CVSA Comments for the Record
to the
U.S. House of Representatives
Transportation and Infrastructure Committee's
Subcommittee on Highways and Transit

The Future of Automated Commercial Motor Vehicles:
Impacts on Society, the Supply Chain, and U.S. Economic Leadership

September 13, 2023

The Commercial Vehicle Safety Alliance (CVSA) respectfully submits the following comments for the record in response to the Committee on Transportation and Infrastructure's Subcommittee on Highways and Transit's hearing on "The Future of Automated Commercial Motor Vehicles: Impacts on Society, the Supply Chain, and U.S. Economic Leadership."

CVSA is a nonprofit organization comprised of local, state, provincial, territorial and federal commercial motor vehicle safety officials and industry representatives. The Alliance aims to prevent commercial motor vehicle crashes, injuries and fatalities and believes that collaboration between government and industry improves road safety and saves lives. Our mission is to improve commercial motor vehicle safety and enforcement by providing guidance, education and advocacy for enforcement and industry across North America.

CVSA commends the subcommittee for holding a hearing to consider the impacts of allowing automated commercial motor vehicles to operate on our roadways. The hearing offered a timely opportunity for Members to engage with industry stakeholders to better understand the state of automated driving system (ADS) technology and the potential impacts to roadway safety and supply chain efficiency.

CVSA and its members are committed to reducing crashes, injuries and fatalities on our nation's roadways, and have long supported policies that encourage the deployment of safety technologies proven to improve commercial motor vehicle safety by preventing and/or mitigating the severity of crashes. Driver behavior is the leading cause of motor vehicle crashes, and technology can play a large role in eliminating or reducing the risk of human error and driver distraction, and the crashes and loss of life associated with them. In fact, basic versions of vehicle autonomy are already operating on our roads, preventing crashes. Examples of such technologies include enhanced anti-lock braking system (ABS) monitoring systems, vehicle stability systems, lane departure warning systems and collision warning systems. These systems all improve vehicle safety by helping keep vehicles in their

lanes and operating at a safe distance from one another. ADS-equipped commercial motor vehicles have the potential to significantly improve roadway safety.

Discussion in the September 13 hearing covered a wide range of topics, including the potential safety benefits of deploying ADS-equipped commercial motor vehicles on our roadways, impacts on and improvements to the supply chain, possible labor impacts, the reliability of the ADS technology and cyber security concerns. However, one topic that was not discussed during the hearing that requires attention is how the Federal Motor Carrier Safety Administration (FMCSA) and its state partners will ensure that ADS-equipped commercial motor vehicles comply with the Federal Motor Carrier Safety Regulations (FMCSR) that regulate the mechanical components of the commercial motor vehicle and the motor carrier's safety compliance.

Approximately 4 million commercial motor vehicle inspections are conducted every year throughout North America to ensure the large trucks and buses driving on our roadways are operating safely. Specially trained inspectors in each state, jurisdiction, territory and province inspect commercial motor vehicles based on inspection procedures and criteria created by CVSA, known as the North American Standard Inspection Program. The North American Standard Inspection Program exists, in part, to ensure that the commercial motor vehicles operating in interstate commerce are mechanically fit and pose no risk to others when operating on the roadways.

Oversight by the enforcement community is necessary to ensure ADS-equipped commercial motor vehicles are properly maintained, however there are challenges with applying the traditional roadside inspection program to ADS-equipped vehicles. Currently, the driver of a commercial motor vehicle plays a crucial role in the North American Standard Inspection process, performing tasks like activating required lights, applying the brakes, disconnecting/reconnecting glad hands, listening for instructions from the inspector while under the vehicle to inspect the braking system and opening locked/sealed trailers for inspection of proper securement of cargo. If a vehicle is operating without a licensed commercial driver, how will these important aspects of the roadside inspection process be carried out? It is critical that a process be established to ensure these vehicles and technology are well maintained and fully functional.

To address this challenge, CVSA gathered representatives from the enforcement community, motor carriers and the ADS developers to prepare for deployment of ADS-equipped commercial motor vehicles. In 2018, CVSA formed an Automated CMV Working Group, tasked with assessing the latest advances in commercial motor vehicle automation and developing recommended approaches to incorporating those vehicles into the North American Standard Inspection Program, in order to ensure that the enforcement community is prepared to inspect and verify the regulatory compliance of this next generation commercial motor vehicle technology. After nearly two years of research and discussions, the group concluded that ADS-equipped commercial motor vehicles are not compatible with the current roadside North American Standard Inspection Program. Without a driver/operator on duty, several critical portions of the North American Standard Inspection cannot be performed. Further, inspection stations and other potential inspection locations will likely not be part of the ADS-equipped commercial motor vehicle's operational design domain, as those locations are unpredictable and difficult to program.

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Because the current roadside inspection program is not compatible with ADS-equipped commercial motor vehicles, the working group recommended developing an alternative inspection and enforcement program for ensuring that these commercial motor vehicles and the trailers they are towing are maintained and operated in compliance with the FMCSR. In collaboration with inspectors, motor carriers, ADS developers and FMCSA, CVSA developed the Enhanced Commercial Motor Vehicle (CMV) Inspection Program, an inspection standard and procedure designed to govern the inspection of ADS-equipped commercial motor vehicles operating without a driver/operator on duty. The program establishes a no-defect, dispatch (point-of-origin) inspection program and includes an enhanced inspection standard and procedure for motor carriers operating ADS-equipped vehicles, as well as a 40-hour CVSA training course and exam (written and practical) for motor carrier personnel who will be conducting the inspections.

Under this program, rather than the driver conducting a pre-trip inspection (as is currently done), for ADS-equipped commercial motor vehicles, CVSA-trained and -certified motor carrier personnel will conduct the Enhanced CMV Inspection Procedure at the point of origin before dispatch, as well as in-transit inspections at a dictated interval throughout the trip. Any truck or trailer or commercial motor vehicle combination that fails the Enhanced CMV Inspection at the point of dispatch must be repaired prior to being dispatched – the vehicle must be defect free before being dispatched. Once on the road, the ADS-equipped commercial motor vehicle operating without a driver/operator on duty would be required to communicate to law enforcement while in-motion that it passed the Enhanced CMV Inspection prior to dispatch, its ADS are functioning, and it is operating within its operational design domain. ADS-equipped commercial motor vehicles operating without a driver/operator on duty that meet those parameters would be eligible to bypass inspection sites. Roadside inspections of qualifying ADS-equipped commercial motor vehicles in transit by law enforcement officials would be limited to situations where an imminent hazard is observed or during a post-crash investigation. In addition, all ADS-equipped commercial motor vehicles must be able to respond to law enforcement should an officer attempt to pull over a vehicle.

As noted above, because the current roadside inspection model simply is not compatible with ADS-equipped commercial motor vehicles operating without a driver/operator on duty, this proposed alternative approach is necessary to ensure the mechanical fitness and regulatory compliance of ADS-equipped commercial motor vehicles and the trailers they are towing. To that end, in the fall of 2022, CVSA filed comments in response to FMCSA's supplemental advance notice of proposed rulemaking encouraging the agency to require motor carriers operating ADS-equipped commercial motor vehicles in interstate commerce without a driver/operator on duty to comply with the CVSA Enhanced CMV Inspection Program. CVSA's Enhanced CMV Inspection Program ensures that motor carriers operating ADS-equipped commercial motor vehicles without a driver/operator on duty are held to rigorous safety standards, while avoiding the many challenges presented by inspecting these vehicles under the current roadside North American Standard Inspection Program.

As Congress considers legislation regarding the use of ADS-equipped commercial motor vehicles, it is important that any policies look beyond the ADS technology itself and address how overall safety and compliance with the FMCSR will be established and maintained. ADS-equipped commercial motor vehicles have the potential to

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dramatically improve safety on our nation's roads. But that safety benefit is contingent on ensuring that all vehicle components, and not just the ADS, are operational and being maintained. The Enhanced CMV Inspection Program, developed collaboratively with the ADS developers and the motor carrier industry will provide that assurance.

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