August 28, 2019

By regulations.gov
Federal Motor Carrier Safety Administration (FMCSA)
Department of Transportation
Docket Management Facility
West Building, Ground Floor, Room W12-140
1200 New Jersey Avenue SE, Washington, DC 20590-0001

Re: Safe Integration of Automated Driving Systems (ADS) Equipped Commercial Motor Vehicles (CMVs); 49 CFR Chapter III, Subchapter B; FMCSA-2018-0037

Ladies and Gentlemen:

The American Truck Dealers Division of the National Automobile Dealers Association (ATD) represents some 1,800 franchised commercial truck dealers who sell new and used trucks, tractors, and trailers, and who engage in service, repair and parts sales. Together they employ more than 125,000 people nationwide, yet most are small businesses as defined by the Small Business Administration.

I. Background

Last May, the FMCSA issued an Advanced Notice of Proposed Rulemaking (ANPRM) requesting comment on Federal Motor Carrier Safety Regulations (FMCSRs) that may need to be amended, revised, or eliminated to facilitate the safe introduction of ADS-equipped CMVs.[1] The May 2019 ANPRM builds on a notice issued by the FMCSA in 2018.[2] In response to the ANPRM, ATD offers the following comments and suggestions.

Franchised truck dealerships sell new and used CMVs and help maintain their safety performance by servicing and repairing them in dealership mechanical and auto body shops. They also sell CMV parts and, at times, engage in "final stage manufacturing", "alterations", and "modifications" as those terms are defined and used by the National Highway Traffic Safety Administration's (NHTSA). When CMVs are recalled for safety defect or noncompliance reasons, ATD members very often perform the critical work necessary to remedy underlying safety concerns. In addition, dealership employees often operate new and used service or inventory CMVs in intrastate or interstate commerce, in furtherance of dealership operations. ATD members are experts at understanding what their customers desire and are willing to pay for with respect to new and used CMVs, and CMV parts, service, and repair.

[1] 84 Fed. Reg. 24449, *et seq.* (May 28, 2019).
[2] 83 Fed. Reg. 12933, *et seq.* (March 26,2018).

The motoring public views the FMCSA and its FMCSRs as critical to helping to ensure that CMVs are equipped, maintained, and operated with safety in mind and in conformance with applicable federal, state and local CMV laws and codes. They also view NHTSA as the agency primarily responsible for ensuring that CMVs are built and introduced into commerce in compliance with the Federal Motor Vehicle Safety Standards (FMVSS) that govern their crash avoidance and crashworthiness features. Private, for-hire, and government fleets recognize that the critical safety performance features of the CMVs they operate reflects both how they are built and equipped and how they are maintained, serviced and operated.

II. The FMCSA Should Initiate a Rulemaking for a A New FMCSR Addressing CMV ADSs

The existing FMCSRs neither specifically address nor prohibit ADS technologies. For ADS equipped CMVs, To the extent that an ADS is "driving" or "operating" a CMV, it must comply with applicable federal, state, and local motor vehicle laws.[3] It will not be enough for an ADS to be regulated only as a "driver" or "operator" under state licensing laws. The FMCSA must both amend its FMCSRs to accommodate CMV ADS operation *and* set federal performance standards governing the operation of CMVs by ADSs.

A new FMCSR governing the operation of CMVs by ADS should require that, as a condition of motor carrier registration, owners of ADS-equipped CMVs attest that such CMVs will be operated by ADSs in compliance with all applicable FMCSRs and other laws in a manner that is as least as safe as if they were being operated by a well-trained human with a commercial driver's licenses (CDL). In order to make such a representation, ADS-equipped CMV owners will rely on CMV ADS manufacturers (be they vehicle manufacturers, equipment suppliers or alterers) who ATD expects will be governed by a NHTSA performance standard for ADS-equipped CMVs. Well- trained human CDL drivers operating CMVs in compliance with applicable FMCSRs have excellent safety performance records and achieve very low accident rates as measured on a per mile basis. Moreover, with the expected future rate of adoption of advanced driver assistance systems (ADAS) in new CMVs, CDL drivers will exhibit even better safety performance measures.

For the foreseeable future, it is expected that many if not most ADS-equipped CMVs will pair autonomous functionality with the capability for standard human control. For both the FMCSA and its FMCSRs and NHTSA and its FMVSS, compliance assurance and verification programs will need to be revised to ensure that the safety performance of ADS-equipped CMVs is maintained, whether they be operated by an ADS or a human CDL driver. For example, new vehicle inspection requirements may be necessary to ensure that ADSs are updated and maintained as necessary. Regardless of who or what is driving or operating a HAV CMV, the FMCSA's expectations should be the same: compliance with all applicable standards in a manner that is at least that of a well-trained CDL driver.

[3] ATD concurs that the focus on ADS-equipped CMVs should be on SAE Level 4 or 5 Highly Automated Vehicles (HAVs). ADS-equipped HAV CMVs may or may not be designed to also be driven or operated by human CDL drivers.

III. Discussion of Specific FMCSRs

A. Should the FMCSRs Continue to Require a Human Driver?

As noted above, SAE Level 4 and 5 ADS-equipped CMVs may be designed and manufactured to be driven/operated solely by an ADS or by either an ADS or a human driver/operator. Thus, the FMCSA should propose to revise any "driver" and "operator" definitions and, as necessary, the usage of such terms throughout the FMCSRs to reflect the fact that an ADS-equipped CMV may be driven/operated by either an ADS or a human driver.[4] The FMCSA also should clarify that any human that operates or could possibly be expected to operate a SAE Level 4 or 5 CMV should be required to comply with all FMCSR requirements applicable to CMV drivers/operators. This clarification should apply to both in-vehicle and remote human driver/operators.

The safe operation of SAE Level 4 ADS-equipped CMVs by an ADS necessitates that the FMCSA propose to require that CMV owners fully understand and make available to it and to state and local administration and enforcement authorities the nature and extent of an SAE Level 4 CMV's operational design domain (ODD) while under ADS operation. In addition, the FMCSA should propose to prohibit the ADS operation of a SAE Level 4 CMV outside of its ODD.

B. Commercial Driver's License (CDL) Endorsements

As noted above, the FMCSA should propose to require that any human driver/operator of a Level 4 or 5 ADS-equipped vehicle should be required to meet all mandates applicable to human CMV driver/operators. It matters not whether their driving/operation is occasional or regular, in-vehicle or remote. All CDL mandates, including endorsements, should apply.

Moreover, the FMCSA should propose a new endorsement for in-vehicle or remote human CDL drivers whose primary job function is to take over for an SAE Level 4 or 5 ADS in the event of a system failure or ODD exceedance. The fact that a human driver operator may play more of monitoring role rather than a traditional active driving role necessarily means they will require special additional training and knowledge on ADS operations and limitations.

In addition, the FMCSA's proposed performance standard for CMV ADSs should include many of the same concepts inherent with a CDL, including a requirement that before an ADS can be deployed in commerce (i.e., drive or operate a Level 4 or 5 CMV), the CMV's owner must certify and obtain documentation of such certification indicating that appropriate performance standards have been met as demonstrated through appropriate validation and verification.

C. Hours of Service (HOS) Rules for Drivers

The FMCSA should propose to modify its HOS mandates to accommodate situations where SAE Level 4 or 5 CMVs are operated both by humans CDL drivers and by ADSs. Generally, time spent in a SAE Level 4 or 5 CMV sleeper berth during ADS operation should be classified as off-duty, but time spent by an in-vehicle or remote human driver/operator monitoring ADS operations should be classified as on-duty.

[4] See, e.g., 49 CFR §390.5.

D. Medical Qualifications for Human Operators
The FMCSA should propose to require that driver/operators who monitor and are expected to take control of SAE Level 4 or 5 ADS-equipped CMVs should be subject to the same medical qualification requirements as human CDL drivers.

Moreover, the "health and fitness" the FMCSA should propose to require that CMV ADSs continually monitor themselves for proper operation, and that they be subject to periodic and roadside inspections to ensure that are performing consistent with the performance standards discussed above.

E. Distracted Driving and Monitoring
The FMCSA should propose a mandate that human monitors of SAE Level 4 or 5 ADS-equipped CMVs remain appropriately focused on both ADS function and on road, traffic, and environmental conditions.

In addition, the FMCSA should propose specific requirements for ADS or ADAS systems designed to take over a CMV's operations when monitoring systems determine that a human driver is no longer be capable of operating the CMV due to fatigue, impairment, distraction, or a motor vehicle code violation.

F. Safe Driving and Drug and Alcohol Testing
The FMCSA should propose that any human driver, in-vehicle or remote, expected to take control of an ADS-operated CMV should be subject to the FMCSR's drug and alcohol rules.

The FMCSA should also propose that CMVs under ADS operations meet all applicable safe driving FMCSRs and comply with all state and local motor vehicle and other laws, ordinances, and regulations. ATD is unaware of any of the safe driving FMCSRs applicable to CMVs generally that shouldn't apply equally to an ADS-equipped CMV. The fact that certain FMCSR safety mandates applicable to CMVs may require a human to perform suggests that the FMCSA should amend its regulations as necessary to indicate that those functions may be performed by someone other than a driver if and to the extent that the driver/operator is an ADS.

G. Inspection, Repair and Maintenance
As alluded to above, the FMCSA should propose amendments to its Part 396 regulations governing inspection, repair, and maintenance to require that ADSs be both continuously and periodically inspected for proper software and hardware operation and to verify that they have and are utilizing the most current software updates. ATD assumes that NHTSA will set minimum CMV ADS design and performance standards, including cybersecurity safeguards, aimed at ensuring that they are at least as safe as CMVs operated in compliance with all applicable FMCSRs and state and local laws by well-trained, unimpaired, healthy, and professional human CDL drivers. Not unlike on-board diagnostic emission systems, ADSs must be designed to continuously monitor their own performance for issues or concerns (faults). Moreover, any identified ADS faults must be effectively communicated to CMV owners or lessees so that they

can be remedied in a timely manner. Faults indicating that an ADS is unable to perform designated driving tasks should cause the ADS to become non-operational and/or to place the CMV into a minimal risk condition.

Proposed annual (at least) periodic CMV ADS inspections should be conducted by human inspectors appropriately trained to be familiar with the ADS systems they inspect using appropriate diagnostic tools. CMV ADS repair and maintenance only should be conducted by facilities equipped with appropriate tools and staffed by properly-trained technicians. Mandated inspections and repairs should apply to all ADS hardware, software, and sensor components for the useful life of a CMV. Proper inspection, maintenance, and repair will be complex to the extent ADSs are themselves complex.

H. Roadside Inspections

The FMCSA should propose to require that the hardware, software, and sensors of CMV ADSs must be capable of being inspected during roadside inspections to allow for the identification of potential conditions warranting that they be placed into a non-operational state pending proper service or repair. Additionally, ADS-equipped CMVs must be able to both yield to emergency vehicles and to pull over in response to federal or state law enforcement.

I. Cybersecurity

The FMCSA should propose that owners of ADS-equipped CMVs comply with robust cybersecurity standards as cybersecurity will be a vital safety component of any ADS-equipped CMV and is essential to the public's acceptance of ADS-equipped vehicles of any type

On behalf of NADA, I thank FMCSA for the opportunity to comment on this matter.

Respectfully submitted,

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