

AMENDED IN ASSEMBLY MARCH 26, 2015

CALIFORNIA LEGISLATURE—2015–16 REGULAR SESSION

ASSEMBLY BILL

No. 1164

Introduced by Assembly Member Gatto

February 27, 2015

An act to ~~amend Section 38750 of the Vehicle Code, add Section 14526.7 to the Government Code, relating to vehicles: highways.~~

LEGISLATIVE COUNSEL'S DIGEST

AB 1164, as amended, Gatto. ~~Autonomous vehicles: State highways: performance measures.~~

Existing law gives the Department of Transportation full possession and control of the state highways. Existing law requires the department to prepare a state highway operation and protection program for the expenditure of transportation funds for major capital improvements that are necessary to preserve and protect the state highway system.

This bill would require the department to develop performance measures, in consultation with specified entities, to establish an evaluation and rating of the overall quality of the state highway system, and would require a report to specified committees of the Legislature in that regard annually until 2020. The bill would also require the department to post the report on its Internet Web site.

~~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 specified requirements are satisfied. Existing law requires the Department of Motor Vehicles to adopt regulations no later than January 1, 2015, setting forth requirements for the submission of evidence of insurance,~~

surety bond, or self-insurance, and for the submission and approval of an application to operate an autonomous vehicle.

~~This bill would make technical, nonsubstantive changes to that provision.~~

Vote: majority. Appropriation: no. Fiscal committee: ~~no~~-yes. State-mandated local program: no.

The people of the State of California do enact as follows:

1 SECTION 1. Section 14526.7 is added to the Government Code,
2 to read:

3 14526.7. (a) The department shall develop performance
4 measures to establish an evaluation and rating of the overall
5 quality of the state highway system. The measures shall
6 demonstrate how resource, staffing, and programming decisions
7 impact the overall condition of the state highway system. The
8 measures shall address the number of distressed lane miles, bridge
9 conditions, and life cycle costs.

10 (b) In developing the performance measures specified in
11 subdivision (a), the department shall consult with the following:

- 12 (1) The commission.
- 13 (2) Regional transportation agencies.
- 14 (3) County transportation agencies.
- 15 (4) The Institute of Transportation Studies at the University of
16 California.
- 17 (5) Departments of transportation from other states.

18 (c) The department shall report annually, on or before March
19 31, on its activities and findings under this section to the Assembly
20 Committee on Transportation and the Senate Committee on
21 Transportation and Housing. The report shall also be posted on
22 the department’s Internet Web site.

23 (d) The requirement for submitting a report imposed under
24 subdivision (c) is inoperative after March 31, 2020, pursuant to
25 Section 10231.5.

26 ~~SECTION 1. Section 38750 of the Vehicle Code is amended~~
27 ~~to read:~~

28 ~~38750. (a) For purposes of this division, the following~~
29 ~~definitions apply:~~

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

4 (2) (A) ~~“Autonomous vehicle” means any vehicle equipped~~
5 ~~with autonomous technology that has been integrated into that~~
6 ~~vehicle.~~

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

16 (3) ~~“Department” means the Department of Motor Vehicles.~~

17 (4) ~~An “operator” of an autonomous vehicle is the person who~~
18 ~~is seated in the driver’s seat, or, if there is no person in the driver’s~~
19 ~~seat, causes the autonomous technology to engage.~~

20 (5) ~~A “manufacturer” of autonomous technology is the person~~
21 ~~as defined in Section 470 that originally manufactures a vehicle~~
22 ~~and equips autonomous technology on the originally completed~~
23 ~~vehicle or, in the case of a vehicle not originally equipped with~~
24 ~~autonomous technology by the vehicle manufacturer, the person~~
25 ~~that modifies the vehicle by installing autonomous technology to~~
26 ~~convert it to an autonomous vehicle after the vehicle was originally~~
27 ~~manufactured.~~

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

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

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

39 (3) ~~Prior to the start of testing in this state, the manufacturer~~
40 ~~performing the testing shall obtain an instrument of insurance,~~

1 surety bond, or proof of self-insurance in the amount of five million
2 dollars (\$5,000,000), and shall provide evidence of the insurance,
3 surety bond, or self-insurance to the department in the form and
4 manner required by the department pursuant to the regulations
5 adopted pursuant to subdivision (d).

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

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

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

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

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

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

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

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

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

38 ~~(F) The autonomous technology does not make inoperative any~~
39 ~~Federal Motor Vehicle Safety Standards for the vehicle's model~~
40 ~~year and all other applicable safety standards and performance~~

1 requirements set forth in state and federal law and the regulations
2 promulgated pursuant to those laws.

3 ~~(G) The autonomous vehicle has a separate mechanism, in
4 addition to, and separate from, any other mechanism required by
5 law, to capture and store the autonomous technology sensor data
6 for at least 30 seconds before a collision occurs between the
7 autonomous vehicle and another vehicle, object, or natural person
8 while the vehicle is operating in autonomous mode. The
9 autonomous technology sensor data shall be captured and stored
10 in a read-only format by the mechanism so that the data is retained
11 until extracted from the mechanism by an external device capable
12 of downloading and storing the data. The data shall be preserved
13 for three years after the date of the collision.~~

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

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

22 ~~(d) (1) As soon as practicable, but no later than January 1,
23 2015, the department shall adopt regulations setting forth
24 requirements for the submission of evidence of insurance, surety
25 bond, or self-insurance required by subdivision (b), and the
26 submission and approval of an application to operate an
27 autonomous vehicle pursuant to subdivision (e).~~

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

38 ~~(3) The department may establish additional requirements by
39 the adoption of regulations, which it determines, in consultation
40 with the Department of the California Highway Patrol, are~~

1 necessary to ensure the safe operation of autonomous vehicles on
2 public roads, including, but not limited to, regulations regarding
3 the aggregate number of deployments of autonomous vehicles on
4 public roads, special rules for the registration of autonomous
5 vehicles, new license requirements for operators of autonomous
6 vehicles, and rules for revocation, suspension, or denial of any
7 license or any approval issued pursuant to this division.

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

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

18 (2) ~~Notwithstanding paragraph (1), if the application seeks
19 approval for autonomous vehicles capable of operating without
20 the presence of a driver inside the vehicle, the department may
21 impose additional requirements it deems necessary to ensure the
22 safe operation of those vehicles, and may require the presence of
23 a driver in the driver's seat of the vehicle if it determines, based
24 on its review pursuant to paragraph (1), that such a requirement is
25 necessary to ensure the safe operation of those vehicles on public
26 roads. The department shall notify the Legislature of the receipt
27 of an application from a manufacturer seeking approval to operate
28 an autonomous vehicle capable of operating without the presence
29 of a driver inside the vehicle and approval of the application.
30 Approval of the application shall be effective no sooner than 180
31 days after the date the application is submitted.~~

32 (f) ~~This division does not limit or expand the existing authority
33 to operate autonomous vehicles on public roads, until 120 days
34 after the department adopts the regulations required by paragraph
35 (1) of subdivision (d).~~

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

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

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