

1 Introduced by *[Agency of Transportation proposal, as modified following*  
2 *discussions with Legislative Council]*  
3 *[Changes since February 13, 2019 highlighted in yellow]*

4  
5 Sec. X. 23 V.S.A. chapter 41 is added to read:

6 CHAPTER 41. AUTOMATED VEHICLE TESTING

7 § 4201. SHORT TITLE

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

9 § 4202. DEFINITIONS

10 As used in this chapter:

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

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

20 (3) “Automated vehicle tester” or “tester” means an individual,  
21 company, public agency, or other organization that is testing automated  
22 vehicles on public highways in this state pursuant to this chapter including but

1 not limited to an automated vehicle manufacturer, municipal or state agency,  
2 institution of higher education, fleet service provider, or automotive equipment  
3 or technology provider.

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

9 (5) “Highly automated vehicle” means a vehicle equipped with an  
10 automated driving system that is designed to function at a level of driving  
11 automation of level 4 or 5 pursuant to SAE J3016.

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

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

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

5           (9) “Public highway” means a State or municipal highway as defined in  
6           19 V.S.A. § 1(12).

7           (10) “SAE J3016” means the document published by SAE International  
8           on September 30, 2016 as “Taxonomy and Definitions for Terms Related to  
9           Driving Automation Systems for On-Road Motor Vehicles” and any  
10           subsequent versions.

11           (11) “Operator” means an individual employed by or under contract  
12           with an automated vehicle tester who has successfully completed the tester’s  
13           training on safe driving and the capabilities and limitations of the automated  
14           vehicle and automated driving system, can take immediate manual or remote  
15           control of the automated vehicle being tested, is 25 years of age or greater, and  
16           holds an operator’s license for the class of vehicle being tested.

17           § 4203. TESTING OF AUTOMATED VEHICLES ON PUBLIC

18           HIGHWAYS

19           (a) An automated vehicle shall not be operated on public highways for  
20           testing until the Traffic Committee as defined in 19 V.S.A. § 1(24) approves a  
21           permit application for automated vehicle testers that defines the scope and

1 operational design domain for the test and demonstrates the ability of the  
2 automated vehicle tester to comply with the requirements of this section.

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

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

9 (d) No municipality may, by ordinance, resolution, or any other means,  
10 prohibit or regulate the testing of an automated vehicle on class 1, 2, 3, and 4  
11 town highways within its boundaries that is operating in compliance with this  
12 chapter and otherwise complies with all laws of the municipality.

13 (e) The automated vehicle tester shall make approved automated vehicle  
14 test permits readily available to law enforcement and municipalities within the  
15 operational design domain designated in the permit.

16 (f) Following completion of an automated vehicle test, the automated  
17 vehicle tester shall submit a report to the Traffic Committee summarizing  
18 results and observations related to safety, traffic operations, interaction with  
19 roadway infrastructure, comments from the public, and any other relevant  
20 matters.

21 (g) An automated vehicle tester shall not test an automated vehicle on a  
22 public highway unless:

1           (1) The operator is:

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

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

4                   (C) capable of taking immediate manual control of such automated

5 vehicle.

6           (2) The automated vehicle tester:

7                   (A) registers each automated vehicle to be tested with the

8 Commissioner pursuant to Title 23, chapter 7;

9                   (B) submits to the Commissioner, in a manner and form directed by

10 the Commissioner, proof of liability insurance, self-insurance, or a surety bond

11 of at least five million dollars for damages by reason of bodily injury, death, or

12 property damage caused by an automated vehicle while engaged in automated

13 vehicle testing;

14                   (C) has established and enforces a zero-tolerance policy for drug and

15 alcohol use by operators while engaged in automated vehicle testing. The

16 policy shall include provisions for investigations of alleged policy violations

17 and the suspension of drivers under investigation;

18                   (D) has conducted background checks for all operators pursuant to

19 section 751 of this title, which may be inspected by the Commissioner of

20 Motor Vehicles or designee pursuant to section 752 of this title; and

21                   (E) has certified that the legislative bodies of the municipalities

22 where an automated vehicle will be tested have been notified when the

1 operational design domain of the vehicles being tested includes class 1, 2, 3, or  
2 4 town highways as classified pursuant to 19 V.S.A. § 302 and that the  
3 proposed testing has been coordinated with those municipalities.

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

5 (A) comply with any provision of State and local traffic laws  
6 concerning the operation of motor vehicles;

7 (B) comply with standards established by the National Highway  
8 Traffic Safety Administration regarding automated vehicles and be capable of  
9 providing proof of exemptions or waivers to such standards;

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

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

17 (h) Notwithstanding subsection (f) of this section, a highly automated  
18 vehicle may be tested on a public highway without an operator inside the  
19 vehicle if the operator or automated vehicle tester can take immediate remote  
20 control of the highly automated vehicle being tested and the vehicle can  
21 achieve a minimal risk condition.

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

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

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

14       (l) Test vehicles must be capable of operating in compliance with  
15       applicable traffic and motor vehicle laws of this state, subject to this  
16       subchapter.

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

20       (n) An automated vehicle being tested on a public highway shall be clearly  
21       identifiable by the public.

