AMA third-party certification of manufactured housing fenestration has been around since 1983 and so has the Procedural Guide for the program—at least until recently. AAMA 104, Procedural Guide for Certification of Manufactured Home Fenestration Products: Windows/Sliding Doors, Emergency Exit Windows and Devices, Swinging Exterior Passage Doors of that vintage has served well as the basis for certification, but things change.

This is particularly true in the case of requirements for a certification program to be accredited. ANSI Z34.1 became ISO Guide 65, which became ISO/IEC 17065. Especially in the context of these changing certification rules, there were nuances of the program that evolved as it was being administered, subjective decision-making that needed to be codified, and content that needed to be added to qualify for ANSI accreditation (expected in 2016).

A primary goal in overhauling AAMA 104 was thus to develop and document procedures to meet the applicable requirements of a “Certification Body” as defined and set forth in ISO/IEC 17065, Conformity Assessment: Requirements for Bodies Certifying Products, Processes and Services.

**Compliance with HUD**

The Manufactured Home Fenestration Products Certification Program is designed to allow AAMA manufacturer licensees to comply with the requirements of the U.S. Department of Housing and Urban Development Manufactured Housing Construction and Safety Standards CFR 3280. This includes (but isn’t limited to) the following standards:

- §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

These are addressed, respectively, by the standards AAMA 1701.2-12, Voluntary Standard for Utilization in Manufactured Housing for Primary Windows and Sliding Glass Door Units; AAMA 1704-12, Voluntary Standard Egress Window Systems for Utilization in Manufactured Housing; and AAMA 1702.2-12, Voluntary Standard for Utilization in Manufactured Housing for Swinging Exterior Passage Doors. Under AAMA 104 protocols, these serve the same role as the North American Fenestration Standard (AAMA/WDMA/CSA 101/IS2/A440) does for certification of fenestration in site-built structures under AAMA 103-15.

AAMA 1701.1 and 1702.2 call for basic Air/Water/Structural performance, specifying structural testing to 25 psf wind loading (or at optional higher pressures as available under HUD CFR §3280.403b), air leakage as tested per ASTM E283, and water penetration as tested per ASTM E547. Also required is 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.

Material requirements for wood, aluminum and vinyl framing are essentially the same as those specified in NAFS, as are requirements for glass. And, components such as back-bedding materials, fasteners, hardware and weatherstrip must meet the same standards referenced in NAFS and must be listed in the AAMA Verified Components List.

In addition to 1701.2 requirements, egress windows must meet AAMA 1704,
A major element of the new AAMA 104 specifies minimum quality-management system requirements that licensees must follow in-house.

which specifies minimum clear opening dimensions and limitations on hardware use and operating force. All three standards include installation instructions, which is of particular value in the case of egress windows.

Steps to Certification
For initial certification and approval to apply the requisite label, the licensee submits a fully assembled product sample representative of the product line, together with pertinent drawings and a bill of materials for laboratory testing to 1701.2, 1702.2 and 1704.

A major element of the new AAMA 104 specifies minimum quality-management system requirements that licensees must follow in-house. Essentially the same as those specified in AAMA 103, these address QMS documentation, inspector qualifications and training, maintenance of inspection and test equipment, recordkeeping, and handling of customer complaints and corrective action, in addition to inspection of incoming material, in-process assemblies and finished product.

As with certification under AAMA 103, the validator’s inspector, without prior notice, visits the licensee’s manufacturing plant(s) at least twice annually to determine compliance with the requirements of the program.

Unique to the certification of manufactured housing fenestration, at one of the two semi-annual inspection visits, the inspector selects at least one production sample from the list of certified products for laboratory evaluation to the criteria of AAMA 1701.2, AAMA 1702.2, or AAMA 1704, as applicable.

The updated requirements of AAMA 104 help solidify the AAMA certification program for fenestration used in HUD code manufactured housing.

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