

May 10, 2018

The Honorable Daphne Jefferson
Deputy Administrator
Federal Motor Carrier Safety Administration
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Request for Comments Concerning Federal Motor Carrier Safety Regulations (FMCSRs), Which May Be a Barrier to the Safe Testing and Deployment of Automated Driving Systems-Equipped Commercial Motor Vehicles on Public Roads; Docket No. FMCSA-2018-0037

Dear Deputy Administrator Jefferson:

The Insurance Institute for Highway Safety (IIHS) welcomes the opportunity to comment on the Federal Motor Carrier Safety Administration's (FMCSA) effort to review FMCSRs with regard to testing and deployment of automated driving systems on commercial motor vehicles (CMVs). Now is the time for FMCSA to review and possibly revise FMCSRs, not only to enable further testing and deployment of automated driving systems, but to ensure these vehicles are operated as safely as possible on our nation's roadways – even if that means more restrictions, not fewer, applied to their use and testing.

FMCSA stated in the request for comments that its regulations require a trained commercial driver behind the wheel at all times and that the Agency is reconsidering this requirement. IIHS believes that FMCSA should not reconsider this requirement, for the foreseeable future, to maximize the safety of automated driving systems testing, regardless of whether human supervision is an assumption of the final design.

The Volpe report (Perlman et al., 2018) concludes that few challenges exist in applying current FMCSRs to “automated CMVs that retain a role, even an intermittent one, for a human driver”. The Volpe report also concludes that there may be significantly more challenges in applying these regulations to “truly driverless CMVs.” While IIHS agrees with this conclusion about “truly driverless CMVs”, we believe FMCSA would have a more immediate impact on safety by focusing on regulating the on-road testing of automated driving systems and specifically regulating the use of partial driving automation that may enter the market sooner.

While all rules that increase the safety of conventionally driven CMVs also can be expected to increase the safety of automated CMV test drivers, IIHS believes those rules may not be sufficient. Supervising an automated driving system may present test drivers with challenges that are different from driving a conventional CMV. Similarly, use of lower levels of driving automation, such as platooning or SAE level 2 systems, present unique challenges to drivers. For example, there is no reason to think a driver could safely serve as either leader or follower in a platoon, operate a level 2 system, or supervise an automated driving system during testing longer than they could drive a conventional CMV. FMCSA should evaluate the possibility that such systems increase fatigue, or have other unique challenges, and should regulate accordingly.

When crashes involving automated driving do happen, FMCSA should require their reporting and make the data (absent personal/proprietary information) available to the public. Information about each crash incident, regardless of severity, involving an automated driving system-equipped CMV should include the type of automated driving system and whether that system was engaged at the time of the crash, whether and how the driver intervened, and a narrative of crash events as documented in police crash reports. FMCSA also should consider collecting exposure data (e.g. vehicle miles traveled and logged driving time

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while using automated driving systems). This creates an opportunity to identify problems and evaluate the actual safety effects of such technologies for the benefit of policy makers, industry, and the public.

In summary, IIHS does not see current regulations as a barrier to automated driving system testing, but rather as a necessity to ensure safety. FMCSA has an opportunity to increase safety by focusing regulatory efforts on maximizing the safety of partial automation and on the testing of automated driving systems on CMVs. That may involve additional rules and careful modifications of existing ones, rather than simply removing regulatory hurdles.

Sincerely,

A handwritten signature in black ink, consisting of a stylized 'E' followed by a large, sweeping oval loop.

Eric Teoh
Senior Statistician

References

Perlman D, Bogard D, Epstein A, Santalucia A, Kim A. (2018, March). *Review of the Federal Motor Carrier Safety Regulations for automated commercial vehicles: Preliminary assessment of interpretation and enforcement challenges, questions, and gaps* (Report No. FMCSA-RPT-17-013). Washington, DC: Federal Motor Carrier Safety Administration.