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MHCC

Proposed Changes

2022-2023 Cycle

May 24, 2023

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Proposed Changes from Previous Cycles

Log 216 - § 3280.715 (a)(7) Supply system	Date: 1/31/2020
Submitter:	Robert Parks, Healthy Homes of Louisiana, LLC
Requested Action:	Revised Text
Proposed Change:	3280.715 (a)(7) Unless installed in a basement, supply and return ducts, fittings, and crossover duct plenums exposed directly to outside air, such as those ducts located in an unvented or vented attic, under-chassis crossover ducts or ducts connecting external heating, cooling, or combination heating/cooling appliances, must be insulated with material having a minimum thermal resistance of R-8 in all Thermal Zones. All such insulating materials must have a continuous vapor barrier retarder having a perm rating of not more than 1 perm. Where ducts are exposed underneath the manufactured home, they must comply with paragraph (a)(5)(ii) of this section, and shall be listed for exterior use.
Reason:	The manufactured housing industry is basically the only industry that still allows the cheapest insulated duct (R-4) to be placed in the hottest cavity of the building. When doing the Manual J heating and cooling calculations, a duct system that is located in the attic is most often the single largest heat gain/loss component of the home. Even greater than the windows. The second law of thermodynamics basically states that heat moves from more-to-less, and the greater the difference between the two temperatures, the greater the movement. During the summer, we circulate the coldest air in the building through the hottest cavity of the building and even more detrimental, during the winter we are circulating the hottest air in the building through the coldest cavity so better insulation of the duct system becomes critical to building performance.
Substantiating Documents:	Yes
Additional Cost:	No
Cost Benefit Explanation:	Many manufactures have already learned, the hard way, that placing R-4.2 ducts in the attic can increase the heating and cooling capacities to a level great enough that one unit can no longer heat/cool the home. Thus many manufactures have already made R-8 a required upgrade when placing the duct system in the attic, versus the floor system (which is considered inside the thermal barrier of the home and also the most efficient location to place the duct system). The average cost for a single section home to upgrade from R-4.2 to R-8 is approximately $100, however if the proper Manual J load calculation is done, this cost is offset by the cost savings of being able to use a small heating and/or cooling system. There is also the additional benefits of guarantied utility savings for the end user of the home.
Subcommittee Recommendation:	Approve as Modified 3280.715(a)(6)Air supply ducts shall be insulated with material having an effective thermal resistance (R) of not less than 4.0 unless they are within manufactured home insulation having a minimum effective value of R-4.0 for floors ~~or R-6.0 for ceilings~~. 3280.715 (a)(7) Unless installed in a basement, supply and return ducts, fittings, and crossover duct plenums outside the thermal envelope~~exposed directly to outside air~~, such as those ducts located in a~~n unvented or~~ vented attic, under-chassis crossover ducts or ducts connecting external heating, cooling, or combination heating/cooling appliances, must be insulated with material having a minimum thermal resistance of R-8 in all Thermal Zones. All such insulating materials must have a continuous vapor barrier retarder having a perm rating of not more than 1 perm. Where ducts are exposed underneath the manufactured home, they must comply with paragraph (a)(5)(ii) of this section, and shall be listed for exterior use.

	Reason: Additional language for clarity.
MHCC Action:	Approve as Modified
MHCC Modification of Proposed Change:	3280.715(a)(6)Air supply ducts shall be insulated with material having an effective thermal resistance (R) of not less than 4.0 unless they are within manufactured home insulation having a minimum effective value of R-4.0 for floors ~~or R-6.0 for ceilings~~. 3280.715 (a)(7) Unless installed in a basement, supply and return ducts, fittings, and crossover duct plenums outside the thermal envelope~~exposed directly to outside air~~, such as those ducts located in a~~n unvented or~~ vented attic, under-chassis crossover ducts or ducts connecting external heating, cooling, or combination heating/cooling appliances, must be insulated with material having a minimum thermal resistance of R-8 in all Thermal Zones. All such insulating materials must have a continuous vapor barrier retarder having a perm rating of not more than 1 perm. Where ducts are exposed underneath the manufactured home, they must comply with paragraph (a)(5)(ii) of this section, and shall be listed for exterior use.
MHCC Reason:	To clarify and remove any potential conflict with 3280.715(a)(6) and (a)(7).
Current Status:	MHCC Final Action Submitted to HUD
Log History:	3-29-2023 – Final Action from November 15-17, 2022 MHCC meeting confirmed by MHCC Ballot X. 11-16-2022 – MHCC Motion: Approve as Modified. 11-16-2022 – Technical Systems Subcommittee Recommendation: Approve as Modified. 6-10-2021 – MHCC Motion: Refer to Subcommittee. 12-8-2020 – Technical Systems Subcommittee Recommendation: Approve as Modified. 7-6-2020 – Assigned to Technical Systems Subcommittee.

Log 225 - § 3280.607(b)(3) Shower Compartment	Date: 8/10/2021
Submitter:	Michael Moglia, PA Department of Community and Economic Development
Requested Action:	New Text
Proposed Change:	Revised Language: 3280.607(b)(3)(iii) Shower doors and tub and shower enclosures shall be constructed so as to be waterproof and, if glazed, glazing shall comply with the Stand for Safety Glazing Materials used in Buildings – Safety and Performance Specifications and Methods of Test, ANSI Z97.1-2004 (incorporated by reference, see §3280.4) <u>The shower compartment access and egress opening shall have a clear and unobstructed finished width of not less than 22 inches.</u>
Reason:	Many manufacturers are constructing shower compartments that are comparable to those constructed in site-built or modular housing where showers are constructed with unframed, safety glazed, glass panels only. Without a minimum access requirement there is a significant chance for people to break this glass panel. Currently the Manufactured Home Construction and Safety Standards do not address shower access. We have recently witnessed this identical issue in the new manufactured home, where the access was only 18 inches in width. The 2018 International Residential Code addresses this issue under P2708.1.1 and the same language should be included in the MHCSS. This should be a one time addition and not require updates. Please know, ANSI Z97.1-2004 referenced in the MHCSS, establishes the specifications and methods of test for the safety properties of safety glazing materials (glazing materials designed to promote safety and to reduce or minimize the likelihood of cutting and piercing injuries when the glazing materials are broken by human contact)
Substantiating Documents:	Yes
Additional Cost:	None
Cost Benefit Explanation:	No additional cost as manufacturers already order specific sizes of glass for their shower compartments.
Subcommittee Recommendation:	Approve
MHCC Action:	Approve
MHCC Modification of Proposed Change:	
MHCC Reason:	
Current Status:	MHCC Final Action Submitted to HUD
Log History:	3-29-2023 – Final Action from November 15-17, 2022 MHCC meeting confirmed by MHCC Ballot X. 11-16-2022 – MHCC Motion: Approve. 11-16-2022 – Technical Systems Subcommittee Recommendation: Approve.

Log 226 - § 3280.305 (K)(3)	Date: 12/1/2021
Submitter:	Joe Sadler, North Carolina Department of Insurance
Requested Action:	New Text
Proposed Change:	When mechanical equipment or duct systems are installed in the attic space, an access panel shall be installed to allow for inspection or repair, if required, of duct connections.

Reason:	Several manufacturers have installed their duct systems in the attic area. In one case the duct crossover was not connected, during installation of the home, to the plenum box causing the conditioning air to be exhausted in the attic cavity. This causes a lack of adequate conditioning and condensation leading to mold and mildew issues. This is especially prevalent in moist and humid areas of the southern states. It also causes waste of energy and high electrical bills for the consumer before it can be addressed. The manufacturer resolved the issue a financial settlement with the consumer and civil penalties from the SAA.
Substantiating Documents:	
Additional Cost:	Yes
Cost Benefit Explanation:	There will be some additional framing, insulation and air intrusion sealing of the access opening. This can be accomplished between the truss framing near the crossover connection. There will be some additional cost but it should be minimal in the production facility setting.
Subcommittee Recommendation:	Disapprove Reason: Partially addressed by action on Log 131. The SDSC felt that the frequency of potential problems was not enough to require attic access. These access panels compromise the thermal integrity of the home, create excess air infiltration, and may not grant proper attic access to low slope roofs.
MHCC Action:	Disapprove
MHCC Modification of Proposed Change:	
MHCC Reason:	Partially addressed by action on Log 131. The MHCC felt that the frequency of potential problems was not enough to require attic access. These access panels compromise the thermal integrity of the home, creates excess air infiltration, and may not grant proper attic access to low slope roofs.
Current Status:	MHCC Final Action Submitted to HUD
Log History:	3-29-2023 – Final Action from November 15-17, 2022 MHCC meeting confirmed by MHCC Ballot X. 11-16-2022 - MHCC Motion: Disapprove 11-16-2022 - Structure and Design Subcommittee Recommendation: Disapprove