TASK FORCE ON AUTONOMOUS VEHICLES

SUBCOMMITTEE ON LICENSING AND REGISTRATION

Considerations for Licensing and Registration

Goals and Values

- Ensure safe testing and deployment of HAVs in Oregon
- Transparency in data sharing for testing & deployment
- Consistency between jurisdiction processes & requirements for testing & deployment (state/local/national)
- Establish an appropriate level of government oversight with flexibility to adapt quickly when needed
- Existing and proven processes used for vehicle identification wherever feasible
- Make sure that, to the extent possible, vehicle & driver policy re: HAVs apply to all classes of vehicles
- Ensure OEMs adhere to generally accepted minimum safety standards in testing & deployment
- Place an emphasis on driver/user training
- Efficient use of transportation system with "user pays" principle
- Clarify between "planning" data and safety/law enforcement data
- Public right to travel behavior data from commercial use of the public right-of-way
- Seek opportunities to coordinate/collaborate with West Coast corridor states & provinces

Topics

Testing Framework

- Permits for Testing - Issuance of AV testing permits for operation on public roadways
- Safety or backup driver requirements
- Rules for testing of autonomous vehicles without a human in the driver's seat
- What operating environment needs to exist for testing / deployment?
- Vehicle identification
- Scope of permit (safety assertion/limits)
- Identify data that OEMs will be required to share with state & public during testing
- Who reports what and with whom is that data shared? What is the cost?

Licensing Requirements

- Driver’s license requirements for various levels of automation
- Roles and responsibilities for various users of automated vehicles
- Minimum age requirements for various users of automated vehicles
- Permit and license requirements different for SAE automation levels? (both driver & vehicle)
- Requirements/standards for DMV testing & training of DMV examiners

- Consider classes of users for all types of vehicles, not just passenger vehicles
- Licensing standards for CDLs that consider the full range of use cases for AVs
- Clarify federal v. state role in regulating commercial driver licenses

Registration and Titling Requirements:

- Registration process
- Rules for deployment of autonomous vehicles without a human in the driver's seat
- Vehicle Registration - Vehicle identified physically and on electronic record as approved for level 3-5 functionality for testing and deployment
- Titling & Branding - Recording of vehicle ownership and establish HAV brand for vehicle record
- Grounds for suspending or revoking registration
- Fleet registration vs. individual registration considerations
- Plates - Establishment of unique vehicle identifiers (e.g., plates, stickers, etc.)
- Periodic recertification - capture system upgrades, protect against diminished performance, security patches
- Registration fees
- Lower registration fees for electric/high-efficiency vehicles
- How will use of these resources (fees?) be restricted by the highway trust fund?
- Ensure that AVs are part of road user fee discussions and policies

TNC/Commercial AV Issues:

- Consider a range of TNC use cases in an HAV environment - what policy/regulations will we need?
  - Registration of all associated technology for function of AV TNC, freight, transit, etc.
- Who reports what and with whom is that data shared? What is the cost?

Vehicle/System Design:

- Means to intervene if the automated vehicle technology malfunctions

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Questions for Licensing and Registration Subcommittee

Testing:

- Should Oregon create a permitting process for testing of HAVs, as recommended by AAMVA?
- If so, should Oregon use the process outlined in Section 4.1 of the AAMVA Guidelines?
- Do the AAMVA Guidelines list the appropriate information for inclusion in the permit application?
- Should there be restrictions on what environments manufacturers can use for testing?
- What are requirements for safety/backup drivers? (E.g., licensing, driving history)
- What are requirements for testing without a human in the driver's seat?
- What safety assurances must a manufacturer provide when applying for a testing permit?

- How should test vehicles be identified for law enforcement purposes?
- What reporting or data sharing requirements should be in place for testing?
    - Periodic reporting
    - Reporting in the event of a crash
- Do DMV processes need to change to accommodate testing, or just deployment?
- If so, what elements need to change? Is legislation required?

Licensing:

- Should Oregon establish new licensing requirements for drivers of HAVs?
    - AAMVA recommends that jurisdictions do not establish license endorsements for HAVs
- If so, what requirements are appropriate?
    - Do requirements vary by SAE Level?
    - Do requirements vary by category of user?
- Should subcommittee recommendations address CDLs for the September report?
    - What are state and federal roles in regulating commercial driver's licenses?
- Under what conditions should an occupant of an HAV be required to hold a license?
    - AAMVA recommends that a user of a vehicle with manual controls should be licensed
    - What about users who perform no aspect of the driving task? (i.e., passengers)
    - Can a user not seated in the driver's seat take a trip in a vehicle with manual controls?
- What requirements should be established around passengers?
    - Should there be a minimum age for unaccompanied minors to use AVs?
- What additional driver training/testing is necessary?
    - Information in Oregon Driver's Manual
    - AV-related questions during written test
    - Demonstration of AV-related skills during driving exam
    - What vehicle technologies are allowed during driving exam?
    - Training for driving examiners
- What DMV processes need to change? Is legislation required?

Registration:

- Should DMV maintain additional registration information around HAVs?
    - Level of automation
    - Other elements like Operational Design Domain
- Should the vehicle registration include a field indicating level of automation?
- What titling/branding requirements are necessary for new and aftermarket HAVs?
- Should HAVs have special license plates?
    - AAMVA recommends that HAVs not have special license plates
- How should HAVs be identifiable to law enforcement? First responders?
    - AAMVA recommends that HAVs are physically identified on three sides as HAVs
    - Should HAVs show an external indication when in automated driving mode?
- What are grounds and process for suspending or revoking registration?

- Should the registration period for HAVs be equivalent to that of conventional vehicles?
    - Should vehicle periodically be inspected/recertified?
        - Capture system upgrades
        - Protect against diminished performance
        - Ensure security patches are applied
- What registration fees are appropriate for HAVs?
    - Should registration fees differ for different HAVs?
        - Differing fees based on powertrain/efficiency
        - Other considerations
- Should commercial HAVs be required to be on a Road Usage Charge?
    - Possibility for high mileage AVs on EV platform to not pay fairly for road use

Data Sharing:

- What reporting requirements are appropriate at deployment?
    - What elements are required for safety and law enforcement purposes?
    - What elements are required for planning purposes
- Who will be required to report information?
    - What are limits on sharing of reported data?
    - What is the cost of reporting?

Vehicle/System Design:

- Should the state establish requirements around means to intervene if AV system malfunctions?
    - This is a vehicle design element, which would typically be addressed at the federal level
    - However, no FMVSS exist at this point specific to AVs