

49 CFR Part 238 Equipment Rule Changes are on the Way!

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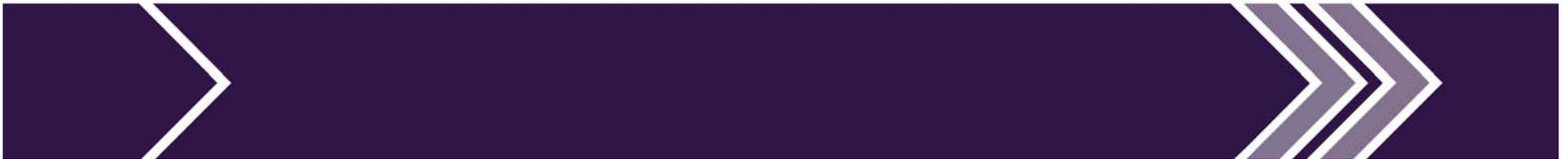
Director, Engineering and Commuter Rail Operations



2018 Rail Conference

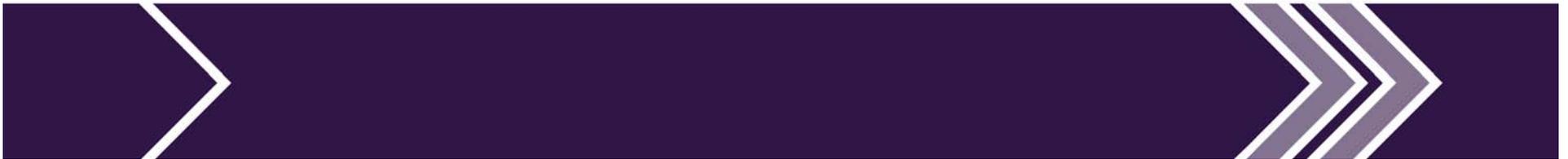
Need for Current Regulatory Efforts

- Industry has been implementing new technologies, design improvements and innovations for passenger rolling stock to address current needs for service
- Historically FRA worked with Industry through various Waiver Petition processes to approve use of alternatively designed equipment
- All parties agreed to move forward with rulemaking process to codify lessons learned from Waiver Petition process
 - Decrease project risk due to uncertainty of regulatory review
 - Decrease costs due to potential standardization



Industry Concerns

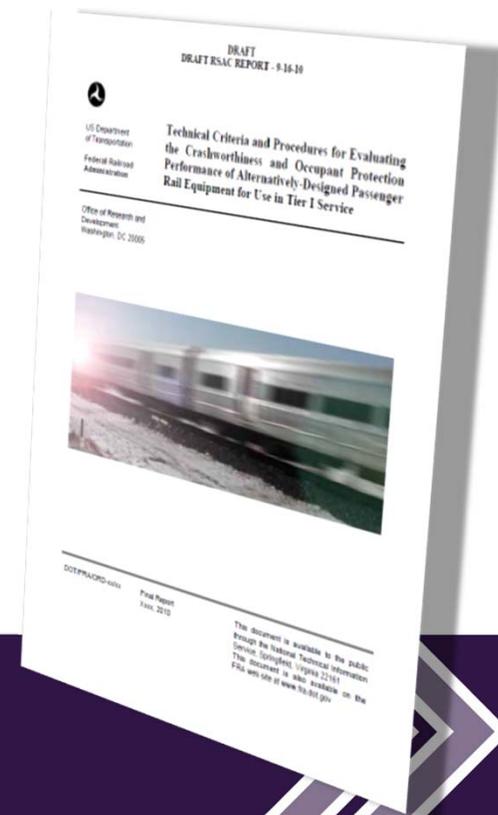
- Tier III requirements required clarity on multiple fronts
- Approval procedure currently undefined and results in interpretation by FRA regional staff in some cases
- As more and more passenger railroads and procurements took place, led to a lot of repeat testing
 - Charger locomotive was tested on multiple corridors without much benefit
- AAR members were frustrated because of track tie up and throughput issues



Passenger Equipment Alternative Compliance

Engineering Task Force Established by Passenger Safety Working Group in **2009**

- **Original Task:**
 - Develop alternative crashworthiness criteria and waiver guidance - published 10/28/2011
- **Revised Task:**
 - Provide recommendations for revised equipment regulations - *Includes completion of Tier III regulations*



Passenger Equipment Alternative Compliance

- Industry has collaboratively worked with FRA under auspices of the Railroad Safety Advisory Committee (RSAC) to draft consensus based rule-text
- Passenger Equipment Alternative Compliance (Tier III) (Final Rule)
 - NPRM was published December 6, 2016
 - Comment period ended February 6, 2017
 - extended at request of APTA
 - FRA received 10 sets of comments
 - Engineering Task Force discussed comments with FRA
 - Final rule estimated sometime in 2018



Passenger Equipment Alternative Compliance

NPRM 1 – issued December 2016



Final Rule – expected 2018

NPRM 1:
(Contents Include)

Tier I trainset alternative crashworthiness

Tier III trainset crashworthiness standards

Align Tier II MAS with new VTI rule
(160mph)

Codify Tier III Glazing and NPRM 1
consensus items

Tier III Braking Systems



Passenger Equipment Alternative Compliance

NPRM 2 – expected 2018



Final Rule – expected ?

NPRM 2:
(In Development)

Tier III Safety Appliances

Incorporate 49 CFR Part for Tier III

Alternative crashworthiness for single car/locomotive

Tier III ITM and MODE

Update Testing/Commissioning Requirements

Update to Tier I passenger trainset/loco safety appliances

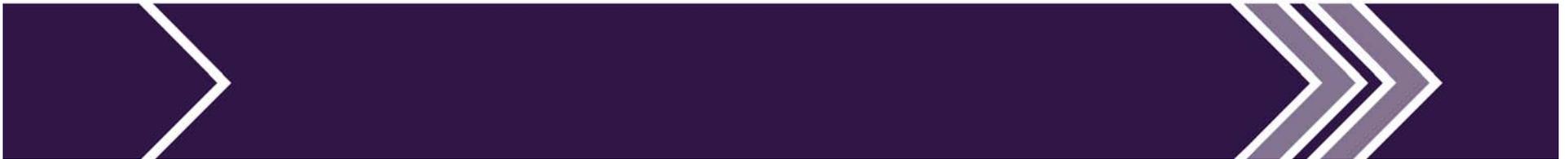
ECP Brakes

Door systems



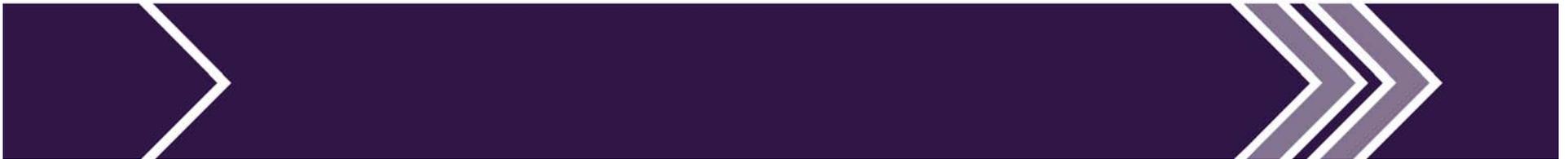
A New Path Forward

- One new section proposed for 49 CFR Part 238.110 related to design documentation, review and approval
 - Approval language drafted in the Engineering Task Force would result in type approvals
 - If the paint changes on a locomotive/car it should not require FRA to approve the design
- As part of dynamic testing, there will be two paths
 - If a car builder conducts dynamic simulations and testing, the equipment could receive portability as long as the maximum speed and cant deficiency stays the same
 - The current path of testing only would be retained for low cost procurements



Summary

- Final Rule for NPRM1 developed through the consensus process and provide clear description of the safety requirements
- Consensus achieved on lot of items for NPRM2 and very elements remain
- If proposed changes make it into a final rule, those would result in considerable cost savings for the passenger equipment industry
- Final rule would result in increased safety and clarity
- Within details of rule-text, FRA may incorporate by reference specific requirements contained within APTA Standards



Acknowledgements

- Amtrak
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- SNC-Lavalin
- STV, Inc.
- Larry D Kelterborn
- Many others



Questions?

