarify that the manufacturers are shipped with the home and are intended to be retained in the home when the home is sold to the homeowner. Ensure that the manufacturer's instructions are retained with the home. It also adds a requirement that any alternative set of designs or instructions for the installation of the home are also provided to the purchaser or lessee. This completes the set of installation instructions required to be given to the homeowner. It also ensures that the licensed installer is the individual who must receive the installation instructions in order to properly install the home.</p>	
Substantiating Documents:	No	
Additional Cost:	No	
Cost Benefit Explanation:	There is no cost and the benefit is more clarity and simplicity.	
Subcommittee Recommendation:		
MHCC Action:		
MHCC Modification of Proposed Change:		
MHCC Reason:		
Current Status:	Received by Secretariat.	
Log History:		

Log # 143 - § 3280.711 Instructions		Date: 3/31/2016
Submitter:	Lois Starkey	
Requested Action:	Revised Text	
Proposed Change:	Operating Instructions must be provided with each appliance <u>unless the appliance is affixed with a permanent Quick Response (QR) Code</u> . The operating instructions for each appliance must be provided with the homeowner's manual.	
Reason:	Quick Response codes are increasingly being used to provide consumers with set of instructions that can be downloaded instantly from a smart phone or tablet. The QR code is permanently affixed to the appliance. It also provides exact instructions that the particular unit was originally shipped with.	
Substantiating Documents:	Yes	
Additional Cost:	No	
Cost Benefit Explanation:	There is a cost savings to this proposal, and a benefit to consumers who will be assured of receiving the appropriate instructions for their appliance.	
Subcommittee Recommendation:		
MHCC Action:		
MHCC Modification of Proposed Change:		
MHCC Reason:		
Current Status:	Received by Secretariat.	
Log History:		