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August 28, 2019

VIA ELECTRONIC FILING

Docket Operations, M-30
U.S. Department of Transportation (DOT)
1200 New Jersey Avenue SE
Room W12-140
West Building Ground Floor
Washington, DC 20590-0001

Re: Removing Regulatory Barriers for Vehicles With Automated Driving Systems (Docket No. NHTSA-2019-0036)

To Whom It May Concern:

The U.S. Chamber of Commerce's Technology Engagement Center ("C_TEC") appreciates the opportunity to provide comments to the National Highway Traffic Safety Administration's ("NHTSA") in response to the above-referenced proceeding.[1] C_TEC supports NHTSA's approach in this advance notice of proposed rulemaking ("ANPRM") to reduce regulatory barriers for ADS-equipped vehicles and encourages NHTSA to continue utilizing the regulatory process to safely modernize barriers to innovation. C_TEC recommends that NHTSA look to C_TEC's "Automated Vehicle Policy Principles," (attached) for additional guidance, which outlines an industry, consensus-based approach to regulating automated vehicles.

The Opportunity of Automated Vehicles

The introduction of automated or ADS-equipped vehicles will bring substantial safety, mobility, and economic benefits to the American public. For instance, in 2017, NHTSA has estimated that 37,133 people died in motor vehicle crashes, 94 percent of which can be attributed

[1] 84 Fed. Reg. 24433 (May 28, 2019) *available at* https://www.govinfo.gov/content/pkg/FR-2019-05-28/pdf/2019-11032.pdf.

to human error.[2] The widespread deployment of ADS-equipped vehicles can dramatically reduce future traffic fatalities, and improve overall road safety. In addition, there are millions of Americans unable to drive or otherwise limited in a conventional vehicle including the elderly and persons with disabilities. The deployment of ADS-equipped vehicles will provide new opportunities for those populations as well as provide secondary benefits to the public as a whole such as reduced health care expenditures.[3]

Finally, the introduction of ADS-equipped vehicles will bring significant economic benefits to American workers and consumers. According to one study, autonomous vehicles are projected to add $800 billion in cumulative economic benefits by 2050.[4] Also, a study from Intel and Strategy Analytics estimated that autonomous vehicle technology can unlock a "Passenger Economy" with a global value of $7 trillion by 2050.[5] Through taking a safety-first approach to modernizing existing regulations and methods of verifying compliance, the United States can achieve these benefits and be the global leader in automated vehicles.

Suggested Approach to Modernize Compliance Verification

C_TEC applauds NHTSA's approach in this ANPRM to consider various approaches to verifying compliance for ADS-equipped vehicles with the crash avoidance standards contained in the Federal Motor Vehicle Safety Standards ("FMVSS"). Novel motor vehicle designs and features will mean that some ADS-equipped vehicles may not have manual controls, and consequently will require new test procedures to verify the safety the vehicle. As developers of ADS-equipped vehicles continue to make significant advancements in ADS technology, C_TEC believes that NHTSA should use its broad rulemaking authority to reduce regulatory barriers to enable the testing of ADS-equipped vehicles and ensure regulatory compliance.

To address regulatory barriers and modernize compliance verification for crash avoidance standards, C_TEC believes that NHTSA should keep the following guidelines in mind as it balances the usefulness and agility of an ADS-equipped vehicle with a safety model that complies with the societal norms of careful driving. First, ensuring motor vehicle safety should remain the number one priority for verifying compliance and any new approaches for verifying compliance should not diminish safety. Second, the autonomous vehicle industry is diverse and dynamic, and consistent with AV 3.0, any new methods to verify compliance should be technology and stakeholder-neutral. Finally, to encourage innovative approaches, C_TEC supports a non-prescriptive, performance-based approach to compliance verification.

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[2] Kevin Jost, "Saving lives is top AV prize," Autonomous Vehicle Technology (Jan. 3, 2019) *available at* (https://www.autonomousvehicletech.com/articles/1425-saving-lives-is-top-av-prize

[3] Henry Claypool, Amitai Bin-Nun, and Jeffrey Gerlach, "Self-Driving Cars: The Impact on People with Disabilities," Rudman Family Foundation (January 2017), *available at* https://rudermanfoundation.org/wp-content/uploads/2017/08/Self-Driving-Cars-The-Impact-on-People-with-Disabilities_FINAL.pdf.

[4] America's Workforce and the Self-Driving Future: Realizing Productivity Gains and Spurring Economic Growth, Securing America's Energy Future (June 2018) *available at* https://avworkforce.secureenergy.org/wp-content/uploads/2018/06/Americas-Workforce-and-the-Self-Driving-Future_Realizing-Productivity-Gains-and-Spurring-Economic-Growth.pdf.

[5] Roger Lanctot, "Accelerating the Future: The Economic Impact of the Emerging Passenger Economy," Strategy Analytics (June 2017) *available at* https://newsroom.intel.com/newsroom/wp-content/uploads/sites /11/2017/05/passenger-economy.pdf.

In particular, C_TEC's "Automated Vehicle Policy Principles" can provide input to support NHTSA's consideration of differing approaches to revising crash avoidance test procedures and the demonstration that an ADS–equipped vehicle is at least as safe as a human driver. Specifically, C_TEC's principle titled "Advance Safe Automated Vehicle Development, Testing and Deployment" states the following:

> "…To demonstrate that an ADS-equipped vehicle is at least as safe as a human driver, C_TEC recognizes the need for metrics beyond vehicle miles traveled and disengagements. Therefore, policymakers should encourage the broad AV industry to collaboratively develop a technology-neutral and transparent performance-based model for AV safety decision-making in conjunction with leading standards bodies.
>
> Also, to increase consumer trust, C_TEC supports a comprehensive test of the safety of a vehicle's decision-making and perception systems. Consistent with the USDOT recognition that on-road testing is one of several aspects for ADS safety assurance, C_TEC recognizes that ADS/AV safety testing can be performed along multiple paths, for example, (i) on-road testing; (ii) verification of the vehicle's decision-making to an industry accepted, performance-based safety model; and (iii) testing of the vehicle's perception system using data sets."

Conclusion

C_TEC applauds NHTSA for publishing this ANPRM and working to advance the safe development, deployment and testing of ADS-equipped vehicles. C_TEC thanks NHTSA for its leadership and looks forward to working with NHTSA on this issue moving forward.

Respectfully submitted,

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Chamber Technology Engagement Center (C_TEC)

AUTOMATED VEHICLE POLICY PRINCIPLES

Automated Driving Systems (ADS) and ADS-equipped vehicles, colloquially known as autonomous vehicles, have the vast potential to increase road safety, enhance mobility for the elderly and people with disabilities, and improve transportation efficiency across the nation. To meet this potential, we must focus on developing appropriate public policies as well as common industry safety standards and technology-neutral safety performance benchmarks. Also, public-private consortia, broad-based consumer education coalitions, and global standards bodies can play a critical role in building the trust necessary to test and deploy ADS-equipped vehicles at scale, and save thousands of lives in the United States.

C_TEC encourages U.S. legislators and regulators to consider the principles below in order for America to assume a leadership positon and invest in this globally competitive sector. These principles were developed by C_TEC's Autonomous Vehicle Working Group, which consists of a broad and diverse set of leading companies and trade associations, including original equipment manufacturers (OEMs), technology companies, transportation network companies, insurers, telecommunications providers, automotive suppliers, trucking, and retail.

The following policy principles will ensure that the United States remains a leader in automated vehicle (AV) innovation and that America's policy framework can be a model for other countries worldwide.

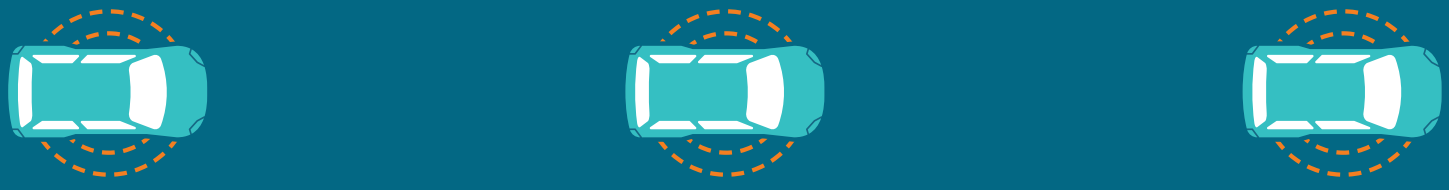
ENSURE A SAFETY FIRST APPROACH

As an industry and nation, our first and foremost collective goal must be safety. The safe development, testing, and deployment of ADS and ADS-equipped vehicles are essential to build and retain public trust in order to realize the multifold benefits that these vehicles will deliver for society. Therefore, safety is C_TEC's top priority.

PRESERVE EXISTING DELINEATION OF REGULATORY ROLES

For America to be at the forefront of innovation, policymakers must create an environment for ADS technology to advance. Clarity and certainty of regulatory roles are crucial to spur investment in the United States amid the global race among nations to lead in this sector. C_TEC believes that policymakers should preserve the existing clear delineation of traditional federal, state, and local roles for motor vehicle regulation, as well as interstate commerce, in the context of automated vehicles.

Absent federal clarity, the current patchwork of regulations creates uncertainty, which hinders economies of scale and continued ADS development and testing in the United States. In short, preserving existing federal authority over testing and deployment regarding the design, construction, and performance of ADS and ADS-equipped vehicles and components is critical to ensure American leadership in this highly competitive global industry.



PROMOTE TECHNOLOGY AND STAKEHOLDER NEUTRALITY

The transportation industry is undergoing a rapid transformation. Consistent with this evolution, the AV industry includes a breadth of stakeholders from traditional original equipment manufacturers (OEMs) and suppliers to technology companies and other new entrants. To ensure a level playing field that facilitates safety and innovation and increases new investment and jobs in the United States, all stakeholders' testing and/or deploying ADS and ADS-equipped vehicles should be subject to the same testing and deployment policies under a uniform federal framework.

C_TEC also supports ongoing proactive industry collaboration in leading standards bodies to develop a technology and stakeholder-neutral ADS safety validation approach, which may set forth consensus-based minimum safety performance requirements, guidelines, or benchmarks. These efforts must be open to all AV industry stakeholders to ensure that the United States benefits from diverse expertise, as well as wide acceptance and adoption of the approach. Any new U.S. Department of Transportation (USDOT) ADS working group should ensure similar composition.

ADVANCE SAFE AUTOMATED VEHICLE DEVELOPMENT, TESTING AND DEPLOYMENT

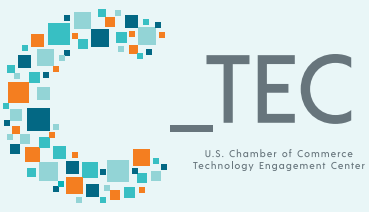
Testing is essential to advancing ADS performance and thus strengthening motor vehicle safety. To demonstrate that an ADS-equipped vehicle is at least as safe as a human driver, C_TEC recognizes the need for metrics beyond vehicle miles traveled and disengagements. Therefore, policymakers should encourage the broad AV industry to collaboratively develop a technology-neutral and transparent performance-based model for ADS safety decision-making in conjunction with leading standards bodies.

Also, to increase consumer trust, C_TEC supports a comprehensive test of the safety of a vehicle's decision-making and perception systems. Consistent with the USDOT recognition that on-road testing is one of several aspects for ADS safety assurance, C_TEC recognizes that ADS/AV safety testing can be performed along multiple paths, for example, (i) on-road testing; (ii) verification of the vehicle's decision-making to an industry accepted, performance-based safety model; and (iii) testing of the vehicle's perception system using data sets.

MODERNIZE FEDERAL MOTOR VEHICLE SAFETY STANDARDS AND REGULATIONS

ADS-equipped vehicles may include unconventional designs that are incompatible with some existing Federal Motor Vehicle Safety Standards (FMVSS). Therefore, some FMVSS may need to be modernized to encompass advances in ADS technology. As the USDOT considers which regulations may need to be modernized, USDOT's existing temporary exemption authority allows the introduction of new motor vehicle features or designs where the petitioner's data supports that those innovations provide a safety level at least equal to the safety level of the standard. This data-intensive exemption process provides a valuable opportunity to demonstrate the safety benefits of ADS technologies and inform future rulemakings.

C_TEC supports making this exemption process available to all petitioners (e.g., traditional OEMs, suppliers, tech companies, and new entrants) on a level playing field. To ensure that the United States continues to lead in this sector and reduce barriers to deployment, C_TEC supports increasing the number of ADS-equipped vehicles that may be exempted and lifting the current cap of two years for each exemption.



For more information, please contact:

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