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TECHNICAL MEMORANDUM

TxDOT IAC – Technical Support to the CAV Task Force

DATE: May 27, 2024

TO: Zeke Reyna, Strategic Research Analyst, TxDOT

COPY TO: Lauren Freriks, Strategic Management Analyst, TxDOT
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Tim Hein, Research Development Office, TTI

FROM: Robert Brydia, Research Supervisor
Senior Research Scientist, Texas A&M Transportation Institute

RE: Licensing and Registration Subcommittee
May 20, 2024, Meeting Notes

Attendees:

Amanda Hamm	Nuro
Andrea Chavez	Grace McEwan
Brian Moen	City of Frisco
Brian Moore	Bot Auto
Bob Brydia	Texas A&M Transportation Institute
Margaret Fowler	Texas A&M Transportation Institute
Brittney Gick	Texas A&M Transportation Institute
Marcelle Jones	Stantec
Lauren Freriks	Texas Department of Transportation
Roland Luna	Texas Department of Motor Vehicles
Madeleine Pelton	Texas Department of Transportation
Sly Majid	Volkswagen Group of America
Nick Steingart	Alliance for Automotive Innovation
Alison Pascale	Volkswagen Group of America

Allen Rutter	Texas A&M Transportation Institute
Paul Steier	American Association of Motor Vehicle Administrators
Beverly Storey	Texas A&M Transportation Institute
Daniel Sullivan	Navistar
Zeke Reyna	Texas Department of Transportation

- I. Welcome and Introduction – Zeke Reyna, TxDOT**
- Thank you for joining us today
 - We have a special guest speaker and are excited to hear the presentation
- II. Opening Comments – Subcommittee Chair, Roland Luna,**
- Thank you for joining us and we are looking forward to a very informative presentation from Paul Steier.
- III. Guidelines for Regulating Vehicles with Automated Driving Systems – Paul Steier, Director of Vehicle Programs, AAMVA**
- AAMVA members are from all DOTs across America and Canada, as well as state provincial law enforcement
 - In 2015 we started a working committee regarding automated vehicles to develop guidance documents and have recently published the 4th edition ([linked](#))
 - AV Guidelines: Goals and Objectives
 - Goal
 - Assist U.S. and Canadian jurisdictions and federal government
 - Regulator framework consistency balancing public safety with advancements in vehicle innovations (not regulatory authority)
 - Foster collaboration between regulators and original equipment manufacturers and other entities.
 - Members
 - U.S. and Canadian motor vehicle agencies (MVA) and law enforcement
 - U.S. Department of Transportation, national Highway Traffic Safety Administration, and Federal Motor Carrier Safety Administration
 - Commercial Vehicle Safety Alliance
 - Executive Summary (March 2024)
 - Provides and Overview of Main Topics
 - Revision comparison Chart
 - Definition Updates
 - SAE Definitions
 - Mirrored
 - ADS marker lamp
 - Driving automation system
 - Other Definitions
 - Remote Assistant
 - Remote Driving
 - Alterer

- Connected vehicle
 - Event or Data Recorder
 - Fusion Center
 - Over-the-air-updates
- Chapter 3: Administration
 - Establishing a Lead Agency and Oversight Committee
 - Permitting and Oversight of AV Activities
 - Legal Authority and Utilizing Standards
 - Understanding Advanced Driver Assistance Systems
- Chapter 4: Summary
 - Vehicle Considerations
 - Permit Process for Manufacturers and Other Entities (MOE)
 - Identifying AV Information on Vehicle documents and License Plates
 - Approval of the ADS as the Driver
 - Motor Vehicle Safety Standards and Vehicle Inspections
 - Updates and Enhancements
 - Description of ADS features and testing
 - Disclose testing in other jurisdictions
 - No open recalls
 - Prior authorization before changes
 - Report violations, include appeal process
 - Title test brand
 - ADS capabilities may change during testing
 - Disclosure history of test vehicles/state of automation
 - Inspections: involve MOEs for status and notifications
 - New Subchapters and References
 - Transporting People Living with Disabilities
 - Shared and Temporary Use of Vehicle
 - Assessment of Driving Automation Systems
 - CVSA Enhanced CMV Inspection Program for Commercial Motor Vehicles
- Chapter 5: Summary
 - Driver Licensing Considerations
 - Defining Driver and Passenger roles
 - Driver's License Requirements for Testing
 - Remote Driver and Remote Assistance
 - Driver Training for Drivers, Educators, and Examiners on ADAS
 - Commercial Driver Licensing
 - Updates and Enhancements
 - Consistent terminology
 - Training for current drivers and new drivers during instruction on vehicle automation
 - Elements to consider, qualifications for remote assistance and remote driver
 - Safety critical technologies permissible when testing
- Chapter 6: Summary

- Law Enforcement Considerations
 - Identifying the AV when in Operation
 - Crash and Incident Reporting
 - Criminal Activity and Distracted Driving
 - Operational Responsibility and law Enforcement Implications
 - Law Enforcement and First Responders Interaction Plans
 - Law Enforcement Protocols and Training
 - AV Response to Emergency Vehicles
- Updates and Enhancements
 - Additional details for visual indicator & potential law changes needed
 - Recommended FMVSS label indicate ADS Information
 - Reminder of NTSB crash investigation taking place at same time
 - Significance of data, data capture, & collection
 - Technologies used to ID driver or operator, may need new equipment and authority
 - First responder training – on scene and emergency interaction
 - Availability of remote engine immobilizer
- Chapters 7 & 8: Summary
 - Other Considerations and Next Steps
 - Cyber Security
 - Data collection
 - AV Shuttles, Automated Delivery Vehicles and Devices
 - Connected Vehicles
 - Staying Up to Date with Advancements in Technology
 - Continued Collaboration
 - Updates and Enhancements
 - Education for public on cybersecurity awareness with vehicle
 - MOE support with users and stakeholders
 - Interact with MOEs to learn about automation data
 - Operating in multiple operations design domains
 - Additional considerations for personal delivery devices
- What's Next?
 - Collaboration with regulators, industry, and other stakeholders
 - Advanced driver assistance systems education
 - Research impact of new technology
 - Remote operation and remote assistance.
 - Presentations and white papers
- Questions
 - What is the thought process for including or not including technical advisors?
 - We didn't want the document to reflect a specific technology or product that would limit broader thinking, or to be swayed by an aftermarket provider.
 - We have, however, had them review our content and give feedback
 - At what point do you see the federal government stepping in to make recommendations uniform between states?

- We do engage with them on our committee, however they are very cautious about being over bearing or too forth right with regulatory efforts.

IV. Adjourn