

§ 236.3

percent or more of the value necessary to retain a permissive state of a safety appliance.

(b) *Exception.* Paragraph (a) of this section does not apply to the following:

(1) Circuits that include any track rail;

(2) The common return wires of single-wire, single-break, and signal control circuits using a grounded common;

(3) Circuitry internal to micro-processor-based appliances;

(4) Circuitry internal to semiconductor-based memory; or

(5) Alternating current power distribution circuits that are grounded in the interest of safety.

[79 FR 49715, Aug. 22, 2014]

§ 236.3 Locking of signal apparatus housings.

Signal apparatus housings shall be secured against unauthorized entry.

[49 FR 3382, Jan. 26, 1984]

§ 236.4 Interference with normal functioning of device.

The normal functioning of any device shall not be interfered with in testing or otherwise without first taking measures to provide for safety of train operation which depends on normal functioning of such device.

[49 FR 3382, Jan. 26, 1984]

§ 236.5 Design of control circuits on closed circuit principle.

All control circuits the functioning of which affects safety of train operation shall be designed on the closed circuit principle, except circuits for roadway equipment of intermittent automatic train stop system.

§ 236.6 Hand-operated switch equipped with switch circuit controller.

Hand-operated switch equipped with switch circuit controller connected to the point, or with facing-point lock and circuit controller, shall be so maintained that when point is open one-fourth inch or more on facing-point switch and three-eighths inch or more on trailing-point switch, track or control circuits will be opened or shunted or both, and if equipped with facing-point lock with circuit controller, switch cannot be locked. On such hand-

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operated switch, switch circuit controllers, facing-point locks, switch-and-lock movements, and their connections shall be securely fastened in place, and contacts maintained with an opening of not less than one-sixteenth inch when open.

§ 236.7 Circuit controller operated by switch-and-lock movement.

Circuit controller operated by switch-and-lock movement shall be maintained so that normally open contacts will remain closed and normally closed contacts will remain open until the switch is locked.

§ 236.8 Operating characteristics of electromagnetic, electronic, or electrical apparatus.

Signal apparatus, the functioning of which affects the safety of train operation, shall be maintained in accordance with the limits within which the device is designed to operate.

[49 FR 3382, Jan. 26, 1984]

§ 236.9 Selection of circuits through indicating or annunciating instruments.

Signal control and electric locking circuits shall not be selected through the contacts of instruments designed primarily for indicating or annunciating purposes in which an indicating element attached to the armature is arranged so that it can in itself cause improper operation of the armature.

§ 236.10 Electric locks, force drop type; where required.

Electric locks on new installations and new electric locks applied to existing installations shall be of the forced drop type.

§ 236.11 Adjustment, repair, or replacement of component.

When any component of a signal system, the proper functioning of which is essential to the safety of train operation, fails to perform its intended signaling function or is not in correspondence with known operating conditions, the cause shall be determined and the faulty component adjusted, repaired or replaced without undue delay.

[49 FR 3382, Jan. 26, 1984]