



ADVOCATES
FOR HIGHWAY
& AUTO SAFETY

September 12, 2017

The Honorable John Thune, Chairman
The Honorable Bill Nelson, Ranking Member
Senate Committee on Commerce, Science, and Transportation
Washington, DC 20510

Dear Chairman Thune and Ranking Member Nelson:

Thank you for convening tomorrow's important hearing, "Transportation Innovation: Automated Trucks and our Nation's Highways." We are pleased that the Committee is considering the role of autonomous commercial motor vehicles (ACMVs) and urge you to adopt a strong regulatory framework for their development and deployment. We respectfully request that this letter be included in the hearing record.

Advocates for Highway and Auto Safety (Advocates) supports the development of automated vehicle technology because it has the potential to significantly reduce crashes, including those involving large trucks and buses. Advancing proven technological solutions is especially critical given that truck crashes have skyrocketed in recent years. In 2015, 4,067 people were killed in crashes involving large trucks. This is an increase of more than 4 percent from the previous year and a 20 percent increase from 2009. Additionally, in 2015, 116,000 people were injured in crashes involving large trucks. This is the highest number of injuries since 2004. Since 2009 there has been a 57 percent increase in the number of people injured in large truck crashes. Moreover, in fatal two-vehicle crashes between a large truck and a passenger motor vehicle, 97 percent of the fatalities were occupants of the passenger vehicle. It is clear that this is a serious and growing public health problem that merits urgent attention.

While Advocates sees great potential for fully autonomous vehicles, including CMVs, to be the catalyst for meaningful and lasting reductions in deaths and injuries, in the interim there are many effective technologies that could be implemented immediately. In 2015, Advocates filed a petition with the National Highway Traffic Safety Administration (NHTSA) seeking the issuance of a rule to require forward collision avoidance and mitigation braking systems (F-CAM), also known as automatic emergency braking (AEB), on trucks and buses with a gross vehicle weight rating (GVWR) of 10,000 pounds or more. The agency granted the petition in October of that year but, nearly two years later, no further regulatory action has been taken despite studies showing the potential to significantly reduce crashes, deaths and injuries. The agency should be required to expeditiously issue this rule.

Additionally, Advocates has consistently supported the use of speed limiting devices for CMVs because high speed crashes involving CMVs are far more deadly than those that occur at lower speeds. As such, Advocates filed comments with the Federal Motor Carrier Safety Administration (FMCSA) and NHTSA urging that the devices, already installed on most CMVs, be turned on and set at a safe speed. These technologies are readily available and could be saving lives now if they were standard on every truck. Again, this is another truck safety rule that is needlessly languishing at the DOT. Both AEB and speed limiter technologies are already required as mandatory equipment on commercial vehicles in Europe. In fact, speed limiting technology has been required in the European Union for over two decades and AEB since 2012. The European Union is far ahead in providing a safer operating environment for CMVs, while the U.S. lags behind as deaths in truck-involved crashes skyrocket.

The emergence of experimental ACMVs and their interactions for the foreseeable future with conventional motor vehicles demand an enhanced level of federal and state oversight to ensure public safety. It is imperative that CMVs be regulated. If not, the development and deployment of ACMVs will be subject to the ineffective and unenforceable voluntary guidelines developed by NHTSA for new vehicles. Moreover, the FMCSA has not even issued voluntary guidelines for the operating rules to govern the safety of ACMVs once on the road. The lack of proper oversight clearly will have a negative impact on public safety. Some experts predict that automated technology will be placed in commercial vehicles before light passenger vehicles. The potential for an 80,000 pound truck using unregulated and inadequately tested technology on public roads is a very real and dangerous scenario if these vehicles are only subject to voluntary guidelines. In addition, automated passenger carrying commercial motor vehicles that have the potential to carry as many as 53 passengers will need additional comprehensive safeguards that will be unique to this mode of travel.

In order to minimize major threats to the public and ensure that ACMVs are developed and deployed safely, they must be subject to the following essential provisions:

- Each manufacturer of an ACMV must be required to submit a detailed safety assessment report that details the safety performance of automated driving systems and automated vehicles. Manufacturers should be required to promptly report to NHTSA all fatal, injury and property damage only crashes involving ACMVs.
- ACMVs that do not comply with Federal Motor Vehicle Safety Standards (FMVSS) should not be sold and they should not be subject to exemptions. Sales of CMVs in the United States do not nearly equal passenger vehicle sales and therefore exempting large numbers of CMVs from FMVSS is unnecessary for the development of ACMVs and will result in a potentially significant and unnecessary threat to public safety.
- NHTSA must require that manufacturers of ACMVs meet a “functional safety standard” to guarantee the safety of ACMVs. This is a well-known process by which a product is tested to ensure that, as a whole, it will function safely and will prevent or mitigate defects or misuse which could lead to unsafe conditions.
- Any safety defect involving the ACMV must be remedied before the ACMV is permitted to return to operation. The potential for defects to infect an entire fleet is heightened with AV technology. Therefore, manufacturers should be required to promptly determine if a defect affects an entire fleet. Those defects that are fleet-wide should result in an immediate suspension of operation of the entire fleet until the defect is remedied.
- ACMVs must be required to meet a minimum cybersecurity standard that should be issued by the Secretary within 3 years of enactment of the legislation.
- The Secretary should be required to establish a database for ACMVs that includes such information as the vehicle’s identification number; manufacturer, make, model and trim information; the level of automation of each automated driving system with which the vehicle is equipped; the operational design domain of each automated driving system with which the vehicle is equipped; and the federal motor vehicle safety standard or standards, if any, from which the vehicle has been exempted.
- In the near term, rulemakings should be considered for elements of ACMVs that may require performance standards including human machine interface, sensors and actuators and the need for software and cybersecurity standards. Standards for ACMVs should be required to be issued by specific deadlines set by Congress and before there is large scale deployment.

- Manufacturers of ACMVs should be required to have in place a privacy plan before an ACMV is sold.
- For the foreseeable future, regardless of their level of automation, ACMVs must have an operator with a valid commercial driver's license in the vehicle at all times. Drivers will need to be alert to monitor not only the standard operations of the truck but also the automated system. Therefore, the Secretary must issue a standard for driver engagement. In addition, critical safety regulations administered by FMCSA such as those that apply to driver hours-of-service, licensing requirements, entry level training and medical qualifications must not be weakened.
- Motor carriers using ACMVs should be required to apply for additional operating authority.
- Drivers operating an ACMV must have an additional endorsement on their CDL to ensure they have been properly trained to monitor and understand the operating design domain of the vehicle and, if need be, to operate an ACMV. This training should include a minimum number of hours of the behind-the-wheel training.
- FMCSA must consider the additional measures that will be needed to ensure that ACMVs respond to state and local law enforcement authorities and requirements, and what measures must be taken to properly evaluate an ACMV during roadside inspections. In particular, the safety impacts on passenger vehicle traffic of several large ACMVs platooning on roads and highways should be assessed.
- NHTSA should be given imminent hazard authority to protect against potentially widespread catastrophic defects with ACMVs, and criminal penalties to ensure manufacturers do not willfully and knowingly put defective ACMVs into the marketplace.
- NHTSA and FMCSA must be given additional resources, funding and personnel, in order to meet demands being placed on the agency due to the advent of AV technology.

Without these necessary safety protections, truck drivers and those with whom they share the road are at risk. Advocates has always been a champion for technology and the advent of AV technology is no different. However, allowing technology to be deployed without adequate testing, oversight, and safety standards is a direct threat to the motoring public which is exacerbated by the sheer size and weights of large commercial motor vehicles. We look forward to working with the Committee to address these important issues and advance legislation that provides for the safe development and deployment of lifesaving technologies.

Sincerely,

Jacqueline Gillan
President

Catherine Chase
Vice President of Governmental Affairs