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DOT Docket No. FMCSA-2018-0037

Department of Transportation
West Building, Ground Floor
Room W12-140
1200 New Jersey Avenue, SE
Washington, D.C. 20590-0001
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Safe Integration of Automated Driving Systems (ADS)-Equipped Commercial Motor Vehicles; DOT/FMCSA # FMCSA-2018-0037

These comments are filed jointly by the Truck Safety Coalition (TSC), Citizens for Reliable and Safe Highways (CRASH), Parents Against Tired Truckers (P.A.T.T.), and our volunteers, who are the family and friends of truck crash victims and survivors seeking truck safety advances, in response to the Federal Motor Carrier Safety Administration's (FMCSA) "Supplemental advance notice of proposed rulemaking; request for comments."

The National Highway Traffic Safety Administration (NHTSA) projects truck crash fatalities to increase another 10% in 2022, which would result in over 6,000 killed and roughly 147,000 more injured at a cost to society of an estimated \$180 Billion.¹ This would represent an 83% increase in truck crash fatalities since 2009.² According to the [Insurance Institute for Highway Safety](https://www.iihs.org/), in fatal two-vehicle crashes involving a large truck and a car, 97 percent of the deaths are the occupants of the passenger vehicle. A truck crash fatality crisis is occurring on our roads and highways.

The SANPRM requests responses to specific questions aimed at identifying potential needs to adapt existing Federal Motor Carrier Safety Regulations (FMCSRs) in order to accommodate Level 4 & Level 5 driving automation in CMVs. It states that "the U.S. DOT Innovation Principles will guide the Department's work in supporting transportation innovation." TSC is pleased to see this affirmative posture taken by U.S. DOT. The document states that the goal of transportation innovations is to "reduce deaths and serious injuries on our Nation's transportation network, **while committing to the highest standards of safety across technologies** (emphasis added)."³

¹ <https://www.nhtsa.gov/press-releases/nhtsa-estimates-traffic-deaths-2022-third-quarter>

² Traffic Safety Facts: Crash Stats; Early Estimates of Motor Vehicle Traffic Fatalities and Fatality Rate by Sub-Categories in 2021, NHTSA, May 2022, DOT HS 813 298;

³ <https://www.transportation.gov/priorities/transformation/us-dot-innovation-principles>

Below, with this shared goal in mind, please find TSC's responses and recommendations to selected specific questions listed in the SANPRM.

1.1 Should FMCSA require motor carriers operating Level 4 or 5 ADS-equipped CMVs to notify FMCSA before operating those vehicles in interstate commerce without a human driver behind the wheel? If so, what potential methods or procedures should be established to notify FMCSA of those operations?

TSC strongly urges FMCSA to require notification prior to operating Level 4 or Level 5 ADS-equipped CMVs in interstate commerce with or without a human driver(s) behind the wheel. At this time as well as for the foreseeable future, FMCSA should not be allowing any Level 4 or Level 5 ADS-equipped CMVs to be operated without a human "fail-safe" driver(s).

Before granting authority to any carrier to utilize Level 4 or 5 ADS-equipped CMVs, FMCSA and NHTSA must ensure clear and rigorous performance standards and reporting requirements are in place. The questions in this SANPRM seem out of step with where NHTSA's CMVADS rulemaking focus needs to be and seemingly implies to the respondent that FMCSA feels Level 4 or 5 ADS-equipped CMVs are ready for primetime without human drivers.

Furthermore, there is a paucity of data that remotely suggests Level 4 or 5 ADS-equipped CMVs are capable of operating on the road safely without a human driver. Therefore, TSC strongly recommends FMCSA require any Level 4 or 5 ADS-equipped CMVs operating in interstate commerce must retain a human driver capable of taking over operation as conditions require. Doing so allows for critical data collection regarding the efficacy of ADS systems to inform rulemaking and performance standard-setting requirements while not compromising safety and using other roadway users as test subjects without consent.

TSC recommends that any carrier seeking authorization to use Level 4 or Level 5 ADS-equipped CMVs in interstate commerce utilize a process comparable to the Hazardous Materials Safety Permit process but is modified specifically to ADS-equipped CMVs. The permit process at a minimum should entail the make and model of the ADS-equipped CMVs, the number used, ADS-specific safety management controls, ADS-specific driver training, and ADS-specific maintenance to be utilized to ensure the ADS-equipped CMVs can be operated safely with a human "fail-safe" driver(s).

1.2) Before operating in interstate commerce, should motor carriers be required to submit information, data, documentation, or other evidence that demonstrates to FMCSA that motor carriers seeking to operate Level 4 or 5 ADS-equipped CMVs have appropriate safety management controls in place to operate the vehicle in accordance with the manufacturer's specifications and with Federal requirements? If so, please describe any recommended approaches including the information to be provided and

appropriate techniques for reviewing that information. If available, provide cost estimates for proposed approaches.

As described above, motor carriers must be required to submit data, documentation, and additional evidence that demonstrates they are capable of operating Level 4 or Level 5 ADS-equipped CMVs with a human driver(s) safely.

At a minimum, FMCSA must have in its possession the following information: the specific and granular Operational Design Domain(s) the manufacturer certifies the ADS-equipped CMV to be safely used in, training policies, number of certified inspectors, law enforcement interaction plans, consent and agreement to report all human driver(s) reported instances of observed concern during operation, and vision test results that demonstrate the CMV can accurately ascertain all types of roadway users and objects on the road, including all types of vulnerable road users.

1.3) What data should FMCSA collect and maintain regarding Level 4 or 5 ADS-equipped CMVs engaged in interstate transportation? How would such information be used and how would it improve FMCSA's ability to oversee the safe operation of Level 4 or 5 ADS-equipped CMVs?

FMCSA should collect, at minimum, the following elements of information: The number of ADS-equipped CMVs operating for each carrier, the number of trips/miles driven in "blue sky" conditions, the number of trips/miles driven in inclement weather conditions, as well as the type of inclement weather encountered, number and severity of all reportable incidents for ADS-equipped CMVs that includes the type of weather conditions and time of day (i.e. night driving vs. day driving) they occurred, maintenance and enhanced inspection data, and all human driver(s) reported instances of observed concern during operation. TSC acknowledges that NHTSA's standing order currently collects all ADS reportable incidents, but there is no guarantee that the order will carry on into perpetuity or that said data is shared with FMCSA. This must also be addressed to ensure the entirety of DOT is availing itself of the information and insights offered by this data.

Lastly, FMCSA must reserve the right to revoke any carrier's ADS-CMV permit based on the operational data collected.

2.1) To what extent should the Federal requirements otherwise applicable to CMV drivers (such as hours-of-service limitations, drug and alcohol testing, and physical qualifications), also apply to a remote assistant who is not expected to take control of the dynamic driving task of an ADS-equipped CMV operating at Level 4?

It is very unclear what job tasks and responsibilities FMCSA assumes a "remote assistance" would have in posing this question. All remote assistances who have a responsibility to ensure an ADS-equipped CMV is operated safely in real time must meet all existing safety requirements for CMV Drivers. They must also have completed Entry

Level Driver Training, obtained a CDL, and be subject to HOS requirements with no opportunity for exemptions based on commodity type.

3.1) Removal Process: Should Level 4 or 5 ADS-equipped CMVs be subject to pre-trip inspection requirements for their mechanical and ADS components in addition to those specified in 49 CFR 392.7, including those which might necessitate new inspection equipment, before such CMVs are dispatched and after a specified period of operation? If so, what methods should be used to conduct these additional inspection items, what equipment components should be inspected, what documentation should be required, who should be responsible for conducting those inspections and what qualifications or specialized training should be required, and how frequently should the additional inspections be conducted?

The Commercial Vehicle Safety Association's Enhanced Inspection Program should be required. Also, as recommended earlier, as a human driver is still involved, the pre and post-trip inspections should still be completed for every ADS-equipped CMV, just as it is for a traditional CMV. Independently trained and certified inspectors should be responsible for the inspections. The Enhanced Inspection is still needed due to the highly automated and complex nature of the systems required for safe operation of a CMV that a traditional pre-post trip inspection is unable to account for. Also, as a human driver(s) is still involved, they could commandeer the ADS-equipped CMV as required for a roadside inspection should law enforcement decide to require it. This also resolves the later question posed in the SANPRM regarding the potential for illicit criminal activity to occur, such as human trafficking, that could occur if ADS-equipped CMVs are not subject to roadside inspections. As the goal of the DOT Innovations Principles outlined,

Curiously, the SANPRM does not address the minimum liability insurance needs for a Level 4 and 5 ADS-equipped CMV involved in interstate commerce. The current level of minimum liability insurance is \$750,000 and has never been raised, not even for inflation since it was set in 1980. If the FMCSA is going to consider driverless Commercial Motor Vehicles, it must first examine what the appropriate level of liability insurance must be for an unproven technology. FMCSA's own reports state the current level is inadequate to cover the costs of catastrophic crashes for trucks with human drivers.⁴ It is not unreasonable to expect the minimum liability insurance required for Level 4 or 5 ADS-equipped CMVs to be 500-1,000 times higher than the current inadequate levels.

The public views the promise of ADS-equipped CMVs with great skepticism. Advocates for Highway and Auto Safety commissioned a public opinion poll on the topic of driverless cars and trucks and nearly 9 out of 10 respondents reported being "deeply troubled" by the prospect of sharing the road with these vehicles.⁵ The burden is on ADS manufacturers and interested carriers to prove to the public and DOT that this technology can work safely. The lack of data requires that DOT not unnecessarily risk the lives of the 200+ million roadway users who never agreed to be part of this experiment. As FMCSA proceeds with this rulemaking, it **must require**

⁴ FMCSA, Examining the Appropriateness of the Current Financial Responsibility and Security Requirements for Motor Carriers, Brokers, and Freight Forwarders--Report to Congress, May 2022

⁵ <https://saferoads.org/wp-content/uploads/2023/03/Advocates-Caravan-AV-Poll-Report-.pdf>

a “fail-safe” human driver(s) in Level 4 or 5 ADS-equipped CMVs. This would demonstrate concern for safety and still allow for critical data to be collected that can inform continued learning, development, and robust federal regulations that will be necessary. U.S. DOT’s Innovation Principles require the **highest standards of safety** and TSC urges FMCSA to follow through on this commitment in its regulatory approach to Level 4 and 5 ADS-equipped CMVs.

Sincerely,



Zach Cahalan
Executive Director, Truck Safety Coalition (TSC)

Tami Friedrich Trakh
President
Truck Safety Coalition

Tami’s sister, Kris, brother-in-law, Alan, and two of their children, Brandie and Anthony, were killed in 1989 when a tanker truck overturned in front of them and exploded.

Dawn King
Board Member

Citizens for Reliable and Safe Highways & Truck Safety Coalition

Dawn’s father, Bill Badger, was killed in 2004 while slowed in traffic when he was hit from behind by a truck driver who had fallen asleep at the wheel.

Daphne & Steve Izer
Co-Chair
Parents Against Tired Truckers

Daphne and Steve’s son, Jeff, and three of his friends were killed in 1993 when a semi-truck driver fell asleep at the wheel and ran over their parked car.

Russell Swift
Co-Chair
Parents Against Tired Truckers

Russ’ son, Jasen, was killed instantly, as was a fellow Marine, while they drove in the dark to work in 1993, by a seventeen-year-old truck driver on an invalid learner’s permit whose truck was stuck across two lanes after trying a U-turn, causing the car to drive into and under the side of the trailer, causing a fatal underride crash.

Linda Wilburn, Board Member, Parents Against Tired Truckers (P.A.T.T.)

Linda and Gary Wilburn’s son, Orbie, was killed in 2002 when a tired truck driver slammed into his car.

Jennifer M. Tierney, Board Member, Citizens for Reliable and Safe Highways (CRASH) & Truck Safety Coalition.

Jennifer's father, James Mooney, was killed on a dark, rural road in 1983 when he crashed into a truck with no visible lights blocking the roadway

Pam Biddle, Board Member, Citizens for Reliable and Safe Highways (CRASH)

Pam's son, Aaron Lee, was in their car with his father Brian, and Brian's partner, Stephanie Swaim stopped in slowed traffic when a speeding semi failed to stop and rear-ended their vehicle pushing it under the semi in front of them. The vehicles burst into flames, killing Aaron, Brian and Stephanie.

Anna Guardipee, Board Member, Citizens for Reliable and Safe Highways (CRASH)

Anna and her best friend Jenny were returning to Virginia from North Carolina for Anna's granddaughter's baptism. They were stopped in traffic on I-77 when a distracted semi-driver failed to notice the stopped traffic and slammed into the back of their car, pushing them into the semi they were stopped behind. Jenny and Anna were airlifted to the hospital. Jenny fought hard but never regained consciousness. Anna survived and is paralyzed from the waist down.

Jena Frost, Board Member, Parents Against Tired Truckers (P.A.T.T.)

Jena's son, Wyatt, was 5 years old when he was killed by a box truck unequipped with AEB.

Lee Jackson, Board Member, Citizens for Reliable and Safe Highways (CRASH)

J.J. Burns, Board Member, Parents Against Tired Truckers & Truck Safety Coalition (P.A.T.T.)

Joe Hanslip, Board Member, Parents Against Tired Truckers & Truck Safety Coalition (P.A.T.T.)

Kevin Donovan, Board Member, Parents Against Tired Truckers & Truck Safety Coalition

Jeff Burns, Board Member, Citizens for Reliable and Safe Highways & Truck Safety Coalition