

§ 234.259

placed in service. Thereafter, it shall be tested at least once each month and whenever modified or disarranged.

(b) Warning bells or other stationary audible warning devices shall be tested when installed to determine that they function as intended. Thereafter, they shall be tested at least once each month and whenever modified or disarranged.

§ 234.259 Warning time.

Each crossing warning system shall be tested for the prescribed warning time at least once every 12 months and when the warning system is modified because of a change in train speeds. Electronic devices that accurately determine actual warning time may be used in performing such tests.

§ 234.261 Highway traffic signal pre-emption.

Highway traffic signal pre-emption interconnections, for which a railroad has maintenance responsibility, shall be tested at least once each month.

§ 234.263 Relays.

(a) Except as stated in paragraph (b) of this section, each relay that affects the proper functioning of a crossing warning system shall be tested at least once every four years.

(b)(1) Alternating current vane type relays, direct current polar type relays, and relays with soft iron magnetic structure shall be tested at least once every two years.

(2) Alternating current centrifugal type relays shall be tested at least once every 12 months.

(c) Testing of relays requiring testing on four year intervals shall be completed in accordance with the following schedule:

(1) Not less than 50% by the end of calendar year 1996;

(2) Not less than a total of 75% by the end of calendar year 1997; and

(3) One hundred percent by the end of calendar year 1998.

(d) Testing of relays requiring testing on two year intervals shall be completed by the end of calendar year 1996.

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§ 234.265 Timing relays and timing devices.

Each timing relay and timing device shall be tested at least once every twelve months. The timing shall be maintained at not less than 90 percent nor more than 110 percent of the predetermined time interval. The predetermined time interval shall be shown on the plans or marked on the timing relay or timing device. Timing devices which perform internal functions associated with motion detectors, motion sensors, and grade crossing predictors are not subject to the requirements of this section.

§ 234.267 Insulation resistance tests, wires in trunking and cables.

(a) Insulation resistance tests shall be made when wires or cables are installed and at least once every ten years thereafter.

(b) Insulation resistance tests shall be made between all conductors and ground, between conductors in each multiple conductor cable, and between conductors in trunking. Insulation resistance tests shall be performed when wires, cables, and insulation are dry.

(c) Subject to paragraph (d) of this section, when insulation resistance of wire or cable is found to be less than 500,000 ohms, prompt action shall be taken to repair or replace the defective wire or cable. Until such defective wire or cable is replaced, insulation resistance tests shall be made annually.

(d) A circuit with a conductor having an insulation resistance of less than 200,000 ohms shall not be used.

(e) Required insulation resistance testing that does not conform to the required testing schedule of this section shall be completed in accordance with the following schedule:

(1) Not less than 50% by the end of calendar year 1996;

(2) Not less than a total of 75% by the end of calendar year 1997; and

(3) One hundred percent by the end of calendar year 1998.

§ 234.269 Cut-out circuits.

Each cut-out circuit shall be tested at least once every three months to determine that the circuit functions as intended. For purposes of this section, a cut-out circuit is any circuit which

overrides the operation of automatic warning systems. This includes both switch cut-out circuits and devices which enable personnel to manually override the operation of automatic warning systems.

§ 234.271 Insulated rail joints, bond wires, and track connections.

Insulated rail joints, bond wires, and track connections shall be inspected at least once every three months.

§ 234.273 Results of inspections and tests.

(a) Results of inspections and tests made in compliance with this part shall be recorded on forms provided by the railroad, or by electronic means, subject to approval by the Associate

Administrator for Safety. Each record shall show the name of the railroad, AAR/DOT inventory number, place and date, equipment tested, results of tests, repairs, replacements, adjustments made, and condition in which the apparatus was left.

(b) Each record shall be signed or electronically coded by the employee making the test and shall be filed in the office of a supervisory official having jurisdiction. Records required to be kept shall be made available to FRA as provided by 49 U.S.C. 20107 (formerly § 208 of the Federal Railroad Safety Act of 1970 (45 U.S.C. 437)).

(c) Each record shall be retained until the next record for that test is filed but in no case for less than one year from the date of the test.

APPENDIX A TO PART 234—SCHEDULE OF CIVIL PENALTIES¹

Section	Violation	Willful violation
Subpart B—Reports		
234.7 Accidents involving grade crossing signal failure	\$5,000	\$7,500
234.9 Grade crossing signal system failure reports	2,500	5,000
Subpart C—Response to Reports of Warning System Malfunction		
Sec.		
234.101 Employee notification rules	2,500	5,000
234.103 Timely response to report of malfunction	2,500	5,000
234.105 Activation failure		
(a) Failure to notify—train crews	5,000	7,500
Other railroads	5,000	7,500
(b) Failure to notify law enforcement agency	2,500	5,000
(c) Failure to comply with—flagging requirements	5,000	5,000
Speed restrictions	5,000	7,500
(d) Failure to activate horn or whistle	5,000	7,500
234.106 Partial activation		
(a) Failure to notify—train crews	5,000	7,500
Other railroads	5,000	7,500
(b) Failure to notify law enforcement agency	2,500	5,000
(c) Failure to comply with—flagging requirements speed restrictions	5,000	7,500
(d) Failure to activate horn or whistle	5,000	7,500
234.107 False activation		
(a) Failure to notify—train crews	5,000	7,500
Other railroads	5,000	7,500
(b) Failure to notify law enforcement agency	2,500	5,000
(c) Failure to comply with—flagging requirements	5,000	7,500
Speed restrictions	5,000	7,500
(d) Failure to activate horn or whistle	5,000	7,500
234.109 Recordkeeping	1,000	2,000
Subpart D—Maintenance, Inspection, and Testing		
Maintenance Standards:		
234.201 Location of plans	1,000	2,000
234.203 Control circuits	1,000	2,000
234.205 Operating characteristics of warning system apparatus	2,500	5,000
234.207 Adjustment, repair, or replacement of component	2,500	5,000
234.209 Interference with normal functioning of system	5,000	7,500
234.211 Locking of warning system apparatus	1,000	2,000
234.213 Grounds	1,000	2,000
234.215 Standby power system	5,000	7,500
234.217 Flashing light units	1,000	2,000
234.219 Gate arm lights and light cable	1,000	2,000
234.221 Lamp voltage	1,000	2,000
234.223 Gate arm	1,000	2,000
234.225 Activation of warning system	5,000	7,500