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**SB-500 Autonomous vehicles: zero emissions.** (2021-2022)

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**Senate Bill No. 500**

**CHAPTER 277**

An act to amend Section 38750 of the Vehicle Code, relating to vehicles.

[ Approved by Governor September 23, 2021. Filed with Secretary of State September 23, 2021. ]

**LEGISLATIVE COUNSEL'S DIGEST**

SB 500, Min. Autonomous vehicles: zero emissions.

Existing law authorizes the operation of an autonomous vehicle on public roads for testing purposes by a driver who possesses the proper class of license for the type of vehicle being operated if the manufacturer meets prescribed requirements, including the submission of an application to the Department of Motor Vehicles (DMV) with specified certifications regarding the features of the autonomous vehicle, among other things.

Existing law provides for various programs to promote the use of zero-emission vehicles, including the Clean Vehicle Rebate Project, which was established by the State Air Resources Board as a part of the Air Quality Improvement Program, to promote the use of zero-emission vehicles by providing rebates for the purchase of new zero-emission vehicles, and the Charge Ahead California Initiative, which establishes various goals, including the goal of placing in service at least 1,000,000 zero-emission and near-zero-emission vehicles by January 1, 2023.

This bill, commencing January 1, 2030, and to the extent authorized by federal law, would prohibit the operation of certain new autonomous vehicles that are not zero-emission vehicles, as defined. The bill would also prohibit the DMV from commencing rulemaking for the adoption of regulations implementing this provision until January 1, 2027.

Vote: majority Appropriation: no Fiscal Committee: yes Local Program: no

**THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:**

**SECTION 1.** Section 38750 of the Vehicle Code is amended to read:

**38750.** (a) For purposes of this division, the following definitions apply:

(1) "Autonomous technology" means technology that has the capability to drive a vehicle without the active physical control or monitoring by a human operator.

(2) (A) "Autonomous vehicle" means any vehicle equipped with autonomous technology that has been integrated into that vehicle that meets the definition of Level 3, Level 4, or Level 5 of SAE International's "Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles, standard J3016 (APR2021)," as may be revised.

(B) An autonomous vehicle does not include a vehicle that is equipped with one or more collision avoidance systems, including, but not limited to, electronic blind spot assistance, automated emergency braking systems, park assist, adaptive cruise control, lane keep assist, lane departure warning, traffic jam and queuing assist, or other similar systems that enhance safety or provide driver assistance, but are not capable, collectively or singularly, of driving the vehicle without the active control or monitoring of a human operator.

(3) "Department" means the Department of Motor Vehicles.

(4) An "operator" of an autonomous vehicle is the person who is seated in the driver's seat, or, if there is no person in the driver's seat, causes the autonomous technology to engage.

(5) A "manufacturer" of autonomous technology is the person, as defined in Section 470, that originally manufactures a vehicle and equips autonomous technology on the originally completed vehicle or, in the case of a vehicle not originally equipped with autonomous technology by the vehicle manufacturer, the person that modifies the vehicle by installing autonomous technology to convert it to an autonomous vehicle after the vehicle was originally manufactured.

(b) An autonomous vehicle may be operated on public roads for testing purposes by a driver who possesses the proper class of license for the type of vehicle being operated if all of the following requirements are met:

(1) The autonomous vehicle is being operated on roads in this state solely by employees, contractors, or other persons designated by the manufacturer of the autonomous technology.

(2) The driver shall be seated in the driver's seat, monitoring the safe operation of the autonomous vehicle, and capable of taking over immediate manual control of the autonomous vehicle in the event of an autonomous technology failure or other emergency.

(3) Prior to the start of testing in this state, the manufacturer performing the testing shall obtain an instrument of insurance, surety bond, or proof of self-insurance in the amount of five million dollars (\$5,000,000), and shall provide evidence of the insurance, surety bond, or self-insurance to the department in the form and manner required by the department pursuant to the regulations adopted pursuant to subdivision (d).

(c) Except as provided in subdivision (b), an autonomous vehicle shall not be operated on public roads until the manufacturer submits an application to the department, and that application is approved by the department pursuant to the regulations adopted pursuant to subdivision (d). The application shall contain, at a minimum, all of the following certifications:

(1) A certification by the manufacturer that the autonomous technology satisfies all of the following requirements:

(A) The autonomous vehicle has a mechanism to engage and disengage the autonomous technology that is easily accessible to the operator.

(B) The autonomous vehicle has a visual indicator inside the cabin to indicate when the autonomous technology is engaged.

(C) The autonomous vehicle has a system to safely alert the operator if an autonomous technology failure is detected while the autonomous technology is engaged, and when an alert is given, the system shall do either of the following:

(i) Require the operator to take control of the autonomous vehicle.

(ii) If the operator does not or is unable to take control of the autonomous vehicle, the autonomous vehicle shall be capable of coming to a complete stop.

(D) The autonomous vehicle shall allow the operator to take control in multiple manners, including, without limitation, through the use of the brake, the accelerator pedal, or the steering wheel, and it shall alert the operator that the autonomous technology has been disengaged.

(E) The autonomous vehicle's autonomous technology meets Federal Motor Vehicle Safety Standards for the vehicle's model year and all other applicable safety standards and performance requirements set forth in state and federal law and the regulations promulgated pursuant to those laws.

(F) The autonomous technology does not make inoperative any Federal Motor Vehicle Safety Standards for the vehicle's model year and all other applicable safety standards and performance requirements set forth in state and federal law and the regulations promulgated pursuant to those laws.

(G) The autonomous vehicle has a separate mechanism, in addition to, and separate from, any other mechanism required by law, to capture and store the autonomous technology sensor data for at least 30 seconds before a collision occurs

between the autonomous vehicle and another vehicle, object, or natural person while the vehicle is operating in autonomous mode. The autonomous technology sensor data shall be captured and stored in a read-only format by the mechanism so that the data is retained until extracted from the mechanism by an external device capable of downloading and storing the data. The data shall be preserved for three years after the date of the collision.

(2) A certification that the manufacturer has tested the autonomous technology on public roads and has complied with the testing standards, if any, established by the department pursuant to subdivision (d).

(3) A certification that the manufacturer will maintain, an instrument of insurance, a surety bond, or proof of self-insurance as specified in regulations adopted by the department pursuant to subdivision (d), in an amount of five million dollars (\$5,000,000).

(d) (1) As soon as practicable, but no later than January 1, 2015, the department shall adopt regulations setting forth requirements for the submission of evidence of insurance, surety bond, or self-insurance required by subdivision (b), and the submission and approval of an application to operate an autonomous vehicle pursuant to subdivision (c).

(2) The regulations shall include any testing, equipment, and performance standards, in addition to those established for purposes of subdivision (b), that the department concludes are necessary to ensure the safe operation of autonomous vehicles on public roads, with or without the presence of a driver inside the vehicle. In developing these regulations, the department may consult with the Department of the California Highway Patrol, the Institute of Transportation Studies at the University of California, or any other entity identified by the department that has expertise in automotive technology, automotive safety, and autonomous system design.

(3) The department may establish additional requirements by the adoption of regulations, which it determines, in consultation with the Department of the California Highway Patrol, are necessary to ensure the safe operation of autonomous vehicles on public roads, including, but not limited to, regulations regarding the aggregate number of deployments of autonomous vehicles on public roads, special rules for the registration of autonomous vehicles, new license requirements for operators of autonomous vehicles, and rules for revocation, suspension, or denial of any license or any approval issued pursuant to this division.

(4) The department shall hold public hearings on the adoption of any regulation applicable to the operation of an autonomous vehicle without the presence of a driver inside the vehicle.

(e) (1) The department shall approve an application submitted by a manufacturer pursuant to subdivision (c) if it finds that the applicant has submitted all information and completed testing necessary to satisfy the department that the autonomous vehicles are safe to operate on public roads and the applicant has complied with all requirements specified in the regulations adopted by the department pursuant to subdivision (d).

(2) Notwithstanding paragraph (1), if the application seeks approval for autonomous vehicles capable of operating without the presence of a driver inside the vehicle, the department may impose additional requirements it deems necessary to ensure the safe operation of those vehicles, and may require the presence of a driver in the driver's seat of the vehicle if it determines, based on its review pursuant to paragraph (1), that such a requirement is necessary to ensure the safe operation of those vehicles on public roads.

(f) The department shall post a public notice on its internet website when it adopts the regulations required by subdivision (d). The department shall not approve an application submitted pursuant to the regulations until 30 days after the public notice is provided.

(g) Federal regulations promulgated by the National Highway Traffic Safety Administration shall supersede the provisions of this division when found to be in conflict with any other state law or regulation.

(h) The manufacturer of the autonomous technology installed on a vehicle shall provide a written disclosure to the purchaser of an autonomous vehicle that describes what information is collected by the autonomous technology equipped on the vehicle. The department may promulgate regulations to assess a fee upon a manufacturer that submits an application pursuant to subdivision (c) to operate autonomous vehicles on public roads in an amount necessary to recover all costs reasonably incurred by the department.

(i) (1) Commencing January 1, 2030, to the extent authorized by federal law, any autonomous vehicle with a model year of 2031 or later and a gross vehicle weight rating of less than 8,501 pounds shall only be operated pursuant to a deployment permit pursuant to Article 3.8 (commencing with Section 228.00) of Chapter 1 of Division 1 of Title 13 of the California Code of Regulations if the vehicle is a zero-emission vehicle, as defined in Section 44258 of the Health and Safety Code.

(2) The department shall not commence rulemaking for the adoption of regulations implementing this subdivision before January 1, 2027.