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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.

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§ 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