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Introduced by Sens. COONEY, SKOUFIS -- read twice and ordered printed, and when printed to be committed to the Committee on Transportation -- committee discharged, bill amended, ordered reprinted as amended and recommitted to said committee -- recommitted to the Committee on Transportation in accordance with Senate Rule 6, sec. 8 -- committee discharged, bill amended, ordered reprinted as amended and recommitted to said committee

AN ACT to amend the vehicle and traffic law, in relation to autonomous vehicle driving

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. The vehicle and traffic law is amended by adding a new article 34-E to read as follows:

ARTICLE 34-E

AUTONOMOUS VEHICLE DRIVING

Section 1290. Definitions.

1291. Operation of fully autonomous vehicles without a human driver.

1292. Licensing.

1293. Insurance.

1294. Duties following crashes involving fully autonomous vehicles.

1295. On-demand autonomous vehicle network.

1296. Registration and title.

1297. Controlling authority.

1298. Operation of a motor vehicle with an automated driving system by a human driver.

§ 1290. Definitions. For purposes of this article the following terms shall have the following meanings:

1. "Automated driving system" shall mean the hardware and software that are collectively capable of performing the entire dynamic driving

EXPLANATION--Matter in italics (underscored) is new; matter in brackets [-] is old law to be omitted.

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1 task on a sustained basis, regardless of whether it is limited to a
2 specific operational design domain;

3 2. "Dynamic driving task or DDT" shall mean all of the real-time oper-
4 ational and tactical functions required to operate a vehicle in on-road
5 traffic, excluding the strategic functions such as trip scheduling and
6 selection of destinations and waypoints, and including without limita-
7 tion: lateral vehicle motion control via steering, longitudinal motion
8 control via acceleration and deceleration, monitoring the driving envi-
9 ronment via object and event detection, recognition, classification, and
10 response preparation, object and event response execution, maneuver
11 planning; and enhancing conspicuity via lighting, signaling, and gestur-
12 ing;

13 3. "DDT Fallback" shall mean the response by the person or human driv-
14 er to either perform the DDT or achieve a minimal risk condition after
15 occurrence of a DDT performance-relevant system failure or failures or
16 upon operational design domain exit, or the response by an automated
17 driving system to achieve minimal risk condition, given the same circum-
18 stances;

19 4. "Fully autonomous vehicle" shall mean a motor vehicle equipped with
20 an automated driving system designed to function without a human driver
21 as a level 4 or 5 system under SAE J3016;

22 5. "Human driver" shall mean a natural person in the vehicle with a
23 valid license to operate a motor vehicle who controls all or part of the
24 dynamic driving task;

25 6. "Minimal risk condition" shall mean a condition to which a person,
26 human driver, or an ADS may bring a vehicle after performing the DDT
27 Fallback in order to reduce the risk of a crash when a given trip cannot
28 or should not be completed;

29 7. "On-demand autonomous vehicle network" shall mean a transportation
30 service network that uses a software application or other digital means
31 to dispatch or otherwise enable the pre-arrangement of transportation
32 with fully autonomous vehicles for purposes of transporting passengers
33 or goods, including for-hire transportation and transportation of
34 passengers or goods for compensation;

35 8. "Operational design domain or ODD" shall mean operating conditions
36 under which a given automated driving system is specifically designed to
37 function, including, but not limited to, environmental, geographical,
38 and time-of-day restrictions, and/or the requisite presence or absence
39 of certain traffic or roadway characteristics;

40 9. "Person" shall mean a natural person, corporation, business trust,
41 estate, trust, partnership, limited liability company, association,
42 joint venture, governmental agency, public corporation, or any other
43 legal or commercial entity;

44 10. "Request to intervene" shall mean notification by an automated
45 driving system to a human driver, that the human driver should promptly
46 begin or resume performance of part or all of the dynamic driving task;
47 and

48 11. "SAE J3016" shall mean the Taxonomy and Definitions for Terms
49 Related to Driving Automation Systems for On-Road Motor Vehicles
50 published by SAE International in April 2021.

51 § 1291. Operation of fully autonomous vehicles without a human driver.
52 1. A person may operate a fully autonomous vehicle on the public roads
53 of this state without a human driver provided that the automated driving
54 system is engaged and the vehicle meets the following conditions:

55 (a) If a failure of the automated driving system occurs that renders
56 that system unable to perform the entire dynamic driving task relevant

1 to its intended operational design domain, the fully autonomous vehicle
2 shall achieve a minimal risk condition;

3 (b) The fully autonomous vehicle is capable of operating in compliance
4 with the applicable traffic and motor vehicle safety laws and regu-
5 lations of this state when reasonable to do so, unless an exemption has
6 been granted by the department; and

7 (c) When required by federal law, the vehicle bears the required
8 manufacturer's certification label indicating that at the time of its
9 manufacture it has been certified to be in compliance with all applica-
10 ble Federal Motor Vehicle Safety Standards, including reference to any
11 exemption granted by the National Highway Traffic Safety Administration.

12 2. Prior to operating a fully autonomous vehicle on the public roads
13 of this state without a human driver, a person shall submit a law
14 enforcement interaction plan to the department which shall describe:

15 (a) The means of communicating with a fleet support specialist who is
16 available during the times the vehicle is in operation;

17 (b) The means of safely removing the fully autonomous vehicle from the
18 roadway and steps to safely tow the vehicle;

19 (c) The means to recognize whether or not the fully autonomous vehicle
20 is in autonomous mode; and

21 (d) Any additional information the manufacturer or owner deems neces-
22 sary regarding the hazardous conditions or public safety risks associ-
23 ated with the operation of the fully autonomous vehicle.

24 § 1292. Licensing. Notwithstanding the provisions of article nineteen
25 of this chapter, when an automated driving system installed on a motor
26 vehicle is engaged:

27 1. The automated driving system is considered the driver or operator,
28 for the purpose of assessing compliance with applicable traffic or motor
29 vehicle laws and shall be deemed to satisfy electronically all physical
30 acts required by a driver or operator of the vehicle; and

31 2. The automated driving system is considered to be licensed to oper-
32 ate the vehicle.

33 § 1293. Insurance. Before operating a fully autonomous vehicle on
34 public roads in this state, a person shall submit proof of financial
35 responsibility satisfactory to the department that the fully autonomous
36 vehicle is covered by insurance or proof of self-insurance that satis-
37 fies the requirements of article six of this chapter.

38 § 1294. Duties following crashes involving fully autonomous vehicles.
39 In the event of a crash:

40 1. The fully autonomous vehicle shall remain on the scene of the crash
41 when required by article twenty-two of this chapter; and

42 2. The owner of the fully autonomous vehicle, or a person on behalf of
43 the vehicle owner, shall promptly report any crashes or collisions
44 consistent with article twenty-two of this chapter.

45 § 1295. On-demand autonomous vehicle network. An on-demand autonomous
46 vehicle network shall be permitted to operate pursuant to state laws
47 governing the operation of transportation network companies, taxis, or
48 any other ground transportation for-hire of passengers, with the excep-
49 tion that any provision of article forty-four-B of this chapter that
50 reasonably applies only to a human driver does not apply to the opera-
51 tion of fully autonomous vehicles with the automated driving system
52 engaged on an on-demand autonomous vehicle network.

53 § 1296. Registration and title. 1. A fully autonomous vehicle shall be
54 properly registered in accordance with title four of this chapter and
55 the vehicle shall be identified on the registration as a fully auton-
56 omous vehicle.

1 2. A fully autonomous vehicle shall be properly titled in accordance
2 with article forty-six of this chapter and the vehicle shall be identi-
3 fied on the title as a fully autonomous vehicle.

4 § 1297. Controlling authority. Notwithstanding any law, rule or regu-
5 lation to the contrary:

6 1. Unless otherwise provided in this chapter and notwithstanding any
7 other provision of law, fully autonomous vehicles and automated driving
8 systems are governed exclusively by this article. The department is the
9 sole and exclusive state agency that may implement the provisions of
10 this article;

11 2. Fully autonomous vehicles and automated driving systems operating
12 pursuant to this article shall not be subject to section twelve hundred
13 twenty-six of this chapter; and

14 3. No state agency, political subdivision, municipality, or local
15 entity may prohibit the operation of fully autonomous vehicles, auto-
16 mated driving systems, or on-demand autonomous vehicle networks, or
17 otherwise enact or keep in force rules or ordinances that would impose
18 taxes, fees, or other requirements including performance standards,
19 specific to the operation of fully autonomous vehicles, automated driv-
20 ing systems, or on-demand autonomous vehicle networks in addition to the
21 requirements of this article.

22 4. Notwithstanding subdivision one, two, or three of this section, any
23 city with a population of five million or more may establish local rules
24 and regulations governing for-hire vehicle services for trips originat-
25 ing in such city, when such services are provided using fully autonomous
26 vehicles, including, as applicable, on-demand autonomous vehicle
27 networks, tax, limousine, paratransit vehicle, and commuter van
28 services.

29 § 1298. Operation of a motor vehicle with an automated driving system
30 by a human driver. 1. A person may operate a motor vehicle equipped
31 with an automated driving system capable of performing the entire dynam-
32 ic driving task if:

33 (a) such automated driving system will issue a request to intervene
34 whenever the automated driving system is not capable of performing the
35 entire dynamic driving task with the expectation that the person will
36 respond appropriately to such a request; and

37 (b) the automated driving system is capable of being operated in
38 compliance with title seven of this chapter when reasonable to do so
39 unless an exemption has been granted by the department.

40 2. Nothing in this article prohibits or restricts a human driver from
41 operating a fully autonomous vehicle equipped with controls that allow
42 for the human driver to control all or part of the dynamic driving task.

43 § 2. The vehicle and traffic law is amended by adding a new section
44 383-a to read as follows:

45 § 383-a. Equipment required for certain automated motor vehicles. 1.
46 For purposes of this section, the terms "fully autonomous vehicle,"
47 "automated driving system," and "human driver" shall have the same mean-
48 ings as defined in section twelve hundred ninety of this chapter.

49 2. A fully autonomous vehicle that is designed to be operated exclu-
50 sively by the automated driving system for all trips is not subject to
51 motor vehicle equipment laws or regulations of this state which (a)
52 relate to or support motor vehicle operation by a human driver; and (b)
53 are not relevant for an automated driving system.

54 § 3. The vehicle and traffic law is amended by adding a new section
55 301-c to read as follows:

1 § 301-c. Inspection criteria for fully autonomous vehicles. Section
2 three hundred one of this article and any regulations promulgated by the
3 commissioner therewith shall only apply to a fully autonomous vehicle in
4 a manner consistent with the provisions of section three hundred eight-
5 y-three-a of this title.

6 § 4. This act shall take effect on the ninetieth day after it shall
7 have become a law. Effective immediately, the addition, amendment and/or
8 repeal of any rule or regulation necessary for the implementation of
9 this act on its effective date are authorized to be made and completed
10 on or before such effective date.