§ 238.205 (a) Such passenger equipment also complies with the requirements of this section.

§ 238.209 Forward end structure of locomotives, including cab cars and MU locomotives.

(a)(1) The skin covering the forward-facing end of each locomotive, including a cab car and an MU locomotive, shall be:
   (i) Equivalent to a 1⁄2-inch steel plate with a yield strength of 25,000 pounds-per-square-inch—material of a higher yield strength may be used to decrease the required thickness of the material provided at least an equivalent level of strength is maintained;
   (ii) Designed to inhibit the entry of fluids into the occupied cab area of the equipment; and
   (iii) Affixed to the collision posts or other main vertical structural members of the forward end structure so as to add to the strength of the end structure.

(b) The requirements of this paragraph (a) do not apply to unoccupied passenger equipment operating in a passenger train, or to the rear end of a locomotive if the end is unoccupied by design.

§ 238.211 Collision posts.

(a) Except as further specified in this paragraph, paragraphs (b) through (d) of this section, and § 238.209(b)—

(b) Except for a locomotive that is constructed on or after January 1, 2009, and is subject to the requirements of subpart D of part 229 of this chapter, each locomotive, including a cab car and an MU locomotive, ordered on or after September 8, 2000, or placed in service for the first time on or after September 9, 2002, shall have at its forward end, in lieu of the structural protection described in paragraph (a) of this section, either:

(1) Two forward collision posts, located at approximately the one-third points laterally, each capable of withstanding:
   (i) A 500,000-pound longitudinal force at the point even with the top of the underframe, without exceeding the ultimate strength of the joint; and
   (ii) A 200,000-pound longitudinal force exerted 30 inches above the joint of the post to the underframe, without exceeding the ultimate strength; or

(2) An equivalent end structure that can withstand the sum of the forces that each collision post in paragraph (b)(1) of this section is required to withstand.

(c)(1) Each cab car and MU locomotive ordered on or after May 10, 2010, or placed in service for the first time on or after March 8, 2012, shall have at its forward end, in lieu of the structural protection described in paragraphs (a) and (b) of this section, two forward collision posts, located at approximately the one-third points laterally, meeting the requirements set