

ATTACHMENT NO. 8

Approved by NCUTCD Council – June 30, 2006

TECHNICAL COMMITTEE: Railroad and Light Rail Transit Technical Committee

DATE OF ACTION: January 20, 2006

TOPIC: MUTCD Proposed New Manual Part

ORIGIN: Railroad and Light Rail Transit Technical Committee

DISCUSSION: The RR&LRTTC has proposed the following new Manual Part to be included in Part 10 as Section 10D.05. Existing Section 10D.05 now becomes Section 10D.06, existing Section 10D.06 now becomes Section 10D.07, existing Section 10D.07 now becomes Section 10D.08 and existing Section 10D.08 now becomes Section 10D.09.

STATUS: **Approved by NCUTCD Council June 30, 2006**

Proposed new Manual Part preceding existing Section 10D.05

Section 10D-05 Wayside Horn Systems

Support:

Wayside horn systems may be installed to provide directional audible warning at highway-rail grade crossings, including pedestrian grade crossings or other applications, as determined by a diagnostic team. Wayside horn systems may either be installed to provide supplemental audible warning where the locomotive-mounted horn is sounded or as an alternative to the sounding of a locomotive-mounted horn where rail traffic is subject to Federal Railroad Administration regulations concerning the sounding of locomotive horns at highway-rail grade crossings. Where rail traffic is not subject to Federal Railroad Administration regulations such as light rail transit systems dedicated to movement of passengers only, wayside horn systems may be installed to reproduce the tone and sound level of the equipment normally using the highway-rail grade crossing.

Standard:

A wayside horn system shall consist of a horn or series of horns used as an adjunct to train-activated warning systems to provide audible warning of an approaching train for traffic on the approaches to the highway-rail grade crossing.

The wayside horn system shall be designed on fail-safe principles. A means shall be employed to verify the sound output from the wayside horn system.

When a wayside horn system is used at highway-rail grade crossings where the locomotive-mounted horn is not sounded, the highway-rail grade crossings shall be equipped with flashing lights and gates.

Wayside horn systems used at highway-rail grade crossings where the locomotive-mounted horn is not sounded shall be equipped with a confirmation indicator. The wayside horn systems shall operate in conformance with 49 CFR Part 222 where required. For other applications and where 49 CFR Part 222 is not applicable, the wayside horn tone and minimum sound level shall be determined by a diagnostic team.

The wayside horn system shall ~~simulate a train horn and~~ sound at a minimum of 15 sec prior to the train's arrival at the highway-rail grade crossing or simultaneously with the activation of the flashing lights or the descent of the gate until the lead locomotive has traversed the crossing. Where multiple tracks are present, the wayside horn system shall immediately reactivate when another train is detected before the previous train clears the crossing.

The wayside horn system shall be directed toward approaching roadway users. It is not required to direct the wayside horn system toward approaching roadway users from roadways which are adjacent to the railroad if the roadway user's movement toward the crossing is controlled by a stop sign or traffic signal.

Guidance:

The highway rail grade crossing should be equipped with constant warning time train detection circuitry unless conditions at the crossing would prevent the proper operation of the constant warning time device. ~~The highway rail grade crossing should be equipped with constant warning time train detection circuitry where practical.~~ Where the use of constant warning time circuitry is not possible, train detection circuits should be carefully reviewed to minimize the warning time provided by the wayside horn system.

~~—Wayside horn systems should include a 3-5 sec delay after activation of flashing lights signals before sounding.~~

Wayside horn systems should be installed to provide audible warning for each roadway approach to the highway-rail grade crossing. The same lateral clearance and roadside safety features should apply to wayside horn systems as described in the Standards contained in Section 8D.01. Wayside horn systems, when mounted on a separate pole assembly, should be installed no closer than 4.6m (15 ft) from the centerline of the nearest track and should be positioned to not obstruct the motorists' line of sight of the flashing-light signals.

Prior to installing any wayside horn system, the responsibility for maintenance of the system and all of the appurtenances, hardware, and software should be clearly established. The responsible agency should provide for the maintenance of the system

and the appurtenances to retain the proper functioning of the device. ~~in a competent manner.~~

Option:

Wayside horn systems may include a 3-5 sec delay after activation of flashing lights signals before sounding.

Wayside horn systems may include remote health (status) monitoring capable of automatically notifying maintenance personnel when anomalies have occurred within the system.

Wayside horn systems may be equipped with a back-up power system.

Formatted: Font color: Green