

(e) The air pressure sensor contained in the end-of-train device must be tested by the processes and frequency identified in §229.27 or by manufacturer specifications approved under §232.307. The date and location of the test and the name or unique employee identifier of the person performing the test must be legibly displayed on a weather-resistant marking device affixed to the outside of the unit.

(f) Each manufacturer of telemetry transceiver equipment must either:

(1) Establish and communicate publicly to its customers a reasonable recommended calibration period; or

(2) Submit to FRA an annual report including:

(i) The total number of transceivers—itemized by model name, number, or type—sold to date;

(ii) The number of transceivers that have been reported as inoperative or otherwise malfunctioning or returned for servicing; and

(iii) The number of transceivers reported or returned for service with frequency modulation or transmit power outside of either manufacturer's specifications or FCC-approved specifications.

[66 FR 4193, Jan. 17, 2001, as amended at 66 FR 29502, May 31, 2001; 67 FR 17584, Apr. 10, 2002; 85 FR 80574, Dec. 11, 2020]

Subpart F—Introduction of New Brake System Technology

§ 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 Associate Administrator 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