

ELECTRONIC AIR BRAKE SLIP RULEMAKING

FRA's brake system safety regulations are antiquated. The current regulations prescribing strict limits on the distances a train may travel between brake tests are now, in part, well over 40 years old and fail to consider current brake system technology used by railroads. Experience shows that they bear no relationship to operational safety. They do, however, increase employee exposure to safety hazards, increase congestion at terminals, result in unnecessary instances of blocked highway-rail grade crossings, and slow down the supply chain.

In 2019, AAR filed a petition for rulemaking seeking to modernize FRA's existing regulations by establishing an alternative brake testing regime predicated on railroads adopting Electronic Air Brake System (eABS) technology for tracking car-level brake test data in real-time. FRA published an eABS NPRM in the first Trump Administration, but no additional action has been taken since. Updating FRA's own estimates, revising the existing regulations in a manner consistent with AAR's petition could result in **\$1.076 billion of regulatory relief over the next 10 years.**

EXISTING REGULATIONS ARE PREMISED ON OUTDATED ASSUMPTIONS.

The existing regulations prescribing when railroads must conduct brake tests are based on two outdated assumptions.

Assumption 1: Air brake reliability is tied to FRA's distance-based inspection regime.

Air brake reliability is not linked to railroads conducting brake tests every 1,000 miles or 1,500 miles, as prescribed in FRA's regulations. FRA has granted several waivers to railroads allowing them to operate in excess of 1,500 miles between brake tests.

FRA acknowledges that these waivers have demonstrated that trains **"can operate at least as safely at longer distances between brake tests as at distances currently allowed by the regulations."**

Additionally, while traveling in Canada, freight cars are allowed to operate coast-to-coast without conducting intermediate air brake inspections and have been doing so for decades. However, when operating in the U.S., the same freight cars again fall under FRA's distance-based limitations and railroads are required to conduct unnecessary brake tests. The railroads operating in Canada have found that braking reliability bears no relation to the mileage between inspections. Simply put, there is no correlation between increased mileage and incident risk.

Assumption 2: Increased inspection frequencies are necessary because railroads are unable to track brake inspections in real-time at the car level.

Railroads addressed this issue by developing eABS. The use of eABS eliminates any uncertainty regarding who performed the last brake test for each car in the train and when and where the test was performed. Moreover, because the information is collected electronically, eABS provides traceable, real-time information that was previously unavailable when FRA promulgated its current distance-based regime.

IMPLEMENTING AAR'S PETITION WILL REDUCE REGULATORY COSTS WHILE IMPROVING SAFETY AND EFFICIENCY.

The AAR petition proposing to create an alternative regulatory framework for railroads that opt to use eABS was based on three pillars.

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1. Railroads would be allowed to add or remove multiple cars from a train without performing an additional brake test if that train is made up solely of cars with eABS records.
 2. Any car with a valid eABS record would be allowed to travel up to 2,500 miles without stopping provided that the car's initial brake test was conducted by a Qualified Mechanical Inspector (QMI) and a mechanical inspection was performed by a designated inspector.
 3. The maximum permitted mileage of a car inspected by a qualified person (e.g. train crew member) would increase from 1,000 miles to 1,500 miles.
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Adopting the full relief requested in AAR's petition in the final rule will improve employee safety by reducing employee exposure to safety hazards including slips, trips, and falls tied to brake tests. It will also reduce exposure to injuries related to unnecessary train starts, stops, and setouts. Removing these artificial restrictions will also measurably improve freight delivery times. The eABS rule will increase customer service while lowering operating costs; this is clearly in the national interest.

RAILROAD COST SAVINGS FROM IMPLEMENTING EABS:

- **Unlimited Setouts and Pick-Ups:** In 2020, FRA estimated industry savings from operating efficiencies totaling between \$121.6M (assuming 1.15 locomotives per train) and \$164M (assuming 3 locomotives per train) (undiscounted 2018 dollars) over the first 10 years assuming gradual implementation over 3 years. Adjusting for increases in fuel prices, wage rates, and freight car counts per train since 2018, and applying the Congressional Budget Office (CBO) projected CPI-U inflation rate of 2.3% annually coupled with full implementation in the first year, **savings realized for the next 10 years would total \$505M to \$676M.**
- **Increased Mileage (2,500 miles) for QMI Inspections:** In 2020, FRA estimated industry savings totaling between \$91.6M and \$164.6M (undiscounted 2018 dollars) over the first 10 years for only the extension proposed for QMI-inspections to 2,500 miles. Adjusting for increases in fuel prices, wage rates, and freight car counts per train since 2018, and applying the CBO projected CPI-U inflation rate, the estimated **savings for extending train crew inspection mileage for the next 10 years would total between \$140M and \$250M.**
- **Increased Mileage (1,500 miles) for Train Crew Inspections:** FRA estimated industry savings for extending Train Crew inspections to 1,500-mile intervals in addition to the proposed QMI extension as an alternative in its economic analysis. The cost savings for the Train Crew inspections for the first 10 years totaled between \$55M (assuming 1.15 locomotives per train and 1.5 hours per brake test) and \$99M (assuming 3 locomotives per train and 2 hours per brake test) (undiscounted 2018 dollars). Adjusting for increases in fuel prices, wage rates, and freight car counts per train since 2018 and applying the CBO projected CPI-U inflation rate, the estimated **savings for extending train crew inspection mileage for the next 10 years would total between \$84M and \$150M.**

The lower ends of the ranges assume 1.15 locomotives per train and 1.5 hours for a brake test — assumptions that are simply not representative of the types of trains that would get relief from the increased mileage. In addition to monetary savings there would be fewer employee injuries resulting from employees inspecting the train, increased throughput, and improved service delivery. The time savings for the brake tests above do not include the time that a train waits for the inspection to begin. A more reasonable amount of time an average train is delayed while waiting for, and receiving, the brake inspection is 3.5 hours per train. Eliminating this delay will enable railroads to offer a more competitive service, especially for time-sensitive intermodal trains.