



Memorandum

U.S. Department
of Transportation

Federal Railroad
Administration

Date: December 23, 1996

Reply to Attn of: S-96-10

Subject: Interpretation and Application of 49 CFR Section 234.257

(Original signed by E. R. English)

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 (TRC), meeting in Portland, Oregon, the week of July 22, 1996, acted on a request for clarification of the application of 49 CFR §234.257. The matter before the committee was to determine the application, interpretation, and enforcement of 49 CFR §234.257, as to what constitutes testing for proper operation of the highway-rail grade crossing warning system.

After much discussion surrounding the issue, the committee could not reach a consensus without additional background information to determine the original intent of the rule when it was written. There were two contrasting views as to what constitutes a proper test. One view was that opening a test switch or similar device to determine if the lights flash, the gates operate properly and the bell functions meets the requirement of this section. The other view was that the test must include the application of a shunt or shunts sufficient to activate the system.

The committee eventually determined the issue should be referred to a S&TC technical resolution review committee for further research into the original intent of the rule.

All of the comments and testimony that were submitted during the rulemaking process have been reviewed. The FRA convened a public hearing on March 1, 1994 to gather comments subsequent to the publication of the Notice of Proposed Rulemaking on the grade crossing regulations.

The Brotherhood of Railroad Signalmen, Association of American Railroads, and American Shortline Railroad Association presented joint testimony that they supported Part 234.257 as it was written. They stated the following:

“We recognize in accordance with the FRA’s section-by-section analysis that the extent of the tests required in a particular situation would vary depending upon whether a routine monthly test for proper operation was being performed, which might be limited to simple activation and visual inspection of the warning devices, or whether the test was actually required in connection with the modification and disarrangement of the system.”

There were no other comments by any other parties pertaining to this section.

The FRA’s intent when drafting this monthly test requirement was for railroads to perform a routine operational test of the warning devices to ensure the equipment, visible to highway users, functions as intended. The intent of how this is to be accomplished was to be left to the discretion of each railroad. Some railroads may elect to use track shunts as a means of performing this test, while others may elect to use test switches or other similar devices.

Mandating that a shunt be routinely used at high traffic volume crossing locations, equipped with train detection circuits that overlap, can be very detrimental to the credibility of the other crossing warning systems that are activated where the test is not actually being performed. At other locations, applying a shunt might be reasonable. This is one reason that the test requirement in Section 234.259 (Warning Time) provided railroads with three options; (1) Observation of a train movement, (2) Calculation and simulation of a train movement (using shunts), and (3) Electronic devices that actually determine warning time.

The requirement of placing a shunt across the rails to perform an operational test may be desirable in some cases, however, it was never the intent of the original rule. Proper operation of the train detection apparatus and its interconnection with activation is confirmed when the system is placed in service and thereafter every 12 months as prescribed in 49 CFR §234.259. It is further confirmed by the requirement in §234.257 that if a modification or disarrangement of the train detection circuit occurs, that modification or disarrangement must be tested.

For the purpose of compliance with 49 CFR §234.257, the use of a test switch or similar device is permissible while performing a routine test at least once each month.

#