

Data Spotlight

October 26, 2023

Adjusting Rail Car Safety Standards to Meet the Moment

In September 2023, the Bureau of Transportation Statistics (BTS) published the [Fleet Composition of Rail Tank Cars Carrying Flammable Liquids: 2023 Report](#). As noted in BTS' [release](#), the number of tank cars that reached the U.S. Department of Transportation's (DOT) safety standards was greater in 2022 than in previous years.

After the train derailment in East Palestine, Ohio, DOT's Pipeline and Hazardous Materials Safety Administration's and Federal Railroad Administration issued a [joint notice urging tank car manufactures to move up their safety deadlines by four years to 2025](#).

When the [Fixing America's Surface Transportation \(FAST\) Act](#) was enacted on December 4, 2015, rail car manufacturers were required to meet a commodity-specific phase-out schedule to build and retrofit cars concluding on May 1, 2029. BTS data shows that the rail fleet continues to meet compliance standards as required by the FAST Act.

Congress is considering accelerating the FAST Act deadlines for compliance, as the U.S. Senate introduced the [Railway Safety Act \(RSA\)](#), to address safety requirements for rail carriers and trains transporting hazardous materials. RSA would move the deadline for a large number of tank cars up by four years to May 1, 2025.

Per a 2023 BTS assessment, citing data from the [Association of American Railroads](#), the number of tank cars that need to be replaced by each of the proposed deadlines is:

Cars Needing Replacement

Date	FAST Act Deadlines	With Passage of RSA
May 1, 2023	6,251	6,251
July 1, 2023	1,210	1,210
May 1, 2025	947	23,704
May 1, 2029	22,757	

If RSA passes, 23,704 cars carrying Class 3¹ flammable liquids would need to be replaced or retrofit in the two years between the existing 2023 deadlines and proposed new 2025 deadlines. Between 2016 and 2018, more than 26 thousand cars were added to the fleet of tank cars carrying Class 3 flammable liquids preceding deadliness for the phase-out of tank cars carrying crude oil.

Notable statistics:

- In 2022, 59,186 tank cars (59% of fleet) transporting Class 3 flammable liquids met the DOT-117 specifications, up from 57% of the fleet in 2021.
- In 2022, shipments of flammable liquids were down 1.5 percent overall, and crude shipments alone were down by 27.6 percent compared to 2021.
- In 2022, among the Nation's fleet of DOT-117 tank cars, 56% (32,937) were new, and 44% (26,219) were retrofitted.

¹ A flammable liquid (Class 3) is a liquid with a flash point of not more than 60° C (140° F) or any material in a liquid phase with a flash point at or above 37.8°C (100° F) that is intentionally heated and offered for transportation or transported at or above its flash point in a bulk packaging. This includes liquids such as refined petroleum products, crude oil, and ethanol.