



Railroad Safety Advisory Committee



Engineering Task Force Update

to

The 51st Railroad Safety Advisory Committee Meeting

March 6, 2014
Washington, DC



Outline

1. Review ETF Regulatory Implementation Plan
2. Status of Current Tasks
3. Task Group Updates
4. Short Term Objectives and Next Meeting

Revised Passenger Equipment Rulemaking Implementation Plan

NPRM 1:

- Tier I alternative crashworthiness
- Tier III crashworthiness standards
- Align Tier II MAS with new VTI rule (160mph)
- Codify remaining previous Tier III consensus items
- Tier III Braking Systems

In Process

NPRM 2:

- **Tier III Safety Appliances**
- **Incorporate 49 CFR Part 229 for Tier III**
- **Alternative crashworthiness for single car/locomotive**
- Tier III Inspection, Testing & Maintenance
- Update 49 CFR 238.111 requirements
- Tier I passenger road locomotive safety appliances

**Under
Development**

Pending

Task Update

Last Meeting: **January 30-31, 2014**

Tier III Safety Appliances:

- Tier III trainset proposal presented at January 2014 meeting;
- Industry to work with Labor and provide proposed changes for review at next meeting;

Single Car/Locomotive Alt. Crashworthiness:

- Revised proposals presented to ETF;
- Industry to provide a formal response and recommendations

System Safety Planning:

- Presented approach for creating an appropriate counterpart to 49 CFR 238, Subpart G for Tier III;
- FRA and Amtrak to develop strawman text for review at Fall ETF meeting;

Tier III Safety Appliances Strawman Proposal

§238.7XX Safety Appliances for Tier III Trainsets.

(a) *Application.* The requirements of this part apply only to passenger rail cars used in semi-permanently coupled, permanently coupled, or articulated trainset configurations.

(1) If the units, or end of a unit, of the equipment are semi-permanently coupled, or otherwise require uncoupling to be done only at maintenance facilities, the equipment units are not required to be equipped with automatic couplers, sill steps, end handholds or side handholds that would normally be used to safely perform coupling and uncoupling operations.

(2) If the units, or end of a unit, of the equipment are not semi-permanently coupled, permanently coupled, or articulated, the units shall be equipped with hand brakes, sill steps, end handholds, and side handholds that meet the requirements contained in this part.

(b) *General.*

(1) All handrails, handholds, ladders, and sill steps shall be made of 5/8-inch diameter wrought iron or steel, or a material of equal or greater mechanical strength.

(2) All safety appliances shall be securely fastened to the car body structure with mechanical fasteners, meeting the requirements of this part. Application of safety appliances, or support members, by means of welding shall be permissible only if the requirements of 238.230(b), of this part, are met.

(i) Safety appliance mechanical fasteners shall have mechanical strength and fatigue resistance equal to or greater than a ½ inch diameter SAE Grade 1 steel bolt.

(ii) Mechanical fasteners shall be installed with a positive means to prevent unauthorized removal. Self-locking threaded fasteners do not meet this requirement.

(iii) All appliances and support members shall be installed to facilitate inspection all attachments, fasteners or welds.

(c) *Couplers.*

(1) The leading and the trailing ends of a trainset shall each be equipped with an automatic coupler that couples on impact, and uncouples by either activation of a traditional uncoupling lever, or some other type of uncoupling mechanism that does not require a person to go between the equipment units.

(2) The automatic coupler, end handholds, and uncoupling device on the leading and trailing ends of a trainset may be stored within a removable shrouded housing.

(3) If the units in a train are not semi-permanently coupled, permanently coupled, or articulated, both ends of each unit shall be equipped with an automatic coupler that complies with the requirements of (c)(1) of this part.

(4) For the purposes of this subpart, the centerline of the coupler shall be 34 ½ inches (+ ½ inch for construction tolerances). [Dimensions that reference the centerline of coupler shall be based on this dimension, regardless of the actual height of the coupler arrangement used.]

(d) *Hand brakes.* Trainsets shall be equipped with a parking or hand brake that can be safely operated while the trainset is in motion, and that is capable of holding the train on a 3-percent grade.

ETF_026-06 -- Tier III SA Proposal (clean).docx

For discussion purposes only. Not the official position of FRA or USDOT.

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Task Group Updates

Active Task Groups:

- ***Tier III 229 / Inspection, Testing, & Maintenance (ITM):***
 - Crafting new Tier III requirements based on applicable sections of 49 CFR 229 Subpart C;
 - Plan to develop Tier III Inspection, Testing and Maintenance (ITM) detailed requirements once all of the safety standards are agreed upon;
 - Dedicated Task Group meeting will be held in May or June to help expedite discussions.
- ***Engineering Structures & Integrity (ESI):***
 - Developed ETF-ESI_007 "Suggested Practices for Demonstrating Crashworthiness of Passenger Equipment";
 - Meetings in 2014 to commence start on a more general "Compliance Manual" for ETF rules

Inactive Task Groups:

- ***Tier III Brake Systems*** – recommendations incorporated (NPRM 1) - **CLOSED**
 - ***Vehicle Track Interaction (VTI)*** – disbanded;
 - ***Tier III Cab Glazing*** – recommendations incorporated (NPRM 1) - **CLOSED**
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Next Meeting & Objectives



Next Meeting: September 3-4, 2014 (proposed)

Objectives:

1. Reach consensus on Tier III Safety Appliances;
2. Present Tier III Part 229 Recommendations to ETF and start ITM discussions;
3. Reach preliminary consensus on single car/locomotive issues.

Questions?
