

specific procedures developed in accordance with the requirements related to the movement of defective equipment contained in this subpart. These procedures shall be made available to FRA upon request.

(2) Each railroad operating freight trains in ECP brake mode shall submit to FRA's Associate Administrator for Safety a list of locations on its system where ECP brake system repairs will be performed. A railroad shall notify FRA's Associate Administrator for Safety in writing 30 days prior to any change in the locations designated for such repairs. A sufficient number of locations shall be identified to ensure compliance with the requirements related to the handling of defective equipment contained in this part.

(k) *Exceptions:* All freight cars and trains that are specifically identified, operated, and handled in accordance with this section are excepted from the movement of defective equipment requirements contained in §232.15(a)(2), (a)(5) through (a)(8), and 232.103(d) and (e).

**§ 232.611 Periodic maintenance.**

(a) In addition to the maintenance requirements contained in §232.303(b) through (d), a freight car equipped with an ECP brake system shall be inspected and repaired before being released from a shop or repair track to ensure the proper and safe condition of the following:

- (1) ECP brake system wiring and brackets;
- (2) ECP brake system electrical connections; and
- (3) Car mounted ECP brake system components.

(b) *Single car air brake test procedures.* Prior to placing a freight car equipped with an ECP brake system into revenue service, a railroad or a duly authorized representative of the railroad industry shall submit a procedure for conducting periodic single car air brake tests to FRA for its approval pursuant to §232.17.

(c) Except as provided in §232.303(e), a single car air brake test conducted in accordance with the procedure submitted and approved in accordance with paragraph (b) of this section shall be performed by a qualified person on a

freight car equipped with an ECP brake system whenever any of the events identified in §232.305 occur, except for those paragraphs identified in paragraph (f) of this section.

(d) A single car air brake test conducted in accordance with the procedure submitted and approved in accordance with paragraph (b) of this section shall be performed by a qualified person on each freight car retrofitted with a newly installed ECP brake system prior to placing or using the car in revenue service.

(e) *Modification of single car test standard.* A railroad or a duly authorized representative of the railroad industry may seek modification of the single car test standard approved in accordance with paragraph (b) of this section. The request for modification will be handled and shall be submitted in accordance with the modification procedures contained in §232.307.

(f) *Exceptions.* A freight car equipped with a stand-alone or dual mode ECP brake system is excepted from the single car air brake test procedures contained in §232.305(a). A freight car equipped with a stand-alone ECP brake system is excepted from the single car test requirements contained in §232.305(b)(2).

(g) For purposes of paragraphs (c) and (d) of this section, if a single car air brake test is conducted on a car prior to June 15, 2009, pursuant to the then existing AAR standards, it shall be considered the last single car air brake test for that car, if necessary.

**§ 232.613 End-of-train devices.**

(a) An ECP–EOT device shall, at a minimum, serve as the final node on the ECP brake circuit, provide a cable terminal circuit, and monitor, confirm, and report train, brake pipe, and train line cable continuity, cable voltage, brake pipe pressure, and the status of the ECP–EOT device battery charge. The ECP–EOT device shall transmit a status message (EOT Beacon) at least once per second, contain a means of communicating with the HEU, and be equipped with a brake pipe pressure transducer and a battery that charges from the train line cable.

(b) A railroad shall not move or use a freight train equipped with an ECP