

provisions of paragraph (b) of this section.

(b) In order to establish the alternative means of protection under this section, (1) the train to be inspected shall be standing on a main track; (2) the inspection task shall be limited to ascertaining that the marker is in proper operating condition; and (3) prior to performing the inspection procedure, the inspector shall personally contact the locomotive engineer or hostler and be advised by that person that they are occupying the cab of the controlling locomotive and that the train is and will remain secure against movement until the inspection has been completed.

[51 FR 25185, July 10, 1986]

**§ 221.17 Movement of defective equipment.**

(a) Whenever the marking device prescribed in this part becomes inoperative enroute, the train may be moved to the next forward location where the marking device can be repaired or replaced.

(b) Defective rolling equipment which, because of the nature of the defect, can be placed only at the rear of a train for movement to the next forward location at which repairs can be made need not be equipped with marking devices prescribed in this part.

(c) When a portion of a train has derailed, and a portable marking device is not available, the remainder of the train may be moved to the nearest terminal without being equipped with the marking device prescribed in this part.

**APPENDIX A TO PART 221—PROCEDURES FOR APPROVAL OF REAR END MARKING DEVICES**

As provided in § 221.15 of this part, marking devices must be approved by the Administrator. Approval shall be issued in accordance with the following procedures:

(a) Each submission for approval of a marking device consisting of lighted elements only shall contain the following information:

(1) A detailed description of the device including the type, luminance description, size of lens, manufacturer and catalog number, lamp manufacturer, lamp type and model number, and any auxiliary optics used.

(2) A certification, signed by the chief operating officer of the railroad, that—

(i) The device described in the submission has been tested in accordance with the current "Guidelines for Testing of FRA Rear End Marking Devices," copies of which may be obtained from the Office of Safety, Federal Railroad Administration, 2100 Second Street SW., Washington, DC 20590;

(ii) The results of the tests performed under paragraph (i) of this subsection demonstrate marking device performance in compliance with the standard prescribed in 49 CFR 221.15;

(iii) Detailed test records, including as a minimum the name and address of the testing organizations, the name of the individual in charge of the tests, a narrative description of the test procedures, the number of samples tested, and for each sample tested, the on-axis beam candela, the beam candela at the  $\pm 15$  degree points in the horizontal plane, the beam candela at the  $\pm 5$  degree points in the vertical plane, and the chromaticity coordinates, are maintained by the railroad and are available for inspection by the FRA at a designated location which is identified in the submission;

(iv) Marking devices of this type installed in the operating environment shall consist of the same type and model of components as were used in the samples tested for purposes of this approval submission.

(3) Unless otherwise qualified, acknowledgement of the receipt of the submission required by this section shall constitute approval of the device. The FRA reserves the right to review the test records maintained by the railroad, or to test independently any device submitted for approval under these procedures, and to withdraw the approval of such device at any time, after notice and opportunity for oral comment, if its performance in the operating environment fails to substantiate the test results or to comply with 49 CFR 221.15.

(b)(1) Each submission for approval of a marking device consisting of non-lighted elements or a combination of lighted and non-lighted elements shall contain the following information:

(i) A detailed description of the device including the type of material, the reflectance factor, the size of the device, and the manufacturer and catalogue number;

(ii) A detailed description of the external light source including the intensity throughout its angle of coverage, and the manufacturer and catalogue number;

(iii) A detailed description of the proposed test procedure to be used to demonstrate marking device compliance with the standard prescribed in 49 CFR 221.15, including any detailed mathematical data reflecting expected performance.

(2) FRA will review the data submitted under subsection (1) of this section, and in those instances in which compliance with 49

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CFR 221.15 appears possible from a theoretical analysis, the FRA will authorize and may take part in testing to demonstrate such compliance.

(3) Where authorized testing has demonstrated compliance with 49 CFR 221.15, a railroad shall submit a certification, signed by the chief operating officer of the railroad, that—

(i) The device described in the original submission has been tested in accordance with the procedures described therein;

(ii) The results of the tests performed under paragraph (i) of this subsection demonstrate marking device performance in compliance with the standard prescribed in 49 CFR 221.15;

(iii) Detailed test records, including as a minimum the name and address of the testing organization, the name of the individual in charge of the tests, a narrative description of the test procedure, a description of the external light source used, the number of samples tested, and for each sample tested, the on-axis beam candela, the beam candela at the  $\pm 15$  degree points in the horizontal plane, the beam candela at the  $\pm 15$  degree point in the vertical plane, and the chromaticity coordinates, are maintained by the railroad and are available for inspection by the FRA at a designated location which is identified in the submission;

(iv) Marking devices of this type installed in the operating environment and the external light source used to illuminate them shall consist of the same type and model of components as were used in the samples tested for purposes of this approval submission.

(4) Unless otherwise qualified, acknowledgement of the receipt of the submission required by this subsection shall constitute approval of the device. The FRA reserves the right to review the test records maintained by the railroad, or to test independently any device submitted for approval under these procedures, and to disapprove the use of such device at any time if its performance fails to comply with 49 CFR 221.15.

(c) Whenever a railroad elects to use a marking device which has been previously approved by the FRA, and is included in the current list in appendix B to this part, the submission shall contain the following information:

(1) The marking device model designation as it appears in appendix B.

(2) A certification, signed by the chief operating officer of the railroad that—

(i) Marking devices of this type installed in the operating environment shall consist of the same type and model of components as were used in the samples tested for the original approval.

(d) Each submission for approval of a marking device shall be filed in triplicate with the Office of Standards and Procedures, Office of Safety, Federal Railroad Adminis-

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tration, 2100 Second Street SW., Washington, DC 20590.

[42 FR 62004, Dec. 8, 1977]

**APPENDIX B TO PART 221—APPROVED  
REAR END MARKING DEVICES**

**PART I—APPROVED DEVICES TESTED FOR OR BY  
MANUFACTURERS**

1. Manufacturer: Star Headlight & Lantern Co., 168 West Main Street, Honeoye Falls, NY 14472.

FRA identification Nos. FRA-PLE-STAR-845-F (flasher) and FRA-PLE-STAR-845-C (steady burn).

2. Manufacturer: Julian A. McDermott Corp., 1639 Stephen Street, Ridgewood, Long Island, NY 11227.

FRA identification Nos. FRA-MEC-MCD-100-C (steady burn), FRA-MEC-MCD-100-F (flasher), FRA-MEC-MCD-300-C (steady burn), and FRA-MEC-MCD-300-F (flasher).

3. Manufacturer: American Electronics, Inc.,<sup>1</sup> 40 Essex Street, Hackensack, NJ 07601.

FRA identification Nos. FRA-DRGW-YANK-300 (portable strobe), FRA-WP-YANK-301R (flashing), FRA-WP-YANK-305R (flashing), and FRA-WP-YANK-306R (steady burn).

**PART II—APPROVED DEVICES TESTED FOR OR BY  
RAIL CARRIERS**

1. Carrier: Atchison, Topeka & Santa Fe Railway Co., Technical Research & Development Department, 1001 Northeast Atchison Street, Topeka, Kans. 66616.

Manufacturer: Trans-Lite, Inc., P.O. Box 70, Milford, Conn. 06460.

FRA identification Nos. FRA-ATSF-TL-875-150, FRA-ATSF-TL-875-60, FRA-ATSF-TL-875-4412, and FRA-ATSF-TL-200.

2. Carrier: Amtrak—National Railroad Passenger Corporation, 400 North Capitol Street NW., Washington, DC 20001.

Manufacturer: (a) Trans-Lite, Inc., P.O. Box 70, Milford, Conn. 06460.

FRA identification Nos. FRA-ATK-TL-3895-1, FRA-ATK-TL-4491-2, FRA-ATK-TL-4491-3, and FRA-ATK-TL-FM-4491-1.

Manufacturer: (b) Luminator Division of Gulton Industries, Inc., 1200 East Dallas North Parkway, Plano, Tex. 75074.

FRA identification No. FRA-ATK-LUM-0101890-001.

Manufacturer: (c) Whelen Engineering Co., Inc., Deep River, Conn. 06417.

FRA identification No. FRA-ATK-WHE-WERT-12.

[43 FR 36447, Aug. 17, 1978]

<sup>1</sup>NOTE: Yankee Metal Products Corp. previously produced these devices.

APPENDIX C TO PART 221—SCHEDULE OF CIVIL PENALTIES <sup>1</sup>

Section	Violation	Willful violation
221.13 Marking device display: (a) device not present, not displayed, or not properly illuminated (d) device too close to rail .....	\$5,000 1,000	\$7,500 2,000
221.14 Marking devices: Use of unapproved or noncomplying device .....	2,500	5,000
221.15 Marking device inspection: (a) Failure to inspect at crew change .....	2,500	5,000
(b), (c) improper inspection .....	2,500	5,000
221.16 Inspection procedure: (a) Failure to obtain protection .....	5,000	7,500
(b) Improper protection .....	2,500	5,000
221.17 Movement of defective equipment .....	( <sup>1</sup> )	( <sup>1</sup> )

[53 FR 52930, Dec. 29, 1988, as amended at 69 FR 62818, Oct. 28, 2004]

**PART 222—USE OF LOCOMOTIVE HORNS AT PUBLIC HIGHWAY-RAIL GRADE CROSSINGS**

**Subpart A—General**

Sec.

- 222.1 What is the purpose of this regulation?
- 222.3 What areas does this regulation cover?
- 222.5 What railroads does this regulation apply to?
- 222.7 What is this regulation's effect on State and local laws and ordinances?
- 222.9 Definitions.
- 222.11 What are the penalties for failure to comply with this regulation?
- 222.13 Who is responsible for compliance?
- 222.15 How does one obtain a waiver of a provision of this regulation?
- 222.17 How can a State agency become a recognized State agency?

**Subpart B—Use of Locomotive Horns**

- 222.21 When must a locomotive horn be used?

<sup>1</sup>A penalty may be assessed against an individual only for a willful violation. The Administrator reserves the right to assess a penalty of up to \$27,000 for any violation where circumstances warrant. See 49 CFR part 209, appendix A. Where the conditions for movement of defective equipment set forth in §221.17 of this part are not met, the movement constitutes a violation of §221.13 of this part.

- 222.23 How does this regulation affect sounding of a horn during an emergency or other situations?
- 222.25 How does this rule affect private highway-rail grade crossings?
- 222.27 How does this rule affect pedestrian grade crossings?

**Subpart C—Exceptions to the Use of the Locomotive Horn**

- 222.31 [Reserved]
- SILENCED HORNS AT INDIVIDUAL CROSSINGS
- 222.33 Can locomotive horns be silenced at an individual public highway-rail grade crossing which is not within a quiet zone?
- SILENCED HORNS AT GROUPS OF CROSSINGS—QUIET ZONES
- 222.35 What are minimum requirements for quiet zones?
- § 222.37 Who may establish a quiet zone?
- § 222.38 Can a quiet zone be created in the Chicago Region?
- § 222.39 How is a quiet zone established?
- § 222.41 How does this rule affect Pre-Rule Quiet Zones and Pre-Rule Partial Quiet Zones?
- § 222.42 How does this rule affect Intermediate Quiet Zones and Intermediate Partial Quiet Zones?
- § 222.43 What notices and other information are required to create or continue a quiet zone?
- § 222.45 When is a railroad required to cease routine sounding of locomotive horns at crossings?
- § 222.47 What periodic updates are required?
- § 222.49 Who may file Grade Crossing Inventory Forms?
- § 222.51 Under what conditions will quiet zone status be terminated?
- § 222.53 What are the requirements for supplementary and alternative safety measures?
- § 222.55 How are new supplementary or alternative safety measures approved?
- § 222.57 Can parties seek review of the Associate Administrator's actions?
- § 222.59 When may a wayside horn be used?
- APPENDIX A TO PART 222—APPROVED SUPPLEMENTARY SAFETY MEASURES
- APPENDIX B TO PART 222—ALTERNATIVE SAFETY MEASURES
- APPENDIX C TO PART 222—GUIDE TO ESTABLISHING QUIET ZONES
- APPENDIX D TO PART 222—DETERMINING RISK LEVELS
- APPENDIX E TO PART 222—REQUIREMENTS FOR WAYSIDE HORNS
- APPENDIX F TO PART 222—DIAGNOSTIC TEAM CONSIDERATIONS
- APPENDIX G TO PART 222—SCHEDULE OF CIVIL PENALTIES