



Dr. Steve Cliff
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Subject: NHTSA Advance Notice of Proposed Rulemaking: *Framework for Automated Driving System Safety*, NHTSA Docket No. 2020-0106, 85 Fed. Reg. 78058 (December 3, 2020)

Dear Acting Administrator Cliff,

Volkswagen Group of America, Inc. (VWGoA) appreciates the opportunity to provide comments to the National Highway Traffic Safety Administration (NHTSA or Agency) on its ANPRM for a Framework for Automated Driving System (ADS) Safety. As a member of the Alliance for Automotive Innovation (Auto Innovators), VWGoA supports the comments submitted by the Auto Innovators. These additional comments are intended to highlight certain aspects that we, as a vehicle manufacturer, see as high priority.

The automotive industry is facing a process of transformation with far-reaching changes and equally difficult challenges. VWGoA agrees with NHTSA that—although wide scale deployments of automated vehicles are still many years into the future—the time is right to begin contemplating the framework for assessing ADS performance and safety guidelines. But VWGoA also agrees that prematurely developing an ADS-specific FMVSS would likely stifle progress and innovation of ADS-equipped vehicle technology. Additionally, a rush to a regulation without the proper quantity of supporting data may cut against efforts to promulgate scientifically supported regulation. With these factors in mind, it is reasonable to consider that new FMVSS for ADS-equipped vehicles as a long-term objective may be appropriate if a safety need is identified in the future.

In the interim, we encourage NHTSA to leverage its voluntary guidance, disclosure, and reporting frameworks. For example, both the Voluntary Safety Self-Assessment (VSSA) and the Automated Vehicle Transparency and Engagement for Safe Testing Initiative (AV TEST) offer great platforms for companies to educate the public and potentially inform future rulemaking activities. Additionally, NHTSA’s federal guidance for companies developing AVs is a useful resource where a growing number of standards and best practices from the industry can be discussed. It also provides useful perspectives from the Department of Transportation that can be used to guide future standards development work within the industry.

By focusing efforts on these existing frameworks, the Agency's guidance amplifies industry's advancements in technology, supports new industry standards, and promotes best practices. Continuing to utilize this approach will drive companies to focus on transparency, consumer education, and collaboration with each other. A clear example of this is evident in the industry's advancement of new industry best practices. The SAE Automated Vehicle Safety Consortium (AVSC), of which Volkswagen is a member, has recently published its sixth best practice in less than two years¹. If it was not for NHTSA's voluntary guidance approach to AVs, these types of collaborative efforts in the industry may not have been as fruitful as they are today.

NHTSA has already taken significant steps to create a regulatory environment where AVs can safely begin to deploy on US roadways. Joint efforts to assess existing barriers to deployment of ADS-dedicated vehicles serve as a positive exemplar of government collaboration with academia and industry. While significant progress has been made, regulatory barriers will remain in the near term. Therefore, VWGoA encourages the Agency to consider leveraging other regulatory tools to permit larger scale AV deployments, such as Part 555 temporary exemptions and the AV Pilot Program.

As NHTSA has demonstrated through its approval of Nuro's petition for exemption, Part 555 temporary exemptions offer a unique tool for NHTSA to permit companies to deploy novel vehicle concepts that would otherwise be non-compliant with existing FMVSS. Additionally, in the case of the Nuro petition, it provided NHTSA with a means to collect data from the Nuro deployments. With exemptions for ADS-equipped vehicles potentially offering high levels of complexity, and understanding the level of capital investment needed to fund these projects, VWGoA asks that NHTSA prioritize creating operational guidance which companies can reference as they prepare Part 555 exemption requests for novel AV concepts. Such guidance should make it easier for companies seeking exemptions as well as the Agency to navigate the complexities of the exemption process. As part of the guidance, we would also encourage NHTSA to commit to a predefined timeline for AV exemption decisions of 6 months. This was introduced by NHTSA in its Federal AV Policy that was published in 2016.²

Another path to broader exemptions for AV testing and deployments that VWGoA encourages NHTSA to consider is the AV Pilot Program. This approach was first proposed by NHTSA in 2018 through the publication of an ANPRM and we encourage NHTSA to revive it³. While the details of such a program would likely require more collaboration with industry, the core philosophy of offering broader exemptions to AV developers and manufacturers in exchange for more formalized data sets to be shared with the Agency on a recurring is a reasonable approach. If implemented, this program could offer a

¹ <https://www.sae.org/news/press-room/2021/03/automated-vehicle-safety-consortium-publishes-first-industry-led-guidance-for-measuring-ads-safety-performance-metrics>

² NHTSA Federal Automated Vehicles Policy, NHTSA Docket No. 2016-0090, 81 Fed. Reg. 65703 (September 23, 2016) pg. 7

³ Pilot Program for Collaborative Research on Motor Vehicles with High or Full Driving Automation, Docket No. NHTSA-2018-0092

powerful tool for NHTSA to collect useful field data on fleets of AVs operating in their intended Operational Design Domains (ODDs). These data could be used to inform the public about the safe operation of AVs, inform future rulemaking activities, and help steer future research priorities. Through this program, larger scale deployments would help to more quickly bring the benefits of AVs, such as inclusive mobility, lower fuel consumption, and less congested traffic to roadways across the country.

As AVs become more common on US roadways, consumers will want to learn about the various safety aspects related to AV operation. However, retooling the New Car Assessment Program (NCAP) to assess the performance of AVs would not efficiently meet the goal of consumer education. As a threshold matter, many ADS-equipped vehicles will be predominately fleet operated, and therefore, will not be purchased directly by consumers. Additionally, integrating ADS performance into NCAP may also diminish the effectiveness of NCAP as adding tests will increase complexity and make rating interpretation even more complex for consumers. Instead, VWGoA recommends leveraging existing platforms such as AV TEST to inform the public about AV safety metrics. This could also tie in with data reported to the Agency through Part 555 exemptions and the AV Pilot Program. Additionally, we encourage NHTSA to engage with other industry stakeholders like the Partnership for Automated Vehicle Education (PAVE) and the SAE AVSC to better coordinate efforts on opportunities for improved consumer education.

As it relates to future rulemaking, should NHTSA develop AV-specific regulations to address a safety need, VWGoA respectfully requests that these regulations consist of objective, repeatable, practicable, performance-based test procedures that remain technology agnostic. Performance based regulations, and their test procedures, should be scenario-based and align closely with the vehicle's intended ODD. The methods applied should leverage existing standards and best practices that have been well established and implemented by the industry. The requirements should be harmonized with existing requirements from other established markets as appropriate for self-certification. Additionally, NHTSA should coordinate closely with other Agencies within the US DOT such as the Federal Motor Carrier Safety Administration (FMCSA) and the Federal Highway Administration (FHWA) to ensure they are aligned as much as possible.

As NHTSA contemplates the future for creating a safety framework for ADS, VWGoA encourages the Agency to continue to focus on ensuring that boundaries of state and federal roles are clarified in regulating ADS vehicles. As NHTSA may be aware, certain states are looking to regulate the data collected from interior cameras. This could limit the AV operator's ability to include safety features such as cabin monitoring that could detect instances where the vehicle should achieve a minimal risk condition based on unintended events occurring in the passenger compartment of the vehicle. As NHTSA continues to develop its framework, we ask that it reiterate its authority over the design of the vehicle to the states to prevent regulations from limiting the safety capabilities or evolution of AV business model use cases.



VWGoA is excited to discuss the future of the automotive industry with the Agency. VWGoA wants to make the automobile more intelligent, safer, and accessible for its customers. To bring the future of automated vehicles to society, it is important that the regulatory environment provide paths for AV developers to deploy these vehicles in a safe, responsible manner. As companies continue to develop, validate, and refine these complex vehicles, it is imperative that regulators, developers, and key stakeholders continue to focus on collaboration and communication with each other. In these early stages, we must place emphasis on flexibility and agility and not rush to premature regulations that could be detrimental to future AV deployments. VWGoA appreciates the Agency's open approach to creating an ADS safety framework and looks forward to collaborating more in the future.

Sincerely,

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Volkswagen Group of America, Inc.