Rail Carriers and DOT Conspire to Drop the Ball on ECP Brakes

Despite admitting to a cost accounting error of $117 million in estimated future damages from train derailments that could be avoided by using Electronically Controlled Pneumatic (ECP) brakes, the Department of Transportation (DOT) continues to insist that, “… Even with the correction, in all scenarios, costs still outweigh benefits.” ECP brakes had been included as part of a package of rail safety measures enacted in 2015, following a rash of wrecks by trains hauling oil and ethanol in the U.S. and Canada, including the states of Alabama, Oregon, Montana, Virginia, West Virginia, North Dakota, and Illinois.

Under the previous administration, the DOT had determined the brakes would cost up to $664 million over 20 years, and save between $470 million and $1.1 billion from accidents that would be avoided if such brakes were implemented. However, under the current administration, DOT has reduced those cost savings numbers to between $131 million and $374 million (note: the loss of workers lives was not taken into account).

“The omission of $117 million from the rule’s anticipated benefits is further proof that the Trump administration is willing to cut corners to put industry profits ahead of … safety,” said Oregon Senator Jeff Merkley, urging the administration to reconsider the brake rule given the DOT miscalculation. He called for “a new cost-benefit analysis that is full and transparent.”

The DOT claims to have downplayed the estimated future damages because oil train shipments had dropped off after the initial DOT report was released. However, oil train shipments have rebounded in recent months, and are now what they were at their peak. Shipments of volatile and hazardous materials such as crude oil are the explicit candidates for ECP brake applications as derailments of such commodities have the greatest potential for devastating impact upon life, property and the environment.

“These ECP brakes are very important for oil trains,” said Steven Ditmeyer, a rail safety expert and former senior official at the Federal Railroad Administration. “It makes a great deal of sense: All the brakes get applied immediately, and there would be fewer cars in the pileup.”

John Risch, National Legislative Director of the Sheet Metal, Air, Rail, Transportation Union (SMART), notes numerous other ways that ECP brakes offer a great advancement over traditional air-brakes. “We are using a 120-year-old technology with mechanical brakes. They’ve come to the peak of what you can do with them.” In a statement before the US DOT in 2017, the union noted a dozen points where ECP brakes are vastly superior to traditional brakes. Notably among these is the fact that all brakes in a train are set and released at the same time, reducing in-train forces. And because they set immediately, stopping distances in emergency situations are vastly reduced, enabling trains to avoid catastrophe or limiting the scope and damage when a derailment does take place. In addition, ECP brakes allow for “graduated release”, enabling a partial release of the brakes, a crucial advancement in mountainous territory.

With the industry hell bent on running longer and heavier trains, given the volume of hazardous materials moving by rail, and with crude-by-rail making a comeback, ECP brakes are an innovation whose time surely has come. At the 2018 Convention of Railroad Workers United, the members present adopted a Resolution in Support of ECP Brakes. Given the number of runaway train wrecks in recent years that could have been avoided had ECP brakes been in service on these trains, and given the ongoing record profits in the industry, it is verging on criminal that a known technology – one with a price tag just a fraction that of Positive Train Control – is not being implemented immediately.