



Owner-Operator Independent Drivers Association

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The Honorable Raymond Martinez
Administrator, Federal Motor Carrier Safety Administration
1200 New Jersey Avenue, SE
Washington, D.C. 20590

Re: Docket # FMCSA 2018-0037, "Federal Motor Carrier Safety Regulations which may be Barrier to Safe Testing and Deployment of Automated Driving Systems-Equipped Commercial Motor Vehicles on Public Roads"

Dear Administrator Martinez:

The Owner-Operator Independent Drivers Association (OOIDA) hereby submits the following comments to the Federal Motor Carrier Safety Administration's (FMCSA) request regarding existing Federal Motor Carrier Safety Regulations (FMCSRs) that may need to be updated, modified, or eliminated to facilitate the safe introduction of automated driving systems-equipped commercial motor vehicles (CMVs) onto our Nation's roadways.

There is no doubt the proliferation of automated driving systems (ADS) could dramatically transform the trucking industry, but the professional drivers and millions more working in other segments of trucking face a particularly uncertain future, as technology might first diminish the quality of their jobs, then threaten to displace them completely. Thus, FMCSA along with other federal agencies and lawmakers must take careful and proper steps to ensure that ADS optimally serve both the general public and the trucking industry. Before ADS can become a reality for CMVs, FMCSA must conduct a thorough examination of current federal regulations to ensure the safe operation of such vehicles. FMCSA and other Department of Transportation (DOT) agencies must not only review the FMCSRs, but also analyze how ADS will impact the trucking workforce and consider what regulatory changes must be made concerning cybersecurity, infrastructure, and data sharing among other issues.

OOIDA is the largest trade association representing the views of small-business truckers and professional truck drivers. OOIDA has approximately 160,000 members located in all fifty states and Canada who collectively own and operate more than 240,000 individual heavy-duty trucks. FMCSA needs to take its time in evaluating the benefits that ADS offer within the context that

commercial drivers deliver 70 percent of all freight worth \$11.7 trillion¹ while collecting \$726.4 billion in gross revenue.² A hurried and misguided introduction of ADS would not only have a negative impact on safety, but would disrupt the trucking workforce by displacing drivers and adversely impacting the economy. As FMCSA seeks information on issues that need to be addressed to ensure that the FMCSRs provide appropriate standards for the safe operation of ADS from design and development through testing and deployment, OOIDA submits the following recommendations and questions for consideration:

Part 381 (Waivers, Exemptions, and Pilot Programs)

OOIDA Recommendation: Any autonomous truck that is no longer subject to any part of the FMCSRs should be required to operate under 49 CFR 381:300; Subpart C for Exemptions. Applying for an exemption and following the requirements under 381:310 would serve to meet many of the concerns that the OOIDA has with the safety of autonomous trucks. In addition FMCSA should make such request for exemptions open for public comment before acting on such request.

Part 390 (FMCSA Safety Regulations; General)

OOIDA Recommendation: Law enforcement must be able to identify platooning and autonomous vehicles so they must be marked to identify the two types of technology.

Commercial Driver's License (CDL) Endorsements

Drivers of autonomous trucks will need to be trained on how to overcome certain real-world circumstances while out on the road. Autonomous drivers should receive training by specialists from manufacturers in the following areas:

- a. Electronics
- b. Performance of the system
- c. How to detect mechanical problems
- d. How to detect load issues

OOIDA Recommendation: FMCSA needs to include relevant driver training requirements and CDL endorsements for drivers that use different technologies.

Sections 392.80 and 392.82 (use of electronic devices)

OOIDA Recommendation: Until Level 5 automation is common place on the roads, the prohibitions on cell phones and texting should remain as drivers will need to be constantly vigilant.

¹ Bureau of Transportation Statistics, *Transportation Statistics Annual Report 2016*, Department of Transportation (2016) pg. 58

² *American Trucking Trends 2016*, American Trucking Association, <http://www.trucking.org/article/ATA-American-Trucking-Trends-2016>

The potential introduction of ADS on the nation's highways invites more questions than it answers, especially when it comes to determining who and/or what will be responsible for an accident caused by the fault of the equipment/systems. Under current regulations, the driver would seemingly be penalized even in instances where they have no way of preventing a crash due to an ADS failure. Additionally, OOIDA feels that DOT must answer the following:

Hours of Service For Drivers

- Will the driver of a Level 3 or 4 ADS have the same HOS as a current driver?
- If a Carrier decides to use ADSs as a way of transporting drivers from one location to another, how must that driver log their hours of service? Off duty, sleeper birth, on duty not driving?

Roadside and Annual Inspections

- How will law enforcement identify platooning and autonomous vehicles?
- What would be the procedure of a platooning/autonomous vehicle being inspected after repair from an accident?
- Will the Wireless Roadside Inspection (WRI) be used more with ADS?
- Would the DOT need to inspect all vehicles that are platooning or would they be able to inspect the CMVs by some other type of system, such as WRI, rather than physically inspecting each truck?
- What are the requirements if an ADS vehicle is placed out of service?
- Should there be a separate required inspection for the systems conducted by the manufacturer of those units? If so how frequent?
- Will law enforcement need special equipment at roadside stops to fully inspect the platooning and autonomous vehicles?
- What will be the requirements for training of the Commercial Motor Vehicle Inspector? Is the inspector going to be trained by the manufacturer or another DOT officer?
- Will there be different requirements for a DOT level 1 inspection?
- Would autonomous trucks need to have more than an annual inspection?
- How will the vehicle determine when there is a mechanical issue with the truck?
- Will ADSs just stop in the middle of the road when a problem is detected?
- How will repairs be made with autonomous vehicles when the truck breaks down in remote areas?
- Will the system be able to determine if there is an issue with the load? If there's an issue with load securement, how will this be corrected?
- What will be the requirements for communication with DOT Inspector during an inspection?

OOIDA believes that any process to advance automated truck technology should be met with complete and total data transparency from manufacturers. This will help educate consumers, the industry, and regulators about the actual reliability of autonomous technology. Data transparency is essential to ensure the safety of the motoring public. For example, how many crashes have occurred on the roadways involving automated vehicles? Safety reports from technology developers should be mandatory before large truck and passenger-car drivers are asked to share the road with autonomous vehicles.

Manufacturers must also provide cybersecurity protection for ADS. As more technology is integrated into CMVs and their autonomy increases, the opportunity for cyber-attacks will escalate. ADS are operated by computer software and in some instances outside networks that are connected via the internet. Until recently, hackers have seemed more occupied penetrating computer systems at banks, retailers, and government agencies where they can access more money and data and create substantial disruption. However, current high-profile ransomware attacks such as the one conducted on AP Moller-Maersk, the world's largest container shipping line, indicate that the transportation industry is becoming a target as well. Such attacks on the trucking industry could have disastrous consequences.

In 2017, the Transportation Security Administration (TSA) released a report entitled "Vehicle Ramming Attacks: Threat landscape, Indicators, and Countermeasures." The report detailed that terrorist networks have utilized CMVs to carry out attacks in recent years, including four attacks within the last year. As ADS enter the marketplace, regulations must be established that require manufacturers to prioritize cybersecurity concerns. Before proceeding with guidance, FMCSA should allow NHTSA to first complete their study concerning security for both cars and trucks as proposed by Congressmen Joe Wilson (R-SC) and Ted Lieu (D-CA) in early 2017. H.R. 701, "The Security and Privacy in Your Car Study Act of 2017," would require NHTSA to determine and recommend standards for the regulation of the cybersecurity of motor vehicles manufactured or imported for sale in the United States.

Moving forward, the agency must also consider infrastructure modernization. In their 2017 Infrastructure Report Card, the American Society of Civil Engineers graded the nation's overall infrastructure as a D+. The rating details that, "...the infrastructure is in poor to fair condition and mostly below standard, with many elements approaching the end of their service life. A large portion of the system exhibits significant deterioration. Condition and capacity are of serious concern with strong risk of failure." While the state of our nation's infrastructure is problematic for the current fleet of highway vehicles, it is especially problematic for ADS. ADS depend on cameras and radar systems to detect lane markings, signage, and pavement conditions. Low-quality highway infrastructure will inhibit the productivity of HACVs and could create a significant safety risk, especially in construction zones where markings might be limited or no longer exist. The needs of our nation's infrastructure must be addressed before the full or partial deployment of ADS.

As FMCSA determines how to ensure that the Federal safety regulations provide appropriate standards for the safe operation of ADS from design and development through testing and deployment, OOIDA believes necessary changes must be made to the FMCSRs, including autonomous training, licensing, and separate vehicle markings. Beyond providing appropriate

standards for the safe operation of ADS, FMCSA must consider unforeseen concerns and practices that might offset the potential safety, mobility, and sustainability benefits from the technology. These concerns include the impacts on the driver workforce, ensuring safety, data transparency, cybersecurity, truck platooning, and infrastructure funding. As autonomous technology evolves, OOIDA is concerned that federal regulators will push for more technology without looking at larger overall outcomes that could actually negatively impact safety. We appreciate the opportunity to provide comments and would be happy to provide additional information as needed.

Sincerely,

A handwritten signature in black ink, appearing to read "Todd Spencer". The signature is fluid and cursive, with a long horizontal stroke at the end.

Todd Spencer
President & CEO
Owner-Operator Independent Drivers Association, Inc.