



November 22, 2016

Docket Management Facility
U.S. Department of Transportation
1200 New Jersey Avenue, SE
West Building, Ground Floor
Room W12-140
Washington, DC 20590-0001

RE: Request for Comment on “Federal Automated Vehicles Policy” [Docket No. NHTSA-2016-0090]

The American Association of Motor Vehicle Administrators (AAMVA) appreciates the opportunity to provide comments on the Federal Automated Vehicles Policy. Automated vehicles represent one of the most significant innovations impacting the transportation sector since the advent of the motor vehicle. The lifesaving potential of this technology is monumental. AAMVA applauds the federal government’s work to ensure these technologies continue to deliver as consumer protections while simultaneously encouraging innovation. AAMVA continues to volunteer its expertise to NHTSA as the agency considers periodic updates of the policy to reflect the frequent changes these innovative technologies require.

Note on “Levels of Automation”

This section describes the various levels of automation and the adoption of the SAE International definitions for levels of automation. AAMVA contests that the SAE definitions for “Levels of Automation” are separate and distinct classifications. By grouping Levels 3, 4, and 5 together into a single “Highly Automated Vehicle (HAV)” designation, the importance of the individual classifications becomes less clear. AAMVA believes that this grouping of distinct classifications into one single term has confused the framework for the policy and that NHTSA and the states may need to refer to individual designations as appropriate.

I. Vehicle Performance Guidance for Automated Vehicles

C. Overview: DOT’s Vehicle Performance Guidance

The policy states that, “It is the manufacturer or other entity’s responsibility to determine their system’s AV level in conformity with SAE International’s published definitions.” NHTSA will review that manufacturer’s automation level designation and advise the manufacturer if the Agency disagrees with the level assigned.” NHTSA evaluation of these designations and a clear dispute resolution process for discrepancies between designations should be established in advance. AAMVA also recommends NHTSA be provided with the appropriate resources to monitor such a quickly developing and rapidly expanding vehicle population. Aftermarket changes and over-the-air updates may affect the manufacturer designation for the vehicle, and that the original designation may not be sustained for the lifecycle of that vehicle. This change in status needs to be addressed in some fashion so that the vehicle itself reflects not only the original designation, but the designation of the vehicle at a later point in time.

The guidance provides that “a manufacturer or other entity should start by ensuring certification to all applicable FMVSS standards or, if needed, request an interpretation or exemption from NHTSA.” Current practice for exemptions is a formalized process carried through the *Federal Register*. Is it the expectation

that monitoring and tracking all exemptions provided by NHTSA will only be carried in the *Federal Register*? Given the expected volume of such requests, AAMVA suggests that a centralized repository of which exemptions have been granted or denied for each vehicle may be more useful.

Further, there may be a need to carry an indicator of the specific manufacturer-designed autonomous vehicle features or SAE Level of Automation that accompanies each vehicle throughout its lifecycle. A character within the Vehicle Identification Number (VIN) may serve as the appropriate indicator to accompany each vehicle. If a character within the VIN ultimately becomes the chosen indicator, states may need to consider how their VIN reassignment methods would need to change given that the VIN reassignment may happen more frequently.

D. Safety Assessment Letter to NHTSA

NHTSA expects a manufacturer or entity to submit a new Safety Assessment letter to the Agency when any significant update(s) to a vehicle or HAV system is made. Given NHTSA has described a significant update as “one that would result in a new safety evaluation for any of the 15 safety assessment areas,” there seems to be reasonable margin of interpretation on what constitutes a “new safety evaluation.” Undoubtedly the volume of significant updates will increase dramatically. AAMVA supports the provision of any resources that will assist NHTSA in this role.

E. Cross-Cutting Areas of Guidance

1. Data Recording and Sharing

This section addresses the types of data that NHTSA will require to be documented and recorded by manufacturers for ready retrieval by NHTSA. While that information will be made available to NHTSA, AAMVA requests that the same data be made available to the states. Should this data only be made available to NHTSA, the states would need to request that the same information be submitted by any entity conducting testing within that jurisdiction if they share such requirements. A single provision of this data to a federal and accessible source would eliminate redundancies in data collection and reporting between both federal and state jurisdictions. Further, without data-sharing capabilities between federal and state regulatory agencies, each state may choose to implement their own data submission requirements with reporting entities. Discrepancies between federal and state data collection and reporting methods creates a non-standardized data collection and reporting environment between jurisdictions – making individualized state reporting requirements difficult to track and increasing the potential for data provision errors.

Policy guidance in this section states, “To develop new safety metrics, manufacturers and other entities should collect, store and analyze data regarding positive outcomes in addition to the type of reporting conditions listed above (event, incident, and crash data).” AAMVA requests clarification on what specifically NHTSA is requesting in terms of “safety metrics” and how those metrics will be measured and utilized in a standardized data format. AAMVA does appreciate that positive outcomes as a result of HAVs will help shape the true contributions of the vehicle, especially in the early stages of a minority HAV population. What is unclear is what these new safety metrics are meant to address.

F. Automation Function

1. Operational Design Domain

This section provides that the manufacturer or other entity should define and document the Operational Design Domain (ODD) for each HAV system available on their vehicle as tested or deployed for use on public roadways. Amongst the defined parameters, NHTSA provides that the ODD should include “geographic area” as part of the information included in defining HAV system capabilities. AAMVA requests NHTSA clarification on what specifically “geographic area” entails. Does this refer to the specific jurisdictional operating capabilities, the specification of topographical environment operating capabilities, the discrepancy between metropolitan and rural areas, or a geo-fenced area of operation? Clarification of this term will ensure the ODD parameters sync with federal and jurisdictional operational requirements.

II. Model State Policy

AAMVA applauds NHTSA for its outreach to AAMVA in formulating this section of the policy. AAMVA expertise is an essential resource for the development of a comprehensive policy. AAMVA involvement ensures state interests and HAV technology innovators work in tandem to provide a level of consistency in HAV testing and deployment across jurisdictional lines. AAMVA reiterates that their input towards this section was not just a single organizational consideration, but that multiple states, with different interests collaborated on the recommendations made to NHTSA.

1. Administrative

Subsection (b) provides information on the establishment of a jurisdictional automated safety technology committee that is launched by the designated lead agency. AAMVA members have expressed that committee membership should also include legislative and executive state government representatives as well as economic development advisors. Policy at the state level will be defined by state legislatures and lead executives, making their integration into the decision-making process essential. Further, once the deployment of Level 5 vehicles is the rule rather than the exception, there will be a significant impact to the public and private transportation sector economic interests. Commercial transportation, passenger transportation, buses, taxis, vehicle repair shops, insurance claims, legal and medical implications are all anticipated with the deployment of HAVs.

3. Jurisdictional Permission to Test

Subsection a states that “Each jurisdiction’s lead agency should involve the jurisdictional law enforcement agency before responding to the request from the manufacturer or other entity.” AAMVA suggests that law enforcement involvement is necessary with respect to the request to test, but that this involvement is not specific to the approval or disapproval of a request to test. The lead agency should continue to make those decisions while communicating with, and requesting information from, law enforcement once a status decision has been made.

5. Deployed Vehicles: “Drivers”

Subsection (b) states that “Fully automated vehicles are driven entirely by the vehicle itself and require no licensed human driver (SAE levels 4 and 5), at least in certain environments or under certain conditions.” The footnote attached to this statement provides a very important distinction by reference, “Some vehicles may be capable of being entirely “driven” either by the vehicle itself or by a human driver. For such dual-capable vehicles, the States would have jurisdiction to regulate (license, etc.) the human driver.” AAMVA feels that this statement is integral to the discussion of HAV and state licensing jurisdiction. AAMVA recommends that NHTSA consider incorporating this statement directly into the policy itself to ensure there is no confusion regarding the authority of the state to establish the licensing laws associated with autonomous vehicle regulation.

8. Liability and Insurance

AAMVA supports the suggestion that commissions study liability and insurance issues and make recommendations to the states. AAMVA offers its expertise to NHTSA as the agency continues to develop the appropriate commission(s).

IV Modern Regulatory Tools

c. Authority III. Cease-and-Desist Authority

This authority would enable NHTSA to require manufacturers to take immediate action to mitigate safety risks that are so serious and immediate as to be “immediate hazards.” NHTSA cites that they may need a statutory amendment to give the agency the appropriate cease-and-desist authority. AAMVA believes that

this must be an integral part of any combination of the regulatory tools available to NHTSA-especially given the agency's role in monitoring technologies that will continually expand beyond the scope of current regulation. AAMVA also believes federal issuance of cease-and-desist orders should be communicated to the states.

e. Authority V: Post-Sale Authority to Regulate Software Changes

NHTSA cites that software updates may affect the basis for certification because the updates themselves constitute new items of motor vehicle equipment. If the update poses an unreasonable risk to safety, NHTSA's defects and recall authorities apply. NHTSA further cites that they have the authority to regulate the safety software changes provided by manufacturers after a vehicle's first sale to a consumer. Given the nature of software updates, and the fact that they may more critically apply to the performance of a vehicle after initial design and sale, it is important that NHTSA maintain a level of compliance control that extends beyond the point-of-sale of the vehicle.

2. Tools

a. Tool I: Variable Test Procedures to Ensure Behavioral Competence and Avoid the Gaming of Tests

NHTSA cites the fact that due to the complexity and variability of testing HAVs, it would not be feasible for one applicable test environment to fully and identically duplicate another such test environment. To guard against the potential for "gaming" any type of standardized tests, NHTSA needs the authority to vary its test procedures when necessary to achieve the appropriate safety purposes. AAMVA endorses the need for a clarifying amendment to the Vehicle Safety Act to confirm that the current requirement that FMVSS be "objective" does not preclude the Agency from varying those procedures to the extent it deems necessary to ensure public safety.

Glossary

In this section, "driver" is defined as the following, "For purposes of this Policy, the human operator of an HAV when it is not operating in a fully automated mode." AAMVA requests clarification on whether a person sitting in the driver seat of a Level 3 or 4 vehicle would be responsible for distracted driving or any other rules of the road violations if the vehicle is operating in "fully automated mode."

"Operator" is defined as "an occupant of an automated vehicle who is not responsible for the driving task, but is still responsible for certain aspects of the journey (i.e., inputting a destination for the vehicle)." AAMVA requests clarification on whether this definition is meant to cover those vehicles that may be remotely operated or tracked. If that is the intention, those terms may need to be incorporated into the definition.

General Considerations

AAMVA notes that the NHTSA policy does not address the platooning of vehicles, including commercial vehicles. While AAMVA understands that platooned vehicles may incorporate aspects of connected vehicle technologies working in tandem with autonomous vehicle functionality, AAMVA requests clarification on whether NHTSA intended for this policy to apply to connected vehicles.

AAMVA thanks NHTSA for the opportunity to comment on this important safety issue and for NHTSA's continued partnership and support as we work collaboratively to deliver this life-saving technology to the public.