Consumer Technology Association™

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August 28, 2019

BY ELECTRONIC SUBMISSION

Docket Management Facility
U.S. Department of Transportation
West Building, Ground Floor, Room W12-140
1200 New Jersey Avenue, SE
Washington, DC 20590-0001

Re: **Request for Comments on Advance Notice of Proposed Rulemaking:**
Safe Integration of Automated-Driving Systems-Equipped Commercial Motor Vehicles
Docket No. FMCSA-2018-0037

Dear Sir or Madam:

The Consumer Technology Association ("CTA")® commends the Federal Motor Carrier Safety Administration ("FMCSA") for seeking to modernize its rules to accommodate automated driving system ("ADS")-equipped commercial motor vehicles ("CMVs"). We need a modern regulatory approach to realize the huge potential of ADS-equipped CMVs to drive economic growth, reduce emissions, and, above all, enhance safety on our nation's roads and highways.

CTA is the trade association representing the $401 billion U.S. consumer technology industry, which supports more than 18 million U.S. jobs. Our membership spans the full ecosystem of companies working to bring automated driving innovations to America's roadways, including vehicle and component manufacturers, software developers, and transportation platforms, among others. Many of our members have a keen focus on the commercial applications of ADS technology, which promise to deliver wide-ranging consumer benefits.

CTA research shows that U.S. consumers are excited about ADS innovation in the commercial sector. Our recent report *Self-Driving Vehicles: Consumer Sentiments 2018* found that most Americans are receptive to potential use cases of ADS technology in the agriculture, mobility-as-a-service, and food and package delivery industries in particular.[1] We expect consumer favorability to rise across the full range of commercial applications for ADS as Americans experience the technology. Continued innovation and growth in this segment is key to achieving the tremendous economic potential of automated driving, which CTA estimates will

[1] Consumer Technology Association, *Self-Driving Vehicles: Consumer Sentiments 2018* 16 (Oct. 2018), https://www.cta.tech/Research-Standards/Reports-Studies/Studies/2018/Self-Driving-Vehicles-Consumer-Sentiments-2018.aspx.

contribute $7 trillion to the global economy annually by 2050—including a substantial portion in the United States.[2]

More important are the potential safety benefits of extending ADS integration across the nation's CMV fleet. Collisions with large trucks account for 13% of U.S. roadway fatalities each year, and CMV drivers experience fatality and injury rates many times greater than the average U.S. worker.[3] By changing the human role in the driving task, ADS technology has the potential to reduce these risks and substantially improve overall safety. As the latest version of the U.S. Department of Transportation's ("Department") policy guidance on automated vehicles concludes, ADS technology's "potential to reduce deaths and injuries on the Nation's roadways cannot be overstated."[4]

The safety imperative underscores the importance of FMCSA's efforts to create a policy environment that facilitates testing and deployment of ADS-equipped CMVs. We greatly appreciate the agency's engagement with stakeholders to identify regulatory barriers to operating such vehicles and the forward-looking approach the agency has already taken in clarifying that the Federal Motor Carrier Safety Regulations ("FMCSRs") do not require or assume the presence of a human driver or any other onboard human presence.[5] The discussion in the ANPRM reflects a similar forward-looking approach, particularly in its recognition of the need for regulatory flexibility to accommodate iterative technology development and in its focus on the most likely potential operating models for ADS-equipped CMVs.

We encourage FMCSA to adopt a similar outlook in evaluating the questions and issues raised by the ANPRM, guided by the "Automation Principles" set forth by the Department in AV 3.0. In addition to the paramount importance of prioritizing safety, the breadth and diversity of our membership gives CTA a special interest in advancing technology-neutral policy solutions. FMCSA should aim to set performance-based standards that all industry participants can strive to meet regardless of their specific approach to ADS technology or their contemplated business model. In pursuit of this goal, the agency should continue to engage with the full breadth of industry stakeholders focused on ADS innovation in the CMV space, including technology companies and other new entrants, as well as traditional original equipment manufacturers, suppliers, and motor carriers. Modifications to the FMCSRs to accommodate advances in ADS technology should consequently be technology-neutral and support a level playing field for all stakeholders deploying ADS-equipped CMVs.

Pending completion of rulemakings like this one, FMCSA's interpretation, waiver, exemption, and pilot program authorities are crucial tools to facilitate deployment of ADS-equipped CMVs in the near term. These authorities can enable greater opportunities for "real world" experience with ADS technology and related business models, which we need to refine these systems for wider deployment—and to ensure that the United States does not fall behind in this pivotal industry segment.

The comments below are focused on the specific topic areas and questions presented by the ANPRM where our perspective on behalf of a broad cross-section of industry participants

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[2] Consumer Technology Association, *Economic Impact: Self-Driving Vehicles* 10 (Dec. 2017), https://www.cta.tech/Research-Standards/Reports-Studies/Studies/2018/Economic-Impact-Self-Driving-Vehicles.aspx.

[3] U.S. Dep't. Transp., *Preparing for the Future of Transportation: Automated Vehicles 3.0* 3 (2018) (hereinafter, "AV 3.0").

[4] *Id.* at 1.

[5] *Id.* at 9.

is most relevant and responsive. CTA and our member companies look forward to continuing our productive dialogue on advancing CMV safety through innovation.

1. Defining a "Driver" for FMCSR Purposes

CTA appreciates FMCSA's clarification, both in the ANPRM and earlier in AV 3.0, that the agency will "no longer assume that the CMV driver is always a human or that a human is present onboard a commercial vehicle during its operation."[6] This interpretation is crucial to realizing the potential safety and efficiency benefits of automation in the CMV context and remaining consistent with the National Highway Traffic Safety Administration's ("NHTSA") policy approach with respect to passenger vehicles.

We urge FMCSA to further clarify the application of its rules by specifying the intended definitions of "driver" and/or "operator" for purposes of individual FMCSRs on a provision-by-provision basis. As part of this process and in the agency's policymaking more broadly, we encourage FMCSA to work with NHTSA to consider the appropriate roles of manufacturers and developers, motor carriers, and operators in developing safety-focused systems and operational practices. Further, FMCSA and NHTSA should work in conjunction with the broad AV industry and leading standards bodies to collaboratively develop technology-neutral and transparent best practices and industry standards.

FMCSA should avoid the overbroad approach of defining the ADS itself as the "driver" for FMCSR purposes. Doing so would not only be inconsistent with the existing regulatory definition of this term, which refers to individuals and entities,[7] but would also lead to unworkable results by making the ADS subject to requirements (such as medical qualifications and hours of service limitations) that are only relevant for human drivers. At the same time, and as discussed in greater detail below, we support FMCSA's efforts to ensure that all CMVs—including fully automated CMVs—adhere to the rules of the road, including the agency's safe driving standards.

FMCSA should likewise avoid interpretations that would result in individuals with no involvement in the driving task being treated as "drivers." An individual's mere presence aboard an ADS-equipped CMV should not be subject to driver requirements if he or she will never be expected to take control of the vehicle, as contemplated by L4 and L5 operations.

2. Commercial Driver's License ("CDL") Endorsements

As FMCSA notes in the ANRPM, "ADS technology is advancing rapidly, and there will continue to be a range of approaches to automation."[8] We appreciate the agency's recognition that the present stage of technology development would make it difficult to establish a uniform ADS knowledge and/or skills test for CDL holders.[9] The diversity of technological approaches and evolving state of the art also underscore the importance of providing maximum flexibility for industry to communicate the safety and operational training information that is relevant for specific systems and vehicles.

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[6] Advance Notice of Proposed Rulemaking: Safe Integration of Automated-Driving Systems-Equipped Commercial Motor Vehicles, Docket No. FMCSA-2018-0037, 84 Fed. Reg. 24,449, 24,453 (May 28, 2019) (hereinafter, the "ANPRM").
[7] *See* 49 C.F.R. § 390.5T.
[8] ANPRM at 24,453.
[9] *Id.*

3. Drivers' Hours of Service ("HOS") Rules

CTA generally agrees with FMCSA's proposed approach of not subjecting the ADS itself to HOS requirements but rather applying those requirements to the human drivers of ADS-equipped CMVs. However, for highly automated CMVs, additional flexibility may be necessary to fully realize the safety and efficiency benefits of automated driving. FMCSA should continue to engage with industry to fully understand the potential operational scenarios for this technology and ensure that its approach to HOS requirements would not unduly constrain these use cases. As noted above, the HOS rules and other driver obligations should not apply to individuals with no involvement in the driving task.

4. Medical Qualifications for Human Operators

CTA agrees with FMCSA's proposed application of its medical standards to individuals responsible for taking control of an ADS-equipped vehicle on a public road. These requirements should not apply to individuals with no involvement in the driving task.

5. Distracted Driving and Monitoring

CTA supports the application of FMCSA's distracted driving prohibitions to human drivers whenever they bear the ultimate responsibility for safety assurance. This is the case under all operational scenarios for L1–L3 vehicles. However, the ADS itself bears responsibility for safety assurance for L4 and L5 vehicles. For these highly automated vehicles, human involvement in the driving task is only relevant when the vehicle is operating outside its operational design domain ("ODD"), and thus at a lower level of automation that requires human responsibility for safety assurance. Subjecting human drivers of L4 and L5 vehicles to distracted driving restrictions at these times (i.e., when the vehicle is functioning at L3 or below, notwithstanding its highly automated capabilities) is appropriate; however, applying these requirements at other times would be unduly restrictive.

6. Safe Driving

CTA agrees with FMCSA's proposed application of its rules under Part 392 to individuals responsible for taking control of an ADS-equipped vehicle on a public road. We also agree with the agency's assessment that highly automated L4 and L5 ADS systems should comply with Part 392's operational rules requiring adherence to applicable laws, ordinances, and regulations.

7. Inspection, Repair, and Maintenance

Consistent with our point above about the evolving state of ADS technology development, we encourage FMCSA to provide flexibility for industry to define the inspection protocols that are relevant for particular ADS. Particular systems may require methods of assessment that differ not only from other ADS technologies but also from today's conventional CMVs. The requisite qualifications of the personnel performing such inspections may vary as well; inspections should be carried out by individuals with the expertise to evaluate the relevant issues, technological or otherwise.

8. Roadside Inspections

Flexibility is also important in the context of roadside inspections and enforcement, because approaches to these issues will necessarily vary depending on a particular system's technical capabilities and ODD. CTA supports continued collaboration among industry, FMCSA, and state enforcement officials to develop approaches to roadside inspection and enforcement that are workable for different systems.

CTA also notes FMCSA's discussion of potential technology and other standards for ADS-equipped CMVs to facilitate roadside inspection and enforcement. Consistent with the principles of technology neutrality and regulatory consistency announced in AV 3.0, we urge FMCSA to coordinate with NHTSA on any equipment and/or technology standards for these vehicles.

9. Cybersecurity

FMCSA rightly observes that cybersecurity is crucial to maintaining the safety and security of ADS-equipped CMVs. CTA supports the agency's plans to collaborate with NHTSA and industry to ensure a consistent and effective approach to cybersecurity issues in the vehicle context. In particular, NHTSA's *Cybersecurity Best Practices* and its report *Cybersecurity Research Considerations for Heavy Vehicles* include guidelines and other information relevant to ADS-equipped CMVs. Private-sector standard-setting organizations have also developed applicable standards and best practices, and CMV manufacturers, suppliers, and other industry participants collaborate on cybersecurity issues through the Automotive Information Sharing and Analysis Center ("Auto-ISAC").

10. Confidentiality of Shared Information

Any data-sharing obligations developed by FMCSA should be narrowly tailored to subjects that are clearly within the scope of the agency's jurisdiction and tied to a clear safety objective. Overbroad data-sharing requirements could create new logistical, technological, and competitive challenges—each bringing their own attendant risks to safety and the ability to achieve FMCSA's regulatory goals. To provide industry with further assurances about sharing data with the agency, FMCSA should consider granting some form of enforcement or liability relief with respect to research data that is shared voluntarily. FMCSA should also refrain from gathering any personally identifiable information of individuals to address privacy concerns and ensure that any proprietary data it collects remains confidential. In this regard, we echo the comments of other stakeholders who have noted that expansion of FMCSA's procedures for submission of confidential information may be necessary to accommodate such submissions outside the context of a formal rulemaking.

11. Voluntary Consensus Standards

We appreciate FMCSA's "preferred approach" of looking to voluntary consensus standards to inform its safety framework for ADS-equipped CMVs.[10] We agree with the agency's observation that "[v]oluntary standards offer flexibility and responsiveness to the rapid pace of innovation, can encourage investment and bring cost-effective innovation to the market more quickly, and may be validated by private sector conformity assessment and testing

[10] *Id.* at 24,457.

protocols."[11] The automotive industry has pioneered constructive, safety-focused collaboration through the standard-setting efforts of SAE International and similar industry organizations, as well as through forums like Auto-ISAC. We urge FMCSA to continue to view the development of consensus-driven industry standards as a vital policy tool going forward.

12. Regulatory Consistency

As with passenger vehicles, a potential challenge to the testing and deployment of automated CMVs is inconsistency in state laws and regulations. The ANPRM anticipates this challenge, noting the potential of the Motor Carrier Safety Assistance Programs to promote compatible state safety oversight programs and warning states against adopting more stringent regulation of ADS. While state efforts to support testing and deployment of ADS-equipped CMVs should be encouraged, it is also important to avoid variations in state policy that could unduly impede interstate commerce.

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Thank you for the opportunity to provide these comments. Please do not hesitate to contact us with any questions you may have.

Sincerely,

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[11] *Id.*