

**Subpart C—Specific Requirements for Tier I Passenger Equipment**

**§ 238.201 Scope/alternative compliance.**

(a) *Scope.* (1) This subpart contains requirements for railroad passenger equipment operating at speeds not exceeding 125 miles per hour. As stated in § 238.229, all such passenger equipment remains subject to the safety appliance requirements contained in Federal statute at 49 U.S.C. chapter 203 and in FRA regulations at part 231 and § 232.2 of this chapter. Unless otherwise specified, these requirements only apply to passenger equipment ordered on or after September 8, 2000 or placed in service for the first time on or after September 9, 2002.

(2) The structural standards of this subpart (§ 238.203-static end strength; § 238.205-anti-climbing mechanism; § 238.207-link between coupling mechanism and car body; § 238.209-forward-facing end structure of locomotives; § 238.211-collision posts; § 238.213-corner posts; § 238.215-rollover strength; § 238.217-side structure; § 238.219 -truck-to-car-body attachment; and § 238.223-locomotive fuel tanks) do not apply to passenger equipment if used exclusively on a rail line:

- (i) With no public highway-rail grade crossings;
- (ii) On which no freight operations occur at any time;
- (iii) On which only passenger equipment of compatible design is utilized; and
- (iv) On which trains operate at speeds not exceeding 79 mph.

(b) *Alternative compliance.* Passenger equipment of special design shall be deemed to comply with this subpart, other than § 238.203, for the service environment in which the petitioner proposes to operate the equipment if the FRA Associate Administrator for Safety determines under paragraph (c) of this section that the equipment provides at least an equivalent level of safety in such environment with respect to the protection of its occupants from serious injury in the case of a derailment or collision. In making a determination under paragraph (c) the Associate Administrator shall consider, as a whole, all of those elements

of casualty prevention or mitigation relevant to the integrity of the equipment that are addressed by the requirements of this subpart.

(c)(1) The Associate Administrator may only make a finding of equivalent safety and compliance with this subpart, other than § 238.203, based upon a submission of data and analysis sufficient to support that determination. The petition shall include:

- (i) The information required by § 238.21(c);
- (ii) Information, including detailed drawings and materials specifications, sufficient to describe the actual construction of the equipment of special design;
- (iii) Engineering analysis sufficient to describe the likely performance of the equipment in derailment and collision scenarios pertinent to the safety requirements for which compliance is required and for which the equipment does not conform to the specific requirements of this subpart; and
- (iv) A quantitative risk assessment, incorporating the design information and engineering analysis described in this paragraph, demonstrating that the equipment, as utilized in the service environment for which recognition is sought, presents no greater hazard of serious personal injury than equipment that conforms to the specific requirements of this subpart.

(2) Any petition made under this paragraph is subject to the procedures set forth in § 238.21, and will be disposed of in accordance with § 238.21(g).

[64 25660, May 12, 1999, as amended at 67 FR 19990, Apr. 23, 2002]

**§ 238.203 Static end strength.**

(a)(1) Except as further specified in this paragraph or in paragraph (d), on or after November 8, 1999 all passenger equipment shall resist a minimum static end load of 800,000 pounds applied on the line of draft without permanent deformation of the body structure.

(2) For a passenger car or a locomotive, the static end strength of unoccupied volumes may be less than 800,000 pounds if:

- (i) Energy absorbing structures are used as part of a crash energy management design of the passenger car or locomotive, and