§ 232.501 Scope.

This subpart contains general requirements for introducing new brake system technologies. This subpart is intended to facilitate the introduction of new complete brake system technologies or major upgrades to existing systems which the current regulations do not adequately address (i.e., electronic brake systems). This subpart is not intended for use in the introduction of a new brake component or material.

§ 232.503 Process to introduce new brake system technology.

(a) Pursuant to the procedures contained in §232.17, each railroad shall obtain special approval from the FRA Associate Administrator for Safety of a pre-revenue service acceptance testing plan, developed pursuant to §232.505, for the new brake system technology, prior to implementing the plan.

(b) Each railroad shall complete a pre-revenue service demonstration of the new brake system technology in accordance with the approved plan, shall fulfill all of the other requirements prescribed in §232.505, and shall obtain special approval from the FRA Associate Administrator for Safety under the procedures of §232.17 prior to using such brake system technology in revenue service.

§ 232.505 Pre-revenue service acceptance testing plan.

(a) General; submission of plan. Except as provided in paragraph (f) of this section, before using a new brake system technology for the first time on its system the operating railroad or railroads shall submit a pre-revenue service acceptance testing plan containing the information required by paragraph (e) of this section and obtain the approval of the FRA Associate Administrator for Safety under the procedures specified in §232.17.

(b) Compliance with plan. After receiving FRA approval of the pre-revenue service testing plan and before introducing the new brake system technology into revenue service, the operating railroad or railroads shall:

1. Adopt and comply with such FRA-approved plan, including fully executing the tests required by the plan;
2. Report to the FRA AssociateAdministrator for Safety the results of the pre-revenue service acceptance tests;
3. Correct any safety deficiencies identified by FRA in the design of the equipment or in the inspection, testing, and maintenance procedures or, if safety deficiencies cannot be corrected by design or procedural changes, agree to comply with any operational limitations that may be imposed by the Associate Administrator for Safety on the revenue service operation of the equipment; and
4. Obtain FRA approval to place the new brake system technology in revenue service.

(c) Compliance with limitations. The operating railroad shall comply with each operational limitation, if any, imposed by the Associate Administrator for Safety.

(d) Availability of plan. The plan shall be made available to FRA for inspection and copying upon request.

(e) Elements of plan. The plan shall include all of the following elements:
1. An identification of each waiver, if any, of FRA or other Federal safety regulations required for the tests or for revenue service operation of the equipment.
2. A clear statement of the test objectives. One of the principal test objectives shall be to demonstrate that the equipment meets the safety design and performance requirements specified in this part when operated in the environment in which it is to be used.
3. A planned schedule for conducting the tests.
4. A description of the railroad property or facilities to be used to conduct the tests.
5. A detailed description of how the tests are to be conducted. This description shall include:
   (i) An identification of the equipment to be tested;
   (ii) The method by which the equipment is to be tested;
   (iii) The criteria to be used to evaluate the equipment’s performance; and
   (iv) The means by which the test results are to be reported to FRA.
§ 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...