

# MARTS

Indianapolis, IN



ASSOCIATION OF  
AMERICAN RAILROADS

# ReflectORIZATION of Rail Equipment



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**FIELD MANUAL  
OF THE  
AAR  
INTERCHANGE RULES, Rule 66  
And  
Title 49 CFR Part 224**



# AAR Rule 66

- All cars must be equipped by November 28, 2015
- Car owners who file a Reflectorization Implementation Compliance Report (RICR) must identify the cars covered by the plan in Umler.
- Initial application and billing must have prior approval from the car owner.
- The reflective sheeting initial application date must be recorded in Umler.
- Grandfathered cars must show an initial application date of November 28, 2005. (Ref. 49 CFR § 224.111)



# Title 49 CFR part 224

- (i) Cars with less than 1 sq. ft. of Reflective sheeting as of October 28, 2005, must have retroreflective sheeting applied to the car at the earliest of:
  - (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; or
  - (C) 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



# Title 49 CFR part 224

- Part 224 also covers the Inspection, Repair and Replacement of reflective sheeting.
- Must be inspected when SCT performed
- If there is less than 80% per side it must be repaired, or reported to Car Mark Owner for repair within 9 months (270-days)



# Title 49 CFR part 224

## Renewal Requirement:

- Regardless of condition, retroreflective sheeting must be replaced with new sheeting no later than ten years after the date of initial installation
- Not necessary to remove the old sheeting unless it interferes with the placement of the new sheeting
- The old sheeting shall not be considered in calculating the amount of retroreflective material required under this part.



**What is the Association of American Railroads working on?**





# AAR

- TTCI has been working with Texas A&M on a study of reflective sheeting
- TTCI is conducting field tests of Reflective sheeting on freight cars
- TTCI/AAR is having discussion with FRA on the renewal of reflective sheeting.



# AAR

AAR is preparing a submission of a waiver to continue study of reflective sheeting.

Results of the waiver submission will be published to industry when finalized with FRA.

8/29/13

Federal Railroad Administration  
1200 New Jersey Avenue SE  
Washington, D.C. 20590

Subject: Petition for Waiver on the 10-year Reflectortization Renewal Requirement for Railroad Cars and Locomotives, in accordance with Title 49 Code of Federal Regulations CFR§ 224.

Dear :

The Association of American Railroads (AAR) hereby submits the following Petition for Waiver on the 10-year Reflectortization Renewal Requirement for Railroad Rolling Stock (cars and locomotives), for a period of five years. The purpose of the waiver is to gather additional data on the effectiveness of reflective material with the goal of establishing a minimum performance-based standard for railroad rolling stock.

Attached is supporting documentation from:

- AAR Equipment Engineering Committee
- Texas A&M Transportation Institute at the Texas A&M University.

If you have any questions or concerns, please let me know.

Sincerely,

James P. Grady  
Assistant Vice President, Technical Services, Safety and Operations

Attachments:

Waiver and all data on reflectance-  
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summarize the findings in a report to the FRA.

The AAR will continue to visually inspect existing material at the time of Single Car Air Brake Test and replace any damaged or missing material.

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Williams, and M.A. Tancze. "Single Car Reflectortization, DOT/FRA/ORD-98-11, January 1999).

Direct      Diffused      Retroreflector

Type V and Type VII retroreflector materials (railroad applications) are made with microprisms. These materials are engineered to have a specific distribution of reflected light (each manufacture designs a unique pattern of reflected light).



# QUESTIONS