

REAR END MARKING DEVICES

All passenger, commuter and freight trains which operate on main track shall be equipped with marking devices located on the trailing end of the rear car of a train.

The marking devices shall be displayed during the hours between one hour before sunset and one hour after sunrise, and during all other hours when weather conditions restrict visibility so that the rear car can be seen from a half-mile on tangent track by persons having 20/20 vision.

The center of the device must be located at a minimum of 48 inches above the top of the rail.

The intensity of the marker must be not less than 100 candella or more than 1,000 candella.

The color shall be in the red-orange-amber color range.

If a flashing light is used, it shall flash at a rate of not less than once every 1.3 second nor more than once every .7 seconds.

Where a locomotive is operated singly, or at the rear of a train, it shall be equipped with a marking device than complies with the above requirements, or use the rear headlight illuminated at low beam.

Inspection Requirements of Rear End Marking Devices

1. Rear marker devices shall be inspected at initial terminals and at each crew change location.
2. If a train is equipped with a radio telemetry device, the marker may be inspected by observing the read out information displayed in the cab of the controlling locomotive which demonstrates that the light is functioning as required. This is permitted in lieu of conducting a visual observation at the rear of the train.
3. The rear marker device may be inspected by a train crew or some other qualified person who has received adequate training concerning the specific task each employee is required to perform. If a non-train crewmember performs the examination, that person shall communicate his/her findings to the engineer of the new crew.
4. Where a railroad uses a marking device with a photoelectric cell mechanism, it shall illuminate or flash the device continuously when there is less than 1.0 candela per square meter of ambient light. This sets a standard for such photoelectric cell use for periods prior to sunset and immediately after sunrise.
5. Whenever a person other than a member of the operating crew inspects the

rear end device, he or she is entitled to certain safety protection. Prior to operating the activation switch or covering the photoelectric cell when conducting the test of the device, the railroad must provide either

(i) full blue flag protection, or (ii) the train to be inspected must be standing on a main track; the inspection must be limited to ascertaining that the marker is in the proper operating condition; and prior to performing inspection, the inspector shall personally contact the engineer or the hostler and be told that they are occupying the cab of the controlling locomotive and that the train will remain secure against movement until the inspection has been completed.

6. A train with a failed marker may not continue to move to a repair location if that would entail passing a location where a replacement marker could be installed. The railroad must not move the train further than the next location where the marker can be replaced. Such replacement locations include the first terminal, yard, or station that the train with the defective device reaches where markers are available. This includes locations where markers are stored or kept available for use on local trains. Therefore, the railroad cannot move the train with the defective marker to only those locations where heavy repair facilities are available.

Appendix A- Procedures for Approval of Rear End Marking Devices

Appendix B- Approved Rear End Marking Devices

49 U.S.C. § 20132

49 C.F.R. §§ 221.1-221.17