

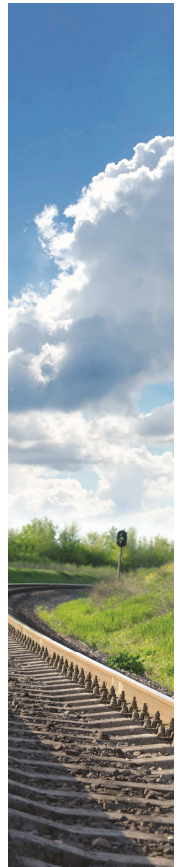
**Railway Supply Institute, Committee on Tank Cars
Meeting with the White House
Office of Management and Budget**

**Washington, D.C.
March 13, 2015**

The Railway Supply Institute's Committee on Tank Cars

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- The Railway Supply Institute (“RSI”) is the international trade association of the railway supply industry. RSI-CTC members collectively:
 - Build more than ninety-five percent (95%) of all new railroad tank cars
 - Own and provide for lease more than seventy percent (70%) of railroad tank cars operating in North America
- The RSI-CTC and its members are committed to improving tank car safety
 - Collaboration with the White House, PHMSA, FRA and Transport Canada
 - New Tank Cars: We support Option 2 for crude oil and ethanol service; Option 3 for all other new tank cars
 - Existing Tank Cars: We support modifications consistent with Option 3 for PG I and II materials (except for top fittings protection)

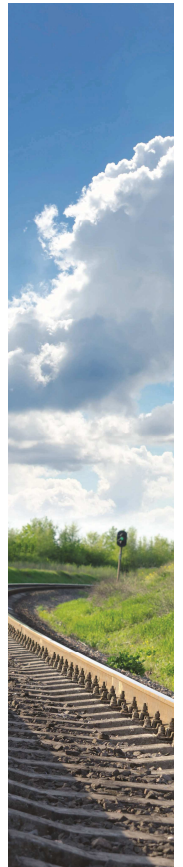


Final Rule Scope

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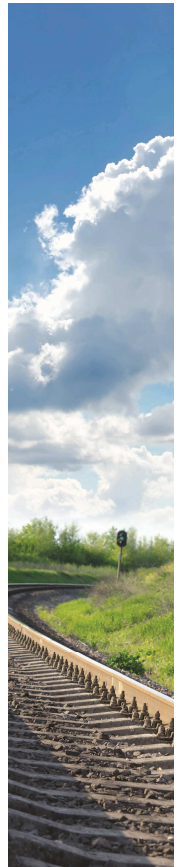
The RSI-CTC supports a final rule scope that is aligned with the Canadian commodity driven approach, such that it covers all new and existing tank cars.

- The Proposed Rule imposes a tank car specification on shippers and owners that is based on train consist, over which shippers/owners have no control or advance knowledge
 - To comply, tank car owners and shippers must assume all shipments will move in an HHFT
 - This means all existing cars will be subject to modification or removal from service
- Railroads would need to operate significantly more trains to ensure unmodified cars comply with HHFT rules
- Tank cars must be fungible – tank cars designed to carry Class 3 flammable liquids typically serve a broad range of products and should not be limited to a particular product based on train consist
- Separate fleets for High-Hazard Flammable Train (“HHFT”) tank cars are not practical



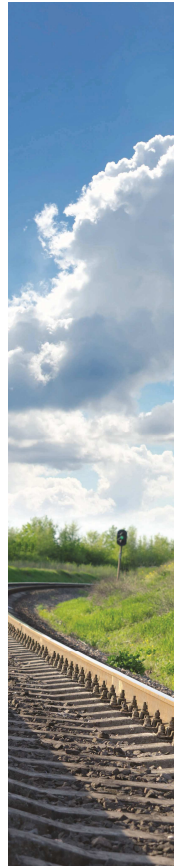
HHFT Concept is Not Workable

- Despite best efforts, the HHFT concept will not effectively limit the number of tank cars subject to the rule
- If Canada's rule applies to all tank cars, owners and lessors will be forced to default to the more stringent rule
- Without harmonization of scope, the practical effect will be that all new cars are built to the DOT/TC-117 standard and all existing tank cars will be modified
- **The Final Rule and RIA should account for the reality of how the rule will operate once implemented, including the cost of modifying the entire existing fleet**



Final Rule Cost Should Reflect Practical Effects

- Since the HHFT concept does not work to limit the scope of the rule, the total number of tank cars impacted by the modification provisions is nearly: **128,200*** not **66,100**, as estimated by PHMSA in the NPRM
- This includes the following subsets of tank cars which will need to undergo modification:
 - ❑ Crude Oil: 79,300 cars
 - ❑ Ethanol: 20,300 cars
 - ❑ Other PG I & II: 23,700 cars
 - ❑ PG III: 4,900 cars
- All tank cars in Crude Oil, Ethanol and Other PG I & II service (123,300) cannot be modified by October 1, 2018 as specified in the NPRM
- Because the number of cars are understated, the modification costs are also understated
- Using PHMSA's modification costs, costs are \$3.9 billion rather than the \$2.2 billion projected in the Draft Regulatory Impact Analysis (RIA)
 - ❑ Full cost of the final rule will be much higher

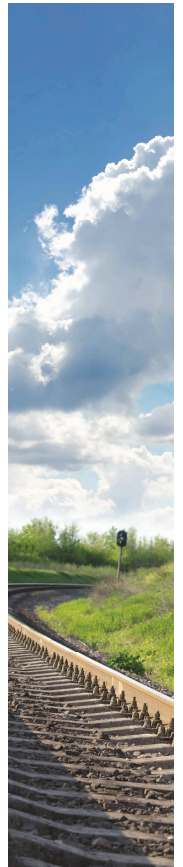


*This accounts for 28% early retirement of all existing legacy DOT-111s

Modification Deadlines Should Reflect Shop Capacity

NPRM Deadlines are unrealistic because they do not reflect real-world future shop capacity

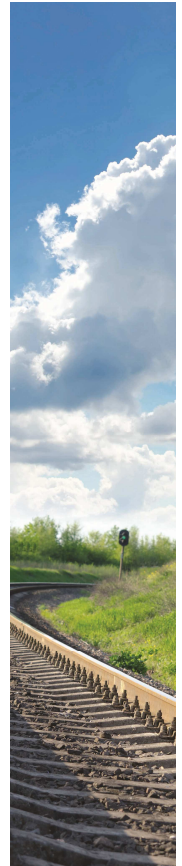
- The RSI-CTC surveyed its members for information about shops they **own** or **regularly utilize** for maintenance and repair work (72% of all A through D certified shops)
- This included participation from:
 - ❑ American Railcar
 - ❑ CIT Rail
 - ❑ GATX Corporation
 - ❑ General Electric Railcar Services Corporation
 - ❑ The Greenbrier Companies
 - ❑ Trinity Rail Group, LLC
 - ❑ Union Tank Car Company
- The RSI-CTC also included capacity estimate for Progress Rail using the Alltranstek survey, commissioned by the American Petroleum Institute
- The RSI-CTC commissioned The Brattle Group (“Brattle”) to perform an economic impact analysis and critique of PHMSA’s Proposed Regulations
 - ❑ The Brattle Report contains the most credible and robust analysis of projected shop capacity (estimating 6,400 modifications/year)



Estimating Annual Shop Capacity

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- RSI-CTC/Brattle capacity estimates account for:
 - The investment in and expansion of existing facilities;
 - Securement and bringing on-line of “brownfield facilities” (existing structures that can be modified for tank car programs and have existing rail service)
- “Greenfield” facilities are not expected to be operational in time to meet the earliest modification deadlines for the most extensive tank car work
- A 6-month minimum shop ramp-up period is required to:
 - Configure production areas
 - Order parts and components
 - Hire and train the necessary workforce
- RSI-CTC expects expansion of monthly capacity over time as providers gain experience and make further capital investments. **This reflects efforts to stretch beyond 6,400 modifications/year.**
 - Modifications of jacketed cars take less time, allowing up to 20% more cars per month to be completed vs. non-jacketed cars
 - Modifications to Jacketed CPC-1232 and PG III (PRD and BOV only) will be completed as cars come in for requalification or general repairs



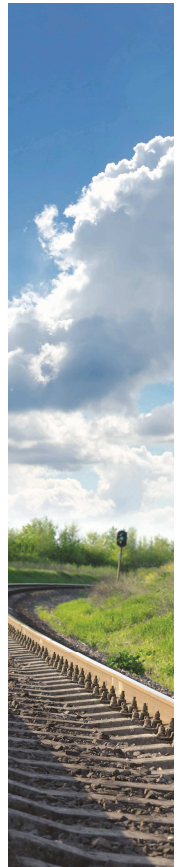
Unintended Consequences Flow from Unworkable Modification Deadlines

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Brattle's Key Findings:

- Draft RIA does not account for transportation impacts, including potential shifts of traffic to other modes, which increases costs
- Nearly 1 million tank-car-years of capacity may be lost due to:
 - early retirements
 - tank car unavailability while undergoing repair or awaiting modification
 - diminished carrying capacity
- Rail capacity shortages will result in higher crude oil and ethanol shipping costs or reductions in production
- Safety and environmental impacts of diversion to trucks is substantial and negative

The RSI-CTC proposal is a more cost-effective regulatory alternative because it protects safety, avoids unnecessary economic dislocation, and avoids unnecessary implementation costs



The RSI-CTC Modification Timeline is Achievable

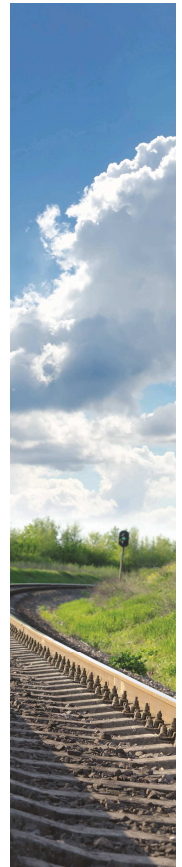
- The RSI-CTC modification deadlines account realistically for the available shop capacity
- By prioritizing the modification of crude oil and ethanol tank cars, the tank cars most likely to travel in unit trains are addressed first

Subfleet	Deadline (Months after Final Rule Publication)	Tank Car Compliance Population (adjusted for 28% early retirement)
Legacy DOT-111s (crude oil & ethanol) Total: 41,207	72 months (625 cars/month after 6 month ramp up)	16,625 (NJ, crude oil) 5,052 (J, crude oil) 19,467 (NJ, ethanol) 63 (J, ethanol)
NJ CPC-1232s (crude oil & ethanol) Total: 22,744	96 months (947 cars/month)	21,993 (NJ, crude oil) 751 (NJ, ethanol)
Legacy DOT-111s (other FLs, PG I and II)	120 months (920 cars/month)	14,279 (NJ) 5,421 (J)
NJ CPC-1232s (other FLs, PG I and II)	120 months (included in line above)	2,395
J CPC-1232s (all)	120 months (3,721 cars/year)	35,608 (crude oil) 23 (ethanol) 1,580 (other FLs, PG I and II)
Tank Cars in PG III Service	120 months (492 cars/year)	4,925 (FL, PG III only)



The RSI-CTC Proposal is More Cost Effective

- Under the Brattle Analysis:
 - ❑ Idled cars awaiting modification after applicable deadlines are reduced from 103,000 to 42,000
 - ❑ Lost car-years of capacity are reduced from 1,000,000 to 400,000
 - ❑ Potential increase in crude oil shipment costs (all years) is reduced from \$81 billion to \$12 billion
 - ❑ Potential peak year crude oil production loss is reduced from 40 production days (300 mill. barrels) to less than 10 production days (67 mill. barrels)
 - ❑ Potential increase in ethanol shipment costs (all years) is reduced from \$12 billion to \$3 billion
- With the RSI-CTC's assumptions about stretching beyond projected annual shop capacity, further significant reductions in costs may occur



ECP Brakes

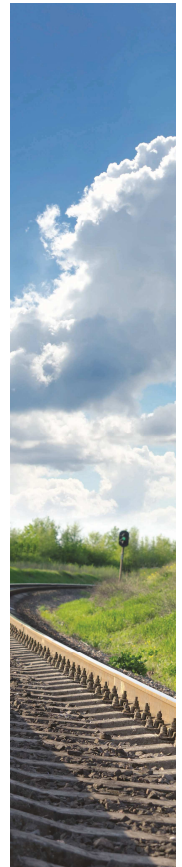
ECP Brakes do not provide significant safety advantages during a derailment scenario, as compared to two-way End of Train (“EOT”) or Distributed Power (“DP”) Systems

Current Operating Environment

- ECP Brakes are limited to closed loop usage in North America on 6 trains
- Two interoperable ECP brake systems exist, but components are not physically interchangeable

PHMSA overestimates the benefit of ECP Brakes

- In a derailment because the FRA model:
 - Incorrectly applies higher braking forces for ECP Brakes (12%) as compared to EOT/DP (10%) in a derailment scenario
 - Fails to account for energy absorbed by derailed cars and the ground
- Business benefits are also overstated
 - Use of air brakes is limited
 - If return on investment was as significant as assumed by PHMSA, industry would have installed broadly across locomotives and railcars



ECP Brakes (cont'd)

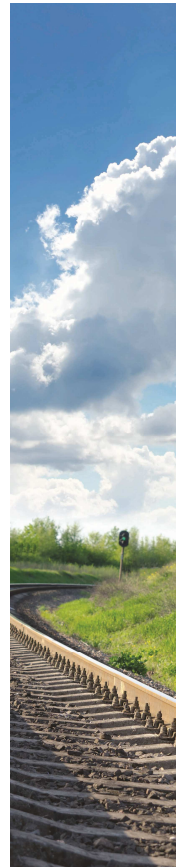
The true cost of ECP Includes:

- Overlay system required for the entire tank car fleet
 - \$7,300 for new cars
 - \$7,800 for modified cars
- Requires new test equipment and repair parts at numerous locations for both ECP systems
- Additional training required for Engineers, Conductors, Carmen
- Cars will need to be re-shopped if components are not available at the time of manufacture or modification

Limiting ECP brakes to unit trains does not actually mitigate costs because the same implementation issues arise with the HHFT concept

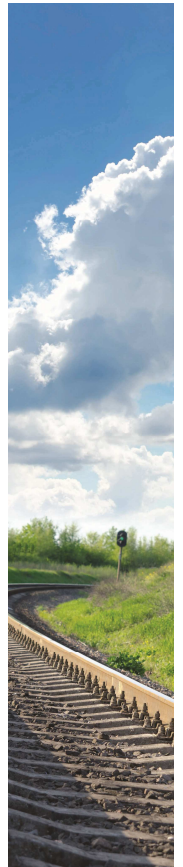
- No way to determine train consist in advance at the time of manufacture or modification
- Owners/lessors will have to assume all tank cars require ECP brakes
- As a result of routine maintenance and business decisions 10-15% of cars will be swapped out from the original ECP-equipped unit train

The RSI-CTC supports the AAR's analysis of ECP Brakes, as presented to OMB on March 6, 2015



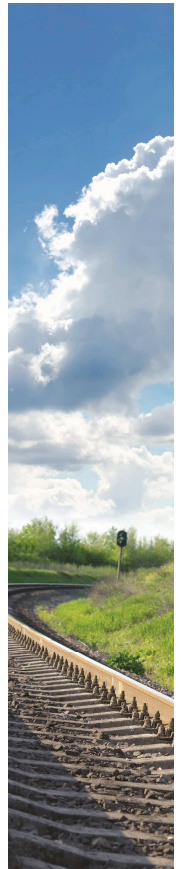
Conclusions

- True cost of the final rule should account for modification of all existing tank cars because the HHFT concept is not a workable scope
- Modification timeline should reflect industry capacity
 - Minimum 6-month ramp up period is critical
 - Priority should be place on non-jacketed cars in crude oil and ethanol service
 - RSI-CTC proposed timelines are aggressive, reflecting realistic assessment of expected industry capacity
- The costs of applying ECP brakes are not justified by the expected minimal safety benefits vs. EOT or DP



Questions

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3/16/2015