

S-96-05
Federal Railroad Administration
Technical Bulletin

Date: November 21, 1996
Reply to Attn of: S-96-05
Subject: 49 CFR §236.110
Revision of Interpretation and Application
From: E. R. English
Director, Office of Safety Assurance and Compliance
To: All Regional Administrators, Deputy Regional Administrators,
S&TC Specialists and S&TC Inspectors

The S&TC Technical Resolution Committee meeting in Portland, Oregon the week of July 22, 1996, acted on a request for clarification of the application, interpretation, and enforcement of 49 CFR Section 236.110, by defining the minimum information required for recording the results of various tests required by other sections of this rule.

The Committee considered industry practices, the history of the regulations, and FRA's past practices and interpretations.

Following are the clarifications that were adopted by the committee:

Rule	Requirements
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236.102	Location; Signal number where installed; Type or model of signal mechanism; Serial number of signal mechanism; Results of test shall be the working values for semaphore signals - pickup and release values of slots and current values for operation of motor, and for searchlight signals - the values of pickup and release to both normal and reverse positions; When any adjustment, repair or replacement is made, such action must be noted on report; Condition in which equipment is left; and date of test.
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Rule	Requirements
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236.103	Location; Switch number or milepost of each switch tested; Type of switch (hand- operated, power, derail, etc.); Results of test shall indicate the test is complete and switch circuit controller or point detector is in proper adjustment. Such results may be recorded by using codes which are defined on the report form; When any adjustment, repair, or replacement is made, such action must be noted on the report; Condition in which equipment is left; and date of test.
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236.104	Location; Switch number or milepost of each switch tested; Results of test shall indicate the fouling or shunt wires meet the requirements of section 236.57; Such results may be recorded by using codes which are defined on the report form; When
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adjustments, repairs, or replacements are made, such actions must be noted on the report; Condition in which equipment is left; and date of test.

236.105 Location; Switch number or nomenclature of electric lock; Manufacturer or model/type; Serial number; results of test (Pickup and release values); When any adjustment, repair or replacement is made, such action must be noted on the report; Condition in which equipment is left; and date of test.

236.106 Location; Nomenclature of relay; Manufacturer or model/type; Serial number; Results of test (pick-up and release values or working values where pick-up and release are not applicable); Condition in which equipment is left; and date of test.

236.107 Location; Each energy buss tested shall be recorded; Results of test shall indicate the test is complete and the energy bus is free of grounds in excess of the requirements of 236.2. Such results may be recorded by using codes which are defined on the report form; When ground is detected during tests, corrective action taken must be noted on report; Condition in which equipment is left; and date of test.

236.108 Location; Each cable tested; Results of tests shall be recorded to indicate that all wires in trunking and cable measure 500,000 ohms or more. Such results may be recorded by using codes which are defined on the report form; When the insulation resistance of any conductor in use is found to be below 500,000 ohms, such cable and conductor shall be identified and the value of the insulation resistance of that conductor shall be recorded; and date of test.

236.109 Location; Time release, timing relay or device name; Predetermined time; Actual time measured; When any adjustment, repair or replacement is made, such action must be recorded; Condition in which equipment is left; and date of test.

236.376 Location; Type of machine; Results of tests shall indicate that the locking is in compliance with the applicable sections of 236. Such results may be recorded by using codes which are defined on the report form; Adjustments, repairs, or replacements to machine must be recorded; Condition in which equipment is left; and date of test.

236.377 Location; Each approach circuit, signal or switch name; Results of test shall indicate the approach locking is effective for all track sections located in the approach. Such results may be recorded by using codes which are defined on the report form; Condition in which equipment is left; and date of test.

236.378 Location; Name of each time locking circuit tested; Results of test shall indicate that time locking circuit has been tested and is effective. Such results may be recorded by using codes which are defined on the report form; Condition in which equipment is left; and date of test.

236.379 Location; Circuit or signal; Each route tested; Results of test shall indicate that route locking is effective on each track section within the route tested. Such results may

be recorded by using codes which are defined on the report form; Condition in which equipment is left; and date of test.

236.380 Location; Lever, signal or switch number; Results of test shall indicate that the indication locking for that lever, signal or switch has been tested and is effective. Such results may be recorded by using codes which are defined on the report form; Condition in which the equipment is left; and date of test.

236.381 Location; Nomenclature of locking circuit tested; Direction; Results of test shall indicate that traffic locking is effective. Such results may be recorded by using codes which are defined on the report form; Condition in which the equipment is left; and date of test.

236.382 Location; Identity of switch, derail, or movable-point frog; Results of test shall indicate that switch, derail or movable-point frog was tested and does comply with Section 236.327. Such results may be recorded by using codes which are defined on the report form; When any adjustment, repair or replacement is made, such action shall be recorded; Condition in which the equipment is left; and date of test.

236.383 Location; Identity of switch, derail, or movable-point frog; Results of test of valve magnet shall be the pick-up and release values of valve magnet. Results of tests for valve lock function shall indicate that it has been tested and is effective. Such results may be recorded by using codes which are defined on the report form; When any adjustment, repair or replacement is made, such action shall be recorded; Condition in which the equipment is left; and date of test.

Note; FRA should conduct a survey to determine if any valve locks are still in service with the intention to remove the provision pertaining to valve locks.

236.384 Location; Number or identity of device tested; Results of test shall indicate that the device was tested and is effective. Such results may be recorded by using codes which are defined on the report form; When any adjustment, repair or replacement is made, such action shall be recorded; Condition in which the equipment is left; and date of test.

236.386 Location; Number or identity of switch, derail or movable point frog; Results of test shall indicate that the restoring feature was tested and functioned as intended. Such results may be recorded by using codes which are defined on the report form; When any adjustment, repair or replacement is made, such action shall be recorded; Condition in which the equipment is left; and date of test.

236.387 Location; Identity of bridge locking circuit tested; Results of test shall indicate that each circuit controller in the bridge locking circuit was tested and that the bridge locking circuit is effective. Such results may be recorded by using codes which are defined on the report form; When any adjustment, repair or replacement is made, such action shall be recorded; Condition in which the equipment is left; and date of test.

236.576 Location; Device tested (trip arm or inert inductor of ATS systems); Results of test shall indicate that insulation resistance to ground of inductor coil is at least 10,000 ohms, or that the valves and return springs of trip type systems function as intended. Condition in which the equipment is left; and date of test.

236.577 Location; Device tested; Circuit name, locomotive number if onboard device, or serial number if applicable; Results of test shall indicate the device functions as intended within the parameters specified by the manufacturer or railroad; When any adjustment, repair, or replacement is made, such action shall be recorded; Condition in which equipment is left; and date of test.

236.586 Location; Locomotive number; Type of device (ACS, ATS, ATC); The results of test shall be recorded to indicate the device tested meets the requirements of this part; Such results may be recorded by using codes which are defined on the report form; When system is noncoded ATS or ATC, the pickup value of the device shall also be recorded; When any adjustment, repair or replacement is made, such action shall be recorded; Condition in which equipment is left; Signature of individual making the test; and date and time of test.

236.587 Location; Locomotive number; That the test is properly performed; That the equipment is in service and working as intended; Signature of individual making the test; and date and time of test.

236.588 Location; Locomotive number; Type of system (ACS, ATS, ATC); Results of test shall be recorded to indicate that the device tested meets the requirements of this part (Recorded items shall include: Value of insulation resistance of cables and wire; Voltage of power supply; Pickup value to restore the device to normal condition; Release value of device where such device is part of a continuous noncoded system; Sensitivity of device where such device is part of an intermittent inductive ATS; Acknowledgment time; Delay time; Reset time of train stop or train control systems; and height of pickup devices of intermittent inductive ATS and continuous inductive systems having onboard test equipment and of tripper of mechanical trip stop systems); When any adjustment, repair or replacement is made, such action shall be recorded; Condition in which equipment is left; Signature of individual making test; and date of test.

236.589 Location; Model or type of relay; serial number; pickup and drop away of relay; signature of employee performing test; and date of test.