
Transportation Committee

HB 1731

Brief Description: Enhancing requirements for autonomous vehicle testing.

Sponsors: Representatives Kloba, Boehnke and Shewmake.

Brief Summary of Bill

- Incorporates self-certification requirements of the Governor's Executive Order for autonomous vehicle (AV) testing into state law.
- Establishes new self-certification requirements for AV testing without a human operator present in the vehicle, including that an AV testing entity must self-certify that it has put in place a comprehensive safety case framework, conducted driving simulations and closed-course testing, and adopted any appropriate additional safety measures.
- Modifies collision reporting requirements for AV testing to correspond to National Highway Transportation Safety Administration requirements.
- Requires an AV interaction guide be provided when AV testing entities provide written notice to law enforcement and local fire services prior to testing.
- Mandates that traffic infraction penalties be issued to registered agents of AV testing entities.

Hearing Date: 2/1/22

Staff: Jennifer Harris (786-7143).

Background:

Autonomous Vehicle Testing Pilot Program.

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not part of the legislation nor does it constitute a statement of legislative intent.

In 2017 the Governor issued Executive Order 17-02, which authorized pilot programs for the testing of autonomous vehicles (AVs). The Executive Order authorized the testing of AVs both with and without a human operator present as part of the pilot program.

Under Executive Order 17-02, pilot programs conducting testing with human operators present in vehicles are required to comply with the following requirements:

- Vehicles must be operated or monitored only by a trained employee, contractor, or other person authorized by the entity developing autonomous technology.
- Vehicles must be monitored, and an operator must have the ability to direct the vehicle's movement if assistance is required.
- Individuals able to exercise operational control of an autonomous vehicle during operation must possess a valid United States driver's license.

Also under the Executive Order, pilot programs conducting testing without human operators present in vehicles are required to comply with the following requirements:

- Vehicles must be equipped with an automated driving system that performs all aspects of the driving task on a part- or full-time basis within the vehicle's operational design limits.
- Vehicles must be capable of bringing the vehicle to a safe condition in the event of a system failure.
- Vehicles must be capable of being operated in compliance with state motor vehicle laws relevant to the vehicle's operational design limits.

To test an AV under the Department of Licensing's (DOL) AV self-certification testing pilot program, the testing entity must:

- hold an umbrella liability insurance policy that covers the entity in an amount of not less than \$5 million per occurrence for damages by reason of bodily injury or death or property damage caused by the operation of an AV included in the AV self-certification testing pilot program; and
- maintain proof of this policy with the DOL in a form and manner specified by the DOL.

Autonomous Vehicle Work Group.

A law enacted in 2018 established an AV Work Group convened by the Washington State Transportation Commission (Commission). The AV Work Group is tasked with developing policy recommendations to address the operation of AVs on public roadways in the state, and includes participation from the Office of the Governor, the Office of the Insurance Commissioner, the DOL, the Washington State Department of Transportation, the Washington State Patrol (WSP), and the Washington Traffic Safety Commission. The AV Work Group includes four members from the House of Representatives and four members from the Senate. The Commission has invited additional participants from a range of interests in AV technology and testing.

The AV Work Group is responsible for following developments in AV technology, deployment,

and policy; exploring changes to state law, rules, and policy; disseminating information on AVs; and engaging the public to inform policy development at the direction of the Legislature. The Commission is required to develop and update recommendations annually based on the input provided by the AV Work Group, and to provide a report to the Governor and the Legislature by November 15 of each year. The AV Work Group is set to remain active through the end of 2023.

AV Testing Requirements Taking Effect in 2022.

"Autonomous" is defined to mean a Level 4 or Level 5 driving automation system according the Society of Automotive Engineering International's (SAE's) standard, as of October 1, 2022, or on a date provided in rule by the DOL. These levels of automation are levels that do not require the driver to take over driving from the vehicle while it is operating in an autonomous mode with its automated driving features activated.

As of October 1, 2022, in order to test an AV on public roadways under the DOL's AV self-certification testing pilot program, the following information must be provided by the self-certifying entity testing the AV:

- contact information specified by the DOL;
- local jurisdictions where testing is planned;
- the vehicle identification numbers (VINs) of the AVs being tested, provided that the vehicles are mandated to have VINs by state or federal law; and
- proof of an insurance policy that meets the requirements for AVs participating in the pilot program.

Also as of October 1, 2022, by February 1 of each year, self-certifying entities testing AVs must submit a report to the DOL that includes the following information from the prior calendar year:

- vehicle collisions that involve an autonomous motor vehicle during testing on a public roadway and that are required by law to be reported to law enforcement; and
- moving violations for which a traffic citation or infraction was issued that involve an autonomous motor vehicle during testing on a public roadway.

The information on collisions and moving violations provided by the self-certifying entity to the DOL must include whether the autonomous driving system was operating the vehicle at the time of or immediately prior to the collision or moving violations. In the case of collisions, the information provided must also include details regarding the collision, including any loss of life, injury, or property damage that resulted from the collision.

The DOL must provide public access to the information reported by self-certifying entities, and must provide an annual report to the House of Representatives and Senate transportation committees summarizing the information reported by self-certifying entities.

The self-certifying entity testing the AV on public roadways must provide written notice in advance of testing to every local and state law enforcement agency with jurisdiction over any of

the public roadways on which testing will occur in the applicable jurisdictions. For testing primarily on limited access highways during which the AV will travel through multiple local jurisdictions, which may include the limited incidental use of other roadways, the self-certifying entity is only required to provide written notice to the WSP.

The DOL must provide public access to the information reported by self-certifying entities, and must provide an annual report to the House of Representatives and Senate transportation committees summarizing the information reported by self-certifying entities.

National Highway Traffic Safety Administration.

The National Highway Traffic Safety Administration (NHTSA) enforces vehicle performance standards. The NHTSA encourages entities that will be engaged in autonomous vehicle testing and deployment to submit a Voluntary Safety Self-Assessment prior to testing and deployment. These assessments are not subject to federal approval.

Under First Amended Standing General Order 2021-01 (General Order), in effect until June 30, 2024, the NHTSA requires vehicle and equipment manufacturers and operators of autonomous vehicles to report vehicle crashes to the agency.

Under the NHTSA's General Order, an Incident Report for qualifying incidents must be submitted within one calendar day after receipt of notice of the incident. An updated Incident Report for qualifying incidents must be received on the tenth calendar day after receipt of notice of the incident.

Qualifying incidents include:

- when a subject vehicle is involved in a crash on a publicly accessible road in the United States;
- with the automated driving system engaged at any time from 30 seconds immediately prior to the start of the crash through the conclusion of the crash; and
- where the crash resulted in any individual being transported to a hospital, a fatality, a vehicle tow-away, or an air bag deployment or that involves a vulnerable road user.

Incident Reports must be submitted on an incident report form developed by the NHTSA and are required to include: information on the vehicles involved in a collision, the scene of the collision, crash description, and relevant pre- and post-crash information, including whether the automated driving system was operating the vehicle at the time of or immediately prior to the collision or moving violation, and information on any loss of life, injury, or property damage that resulted from the collision.

Summary of Bill:

The DOL is authorized to issue rules as necessary to implement the autonomous vehicle testing pilot program. Testing entities must provide the most recent Voluntary Safety Self-Assessment

transmitted to the NHTSA, where applicable, and must promptly notify the DOL of any changes in information provided in their pilot program application.

In addition to incorporating the requirements for testing with a human operator present in the Governor's Executive Order noted above, an AV testing entity must also self-certify that the vehicle's operation will comply with Washington motor vehicle laws at all times.

Similarly, requirements for testing without a human operator present in the Governor's Executive Order noted above are incorporated and augmented. The AV testing entity must self-certify that: (1) the vehicle operation will comply with Washington motor vehicle laws, including during autonomous operation of the vehicle; and (2) in developing the automated driving system and preparing the autonomous vehicle for testing on public roadways, the autonomous vehicle testing entity has:

- put in place a comprehensive safety case framework with identifiable safety-related goals and mandatory feedback mechanisms;
- conducted driving simulations and closed-course testing;
- evaluated the safety record of the autonomous vehicle being tested;
- adopted any appropriate additional safety measures; and
- verified that the vehicle meets appropriate and applicable industry standards to help defend against, detect, and respond to cyberattacks, unauthorized intrusions, and false vehicle control commands.

Collision reporting requirements are modified to require that an Incident Report for qualifying incidents provided to the NHTSA be submitted to the DOL by deadlines set by the NHTSA.

The DOL may adopt updates to the NHTSA reporting requirements by rule, and may also supplement or replace them by rule if they are eliminated or reduced, to ensure collision reporting continues to include information on the vehicles involved in a collision, the scene of the collision, crash description, and relevant pre- and post-crash information, including whether the automated driving system was operating the vehicle at the time of or immediately prior to the collision or moving violation, and information on any loss of life, injury, or property damage that resulted from the collision.

In addition to providing written notice in advance of testing to every local and state law enforcement agency with jurisdiction over any of the public roadways on which testing will occur, the testing entity must also provide written notice to local fire service providers.

An autonomous vehicle interaction guide must be provided at the time written notice is provided, to include instructions for interaction with autonomous vehicles without human operators, where applicable.

Rules of the road apply to all autonomous vehicles being tested, and traffic infraction penalties are to be issued to a registered agent of the AV testing entity if the autonomous driving system is the vehicle operator at the time the infraction occurs (testing entities are required to submit

registered agent information to the DOL). Traffic infractions are to be processed in the same manner as parking traffic infractions.

The DOL must also provide the annual report provided to the transportation committees of the Legislature summarizing the information reported by self-certifying entities to the AV Work Group while it remains in place.

Commercial or proprietary information submitted to the NHTSA under its AV reporting requirements that is granted confidential status by NHTSA is not subject the public information access requirement and is exempt from public records requests.

Appropriation: None.

Fiscal Note: Available.

Effective Date: The bill takes effect on October 1, 2022.