

1 any highway unless such vehicle is registered as provided in this chapter.

2 Vehicle owners who have apportioned power units registered in this State  
3 under the International Registration Plan are exempt from the requirement to  
4 register their trailers in this State.

5 \* \* \* Automated Vehicle Testing \* \* \*

6 Sec. 16. 23 V.S.A. chapter 41 is added to read:

7 CHAPTER 41. AUTOMATED VEHICLE TESTING

8 § 4201. SHORT TITLE

9 This chapter may be cited as the Automated Vehicle Testing Act.

10 § 4202. DEFINITIONS

11 As used in this chapter:

12 (1) “Automated driving system” means the hardware and software that  
13 are collectively capable of performing the entire dynamic driving task on a  
14 sustained basis, regardless of whether it is limited to a specific operational  
15 design domain. This term is used specifically to describe a level 3, 4, or 5  
16 driving automation system.

17 (2) “Automated vehicle” means a motor vehicle that is equipped with an  
18 automated driving system that is designed to function at a level of driving  
19 automation of level 3, 4, or 5 pursuant to SAE J3016. The term includes a  
20 highly automated vehicle.

(x) "Conventional human driver" means a natural person who manually engages in-vehicle braking, accelerating, steering, and transmission gear selection input devices in order to operate a vehicle.

1           (3) “Automated vehicle tester” or “tester” means an individual,  
2           company, public agency, or other organization that is testing automated  
3           vehicles on public highways in this State pursuant to this chapter including but  
4           not limited to an automated vehicle manufacturer, municipal or State agency,  
5           institution of higher education, fleet service provider, or automotive equipment  
6           or technology provider.

7           (4) “Dynamic driving task” means all the real-time operational and  
8           tactical functions required to operate ~~an automated vehicle in traffic on a~~  
9           highway. ~~The term does not include functions relating to planning for the use~~  
10           of the vehicle, including the scheduling of a trip or the selection of a  
11           destination or way point.

12           (5) “Highly automated vehicle” means a vehicle equipped with an  
13           automated driving system that is designed to function at a level of driving  
14           automation of level 4 or 5 pursuant to SAE J3016.  
15           any intervention or supervision by a conventional human driver.

16           (6) “Manufacturer” means an individual or company that designs,  
17           produces, or constructs vehicles or equipment. Manufacturers include original  
18           equipment manufacturers (OEMs), multiple and final stage manufacturers,  
19           individuals or companies making changes to a completed vehicle before first  
20           retail sale or deployment (upfitters), and modifiers (individuals or companies  
          making changes to existing vehicles after first retail sale or deployment).

1           (7) “Minimal risk condition” means a condition in which an automated  
2           vehicle operating without a human driver, upon experiencing a failure of its  
3           automated driving system that renders the automated vehicle unable to perform  
4           the dynamic driving task, achieves a reasonably safe state that may include  
5           bringing the automated vehicle to a complete stop.

6           (8) “Operational design domain” means a description of the specific  
7           domain or domains in which an automated driving system is designed to  
8           properly operate, including types of roadways, ranges of speed, weather, time  
9           of day, and environmental conditions.

10           (9) “Operator” means an individual employed by or under contract with  
11           an automated vehicle tester who has successfully completed the tester’s  
12           training on safe driving and the capabilities and limitations of the automated  
13           vehicle and automated driving system, can take immediate manual or remote  
14           control of the automated vehicle being tested, is 21 years of age or older, and  
15           holds an operator’s license for the class of vehicle being tested.

16           (10) “Public highway” means a State or municipal highway as defined  
17           in 19 V.S.A. § 1(12).

18           ~~(11) “SAE J3016” means the document published by SAE International~~  
19           ~~on September 30, 2016 as “Taxonomy and Definitions for Terms Related to~~  
20           ~~Driving Automation Systems for On-Road Motor Vehicles” and any~~  
21           ~~subsequent versions.~~

1     § 4203. TESTING OF AUTOMATED VEHICLES ON PUBLIC

2             HIGHWAYS

3             (a) An automated vehicle shall not be operated on public highways for  
4             testing until the Traffic Committee as defined in 19 V.S.A. § 1(24) approves a  
5             permit application for automated vehicle testers that defines the scope and  
6             operational design domain for the test and demonstrates the ability of the  
7             automated vehicle tester to comply with the requirements of this section.

8             (b) Prior to approving a permit application, the Traffic Committee will  
9             conduct a hearing to provide for comments from the public.

10            (c) A person aggrieved by a decision of the Traffic Committee regarding an  
11            automated vehicle test permit may appeal to the Civil Division of the Superior  
12            Court of Washington County under Rule 74 of the Vermont Rules of Civil  
13            Procedure.

14            (d) Before a test commences, the automated vehicle tester shall make  
15            approved automated vehicle test permits readily available to law enforcement  
16            and municipalities within the **geographic scope of the** operational design  
17            domain designated in the permit.

18            (e) ~~Following completion of an automated vehicle test, t~~The automated  
19            vehicle tester shall submit a report to the Traffic Committee **annually,**  
20            **until all testing ceases,** summarizing results and observations related to  
              safety, traffic operations, interaction with

Insert after (b):

Legislative bodies of the municipalities where an automated vehicle will be tested shall be notified by the tester 30 calendar days prior to the Traffic Committee hearing when the geographic scope of the test includes Class 1, 2, 3 or 4 Town Highways as classified pursuant to 19 V.S.A. § 302

1 roadway infrastructure, comments from the public, and any other relevant  
2 matters.

3 (f) An automated vehicle tester shall not test an automated vehicle on a  
4 public highway unless:

5 (1) The operator is:

6 (A) seated in the driver's seat of the automated vehicle;

7 (B) monitoring the operation of the automated vehicle; and

8 (C) capable of taking immediate manual control of such automated  
9 vehicle.

10 (2) The automated vehicle tester:

11 (A) registers each automated vehicle to be tested with the  
12 Commissioner pursuant to chapter 7 of this title;

13 (B) submits to the Commissioner, in a manner and form directed by  
14 the Commissioner, proof of liability insurance, self-insurance, or a surety bond  
15 of at least five million dollars for damages by reason of bodily injury, death, or  
16 property damage caused by an automated vehicle while engaged in automated  
17 vehicle testing;

18 (C) has established and enforces a zero-tolerance policy for drug and  
19 alcohol use by operators while engaged in automated vehicle testing. The  
20 policy shall include provisions for investigations of alleged policy violations  
21 and the suspension of drivers under investigation;

1           (D) has conducted background checks for all operators pursuant to  
2           section 751 of this title, which may be inspected by the Commissioner of  
3           Motor Vehicles or designee pursuant to section 752 of this title; and

4           ~~(E) has certified that the legislative bodies of the municipalities~~  
5           ~~where an automated vehicle will be tested have approved the operational~~  
6           ~~design domain for class 1, 2, 3, or 4 town highways as classified pursuant to 19~~  
7           ~~V.S.A. § 302 included in the test.~~

8           (3) The operator and automated vehicle tester shall:

9           (A) comply with **applicable** standards established by the National Highway  
10          Traffic Safety Administration regarding **the testing of** automated vehicles  
11          and be capable of providing proof of exemptions or waivers to such standards;

12          (B) report to the Agency of Transportation and the applicable law  
13          enforcement agency within 10 business days after any motor vehicle crash  
14          involving the testing of the automated vehicle that results in personal injury or  
15          property damage; and

16          (C) satisfy any other requirements and permit conditions as  
17          determined by the Traffic Committee as necessary to ensure the safe operation  
18          of such automated vehicles.

19          (g) Notwithstanding subsection (f) of this section, a highly automated  
20          vehicle may be tested on a public highway without an operator inside the  
21          vehicle if the operator or automated vehicle tester can take immediate remote

1 control of the highly automated vehicle being tested ~~and the vehicle can~~ <sup>or</sup> <sup>is capable</sup>  
2 of achieving ~~achieve~~ a minimal risk condition.

3 (h) An automated vehicle testing permit may be voided and invalidated for  
4 the trip by a law enforcement officer that determines there is a violation of any  
5 condition specified in the terms of the automated vehicle test permit or that the  
6 continuation of the trip would be unsafe.

7 (i) An automated vehicle testing permit may be suspended or revoked by  
8 the Traffic Committee if, after the opportunity for a hearing, the Traffic  
9 Committee determines that there is a violation of any condition or conditions  
10 specified in the terms of the automated vehicle test permit that warrants the  
11 suspension or revocation of the testing permit or that the continuation of the  
12 testing would be unsafe.

13 (j) Operating or testing in violation of a suspension or revocation order  
14 shall be a traffic violation for which there shall be a penalty of not more than  
15 \$1,000.00.

16 (k) Test vehicles must be capable of operating in compliance with  
17 applicable traffic and motor vehicle laws of this State, subject to this  
18 subchapter.

19 (l) An individual shall not operate, attempt to operate, or be in actual  
20 physical control of an automated vehicle being tested on a public highway  
21 when the individual's blood alcohol concentration is 0.02 or more.

1       (m) An automated vehicle being tested on a public highway shall be clearly  
2       identifiable by the public.

3                               \* \* \* State Traffic Committee \* \* \*

4       Sec. 17. 19 V.S.A. § 1(24) is amended to read:

5               (24) “Traffic Committee” consists of the Secretary of Transportation or  
6       ~~his or her~~ designee, the Commissioner of Motor Vehicles or ~~his or her~~  
7       designee, and the Commissioner of Public Safety or ~~his or her~~ designee and is  
8       responsible for establishing speed zones, parking and no parking areas, rules  
9       for use of limited access highways, approval of the testing of automated  
10       vehicles as defined in 23 V.S.A. § 4202 on public highways, and other traffic  
11       control procedures.

12                               \* \* \* Automated Vehicle Testing Implementation \* \* \*

13       Sec. 18. AUTOMATED VEHICLE TESTING IMPLEMENTATION

14       (a) As soon as practicable, but not later than January 1, 2021, the Agency  
15       of Transportation shall publish an Automated Vehicle Testing Guide and  
16       application form to support review by the Traffic Committee and consistent  
17       with the requirements of 23 V.S.A. § 4203 as added in Sec. 16 of this act.

18       (b) The Agency of Transportation may adopt rules to implement the  
19       provisions of 23 V.S.A. chapter 41 as added in Sec. 16 of this act.