

Feedback of the AV Safety Subcommittee on HB2470 language

Overall

The more than 530 people killed on Washington's roads last year is not acceptable, and automated vehicle technology holds the potential to save hundreds of those lives, but only if we are able to test and deploy this technology in a safe manner that doesn't expose drivers, passengers, and other road users to additional harm.

This bill addresses only the deployment of vehicles that can provide automated operations. This would include Levels 3-5 of the [SAE standard](#). It does not address the testing of level 3-4 vehicles, which is actually the state of development where we are right now. Level 3 and 4 automated vehicles are being tested on public roads today in multiple states, and it is legal to test them on Washington's public roads as well, with the self-certification outlined in [Executive Order 17-02](#).

The focus on traffic safety is appreciated. In section 11, it states "This title must be interpreted to accommodate the development and deployment of automated vehicles in a way that maintains or improves traffic safety."

This provides a general framework that is good, but it is lacking many of the details that are very important to ensure safety. The need to regulate deployment of AV's in Washington is not urgent, and for that reason, we should spend more time addressing the issues outlined below.

Definitions (Sections 2-10, 12)

- Defining "automated vehicle" as a motor vehicle with an automated system may be insufficient. This definition should contain a discussion of the autonomous vehicle levels.
- "Dedicated Automated Vehicle" is defined. Is this a new term we are going to introduce? How about sticking with Highly Autonomous Vehicles, Level 1 -5 Autonomous Vehicles, or other terms widely accepted in this discussion.

Vehicle Registration (Section 13)

- The National Highway Traffic Safety Administration (NHTSA) is responsible for setting standards for safe vehicle equipment standards, however they have not yet established what those standards are for automated vehicles being operated in automated operations (not under the control of a human driver). This bill gives the authority to Department of Licensing (DOL) to register vehicles as "automated vehicles" but it doesn't provide any criteria on how to ensure that vehicle can safely operate in automated operation, beyond the assurances of the company claiming the vehicle. There are [multiple industry organizations working on various standards](#) of how to judge automated vehicle operational safety, but they are not even close to having a commonly accepted standard. This would make it very difficult for DOL to reasonably ensure that the automated vehicles they would be asked to license are safe to operate on public roads and impact all Washingtonians.
- Something not addressed in this bill is how to do safety assessments or set performance standards. As a matter of equipment, the safety assessments should be done by the federal agency that governs vehicle equipment, NHTSA. These assessment and performance standards need to prioritize safety for all road users, not just a goal of improvements in traffic safety.

Infractions/Citations (Section 16)

- It states that “An automated driving provider is responsible for a violation of chapter 46.61 RCW during automated operation of an associated automated vehicle.” But if there was someone in the driver’s seat, it is unclear how law enforcement would conclusively know if the person was driving that vehicle or the vehicle was in automated operation. Also, if the ticket was actually issued to the ADP, the courts would have to create some sort of system to process that violation.
- There should also be more discussion around language about incapacitated or impaired persons. From a traffic safety perspective, we want to encourage intoxicated people to use an alternative to driving – and an automated vehicle ride might be a good option. But there would need to be some sort of back-up if the technology failed, because the impaired person could not take over the vehicle in any case.
- Who is responsible for equipment violations? The person the car is registered to or the ADP? If a vehicle has a tail-light out and is rear-ended by another vehicle, who gets the ticket? Who goes on the collision report?
- If a violation is observed by a police officer, how do they stop the vehicle? If the technology stops the vehicle for a police car, who do the police contact?

Driver Licensing (Section 17)

- This states that a person does not have to hold a driver's license to take a completely automated trip. This may be acceptable for completely automated trip where the people would be in the passenger or back seat, such as the rides that Waymo is providing with Level 4 automated vehicles in Arizona. In cases like that, there is very real benefit for disabled or older people who no longer have a driver's license to be able to obtain transportation. Although, if there was no back-up driver (in the car or remote) available, it is irresponsible to allow for a passenger that does not have the ability to take over the driving task in an emergency. If at any time, the person in the car might need to take control of the vehicle, they still need to understand the safety/rules of the road and the ability to drive the vehicle to their location safely.
- Also, a driver’s license would still need to be required in cases where a person is sitting in the driver's seat and is capable of taking the vehicle out of automated operation. This would also be the case for any level 3 automated vehicle, which is not capable of a completely automated trip, and where the driver must be able to take back control within a few seconds of the vehicle notifying them.
- Perhaps there be a requirement for auto dealers to educate the “human” on how to use the auto-drive features? Should there be a requirement to provide some type of training on self-driving vehicles?

TV Screen in vehicles (Section 20)

- Separate from this bill, the AV Safety Subcommittee is recommending that RCW 46.37.480 Section (1) be repealed, so it would no longer apply: *“No person shall drive any motor vehicle equipped with any television viewer, screen, or other means of visually receiving a television broadcast when the moving images are visible to the driver while operating the motor vehicle on a public road, except for live video of the motor vehicle backing up. This subsection does not apply to law enforcement vehicles communicating with mobile computer networks;”*

Abandoned Vehicles (Section 21)

- It states that, basically, an automated vehicle cannot be abandoned. If an automated vehicle breaks down, or gets a flat tire, on the side of the freeway, it is just as abandoned as any other unoccupied vehicle along the side of the road.

Distracted Driving (Section 23)

- It is unclear how would law enforcement be able to tell if someone sitting in the driver's seat was operating the car or if the car was under automated operation. This would create significant ambiguity and confusion.
- There needs to be more clarity around when the electronic device prohibitions may not be enforced. Unless the car is in completely automated mode and able to give the driver sufficient time to take over operations, that driver must be paying attention and capable of taking over operation, or there needs to be another “back-up” system or driver. (A good example of this is the pedestrian fatality in Arizona.)

Conclusion

Portions of this bill act could apply to certain consumer-owned vehicles as early as 2021 if the manufacturers of those vehicles declare themselves to be an automated driving provider and define when the vehicle is in automated operation. But even in that case, not having a law of this type would not adversely affect traffic safety. The broader application of this would be to level 4 automated vehicles, and that would have larger impacts to traffic safety. We want people without licenses or are unable to drive, such as intoxicated persons, to use these level 4 vehicles for transportation, rather than driving themselves. But level 4 vehicles will likely not be deployed in any widespread use in Washington for at least another 3-5 years, so we have time to invest in more discussion and work out important details before passing legislation.

Other resources to review:

- [AAMVA's Guidelines for Testing and Deployment of Highly Automated Vehicles](#)
- [GHSA's Autonomous Vehicles Meet Human Drivers: Traffic Safety Issues for States](#)
- [NHTSA's AV Test Initiative](#)
- We should also look at what other states have done for consistency (CA, OR, AZ, etc.) at [NCSL's Autonomous Vehicles State Bill Tracking Database](#)