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

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?
  o 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?
  o 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?
  o Possibility for high mileage AVs on EV platform to not pay fairly for road use

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

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