



HUD Regulates Manufactured Housing

But Will Agency Adopt AAMA's Updated Standards?

BY RICHARD RINKA

For decades, regulations governing the construction of manufactured housing units have been communicated by the U.S. Department of Housing and Urban Development (HUD) in the form of its *Manufactured Housing Construction and Safety Standards*, 24 CFR 3280. These include the following standards directly related to doors and windows:

- §3280.403, *Standard for Windows and Sliding Glass Doors Used in Manufactured Homes*;
- §3280.404, *Standard for Egress Windows and Devices for Use in Manufactured Homes*;
- §3280.405, *Standard for Swinging Exterior Passage Doors for Use in Manufactured Homes*.

Criteria and test methods for compliance with these regulations are addressed, respectively, by:

- AAMA 1701.2-95, *Voluntary Standard for Utilization in Manufactured Housing for Primary Windows and Sliding Glass Door Units*;
- AAMA 1704-95, *Voluntary Standard Egress Window Systems for Utilization in Manufactured Housing*; and
- AAMA 1702.2-85, *Voluntary Standard for Utilization in Manufactured Housing for Swinging Exterior Passage Doors*.

What's in the Standards?

AAMA 1701.1-95 and 1702.2-95 call for basic air/water/structural (AWS) performance in a similar manner that NAFS specifies AWS criteria for sire-built structures, specifying structural testing to 25 psf wind loading (or at optional higher pressures for coastal high wind areas, identified as Zones II and III under HUD CFR §3280.403b

and by extension 3280.305c). Air leakage, at a maximum of 0.5 cfm per square foot, is required for windows and 1.0 cfm per square foot for swinging doors, as tested per ASTM E283 at a 1.57 psf pressure differential. Water penetration for windows, when tested at a 2.86 psf test pressure per ASTM E547, must not be evident beyond the innermost surface. Water penetration for doors is tested at zero differential pressure, when water is applied per ASTM E331. AAMA 1704-95 adds dimensional and operating force requirements for windows intended to serve as emergency egress devices.

There have been updates to all of these documents, without changes to the basic requirements, which are reflected in the 2017 editions. Added in the just-released 2017 editions are:

- A safety drop test in which the glazed sash is allowed to “free fall” without suffering broken glass or loss of glass from the frame.
- Performance requirements for mulled assemblies, referencing AAMA 450.
- Coatings performance per AAMA 2603, 2604 and 2605 for aluminum extrusions or AAMA 613, 614 or 615 for PVC.
- Insulating glass unit requirements updated to reference ASTM E2190 and E2189.
- Dual windows are also now covered.

There have been nuances of the program that evolved as it was being administered, and subjective decision-making that needed to be codified, especially in the context of changing product certification rules as codified in ISO/IEC 17065-2012 (vs. ANSI Z34.1, which was in effect when certification for manufactured

housing fenestration began in 1983). Content also needed to be added to qualify for ANSI accreditation of the certification program, which provides HUD-recognized third-party evidence of conformance with CFR 3280.

It is important to remember that testing for product certification is required to be done per the *older* versions of the standards (AAMA 1701.2-95; 1702.2-95; and 1704-85), which HUD §3280 continues to reference even though updated versions exist. Many of the third-party standards and test methods referenced within these older editions have also been retired or have newer editions. Following obsolete test methods could also pose problems for laboratories in maintaining their ISO/IEC 17025 accreditation. Ignoring the newer provisions related to mulled units, drop testing, extrusion coatings and dual windows can create inconsistent interpretations of how these items are treated by different certification bodies.

Will HUD Take Action?

The 2012 editions of the AAMA standards have been recommended for adoption by the Manufactured Housing Consensus Committee (MHCC) to HUD—a statutory Federal Advisory Committee charged with providing recommendations to the HUD secretary on the revision and interpretation of HUD's manufactured home construction and safety standards. Final adoption is still pending, however, and there is no indication that HUD will adopt the 2012 (or 2017) versions any time soon, if at all. ■

Richard Rinka is the certification manager for the American Architectural Manufacturers Association in Schaumburg, Ill.