



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

Administrator

1200 New Jersey Avenue, SE
Washington, DC 20590

August 3, 2015

The Honorable Henry C. "Hank" Johnson
U.S. House of Representatives
Washington, DC 20515

Dear Congressman Johnson:

Thank you for your letter encouraging the National Highway Traffic Safety Administration (NHTSA) to establish a safety regulation to require the use of forward collision avoidance and mitigation braking systems on all commercial motor vehicles with a gross vehicle weight rating of 10,001 pounds or more. I welcome this opportunity to provide an update on NHTSA's ongoing activities in this area.

Today, vehicles on the Nation's roadways are the safest they have ever been, in large part due to decades of vehicle safety improvements that increase the ability of vehicles to withstand a crash, as well as occupant protection mechanisms that are designed to prevent fatalities and mitigate passenger injuries. Yet the fact remains, 94 percent of highway crashes are a result of human error.¹

Safety technologies, such as automatic emergency braking, can prevent a crash from occurring in the first place, which is why NHTSA is focused on the development and accelerated deployment of forward collision avoidance and mitigation systems, some of which are already available. Crash avoidance technologies are advancing, and NHTSA is conducting rigorous testing to inform the agency's decisions on how to promote or mandate systems that are a part of these technologies.

Research and Testing

NHTSA is a data-driven agency, and as such, must validate a particular vehicle safety system through research and testing prior to mandating it. The agency will be using the data generated from the research and testing of forward collision avoidance and mitigation systems to make informed decisions, including whether to pursue rulemaking to require them on heavy vehicles. Current crash avoidance research planned or underway includes:

- Since 2007, NHTSA has researched advanced crash avoidance technology, including forward collision avoidance and mitigation technology, focusing primarily on its light vehicle and truck tractor applications. NHTSA's most recent research includes test track evaluations, analysis of collision warning driver-vehicle interface effectiveness, and an ongoing heavy vehicle field operational test of production systems. This field operational

¹ <http://www-nrd.nhtsa.dot.gov/Pubs/812115.pdf>

test is evaluating the real-world performance of production forward collision warning and automatic emergency braking (AEB) systems. The study, which is monitoring over 100 truck tractors for about one year each, will conclude later this year. Research reports will be available in 2015 for the collision warning driver-vehicle interface effectiveness study and in 2016 for the field operational test.

- NHTSA plans to test the next generation systems as they become available, including AEB systems on single unit trucks. AEB systems are already available on some light vehicles and truck tractors. The heavy vehicle industry has indicated that next generation forward collision avoidance and mitigation systems for truck tractors will be commercially available later this year, and will have improved performance that enables the vehicles to warn the driver and automatically brake in response to stationary lead vehicles. In addition to the increased performance from the next generation systems, industry is also expected to begin production of forward collision avoidance and mitigation systems on Class 7 single unit trucks in the near future. NHTSA is currently developing the performance tests and evaluation criteria for these systems.
- Effective this year, the European Union Commission adopted a regulation to require an advanced emergency braking system with forward collision warning on new heavy vehicles. NHTSA is considering the test criteria required by the European regulation as it continues to develop its heavy vehicle test procedures and performance metrics.

Rulemaking

On February 19, 2015, NHTSA received a petition for rulemaking from the Truck Safety Coalition, Center for Auto Safety, Advocates for Highway and Auto Safety, and Road Safe America (hereon referred to collectively as the "petitioners"). The petitioners requested that the agency initiate a rulemaking to establish a new Federal motor vehicle safety standard to require vehicle manufacturers to install forward collision avoidance and mitigation systems (petitioners' terminology for the AEB systems) on all new vehicles with a gross weight rating (GVWR) of 10,000 pounds or more. The petitioners stated that forward collision avoidance and mitigation technology has the potential to provide significant safety, economic and societal benefits. The Commercial Vehicle Safety Alliance submitted a letter supporting the petition and recommended that the mandate for forward collision avoidance and mitigation systems apply to vehicles with a GVWR of 10,001 pounds or more (rather than 10,000 pounds or more) to better conform to existing commercial motor vehicle safety classes. NHTSA is in the process of responding to the petition.

Adding AEB to NHTSA's New Car Assessment Program (NCAP)

Regarding light vehicles, NHTSA's NCAP is a consumer information program that provides safety information and ratings to inform consumers' car buying decisions. NHTSA published a Request for Comments notice on January 28, 2015, which outlined its plans to add two AEB systems – crash imminent braking and dynamic brake support – to add to the NCAP list of recommended advanced technology features. The agency received feedback that is being used to make a final decision, which will be published when the agency issues a Final Notice in the

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Federal Register. As part of this process NHTSA will consider the National Transportation Safety Board's Safety Recommendations H-15-4, H-15-6, and H-15-7 related to forward collision avoidance and mitigation technology and NCAP.

I hope this information provides an informative update on the research and rulemaking efforts NHTSA is focusing on related to forward collision avoidance and mitigation technology, including AEB. I have sent a similar response to each cosigner of your letter. If I can provide further information or assistance, please feel free to contact me, or Alison Pascale, Director, Office of Governmental Affairs, Policy and Strategic Planning, at (202) 366-1836.

Sincerely,

A handwritten signature in black ink that reads "Mark R. Rosekind". The signature is written in a cursive style with a large, prominent "M" and "R".

Mark R. Rosekind, Ph.D.