projections of 12 inches or less, add the additional required load to the main body load and apply it to the entire top chord.

(C) Measure and record the deflection 5 minutes after the net uplift load has been applied. Design load deflection shall be L/180 or less for a simply supported clear span and Lo/90 or less for eave or cornice projections.

(D) For trusses tested in the upright position, continue to load the truss to 1.75 times the net uplift load in paragraph (d)(3)(i) of this section for Wind Zone I and 1.75 times the uplift load in paragraph (d)(3)(ii) for Wind Zones II and III, and maintain the load for one minute. For trusses tested in the inverted position, continue to load the truss to 2.50 times the net uplift load in paragraph (d)(3)(i) for Wind Zone I and to 2.0 times the uplift load minus the dead load in paragraph (d)(3)(ii) for Wind Zones II and III, and maintain the full load for one minute. Regardless of the test position of the truss, upright or inverted, trusses must maintain the overload for the specified time period without rupture, fracture, or excessive yielding.

(e) *Follow-up testing.* Follow-up testing procedures must include the following:

(1) All trusses qualifying under these test procedures must be subject to a quality control and follow-up testing program.

(i) Manufacturers of listed or labeled trusses must follow an in-house quality control program with follow-up testing approved by a nationally recognized testing program as specified in paragraph (e)(3) of this section. The in-house quality control program must include, at a minimum, procedures for quality of materials including, but not limited to, grade(s) of materials, allowable splits, knots, and other applicable lumber qualities; workmanship including, but not limited to, plate placement and embedment tolerances; other manufacturing tolerances; description and calibration of test equipment; truss retesting criteria; and procedures in the event of noncomplying results.

(ii) Those home manufacturers producing trusses for their own use, and which are not listed or labeled, must have an in-house quality control program (see paragraph (i) of this section) that includes follow-up testing, as specified in this section, and is approved by their Design Approval Primary Inspection Agency (DAPIA).

(2) Truss designs that are qualified but not in production are not subject to follow-up testing until produced. When the truss design is brought into production, a follow-up test is to be performed if the truss design has been out of production for more than 6 months.

(3) The frequency of truss manufacturer's quality control follow-up testing for trusses must be at least:

(i) One test for the first 100 trusses produced, with a subsequent test for every 2,500 trusses for trusses qualified under the proof load truss test procedure or inverted uplift test procedure for trusses used in Wind Zones II and III or once every 6 months, whichever is more frequent, for every truss design produced; or

(ii) One test for every 4,000 trusses produced for trusses qualified under the ultimate load truss test procedure or upright uplift test procedure for trusses used in Wind Zones II and III or once every 6 months, whichever is more frequent, for every truss design produced.

(4) For follow-up testing only, the full dead load may be applied to the top chord of the truss, when the bottom chord dead load is 5 psf or less.

[78 FR 4065, Jan. 18, 2013]

§ 3280.403 Requirements for windows, sliding glass doors, and skylights.

(a) *Scope.* 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.

(b)(1) *Standard.* All primary windows and sliding glass doors shall comply with AAMA 1701.2–95, Voluntary Standard Primary Window and Sliding Glass Door for Utilization in Manufactured Housing, except the exterior and interior pressure tests must be conducted at the design wind loads required for components and cladding specified in § 3280.305(c)(1).

(2) All skylights must comply with AAMA/WDMA/CSA/101/I.S.2/A440–08:

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:

(i) For Wind Zone I, the wind loads specified in §3280.305(c)(1)(i); and

(ii) For Wind Zones II and III, the wind loads specified for exterior roof coverings, sheathing, and fastenings in §3280.305(c)(1)(ii).

(c) *Installation.* 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.

(d) *Glass.* (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 (incorporated by reference, see §3280.4).

(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.

(e) *Certification.* All primary windows and sliding glass doors to be installed in manufactured homes must be certified as complying with AAMA 1701.2–95. This certification must be based on tests conducted at the design wind loads specified in §3280.305(c)(1).

(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.

(2) In determining certifiability of the products, an independent quality assurance agency shall conduct preproduction specimen tests in accordance with AAMA 1701.2–95. Further, such agency must inspect the product manufacturer's facility at least twice per year.

(3) All skylights installed in manufactured homes must be certified as complying with AAMA/WDMA/CSA 101/I.S.2/A440–08: 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.

(f) *Protection of primary window and sliding glass door openings in high wind areas.* 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 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.

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