BEFORE THE

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL MOTOR CARRIER SAFETY ADMINISTRATION

DOCKET NO. FMCSA–2018–0037

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

COMMENTS OF

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I. INTRODUCTION

The National Motor Freight Traffic Association, Inc. ("NMFTA") submits these comments in response to the March 26, 2018 Request for Comments, published by the Federal Motor Carrier Safety Administration ("FMCSA" or "Agency") at 83 Fed. Reg. 12933 ("Request"). That Request seeks input on existing Federal Motor Carrier Safety Regulations ("FMCSRs") that may need to be updated, modified, or eliminated to facilitate the safe introduction of automated driving system ("ADS") equipped commercial motor vehicles ("CMV"). NMFTA welcomes the Agency's proactive efforts to support a regulatory environment which encourages the safe testing and deployment of technologies with great potential to improve the efficiency and safety of our nation's roadways.

II. STATEMENT OF INTEREST

NMFTA is a nonprofit membership organization headquartered at 1001 North Fairfax Street, Suite 600, Alexandria, VA 22314. Its membership is comprised of more than 500 motor carriers operating in interstate, intrastate, and foreign commerce primarily specializing in the transportation of less-than-truckload ("LTL") quantities of freight. NMFTA represents the interests and welfare of its members in judicial, regulatory, and legislative proceedings that involve matters affecting their operations. While the potential safety benefits from ADS technology installed in CMVs is immense, Americans currently express reservations about autonomous vehicle technology, with 54% of survey respondents stating that they would feel less safe sharing the road with a self-driving vehicle[1]. Accordingly, NMFTA sets forth below its comments in an attempt to contribute to the safe testing and deployment of CMVs with ADS in a manner that is agreeable to the general driving public while being consistent with the realities of motor carrier operations.

III. COMMENTS

The Agency requested comments on how ADS equipped CMVs could interact with certain FMCSRs. Keeping within the Agency's request, our comments will primarily focus on Levels 3-5 ADS as defined by SAE International J3016[2]. For the Agency's consideration, NMFTA offers the following general comments on the regulations and/or topics suggested by the Agency in the Request. NMFTA expects to provide more substantive comments following the publication of any Notice(s) of Proposed Rulemaking.

[1] https://newsroom.aaa.com/tag/in-vehicle-technology/
[2] https://www.nhtsa.gov/technology-innovation/automated-vehicles-safety#topic-road-self-driving

A. INSPECTION, REPAIR, AND MAINTENANCE

"Safe fail" plans should be clearly documented for all ADS-related equipment in the event of equipment failure, signal loss to control/analysis systems, interference with environment sensors, and other related malfunctions. It should be required that a CMV operator is automatically alerted if equipment failure occurs, and the ADS technology must be able to safely transfer control to a human driver. Additionally, to assist technicians, the maintenance procedures for all highway-legal SAE Levels 3-5 equipment should be clearly documented and available to the public.

B. ROADSIDE AND ANNUAL INSPECTIONS

In addition to the existing annual inspections that CMVs must pass, new vehicle systems, along with vehicle components and aftermarket devices with internet connectivity or local area network access, should undergo annual cyber security evaluations before being placed on public roads. These evaluations should include design reviews, penetration tests, adherence to acknowledged best practices, and other assessments to ensure the security of the system. The public should be able to easily verify whether vehicle systems are in compliance with these evaluations.

A CMV with Levels 3-5 ADS technology should automatically record which Level the vehicle was operating under over a certain period of time. This "log" should be able to be immediately inspected by an enforcement officer. Based on the assumption that the regulations governing the CMV "operator" would differ based on which Level the CMV is using (i.e. a person may be able to leave the driver's seat during Level 4, but not during Level 3), an enforcement officer may access this log to determine if the operator was in compliance with the relevant FMCSRs for that SAE Level. Exterior markings on CMVs indicating their potential SAE Level would be unnecessary if such a log existed. If it is determined that a CMV operating in Levels 3-5 is just as safe, if not safer, than a CMV in Levels 0-2, motorists would not need to adjust their behavior when driving near a CMV operating in Levels 3-5 to any greater degree than they would if they are driving near a manually driven CMV. As motorists still express reservations about vehicles utilizing ADS technology, if a motorist observes a CMV near them that may potentially be operating in Levels 3-5, they may attempt to distance themselves from the CMV which could lead to potentially less safe and less efficient driving behavior. Furthermore, enforcement officials should have sufficient knowledge of ADS technology to determine whether automated features are malfunctioning and would require a vehicle to either be placed out of service or be required to operate at a lower Level.

C. COMMERCIAL DRIVER'S LICENSE (CDL) ENDORSEMENTS

It is critical that a CMV operator understands the limitations of ADS technology in their vehicles and be able to safely and quickly take control of the CMV when necessary. The Agency should consider an endorsement to ensure that CMV operators sufficiently understand how to safely utilize ADS technologies in their vehicles and be aware of when they must take manual control of the vehicle. Such an endorsement should require a knowledge test to verify the operator is aware of how to safely use ADS technologies, and a skills test to ensure that the operator can safely operate a vehicle in advanced Levels and be able to take manual control when necessary. Separate endorsements for Levels above 2 would be sensible, as a driver only planning on utilizing Level 3 technologies should not have to demonstrate the knowledge and skills required to utilize Levels 4-5 technologies.

Furthermore, an ADS-equipped CMV capable of operating in Levels 4-5 must demonstrate that the vehicle can pass a skills test as rigorous as the test a CDL candidate takes. The vehicle should pass two separate skills tests, one while operating in Level 4 and the other while operating in Level 5.

D. BEYOND COMPLIANCE PROGRAM

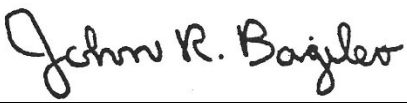
Although there is great potential for ADS technologies to improve road safety, those safety benefits remain largely theoretical. Even considering Levels 3-5 technology as part of the Beyond Compliance Program ("the Program") is premature because (1) significant technological hurdles must be overcome, and substantial research and testing[3] remain to be completed and analyzed before the safety benefits of such technologies move beyond being theoretical, (2) the ADS equipment or technologies that will allow participation in the Program must be specifically identified and reviewed by the public, and (3) the final details of the Program must be publicized before any potential aspects of such a still-theoretical program can be assessed[4].

[3] Such testing should be conducted off public roads or under strictly controlled circumstances.
[4] NMFTA has additional concerns regarding the proposed Program, as expounded in FMCSA-2015-0124-0123.

IV. CONCLUSION

NMFTA supports the Agency's position that ADS equipped vehicles may lead to significant safety, mobility, and efficiency benefits if properly implemented. Consequently, NMFTA offered perspective from the LTL sector of the trucking industry on general topics proposed by the Agency. NMFTA acknowledges that although ADS technology is being rapidly developed, to ensure that this technology is safely used on our nation's roadways will require extensive effort on the Agency's behalf, and we applaud the Agency's efforts to update the existing FMCSRs to stay current with emerging technologies. We look forward to submitting comments on any related Notice of Proposed Rulemaking that may be developed.

Respectfully submitted,



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