

- 238.423 Fuel tanks.
- 238.425 Electrical system.
- 238.427 Suspension system.
- 238.429 Safety appliances.
- 238.431 Brake system.
- 238.433 Draft system.
- 238.435 Interior fittings and surfaces.
- 238.437 Emergency communication.
- 238.439 Doors.
- 238.441 Emergency roof entrance location.
- 238.443 Headlights.
- 238.445 Automated monitoring.
- 238.447 Train operator's controls and power car cab layout.

FIGURE 1 TO SUBPART E—POWER CAR CAB FORWARD END STRUCTURE CONCEPTUAL IMPLEMENTATION

FIGURE 2 TO SUBPART E—POWER CAR CAB REAR END STRUCTURE CONCEPTUAL IMPLEMENTATION

FIGURE 3 TO SUBPART E—TRAILER CAR END STRUCTURE CONCEPTUAL IMPLEMENTATION

FIGURE 4 TO SUBPART E—TRAILER CAR INBOARD VESTIBULE END STRUCTURE CONCEPTUAL IMPLEMENTATION

#### **Subpart F—Inspection, Testing, and Maintenance Requirements for Tier II Passenger Equipment**

- 238.501 Scope.
- 238.503 Inspection, testing, and maintenance requirements.
- 238.505 Program approval procedure.

#### **Subpart G—Specific Safety Planning Requirements for Tier II Passenger Equipment**

- 238.601 Scope.
- 238.603 Safety planning requirements.
- APPENDIX A TO PART 238—SCHEDULE OF CIVIL PENALTIES
- APPENDIX B TO PART 238—TEST METHODS AND PERFORMANCE CRITERIA FOR THE FLAMMABILITY AND SMOKE EMISSION CHARACTERISTICS OF MATERIALS USED IN PASSENGER CARS AND LOCOMOTIVE CABS
- APPENDIX C TO PART 238—SUSPENSION SYSTEM SAFETY PERFORMANCE STANDARDS
- APPENDIX D TO PART 238—REQUIREMENTS FOR EXTERNAL FUEL TANKS ON TIER I LOCOMOTIVES
- APPENDIX E TO PART 238—GENERAL PRINCIPLES OF RELIABILITY-BASED MAINTENANCE PROGRAMS

AUTHORITY: 49 U.S.C. 20103, 20107, 20133, 20141, 20302-20303, 20306, 20701-20702, 21301-21302, 21304; 28 U.S.C. 2461, note; and 49 CFR 1.49.

SOURCE: 64 FR 25660, May 12, 1999, unless otherwise noted.

### **Subpart A—General**

#### **§ 238.1 Purpose and scope.**

(a) The purpose of this part is to prevent collisions, derailments, and other occurrences involving railroad passenger equipment that cause injury or death to railroad employees, railroad passengers, or the general public; and to mitigate the consequences of such occurrences to the extent they cannot be prevented.

(b) This part prescribes minimum Federal safety standards for railroad passenger equipment. This part does not restrict a railroad from adopting and enforcing additional or more stringent requirements not inconsistent with this part.

(c) Railroads to which this part applies shall be responsible for compliance with all of the requirements contained in §§ 238.15, 238.17, 238.19, 238.107, 238.109, and subpart D of this part effective January 1, 2002.

(1) A railroad may request earlier application of the requirements contained in §§ 238.15, 238.17, 238.19, 238.107, 238.109, and subpart D upon written notification to FRA's Associate Administrator for Safety. Such a request shall indicate the railroad's readiness and ability to comply with all of the provisions referenced in paragraph (c) introductory text of this section.

(2) Except for paragraphs (b) and (c) of § 238.309, a railroad may specifically request earlier application of the maintenance and testing provisions contained in §§ 238.309 and 238.311 simultaneously. In order to request earlier application of these two sections, the railroad shall indicate its readiness and ability to comply with all of the provisions contained in both of those sections.

(3) Paragraphs (b) and (c) of § 238.309 apply beginning September 9, 1999.

[64 FR 25660, May 12, 1999, as amended at 65 FR 41305, July 3, 2000; 67 FR 19989, Apr. 23, 2002]

#### **§ 238.3 Applicability.**

(a) Except as provided in paragraph (c) of this section, this part applies to all:

(1) Railroads that operate intercity or commuter passenger train service on standard gage track which is part of

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the general railroad system of transportation; and

(2) Railroads that provide commuter or other short-haul rail passenger train service in a metropolitan or suburban area as described by 49 U.S.C. 20102(1), including public authorities operating passenger train service.

(b) Railroads that permit to be used or hauled on their lines passenger equipment subject to this part, in violation of a power brake provision of this part or a safety appliance provision of this part, are subject to the power brake and safety appliance provisions of this part with respect to such operations.

(c) This part does not apply to:

(1) Rapid transit operations in an urban area that are not connected to the general railroad system of transportation;

(2) A railroad that operates only on track inside an installation that is not part of the general railroad system of transportation;

(3) Tourist, scenic, historic, or excursion operations, whether on or off the general railroad system of transportation; or

(4) Circus trains.

### § 238.5 Definitions.

As used in this part—

*AAR* means the Association of American Railroads.

*APTA* means the American Public Transit Association.

*Actuator* means a device directly actuated by the movement of the brake cylinder piston which provides an indication of the piston travel.

*Administrator* means the Administrator of the Federal Railroad Administration or the Administrator's delegate.

*Alerter* means a device or system installed in the locomotive cab to promote continuous, active locomotive engineer attentiveness by monitoring select locomotive engineer-induced control activities. If fluctuation of a monitored locomotive engineer-induced control activity is not detected within a predetermined time, a sequence of audible and visual alarms is activated so as to progressively prompt a response by the locomotive engineer. Failure by the locomotive engineer to

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institute a change of state in a monitored control, or acknowledge the alerter alarm activity through a manual reset provision, results in a penalty brake application that brings the locomotive or train to a stop.

*Anti-climbing mechanism* means the parts at the ends of adjoining vehicles in a train that are designed to engage when subjected to large buff loads to prevent the override of one vehicle by another.

*Bind* means restrict the intended movement of one or more brake system components by obstruction, increased friction, or reduced clearance.

*Block of cars* means one car or multiple cars in a solid unit coupled together for the purpose of being added to, or removed from, a train as a solid unit.

*Brake, air or power brake* means a combination of devices operated by compressed air, arranged in a system, and controlled manually, electrically, or pneumatically, by means of which the motion of a rail car or locomotive is retarded or arrested.

*Brake, disc* means a retardation system used on some rail vehicles, primarily passenger equipment, that utilizes flat metal discs as the braking surface instead of the wheel tread.

*Brake, dynamic* means a train braking system whereby the kinetic energy of a moving train is used to generate electric current at the locomotive traction motors, which is then dissipated through banks of resistor grids or back into the catenary or third rail system.

*Brake, effective* means a brake that is capable of producing its required designed retarding force on the train. A brake is not effective if its piston travel is in excess of the maximum prescribed limits. On vehicles equipped with nominal 12-inch stroke brake cylinders, the brake is not effective if its piston travel exceeds 10½ inches.

*Brake indicator* means a device, actuated by brake cylinder pressure, which indicates whether brakes are applied or released.

*Brake, inoperative* means a primary brake that, for any reason, no longer applies or releases as intended or is otherwise ineffective.

*Brake, on-tread friction* means a braking system that uses a brake shoe that