A New Safety Appliance Standard

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Why is a New Safety Appliance Standard Needed?

- Most parts of FRA safety appliance standards date from 1910 and even most recent parts date from 1966
- Applying standards based on older car technology to modern cars often leads to differences in interpretation
- Many car types not covered by FRA standards
- Difficult and slow to change FRA standards
Who is Creating the New Safety Appliance Standard?

- AAR Equipment Engineering Committee (EEC) established Safety Appliance Task Force in 2002
- Includes representatives from railroads, private car owners, car builders, labor unions, FRA and Transport Canada
- Task force reports to EEC
Task Force is creating an AAR document, Standard S-2044

AAR is petitioning FRA to adopt the AAR standard

Once adopted by FRA, S-2044 will become the basis of FRA enforcement for applicable cars
Objectives of New Safety Appliance Standard

- State requirements in clear terms to eliminate differences in interpretation for modern equipment
- Establish requirements for car types not covered by FRA standards
- Make improvements to safety in specific areas compared to FRA standards
How New Standard will Work

- S-2044 will apply only to new cars built after specified dates for each car type.
- Existing cars and car types not yet covered by S-2044 are still subject to FRA standards.
- S-2044 has two primary portions – a base standard with common definitions and requirements and a series of appendices with all requirements for particular car types.
Car Types Covered to Date

Box Cars
Car Types Covered to Date

Covered Hopper Cars
Car Types Covered to Date

Bulkhead Flat Cars
Car Types Covered to Date

Center Partition Cars
Car Types to be Covered in Future Appendices

Open-Top Hopper Cars
Car Types to be Covered in Future Appendices

Gondolas
Car Types to be Covered in Future Appendices

Tank Cars
Car Types to be Covered in Future Appendices

Flat Cars
Car Types to be Covered in Future Appendices

Double-Stack Cars
Car Types to be Covered in Future Appendices

Spine Cars
Car Types to be Covered in Future Appendices

Coil Steel Cars
Car Types to be Covered in Future Appendices

Multi-Level Cars
Car Types to be Covered in Future Appendices

- Side-Dump Cars
- Rail-Compatible Vehicles
- Shoving Platforms
S-2044 Differences from FRA Standards – All Car Types

- Requirements of FRA standards in CFR Part 231 are restated so as to be less ambiguous when applied to modern cars
- Handholds typically located from other handholds rather than from side or end of car
- Sill steps located relative to side handholds rather than from end of car
S-2044 Differences from FRA Standards – All Car Types

- Some requirements have been modified to improve safety relative to Part 231:
  - Width and thickness of sill steps and end platform brackets increased to match typical current construction
  - Minimum clearance specified to protect feet on sill steps from truck rotation
S-2044 Differences from FRA Standards – Box Cars

- Gap between end platforms and adjacent end handholds limited to 6 in. Will require end platforms longer than 60 in. on some cars
- End platform located vertically relative to end handholds rather than to top of center sill
S-2044 Differences from FRA Standards - Covered Hopper Cars

- Same changes as box cars plus others
- Hand brake wheel not permitted to be recessed behind end-platform handhold
- Location of roof handhold relative to top ladder tread defined more functionally
S-2044 Differences from FRA Standards – Bulkhead Flat Cars

- Same changes as covered hopper cars plus additional changes
- Side handhold arrangement changed to require four horizontal handholds
- Side handholds may be 12 in. long vs. 16 in. minimum on other applications
- Requirement for horizontal handholds vs. vertical handholds will lengthen some center beam cars by up to 6 in. at each end
When is New AAR Standard Effective?

- Box, covered hopper and bulkhead flat cars built new after January 1, 2007 must comply with AAR Standard S-2044 and appendices.
- S-2044 becomes mandatory for other car types when appendices for them are developed and approved.
- Existing cars and new cars of types not yet covered by S-2044 must still comply with FRA safety appliance standards.
Approval Status of New AAR Standard

- Base standard and appendices for box and covered hopper cars previously approved by EEC
- Appendix C for bulkhead flat cars approved by EEC September 14, 2005
- S-2044 will be sent out for public comment
- AAR petition to be submitted shortly requesting FRA to begin rulemaking proceedings