

Unless specifically excepted or modified in this section, all of the other requirements contained in this part are applicable to a freight car or freight train equipped with an ECP brake system.

§ 232.603 Design, interoperability, and configuration management requirements.

(a) *General.* A freight car or freight train equipped with an ECP brake system shall, at a minimum, meet the Association of American Railroads (AAR) standards contained in the AAR Manual of Standards and Recommended Practices related to ECP brake systems listed below; an alternate standard approved by FRA pursuant to § 232.17; or a modified standard approved in accordance with the provisions contained in paragraph (f) of this section. The incorporation by reference of the AAR standards identified in this section was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the incorporated documents may be obtained from the Association of American Railroads, 50 F Street, NW., Washington, DC 20001, 202-639-2100, www.aar.org. You may inspect a copy at the Federal Railroad Administration, 1200 New Jersey Avenue, SE., Washington, DC, 202-493-6300 or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. The applicable standards, which are incorporated into this regulation by reference, include the following:

(1) AAR S-4200, "Electronically Controlled Pneumatic (ECP) Cable-Based Brake Systems—Performance Requirements," (Adopted 1999; Revised: 2002, 2004, 2008);

(2) AAR S-4210, "ECP Cable-Based Brake System Cable, Connectors, and Junction Boxes—Performance Specifications," (Adopted: 1999; Revised 2002, 2007);

(3) AAR S-4220, "ECP Cable-Based Brake DC Power Supply—Performance Specification," Version 2.0 (Adopted: 1999; Revised: 2002);

(4) AAR S-4230, "Intratrain Communication (ITC) Specification for Cable-Based Freight Train Control System," Version 3.0 (Adopted: 1999; Revised: 2002, 2004);

(5) AAR S-4240, "ECP Brake Equipment—Approval Procedure" (Adopted: 2007);

(6) AAR S-4250, "Performance Requirements for ITC Controlled Cable-Based Distributed Power Systems," Version 2.0 (Adopted: 2003; Revised: 2004);

(7) AAR S-4260, "ECP Brake and Wire Distributed Power Interoperability Test Procedures" (Adopted: 2007); and

(8) AAR S-4270, "ECP Brake System Configuration Management" (Adopted: 2008).

(b) *Approval.* A freight train or freight car equipped with an ECP brake system and equipment covered by the AAR standards incorporated by reference in this section shall not be used without conditional or final approval by AAR in accordance with AAR Standard S-4240, "ECP Brake Equipment—Approval Procedures" (2007).

(c) *Configuration management.* A railroad operating a freight train or freight car equipped with ECP brake systems shall adopt and comply with the configuration management plan developed in accordance with the AAR standards incorporated by reference in this section. FRA reserves the right to audit a manufacturer's configuration management plan at any time.

(d) *Exceptions.* (1) A freight car or freight train equipped with a stand-alone ECP brake system shall be excepted from the requirement in § 232.103(1) referencing AAR Standard S-469-47, "Performance Specification for Freight Brakes."

(2) The provisions addressing the introduction of new brake system technology contained in subpart F of this part are not applicable to a freight car or freight train equipped with an ECP brake system approved by AAR in accordance with paragraph (b) of this section, conditionally or otherwise, as of the effective date of this rule.

(e) *New technology.* Upon written request supported by suitable justification and submitted pursuant to the special approval procedures in § 232.17,

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the Associate Administrator may except from the requirements of subpart F of this part the testing of new ECP brake technology, demonstration of new ECP brake technology, or both, where testing or demonstration, or both, will be conducted pursuant to an FRA-recognized industry standard and FRA is invited to monitor the testing or demonstration, or both.

(f) *Modification of standards.* The AAR or other authorized representative of the railroad industry may seek modification of the industry standards identified in or approved pursuant to paragraph (a) of this section. The request for modification will be handled and shall be submitted in accordance with the modification procedures contained in § 232.307.

§ 232.605 Training requirements.

(a) *Inspection, testing and maintenance.* A railroad that operates a freight car or freight train equipped with an ECP brake system and each contractor that performs inspection, testing, or maintenance on a freight car or freight train equipped with an ECP brake system shall adopt and comply with a training, qualification, and designation program for its employees that perform inspection, testing or maintenance of ECP brake systems. The training program required by this section shall meet the requirements in §§ 232.203(a), (b), (e), and (f).

(b) *Operating rules.* A railroad operating a freight train or freight car equipped with an ECP brake system shall amend its operating rules to govern safe train handling procedures related to ECP brake systems and equipment under all operating conditions and shall tailor its operating rules to the specific equipment and territory of the railroad.

(c) *Locomotive engineers.* A railroad operating a freight car or freight train equipped with an ECP brake system shall adopt and use in its training program under part 240 specific knowledge, skill, and ability criteria to ensure that its locomotive engineers are fully trained with the operating rules governing safe train handling procedures related to ECP brake systems and equipment under all operating conditions and tailored to the specific

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equipment and territory of the railroad.

§ 232.607 Inspection and testing requirements.

(a) *Trains at initial terminal.* A freight train operating in ECP brake mode shall receive the following inspections at its point of origin (initial terminal):

(1) A Class I brake test as described in § 232.205(c) by a qualified mechanical inspector (QMI); and

(2) A pre-departure inspection pursuant to part 215 of this chapter by an inspector designated under § 215.11 of this chapter.

(b) *Trains en route.* (1) Except for a unit or cycle train, a train operating in ECP brake mode shall not operate a distance that exceeds its destination or 3,500 miles, whichever is less, unless inspections meeting the requirements of paragraph (a) of this section are performed on the train.

(2) A unit or cycle train operating in ECP brake mode shall receive the inspections required in paragraph (a) of this section at least every 3,500 miles.

(3) The greatest distance that any car in a train has traveled since receiving a Class I brake test by a qualified mechanical inspector will determine the distance that the train has traveled.

(4) A freight train operating in ECP brake mode shall receive a Class I brake test as described in § 232.205(c) by a qualified person at a location where the train is off air for a period of more than:

(i) 24 hours, or

(ii) 80 hours, if the train remains inaccessible to the railroad and in an extended-off-air facility. For the purpose of this section, an extended-off-air facility means a location controlled by a sole shipper or consignee which restricts access to the train and provides sufficient security to deter vandalism.

(c) *Cars added en route.* (1) Each freight car equipped with an ECP brake system that is added to a freight train operating in ECP brake mode shall receive a Class I brake test as described in § 232.205(c) by a qualified person, unless all of the following are met:

(i) The car has received a Class I brake test by a qualified mechanical inspector within the last 3,500 miles;