

**§ 3280.812 Wiring of expandable units and dual units.**

(a) Expandable or multiple unit manufactured homes shall use fixed-type wiring methods and materials for connecting such units to each other.

(b) Expandable or multiple unit manufactured homes not having permanently installed feeders and which are to be moved from one location to another, shall be permitted to have disconnecting means with branch circuit protective equipment in each unit when so located that after assembly or joining together of units the requirements of § 3280.803 will be met.

**§ 3280.813 Outdoor outlets, fixtures, air-conditioning equipment, etc.**

(a) Outdoor fixtures and equipment shall be listed for use in wet locations, except that if located on the underside of the home or located under roof extensions or similarly protected locations, they may be listed for use in damp locations.

(b) A manufactured home provided with an outlet designed to energize heating and/or air conditioning equipment located outside the manufactured home, shall have permanently affixed, adjacent to the outlet, a metal tag which reads:

This Connection Is for Air Conditioning Equipment Rated at Not More Than \_\_\_\_\_ Amperes, at \_\_\_\_\_ Volts, 60 Hertz. A disconnect shall be located within sight of the appliance.

The correct voltage and ampere ratings shall be given. The tag shall not be less than 0.020 inch, etched Brass, stainless steel, anodized or alclad aluminum or equivalent or other approved material (e.g., .005 inch plastic laminates). The tag shall be not less than 3 inches by 1¾ inches minimum size.

[40 FR 58752, Dec. 18, 1975, as amended at 42 FR 961, Jan. 4, 1977. Redesignated at 44 FR 20679, Apr. 6, 1979, as amended at 58 FR 55021, Oct. 25, 1993]

**§ 3280.814 Painting of wiring.**

During painting or staining of the manufactured home, it shall be permitted to paint metal raceways (except where grounding continuity would be reduced) or the sheath of the non-metallic cable. Some arrangement,

however, shall be made so that no paint shall be applied to the individual wires, as the color coding may be obliterated by the paint.

**§ 3280.815 Polarization.**

(a) The identified (white) conductor shall be employed for grounding circuit conductors only and shall be connected to the identified (white) terminal or lead on receptacle outlets and fixtures. It shall be the unswitched wire in switched circuits, except that a cable containing an identified conductor (white) shall be permitted for single-pole three-way or four-way switch loops where the connections are made so that the unidentified conductor is the return conductor from the switch to the outlet. Painting of the terminal end of the wire shall not be required.

(b) If the identified (white) conductor of a cable is used for other than grounded conductors or for other than switch loops as explained above (for a 240 volt circuit for example), the conductor shall be finished in a color other than white at each outlet where the conductors are visible and accessible.

(c) Green-colored wires or green with yellow stripe shall be used for grounding conductors only.

[40 FR 58752, Dec. 18, 1975. Redesignated at 44 FR 20679, Apr. 6, 1979, as amended at 58 FR 55021, Oct. 25, 1993]

**§ 3280.816 Examination of equipment for safety.**

The examination or inspection of equipment for safety, according to this standard, shall be conducted under uniform conditions and by organizations properly equipped and qualified for experimental testing, inspections of the run of goods at factories, and service-value determinations through field examinations.

**Subpart J—Transportation****§ 3280.901 Scope.**

Subpart J of this standard covers the general requirement for designing the structure of the manufactured home to fully withstand the adverse effects of transportation shock and vibration without degradation of the integrated structure or of its component parts and the specific requirements pertaining to

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the transportation system and its relationship to the structure.

**§ 3280.902 Definitions.**

(a) *Chassis* means the entire transportation system comprising the following subsystems: drawbar and coupling mechanism, frame, running gear assembly, and lights.

(b) *Drawbar and coupling mechanism* means the rigid assembly, (usually an A frame) upon which is mounted a coupling mechanism, which connects the manufactured home's frame to the towing vehicle.

(c) *Frame* means the fabricated rigid substructure which provides considerable support to the affixed manufactured home structure both during transport and on-site; and also provides a platform for securement of the running gear assembly, the drawbar and coupling mechanism.

(d) *Running gear assembly* means the subsystem consisting of suspension springs, axles, bearings, wheels, hubs, tires, and brakes, with their related hardware.

(e) *Lights* means those safety lights and associated wiring required by applicable U.S. Department of Transportation regulations.

(f) *Transportation system*, (Same as chassis, above).

(g) *Highway*, includes all roads and streets to be legally used in transporting the manufactured home.

[40 FR 58752, Dec. 18, 1975. Redesignated at 44 FR 20679, Apr. 6, 1979, as amended at 47 FR 28093, June 29, 1982]

**§ 3280.903 General requirements for designing the structure to withstand transportation shock and vibration.**

(a) The cumulative effect of highway transportation shock and vibration upon a manufactured home structure may result in incremental degradation of its designed performance in terms of providing a safe, healthy and durable dwelling. Therefore, the manufactured home shall be designed, in terms of its structural, plumbing, mechanical and electrical systems, to fully withstand such transportation forces during its intended life. (See §§ 3280.303(c) and 3280.305(a)).

(b) Particular attention shall be given to maintaining watertight integrity and conserving energy by assuring that structural components in the roof and walls (and their interfaces with vents, windows, doors, etc.) are capable of resisting highway shock and vibration forces during primary and subsequent secondary transportation moves.

(c) In place of an engineering analysis, either of the following may be accepted:

(1) Documented technical data of suitable highway tests which were conducted to simulate transportation loads and conditions; or

(2) Acceptable documented evidence of actual transportation experience which meets the intent of this subpart.

**§ 3280.904 Specific requirements for designing the transportation system.**

(a) *General*. The entire system (frame, drawbar and coupling mechanism, running gear assembly, and lights) shall be designed and constructed as an integrated, balanced and durable unit which is safe and suitable for its specified use during the intended life of the manufactured home. In operation, the transportation system (supporting the manufactured home structure and its contents) shall effectively respond to the control of the braking, while traveling at applicable towing vehicle in terms of tracking and highway speeds and in normal highway traffic conditions.

NOTE: While the majority of manufactured homes utilize a fabricated steel frame assembly, upon which the manufactured home structure is constructed, it is not the intent of this standard to limit innovation. Therefore, other concepts, such as integrating the frame function into the manufactured home structure, are acceptable provided that such design meets the intent and requirements of this part).

(b) *Specific requirements*—(1) *Drawbar*. The drawbar shall be constructed of sufficient strength, rigidity and durability to safely withstand those dynamic forces experienced during highway transportation. It shall be securely fastened to the manufactured home frame by either a continuous weld or by bolting.

(2) *Coupling mechanism*. The coupling mechanism (which is usually of the