

Department of Legislative Services
Maryland General Assembly
2025 Session

FISCAL AND POLICY NOTE
First Reader

House Bill 439 (Delegate Stewart)
Environment and Transportation

Vehicle Laws – Fully Autonomous Vehicles – Human Safety Operators and Reporting Requirements

This bill prohibits a fully autonomous vehicle with a gross vehicle weight of 10,001 pounds or more from operating on a highway for testing or transporting goods or passengers unless a human safety operator is fully present in the vehicle at the time of operation. The bill also requires a manufacturer of a fully autonomous vehicle to submit incident, collision, and disengagement reports to the Motor Vehicle Administration (MVA) under specified circumstances and establishes various new data collection and reporting responsibilities for MVA related to autonomous vehicles.

Fiscal Summary

State Effect: The bill’s requirements can be handled using existing budgeted resources. Revenues are not affected.

Local Effect: The bill does not directly affect local government operations or finances.

Small Business Effect: None.

Analysis

Bill Summary:

Relevant Definitions

“Fully autonomous vehicle” means a motor vehicle equipped with an automated driving system that has the capability to perform all aspects of the dynamic driving task without a

driver within an operational design domain. “Operational design domain” means a description of the operating domains and systems under which an automated driving system is designed to effectively operate, including geographic limitations, roadway types, speed range, and environmental conditions.

“Disengagement” means deactivation of the autonomous mode or autonomous technology of a fully autonomous vehicle when (1) a failure of the technology is detected; (2) the safe operation of the vehicle requires that the human safety operator disengage the autonomous mode and take immediate control of the vehicle; or (3) for a driverless fully autonomous vehicle, the safety of the vehicle, the occupants, or the public requires the technology be deactivated.

“Human safety operator” means an individual operating a fully autonomous vehicle who is trained in operating and shutting off the vehicle and who meets all federal and State requirements for the type of vehicle being operated.

Human Safety Operators

A fully autonomous vehicle with a gross vehicle weight of 10,001 pounds or more may not be operated on highways for testing or transporting goods or passengers unless a human safety operator is fully present in the fully autonomous vehicle at the time of operation.

Incident, Collision, and Disengagement Reports

Beginning December 1, 2025, a manufacturer of a fully autonomous vehicle must submit an incident report to MVA on any vehicle collision, traffic citation for a violation that has not been adjudicated not guilty or not liable, disengagement, or assault or harassment of a passenger or human safety operator that involved the vehicle when operating in fully autonomous mode in the State. The bill specifies the information that must be included in an incident report, which depends on whether the incident involved a vehicle collision, a traffic citation, a disengagement, and/or an assault or harassment.

A manufacturer whose fully autonomous vehicle with a gross vehicle weight of 10,001 pounds or more is involved in a collision originating from the operation of the vehicle on a highway that resulted in property damage, bodily injury, or death must report the collision to MVA within 10 days after the collision on a form specified by MVA.

Beginning December 1, 2025, and each December 1 thereafter, a manufacturer of a fully autonomous vehicle with a gross vehicle weight of 10,001 pounds or more must submit an annual report to MVA on disengagement events occurring to these vehicles when in fully autonomous mode in the State in the preceding year. The report must include the location of the disengagement; whether the vehicle was operating with or without a human safety

operator; a description of the cause of the disengagement, as specified; and whether the disengagement was initiated by the autonomous technology, the human safety operator, a remote operator, or a passenger.

Motor Vehicle Administration – Responsibilities

MVA must create and publish an autonomous vehicle incident report form to allow autonomous vehicle manufacturers to submit the incident reports required by the bill. MVA must also:

- adopt regulations establishing (1) a timeline for the submission of incident reports that is consistent with reporting deadlines established by the National Highway Traffic Safety Administration and (2) fines for the failure to submit an incident report;
- create and publish a form to collect data for aggregate analysis of autonomous vehicle safety; and
- publish anonymized versions of all incident reports it receives on the Maryland Department of Transportation website within 30 days of receipt.

By December 1, 2030, MVA must report to the General Assembly on the impact of autonomous vehicles with a gross vehicle weight of 10,001 pounds or more, consulting with other State agencies as specified and including, among other required information: (1) a summary of disengagements and crashes; (2) an overview of the performance of the technology, public safety impacts, and other relevant factors in considering the deployment of autonomous driving technology; and (3) a recommendation on whether the General Assembly should remove, modify, or maintain the requirements for an autonomous vehicle with a gross weight of 10,001 pounds or more to operate with a human safety operator physically present in the vehicle.

Current Law: Autonomous vehicles are governed and regulated primarily at the federal level through plans and guidance developed by the U.S. Department of Transportation. The current [Automated Vehicles – Comprehensive Plan](#) includes the three major goals of promoting collaboration and transparency, modernizing the regulatory environment, and preparing the transportation system for autonomous vehicles. Among other things, it includes safety and operational standards developed by the Society of Automotive Engineers International.

Chapters 500 and 501 of 2023 authorize an autonomous vehicle converter to sell, transfer, lease, offer for sale, or resell a converted autonomous vehicle or a motor vehicle purchased by an autonomous vehicle converter with the intent to convert the motor vehicle into a converted autonomous vehicle. This authorization only extends to motor vehicles intended for commercial or industrial use. A converted autonomous vehicle is a motor vehicle that

(1) is equipped with an aftermarket automated driving system capable of operating in accordance with some or all of the automated driving standards; (2) meets or exceeds weight or capacity thresholds established under federal law; and (3) is capable of operating in accordance with applicable State and federal law.

Additional Comments: MVA staffs the Connected and Automated Vehicles (CAV) Working Group, which was established by the Secretary of Transportation in 2015 to be the central point of coordination for the development and implementation of emerging CAV technologies in the State. MVA advises that the working group has developed a statewide strategic framework and issues testing permits to interested companies. More information about the working group's ongoing activities can be found on the [CAV Working Group website](#).

As part of its report to the General Assembly, MVA must consult with the Division of Labor and Industry within the Maryland Department of Labor regarding any job-related impacts, including worker displacement and shortcomings in retraining. The division advises that while it will share whatever information it has, those topics are not within the division's purview.

Additional Information

Recent Prior Introductions: Similar legislation has not been introduced in the last three years.

Designated Cross File: SB 405 (Senator Salling) - Judicial Proceedings.

Information Source(s): Maryland Department of Transportation; Maryland Department of Labor; Department of State Police; U.S. Department of Transportation; Department of Legislative Services

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