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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: U.S. Department of Transportation National Highway Traffic Safety Administration
Response to Advance Notice of Proposed Rulemaking on Docket No. NHTSA-2020-0106-
0001: Framework for Automated Driving System Safety

Dear Docket Clerk:

The Maryland Department of Transportation (MDOT) is pleased to provide comments on the U.S. Department of Transportation (U.S. DOT) National Highway Traffic Safety Administration's (NHTSA) Advance Notice of Proposed Rulemaking (ANPRM) on "Framework for Automated Driving System Safety," (Docket NHTSA-2020-0106) in support of the U.S. DOT's advancement of a safe, efficient, and equitable transportation future. Maryland is open for business and eager to support the advancement of automated driving systems to realize the potential life-saving and economic benefits, while ensuring safety for all.

MDOT is a multimodal agency with responsibility for and expertise in roadway and bridge design and operation, motor vehicle safety, transit, bicycle/pedestrian issues, aviation and ports. For more than five years, MDOT has led a public-private working group to address Connected and Automated Vehicle (CAV) issues in Maryland and to position the state to encourage the testing and deployment of CAV technologies. Our vision is to uphold and enhance a safe, efficient, and equitable transportation future by delivering collaborative and leading-edge CAV solutions.

NHTSA has asked for comments on an approach for performance evaluation of automated driving systems (ADS) through a national safety framework – to identify and manage safety risks related to ADS. Overall, the detailed technical and engineering specifics offered in the ANPRM are consistent with industry-wide discussions and are recommended for a national framework consideration.

MDOT is pleased to see the inclusion of a safety framework for defining, assessing, and providing for the safety of ADS addressed as part of the priorities in the U.S. DOT AV Comprehensive Plan just released. MDOT agrees that government can and should eliminate unnecessary or redundant initiatives and provide activities and plans to reflect new technology and industry developments for safety innovations that introduce more efficient and effective transportation.

MDOT also reiterates overarching goals outlined by other organizations, to 1) maintain current federal and non-federal authorities concerning motor vehicle performance; 2) ensure a strong federal role in facilitating the deployment of connected vehicles (CV) and automated vehicles; and 3) continue a focus on the importance of future possibilities of both connected and automated vehicles. Specifically, MDOT is suggesting that CV must be integrated in a national safety framework for ADS, as it provides an important redundancy for ADS and enables additional safety-related services beyond what in-vehicle sensors can provide.

One strong aspect of Maryland's CAV program is the active participation of emergency responder and highway safety stakeholders. With that input, MDOT offers a few specific suggestions for consideration in performance evaluation of ADS through a national safety framework:

Necessary attributes of ADS

- Level of control and reaction to meet or exceed human operator.
- Redundancies for sensors to detect and protect – including vulnerable road users.
- Provide fail safe features for software updates to verify they are complete, not corrupted, and allow for reversion back to pre-update status; or if no resolution, to stop operations.

FMVSS updates

- Include sensor inputs and the commands sent to ADS equipment for reaction to sensor info, in the test parameters of FMVSS which are used by manufacturers for design and development of equipment for self-certification.
- Corresponding interpretations of existing FMVSS to ADS technologies to enable inclusion of these technological safety improvements while preserving the historical jurisdictional oversight over vehicle operations to continue.
- Original equipment manufacturers/ADS Developers to use driving simulator programs with the same simulator programmed events for human operators and ADS equipment in place of a human operator – to allow for a direct comparison and assessment of the ADS technology

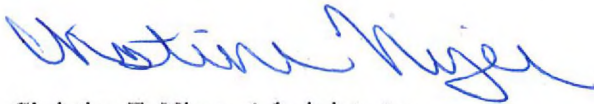
Demonstrative functional capabilities for monitoring/regulating ADS

- Provide info on equipment and training needed for motor vehicle administrations, law enforcement agencies, and public safety departments for legal or regulatory-related actions involving vehicle control and observance of vehicle laws and regulations.
- Standardized test or self-diagnostic system for ADS – similar to OBD II requirements for standardization.

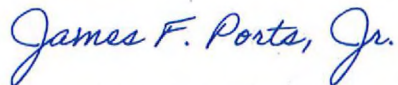
- Coordination of data elements related to ADS with pertinent organizations for inclusion in revisions of American National Standard of Motor Vehicle Traffic Accidents (ANSI D16) and Model Minimum Uniform Crash Criteria (MMUCC), to set the standard moving forward and eventual adoption by law enforcement agencies for use in crash reports.

Thank you again for the opportunity to comment. MDOT looks forward to continued collaboration with NHTSA and other contributors. If you have any questions, please do not hesitate to contact us at cnizer@mdot.maryland.gov or jports@mdta.state.md.us.

Respectfully submitted,



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