



April 1, 2021

By regulations.gov

National Highway Traffic Safety Administration (NHTSA)
Docket Management Facility (M-30)
West Building, Room W12-140
1200 New Jersey Avenue, SE
Washington, DC 20590-0001

Re: Framework for Automated Driving System (ADS)
Safety; 49 CFR Part 571; Doc. No. NHTSA-2020-0106

Ladies and Gentlemen:

The National Automobile Dealers Association (NADA) represents more than 16,000 franchised automobile and truck dealers who sell new and used motor vehicles and engage in service, repair, and parts sales. Together they employ over 1,000,000 people nationwide, yet the majority are businesses as defined by the Small Business Administration.

Last year, NHTSA issued an advance notice of proposed rulemaking (ANPRM) on the development of a framework to define, assess, and manage ADS safety performance and to promote future innovation.¹ For the record, NADA's members generally are not engaged in the design or manufacture of motor vehicles, motor vehicle systems, or motor vehicle parts, nor do they verify or certify vehicle safety. On the other hand, they do sell motor vehicles and motor vehicle parts to both consumers and commercial customers and, as part of their vehicle service and repair activities, they implement safety recall remedies on behalf of the vehicle brands they represent. In response to the ANPRM, NADA offers the following comments and suggestions.

I. General Comments on the ADS Safety Framework

NADA agrees that an ADS safety framework can and should

involve a range of action by NHTSA, including guidance documents addressing best industry practices, providing information to consumers, and describing different approaches to research and summarizing the results of research, as well as more formal regulation, from rules requiring reporting and disclosure of information to the adoption of ADS-specific (Federal Motor Vehicle Safety Standards) FMVSS.²

¹ 85 Fed. Reg. 78058, *et seq.* (December 3, 2020).

² 85 Fed. Reg. at 78059.

Ultimately, ADS-focused FMVSSs will ensure that all ADS developers and manufacturers achieve an appropriate minimum level of safety-focused performance. Of course, the design of and compliance with ADS-specific performance standards may well vary based on a vehicle's intended operational design domain (ODD). At the very least, however, ADS performance standards should aim to ensure that ADSs achieve a level of safety performance equal to or greater than an average human driver operating a similar FMVSS-compliant vehicle equipped with a defined suite of Advanced Driver Assistance Systems (ADAS).

By not mandating the use of specific technologies, software, algorithms, sensors, etc., performance-based ADS safety standards will afford ADS developers and manufacturers an considerable flexibility, thereby balancing the freedom to innovate with the need to ensure acceptable levels of on-road safety. The promulgation of federal ADS safety standards should also help prevent individual states from enacting their own ADS standards, thereby avoiding potential patchwork of burdensome and conflicting mandates. Moreover, federal ADS standards will ensure that developers and manufacturers play by the same well-defined rules on a safety-oriented level playing field. Lastly, as with all FMVSS, federal ADS standards will help foster the motoring public's trust in and confidence with ADS and ADS-equipped vehicles.

The development of technology-neutral ADS performance standards will involve significant challenges. Until those challenges are met, best practices, a reasonable "exemption" program, and other agency guidance will be necessary to assist ADS developers and manufacturers with meeting critical safety goals during in-use testing. And, appropriate in-use testing will necessarily result in the important experience and data necessary to inform ADS performance standards development. Of course, as with all regulation, overly stringent and/or premature ADS standards could inhibit innovation and stymie potential safety benefits. In order to help minimize significant ADS-related safety risks, NADA suggests that NHTSA's framework aim to see that minimum ADS safety performance standards are in place prior to the commercial deployment of ADS-equipped vehicles.

As alluded to above, temporary exemptions issued pursuant to and consistent with the existing statutory exemption program will continue to play a key role as ADS developers and manufacturers strive to demonstrate, through field testing and evaluation, that ADS-operated vehicles provide an equal or greater level of safety performance as a similar non-exempt vehicles operated by average human drivers.³ Again, the framework's appropriate use of the exemption process coupled with the collection of data associated with exempt ADS-equipped vehicles will provide NHTSA with invaluable information on how best to design ADS safety performance standards.

When ADS-equipped vehicles ultimately are deployed commercially, NHTSA's framework should involve a critical education component, aimed at both prospective purchasers of ADS-

³ 49 U.S.C. § 30113.

equipped vehicles and at general public. Using NCAP to communicate ADS availability may prove useful at the point-of-sale for some prospective purchasers, especially when uniform and easily understood terminology is used to describe system functionality. But other methods of communication on ADS functionality will be as, if not more, important for fleet purchasers, non-owner passengers, other motor vehicle operators, vulnerable road users, and others. To foster both ADS knowledge and acceptance, each “constituency” will require some understanding of the ADS-vehicles they are using, riding in, or sharing the road with.

NHTSA should consider creating a new series or set of FMVSS exclusively for ADS-operated vehicles to accommodate the fact that they may incorporate novel seating arrangements, and may lack certain standardized equipment found in vehicles designed to be at least partially operated by human drivers. Doing so may prove simpler, more efficient, or at least more elegant than inserting exemption language throughout the existing FMVSS.

II. Sensing, Perception, Planning and Control

Sensing, perception, planning, and control are core functional elements with respect to ADS safety. Sensing and perception are key to the task of recognizing obstacles. Thus, standards must carefully require a minimum combined performance of both sensing and perception to ensure that obstacles are adequately perceived.

Sensing, perception, and planning are critical, but the most important element of an ADS is “control”, i.e., ensuring that the ADS-equipped vehicle is operated in a safe manner. An ADS with excellent sensing, perception, and planning performance is of little if it cannot control a vehicle’s operation to avoid obstacles, prevent accidents, and follow traffic laws. In addition, machine learning and artificial intelligence are expected to play important roles with respect to ADS safety performance and must be accounted for in NHTSA’s framework.

III. Promotion of ADAS Technologies

In addition to ADS safety performance, NHTSA’s framework should consider potential minimum performance standards for some or more of the ADAS already found on today’s cutting-edge new motor vehicles. The above-discussed benefits of federal standards, including minimum safety performance, federal preemption, a level playing field, and public acceptance, apply equally well to ADAS features. With respect to the latter, the more motorists are comfortable with ADAS features occasionally managing control of vehicle functions to prevent crashes, the more likely they are likely to be accepting of ADS-operated vehicles. And, as with the ADS discussion above, prospective purchaser and other public ADAS information and education should continue to be a focus of NHTSA’s efforts.

IV. Statutory Authority

NHTSA's ADS framework falls within its broad authority under the Motor Vehicle Safety Act (MVSA).⁴ Specifically, the MVSA tasks NHTSA with "reducing traffic accidents, deaths, and injuries resulting from traffic accidents through issuing motor vehicle safety standards for motor vehicles and motor vehicle equipment and carrying out needed safety research and development."⁵ Clearly, managing the ADS exemption process, continuing ADS research and data collection, and crafting appropriate ADS performance standards are consistent with NHTSA's statutory authority and discretion.

In addition, a well-crafted NHTSA ADS framework will allow for the continued application of the appropriate state and local regulation of ADS equipped motor vehicle commerce and safety operations. Of course, those state and local authorities and regulations will require modified application, as necessary and appropriate, to accommodate ADS-equipped vehicles.

In implementing its ADS framework, NHTSA should avail itself of formal rulemaking when and as necessary, should avoid using guidance to evade formal rulemaking, and should allow for stakeholder input during ADS guidance development.

On behalf of NADA, I thank NHTSA for the opportunity to comment on this important issue.

Respectfully submitted,



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⁴ 49 U.S.C. 30102.

⁵ 49 U.S.C. 30101.