

## Part 224—Reflectorization of Rail Freight Rolling Stock

### Subpart A

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#### **§224.1 Purpose and scope.**

(a) The purpose of this part is to reduce highway-rail grade crossing accidents and deaths, injuries, and property damage resulting from those accidents, by enhancing the conspicuity of rail freight rolling stock so as to increase its detectability by motor vehicle operators at night and under conditions of poor visibility.

(b) In order to achieve cost-effective mitigation of collision risk at highway-rail grade crossings, this part establishes the duties of freight rolling stock owners (including those who manage maintenance of freight rolling stock, supply freight rolling stock for transportation, or offer freight rolling stock in transportation) and railroads to progressively apply retroreflective material to freight rolling stock, and to periodically inspect and maintain that material. Freight rolling stock owners, however, are under no duty to install, clean or otherwise maintain, or repair reflective material except as specified in this part.

(c) This part establishes a schedule for the application of retroreflective material to rail freight rolling stock and prescribes standards for the application, inspection, and maintenance of retroreflective material to rail freight rolling stock for the purpose of enhancing its detectability at highway-rail grade crossings. This part does not restrict a freight rolling stock owner or railroad from applying retroreflective material to freight rolling stock for other purposes if not inconsistent with the recognizable pattern required by this part.

Amended: [70 FR 62176, Oct. 28, 2005]

#### **§224.3 Applicability.**

This part applies to all railroad freight cars and locomotives that operate over a public or private highway-rail grade crossing and are used for revenue or work train service, except:

(a) Freight rolling stock that operates only on track inside an installation that is not part of the general railroad system of transportation;

(b) Rapid transit operations in an urban area that are not connected to the general railroad system of transportation;

(c) Locomotives and passenger cars used exclusively in passenger service; or

(d) Freight rolling stock that is subject to a reflectorization requirement promulgated by another Federal agency.

Amended: [70 FR 62176, Oct. 28, 2005]

### **§224.5 Definitions.**

Administrator means the Administrator of the Federal Railroad Administration or the Administrator's delegate.

Associate Administrator means the Associate Administrator for Safety, Federal Railroad Administration, or the Associate Administrator's delegate.

Damaged means scratched, broken, chipped, peeled, or delaminated.

Flat car means a car having a flat floor or deck on the underframe with no sides, ends or roof (including spine cars, articulated and multi-unit intermodal cars).

Freight rolling stock means:

(1) Any locomotive subject to Part 229 of this chapter used to haul or switch freight cars (whether in revenue or work train service); and

(2) Any railroad freight car (whether used in revenue or work train service).

Freight rolling stock owner means any person who owns freight rolling stock, is a lessee of freight rolling stock, manages the maintenance or use of freight rolling stock on behalf of an owner or one or more lessors or lessees, or otherwise controls the maintenance or use of freight rolling stock.

Locomotive has the meaning assigned by § 229.5 of this chapter, but for purposes of this part applies only to a locomotive used in the transportation of freight or the operation of a work train.

Obscured means concealed or hidden (i.e., covered up, as where a layer of paint or dense chemical residue blocks all incoming light); this term does not refer to ordinary accumulations of dirt, grime, or ice resulting from the normal railroad operating environment.

Person means an entity of any type covered under 1 U.S.C. 1, including but not limited to the following: A railroad; a manager, supervisor, official, or other employee or agent of a railroad; any owner, manufacturer, lessor, or lessee of railroad equipment, track or

facilities; any independent contractor providing goods or services to a railroad; and any employee of such an owner, manufacturer, lessor, lessee, or independent contractor. Railroad means all forms of non-highway ground transportation that run on rails or electromagnetic guideways, including high speed ground transportation systems that connect metropolitan areas, without regard to whether they use new technologies not associated with traditional railroads.

Railroad freight car has the meaning assigned by § 215.5 of this chapter.

Tank car means a rail car, the body of which consists of a tank for transporting liquids.

Universal Machine Language Equipment Register means the database containing information on rail equipment maintained by the Association of American Railroads.

Unqualified Retroreflective Sheeting means engineering grade sheeting, super engineering grade sheeting (enclosed lens) or high-intensity type sheeting (ASTM Type I, II, III, or IV Sheeting) as described in ASTM International Standard D-4956-04, "Standard Specification for Retroreflective Sheeting for Traffic Control."

Work train means a non-revenue service train used for the maintenance and upkeep service of the railroad.

Amended: [70 FR 62176, Oct. 28, 2005]

#### **§224.7 Waivers.**

(a) Any person subject to a requirement of this part may petition the Administrator for a waiver of compliance with such requirement. The filing of such a petition does not affect that person's responsibility for compliance with that requirement while the petition is being considered.

(b) Each petition for waiver under this section shall be filed in the manner and contain the information required by part 211 of this chapter.

(c) If the Administrator finds that a waiver of compliance is in the public interest and is consistent with railroad safety, the Administrator may grant the waiver subject to any conditions that the Administrator deems necessary.

Amended: [70 FR 62176, Oct. 28, 2005]

#### **§224.9 Responsibility for compliance.**

(a) Freight rolling stock owners, railroads, and (with respect to certification of material) manufacturers of retroreflective material, are primarily responsible for compliance with this part. However, any person that performs any function or task required by this part (including any employee, agent, or contractor of the aforementioned), must perform that function in accordance with this part.

(b) Any person performing any function or task required by this part shall be deemed to have consented to FRA inspection of the person's facilities and records to the extent necessary to determine whether the function or task is being performed in accordance with the requirements of this part.

Amended: [70 FR 62176, Oct. 28, 2005]

#### **§224.11 Penalties.**

(a) Any person (including but not limited to a railroad; any manager, supervisor, official, or other employee or agent of a railroad; any owner, manufacturer, lessor, or lessee of railroad equipment, track, or facilities; any employee of such owner, manufacturer, lessor, lessee, or independent contractor) who violates any requirement of this part or causes the violation of any such requirement is subject to a civil penalty of at least \$550, but not more than \$11,000 per violation, except that: Penalties may be assessed against individuals only for willful violations, and, where a grossly negligent violation or a pattern of repeated violations has created an imminent hazard of death or injury to persons, or has caused death or injury, a penalty not to exceed \$27,000 per violation may be assessed. Each day a violation continues shall constitute a separate offense. Appendix A to this part contains a schedule of civil penalty amounts used in connection with this part. 224.11(a) Effective 10/09/2007

*Editor's Note: The following paragraph(s) are effective 10/09/2007, as published in the Federal Register on 09/06/2007.*

(b) Any person who knowingly and willfully falsifies a record or report required by this part is subject to criminal penalties under 49 U.S.C. 21311.

Amended: [70 FR 62176, Oct. 28, 2005; 72 FR 51197, Sept. 6, 2007]

#### **§224.13 Preemptive effect.**

Under 49 U.S.C. 20106, issuance of this part preempts any State law, rule, regulation, or order covering the same subject matter, except an additional or more stringent law, rule, regulation, or order that is necessary to eliminate or reduce an essentially local safety hazard; that is not incompatible with a law, rule, regulation, or order of the United States Government; and that does not unreasonably burden interstate commerce.

Amended: [70 FR 62176, Oct. 28, 2005]

#### **§224.15 Special approval procedures.**

(a) General. The following procedures govern consideration and action upon requests for special approval of alternative standards under § 224.103(e).

(b) Petitions.

(1) Each petition for special approval of an alternative standard shall contain-

(i) The name, title, address, and telephone number of the primary person to be contacted with regard to the petition;

(ii) The alternative proposed, in detail, to be substituted for the particular requirements of this part; and

(iii) Appropriate data and analysis establishing that the alternative will provide at least an equivalent level of safety and meet the requirements of §224.103(e).

(2) Three copies of each petition for special approval of an alternative standard shall be submitted to the Docket Clerk, Office of Chief Counsel, Federal Railroad Administration, RCC-10, Mail Stop 10, 1200 New Jersey Ave., S.E., Washington, D.C. 20590.

(c) Notice. FRA will publish a notice in the Federal Register concerning each petition under paragraph (b) of this section.

(d) Public comment. FRA will provide a period of not less than 30 days from the date of publication of the notice in the Federal Register during which any person may comment on the petition.

(1) Each comment shall set forth specifically the basis upon which it is made, and contain a concise statement of the interest of the commenter in the proceeding.

(2) Each comment shall be submitted to the DOT Central Docket Management System, 1200 New Jersey Ave., S.E., Washington, D.C. 20590, and shall contain the assigned docket number which appears in the Federal Register for that proceeding. The form of such submission may be in written or electronic form consistent with the standards and requirements established by the Central Docket Management System and posted on its Web site at <http://dms.dot.gov>.

(3) In the event FRA determines that it requires additional information to appropriately consider the petition, FRA will conduct a hearing on the petition in accordance with the procedures provided in § 211.25 of this chapter.

(e) Disposition of petitions.

(1) If FRA finds that the petition complies with the requirements of this section and that the proposed alternative standard is acceptable or changes are justified, or both, the petition will be granted, normally within 90 days of its receipt. The Associate Administrator may determine the applicability of other technical requirements of this part when rendering a decision on the petition. If the petition is neither granted nor denied within 90 days, the petition remains pending for decision. FRA may attach special conditions to the approval of the petition. Following the approval of a petition, FRA may reopen consideration of the petition for cause stated.

(2) If FRA finds that the petition does not comply with the requirements of this section, or that the proposed alternative standard is not acceptable or that the proposed changes are not justified, or both, the petition will be denied, normally within 90 days of its receipt.

(3) When FRA grants or denies a petition, or reopens consideration of a petition, written notice is sent to the petitioner and other interested parties and a copy of the notice is placed in the electronic docket of the proceeding.

Amended: [70 FR 62176, Oct. 28, 2005]

## **Subpart B Application, Inspection, and Maintenance of Retroreflective Material**

- §224.101 General requirements.
- §224.103 Characteristics of retroreflective sheeting.
- §224.105 Sheeting dimensions and quantity.
- §224.106 Location of retroreflective sheeting.
- §224.107 Implementation schedule.
- §224.109 Inspection, repair, and replacement.
- §224.111 Renewal

### **§224.101 General requirements.**

All rail freight rolling stock subject to this part shall be equipped with retroreflective sheeting that conforms to the requirements of this part. Notwithstanding any other provision of this chapter, the application, inspection, and maintenance of that sheeting shall be conducted in accordance with this subpart or in accordance with an alternative standard providing at least an equivalent level of safety after special approval of FRA under § 224.15.

Amended: [70 FR 62176, Oct. 28, 2005]

### **§224.103 Characteristics of retroreflective sheeting.**

(a) Construction. Retroreflective sheeting applied pursuant to this part shall consist of a smooth, flat, transparent exterior film with microprismatic retroreflective elements embedded in or suspended beneath the film so as to form a non-exposed retroreflective optical system.

(b) Color. Retroreflective sheeting applied pursuant to this part shall be yellow, fluorescent yellow, or white as specified by the chromaticity coordinates of ASTM International's Standard D 4956-04, "Standard Specification for Retroreflective Sheeting for Traffic Control." The Director of the Federal Register approves the incorporation by reference of this standard in this section in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

You may obtain a copy of the incorporated standard from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959 or at

<http://www.astm.org>. You may inspect a copy of the incorporated standard at the Federal Railroad Administration, Docket Clerk, 1200 New Jersey Ave., S.E., 3rd Fl., Washington, D.C. or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to <http://www.archives.gov/federal-register/code-of-federal-regulations/ibr-locations.html>.

(c) **Performance.** Retroreflective sheeting applied pursuant to this part shall meet the requirements of ASTM D 4956-04, for Type V Sheeting if metalized or Type VII Sheeting if non-metalized, except for the initial minimum values of the coefficient of retroreflection, and shall, as initially applied, meet the minimum values for the coefficient of retroreflection specified in Table 1 of this subpart.

(d) **Certification.** The characters "FRA-224", constituting the manufacturer's certification that the retroreflective sheeting conforms to the requirements of paragraphs (a) through (c) of this section, shall appear at least once on the exposed surface of each piece of sheeting in the final application. The characters shall be a minimum of three millimeters high, and shall be permanently stamped, etched, molded, or printed within the product and each certification shall be spaced no more than four inches apart.

(e) **Alternative standards.** Upon petition by a freight rolling stock owner or railroad under § 224.15, the Associate Administrator may approve an alternative technology as providing equivalent safety. Any such petition shall provide data and analysis sufficient to establish that the technology will result in conspicuity and durability at least equal to sheeting described in paragraphs (a) through (c) applied in accordance with this part and will present a recognizable visual target that is suitably consistent with freight rolling stock equipped with retroreflective sheeting meeting the technical requirements of this part to provide the intended warning to motorists.

Amended: [70 FR 62176, Oct. 28, 2005]

#### **§224.105 Sheeting dimensions and quantity.**

Retroreflective sheeting shall be applied along the length of each railroad freight car and locomotive side as described in § 224.106. Unless otherwise specified, retroreflective sheeting applied under this part shall be applied in strips 4 inches wide and 18 or 36 inches long, as practicable. The amount of retroreflective sheeting to be applied to each car or locomotive subject to this part is dependent on the length of the car or locomotive and the color of the sheeting. For purposes of this part, the length of a railroad freight car or locomotive is measured from end sill to end sill, exclusive of the coupler and draft gear. Each side of a railroad freight car subject to this part, including each unit of multi-unit cars, and each side of a locomotive subject to this part must be equipped with at least the minimum amount of retroreflective sheeting specified in Table 2 of this subpart.

#### **§224.106 Location of retroreflective sheeting.**

(a) **Railroad freight cars.** The retroreflective sheeting shall be applied along the length of each railroad freight car side in the manner provided by a uniform industry standard

accepted by the Associate Administrator that provides for distribution of material along the length of each car and as close as practicable to 42 inches above the top of rail. In the event such a standard is not proffered by industry or accepted by the Associate Administrator, the criteria set forth in this subpart shall apply. Retroreflective sheeting applied under this part must be located clear of appurtenances and devices such as ladders and other safety appliances, pipes, or other attachments that may obscure its visibility. Retroreflective sheeting need not be applied to discontinuous surfaces such as bolts, rivets, door hinges, or other irregularly shaped areas that may prevent the sheeting from adhering to the car sides. In addition, retroreflective sheeting need not be applied over existing or required car stencils and markings. If necessary to avoid appurtenances, discontinuous surfaces, or existing or required car markings or stencils, 4x18 and 4x36 inch strips of retroreflective material may be divided into 4x9 inch strips and applied on either side of the appurtenance, discontinuous surface, or car markings or stencils, as practicable. Unless otherwise specified, retroreflective sheeting shall be applied along the sides of freight rolling stock at intervals not to exceed every 12 feet, as practicable. If it is not practicable to apply retroreflective sheeting every 12 feet because of existing stencils, appurtenances, or discontinuous surfaces, the sheeting shall be applied at the next smallest interval practicable.

(1) General rule. On railroad freight cars other than flat cars and tank cars, retroreflective sheeting shall be applied in either a vertical or horizontal pattern along the length of the car sides, with the bottom edge of the sheeting as close as practicable to 42 inches above the top of rail. Retroreflective sheeting shall not be applied below the side sill.

(i) Vertical application. If retroreflective sheeting is applied in a vertical pattern, at least one 4x36 inch strip or two 4x18 inch strips, one above the other, shall be applied as close to each end of the car as practicable. Between these two vertical end strips, a minimum of one 4x18 inch strip shall be applied at least every 12 feet, as practicable. See Figures 1, 2 and 3.

(ii) Horizontal application. If retroreflective sheeting is applied in a horizontal pattern, at least one 4x36 inch strip, or two 4x18 inch strips, one above or next to the other, shall be applied as close to each end of the car as practicable. Between these end strips, a minimum of one 4x18 inch strip shall be applied at least every 12 feet, as practicable. See Figures 4, 5, and 6.

(2) Tank cars. On tank cars, retroreflective sheeting shall be applied vertically to each car side and centered on the horizontal centerline of the tank, or as near as practicable. If it is not practicable to safely apply the sheeting centered vertically about the horizontal centerline of the tank, the sheeting may be applied vertically with its top edge no lower than the horizontal centerline of the tank. A minimum of either one 4x36 inch strip or two 4x18 inch strips, one above the other, shall be applied as close to each end of the car as practicable. Between these two end strips, a minimum of one 4x18 inch strip shall be applied at least every 12 feet, as practicable. Retroreflective sheeting applied under this part shall not be located in the spillage area directly beneath the manway used to load and unload the tank. See Figures 7 and 8.



(3) Flat cars. On flat cars, retroreflective sheeting shall be applied in a horizontal pattern along the length of the side sill with the bottom edge of the sheeting no lower than the bottom of the side sill and the top edge of the sheeting no higher than the top of the car deck or floor. At least two 4x18 inch strips, one above the other, shall be applied as close to each end of the car as practicable. If the side sill is less than 8 inches wide, one 4x36 inch strip, or two 4x18 inch strips may be applied one next to the other, dividing the strips into nine inch segments as necessary in accordance with paragraph (a) of this section. Between the two end strips, a minimum of one 4x18 inch strip shall be applied at least every 12 feet, as practicable. See Figure 9. If a car has a separate rack structure, retroreflective sheeting may be applied to the flat car portion only in accordance with the requirements of this section. For cars without continuous side sills, retroreflective sheeting may be applied to other surfaces inboard of the sides, such as the center sill, provided that the sheeting is not obscured by other components.

(4) Cars of special construction. This paragraph applies to any car the design of which is not compatible with the patterns of application otherwise provided in this section. Retroreflective sheeting shall conform as closely as practicable to the requirements of paragraphs (a)(1) through (a)(3) of this section and shall have the minimum amount of sheeting described in § 224.105 distributed along the length of each car side.

(b) Locomotives: Locomotives subject to this part shall be equipped with at least the minimum amounts of retroreflective sheeting required by § 224.105 either in strips four inches wide and 18 or 36 inches long and spaced as uniformly as practicable along the length of the locomotive sides, or in one continuous strip, at least four inches wide, along the length of the locomotive. Retroreflective sheeting applied to locomotive sides shall be applied as close as practicable to 42 inches from the top of the rail.  
Amended: [70 FR 62176, Oct. 28, 2005]

#### **§224.107 Implementation schedule.**

(a) Railroad freight cars. All railroad freight cars subject to this part must be equipped with retroreflective sheeting conforming to this part by November 28, 2015. If a car already has reflective material applied that does not meet the standards of this part, it is not necessary to remove the material unless its placement interferes with the placement of the sheeting required by this part.

(1) New cars. Retroreflective sheeting conforming to this part must be applied to all cars constructed after January 26, 2006, before the cars are placed in service.

(2) Existing cars without retroreflective sheeting.

(i) If, as of October 28, 2005, a car subject to this part is not equipped on each side with at least one square foot of retroreflective sheeting as specified in paragraph (a)(3) of this section, retroreflective sheeting conforming to this part must be applied to the car at the earliest of the following two occasions occurring after November 28, 2005 or in accordance with paragraph (a)(2)(ii) of this section:

(A) When the car is repainted or rebuilt; or

(B) Within nine months (270 calendar days) after the car first undergoes a single car air brake test as prescribed by 49 CFR 232.305.

(ii) A freight rolling stock owner may elect not to follow the schedule in paragraph (a)(2)(i) of this section if, not later than January 26, 2006 the freight rolling stock owner submits to FRA a completed Reflectorization Implementation Compliance Report certifying that the cars in the owner's fleet subject to this part will be equipped with retroreflective sheeting as required by this part in accordance with the schedule specified in Table 3 of this section. See Appendix B of this part for Reflectorization Implementation Compliance Report form.

Table 3 of Subpart B.-Alternative Schedule for Application of Retroreflective Material to Freight Cars per § 224.107(a)(2)(ii).

(A) 1	(B) (percent)
November 28, 2007	20
November 28, 2008	30
November 28, 2009	40
November 28, 2010	50
November 28, 2011	60
November 28, 2012	70
November 28, 2013	80
November 28, 2014	90
November 28, 2015	100

Column (A) indicates the date by which the minimum percentage of an owner's freight cars specified in column (B) must be equipped with retroreflective sheeting conforming to this part.

Thereafter,

(A) The designated fleet shall be equipped with retroreflective sheeting according to the schedule specified in Table 3 of this section;

(B) No later than January 28, 2008, the freight rolling stock owner shall submit to FRA an updated Reflectorization Implementation Compliance Report showing which cars of the fleet subject to this part were equipped with retroreflective sheeting as required by this part during the initial 24-month implementation period. Thereafter, updated Reflectorization Implementation Compliance Reports shall be submitted annually, no later than December 31 of each year for the duration of the 10-year implementation period. See Appendix B of this part.

(C) If, following the conclusion of the initial 24-month period or any 12-month period thereafter, the percentage requirements of this section have not been met-

- (1) The freight rolling stock owner shall be considered in violation of this part;
- (2) The freight rolling stock owner shall, within 60 days after the close of the period, report the failure to the Associate Administrator;
- (3) The requirements of paragraph (a)(2)(i) shall apply to all railroad freight cars subject to this part in the freight rolling stock owner's fleet; and
- (4) The fleet owner shall take such additional action as may be necessary to achieve future compliance.

(D) Cars to be retired shall be included in the fleet total until they are retired.

(3) Existing cars with retroreflective sheeting. If as of October 28, 2005, a car is equipped on each side with at least one square foot of retroreflective sheeting, uniformly distributed over the length of each side, that car shall be considered in compliance with this part through November 28, 2015, provided the sheeting is not unqualified retroreflective sheeting, and provided the freight rolling stock owner files a completed Reflectorization Implementation Compliance Report with FRA no later than January 26, 2006 identifying the cars already so equipped. See Appendix B of this part for Reflectorization Implementation Compliance form.

(b) Locomotives. Except as provided in paragraph (b)(4) of this section, all locomotives subject to this part must be equipped with conforming retroreflective sheeting by November 28, 2010. If a locomotive already has reflective material applied that does not meet the standards of this part, it is not necessary to remove the material unless its placement interferes with the placement of the sheeting required by this part.

(1) New locomotives. Retroreflective sheeting conforming to this part must be applied to all locomotives constructed after January 26, 2006, before they are placed in service.

(2) Existing locomotives without retroreflective sheeting.

(i) If as of October 28, 2005 a locomotive subject to this part is not equipped with the minimum amount of retroreflective sheeting specified in paragraph (b)(3) of this section, retroreflective sheeting conforming to this part must be applied to the locomotive not later than nine months after the first biennial inspection performed pursuant to 49 CFR 229.29 occurring after November 28, 2005.

(ii) Freight rolling stock owner may elect not to follow the schedule in paragraph (b)(2)(i) of this section, if not later than January 26, 2006, the freight rolling stock owner submits to FRA a Reflectorization Implementation Compliance Report certifying that the locomotives in the owner's fleet subject to this part will be equipped with retroreflective sheeting as required by this part in accordance with the schedule specified in Table 4 of this section. See Appendix B of this part.

Table 4 of Subpart B.-Alternative Schedule for Application of Retroreflective Material to Locomotives per § 224.107(b)(2)(ii).

(A) 1	(B) (percent)
November 28, 2007	40
November 28, 2008	60
November 28, 2009	80
November 28, 2010	100

1 Column (A) indicates the date by which the minimum percentage of an owner's locomotives specified in column (B) must be equipped with retroreflective sheeting conforming to this part.

(A) The designated locomotive fleet shall be equipped with retroreflective sheeting according to the requirements of this paragraph (b)(2)(ii);

(B) No later than January 28, 2008, the freight rolling stock owner shall submit to FRA an updated Reflectorization Implementation Compliance Report showing which locomotives of the fleet subject to this part were equipped with retroreflective sheeting as required by this part during the initial 24 month implementation period. Updated Reflectorization Implementation Compliance Reports shall be submitted annually, no later than December 31 of each year, for the duration of the 5-year implementation period. See Appendix B of this part.

(C) If, following the conclusion of the initial 24-month period or any 12-month period thereafter, the percentage requirements of this section have not been met-

(1) The freight rolling stock owner shall be considered in violation of this part;

(2) The freight rolling stock owner shall, within 60 days after the close of the period, report the failure to the Associate Administrator;

(3) The requirements of paragraph (b)(2)(i) shall apply to all locomotives subject to this part in the freight rolling stock owner's fleet; and

(4) The fleet owner shall take such additional action as may be necessary to achieve future compliance.

(D) Locomotives to be retired shall be included in the fleet total until they are retired.

(3) Existing locomotives with retroreflective sheeting. If as of October 28, 2005, a locomotive is equipped on each side with at least one square foot of retroreflective sheeting, that locomotive shall be considered in compliance with this part for through November 28, 2015, provided the existing material is not unqualified retroreflective sheeting, and provided the freight rolling stock owner files a Reflectorization Implementation Compliance Report with FRA no later than January 26, 2006, identifying

the cars already so equipped. See Appendix B of this part. If, as of October 28, 2005, a locomotive is equipped with unqualified retroreflective sheeting, the locomotive will be considered in compliance with this part through November 28, 2015, provided the locomotive is equipped with a minimum of 3 square feet of retroreflective material on each side and provided the freight rolling stock owner files a Reflectorization Implementation Compliance Report with FRA no later than January 26, 2006, identifying the locomotives already so equipped. See Appendix B of this part.

(4) Each railroad that has fewer than 400,000 annual employee work hours as of the end of calendar year 2004, and does not share locomotive power with another railroad with 400,000 or more annual employee work hours, may bring its locomotive fleet into compliance according to the following schedule: fifty percent of the railroad's locomotives must be retrofitted pursuant to § 224.106(b) by October 28, 2010, and one hundred percent must be retrofitted pursuant to § 224.106(b) by October 28, 2015. If a railroad with fewer than 400,000 annual employee work hours shares locomotive power with a railroad with 400,000 or more annual employee work hours, the smaller railroad must comply with the requirements of paragraphs (b)(2) and (3) of this section. Amended: [70 FR 62176, Oct. 28, 2005]

#### **§224.109 Inspection, repair, and replacement.**

(a) Railroad freight cars. Retroreflective sheeting on railroad freight cars subject to this part must be visually inspected for presence and condition whenever a car undergoes a single car air brake test required under 49 CFR 232.305. If at the time of inspection less than 80 percent of the amount of sheeting required under § 224.105 (§ 224.107 in the case of freight cars subject to § 224.107(a)(3)) on either side of a car is present, not damaged, and not obscured, the inspecting railroad or contractor shall promptly notify the person responsible for the reporting mark, as indicated in the Universal Machine Language Equipment Register, of the damaged, obscured, or missing sheeting (unless the inspecting railroad or contractor is the person responsible for the reporting mark). The inspecting railroad or contractor shall retain a written or electronic copy of each such notification made for at least two years from the date of the notice and shall make these records available for inspection and copying by the FRA upon request. Any person notified of a defect under this section shall have nine months (270 calendar days) from the date of notification to repair or replace the damaged, obscured, or missing sheeting. Where the inspecting railroad or contractor is the person responsible for the reporting mark, the person shall have nine months (270 calendar days) from the date of the inspection to repair or replace the damaged, obscured, or missing sheeting.

(b) Locomotives. Retroreflective sheeting must be visually inspected for presence and condition when the locomotive receives the annual inspection required under 49 CFR 229.27. If at the time of inspection less than 80 percent of the amount of sheeting required under § 224.105 (§ 224.107 in the case of locomotives subject to § 224.107(b)(3)) on either side of a locomotive is present, not damaged, and not obscured, the damaged, obscured, or missing sheeting must be repaired or replaced within nine months (270 calendar days) from the date of inspection, provided a record of the defect is

maintained in the locomotive cab or in a secure and accessible electronic database to which FRA is provided access on request.

Amended: [70 FR 62176, Oct. 28, 2005]

### **§224.111 Renewal.**

Regardless of condition, retroreflective sheeting required under this part must be replaced with new sheeting no later than ten years after the date of initial installation. At the time of replacement, it is not necessary to remove the old sheeting unless it interferes with the placement of the new sheeting, but the old sheeting shall not be considered in calculating the amount of retroreflective material required under this part. For purposes of this section, November 28, 2005, shall be considered the initial date of installation for freight cars and locomotives covered by § 224.107(a)(3) or 224.107(b)(3). (1)

(1) 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 CFR 49 209, Appendix A.

Amended: [70 FR 62176, Oct. 28, 2005]