

WEST VIRGINIA LEGISLATURE

2022 REGULAR SESSION

Committee Substitute for

House Bill 4787

BY DELEGATES CAPITO, LINVILLE, FAST AND PACK

[Introduced February 15, 2022; referred to the
Committee on Judiciary]

1 A BILL to amend the Code of West Virginia Code, 1931, as amended, by adding thereto a new
2 article designated §17H-1-1, §17H-1-2, §17H-1-3, §17H-1-4, §17H-1-5, §17H-1-6, §17H-
3 1-7, §17H-1-8, §17H-1-9, §17H-1-10, §17H-1-11, §17H-1-12, §17H-1-13, §17H-1-14,
4 §17H-1-15, and §17H-1-16, all relating to establishing the Fully Autonomous Vehicle Act;
5 providing definitions concerning fully autonomous vehicles; providing rules and
6 regulations for the operation of fully autonomous vehicles; providing for the operation of
7 on-demand autonomous vehicle transportation networks; providing for the operation of
8 fully autonomous motor vehicle carriers; providing for the platooning of fully autonomous
9 vehicles; providing for the licensing and insurance requirements of fully autonomous
10 vehicles; providing for control and regulation of fully autonomous vehicles; and providing
11 for the equipment standards for fully autonomous vehicles.

Be it enacted by the Legislature of West Virginia:

CHAPTER 17H. FULLY AUTONOMOUS VEHICLE ACT

ARTICLE 1. FULLY AUTONOMOUS VEHICLES

§17H-1-1 Short Title.

1 This Article may be cited as the “Fully Autonomous Vehicle Act”.

§17H-1-2 Statement of intent and purpose.

1 The Legislature finds that continuing advances in technology have improved and are
2 expected to continue to improve the safety and operation of fully autonomous vehicles such that
3 these vehicles should be legally permitted to be operated in West Virginia pursuant to the
4 provisions of this Act.

§17H-1-3 Definitions.

1 Subject to any additional definitions contained in subsequent provisions of this Act which
2 are applicable to specific provisions of this title, the following words and phrases when used in

3 this title shall have, unless the context clearly indicates otherwise, the meanings given to them in
4 this section.

5 (a) “Automated driving system” or “ADS” means the hardware and software that are
6 collectively capable of performing of the entire dynamic driving task on a sustained basis,
7 regardless of whether it is limited to a specific operational design domain.

8 (b) “Dynamic driving task” or “DDT” means all of the real-time operational and tactical
9 functions required to operate a vehicle in on-road traffic, excluding the strategic functions such as
10 trip scheduling and selection of destinations and waypoints, and including without limitation:

11 1. Lateral vehicle motion control via steering;

12 2. Longitudinal motion control via acceleration and deceleration;

13 3. Monitoring the driver environment via object and event detection, recognition,
14 classification and response preparation;

15 4. Object and event response execution;

16 5. Maneuver planning; and

17 6. Enhanced conspicuity via lighting, signaling and gesturing.

18 (c) “DDT Fallback” means the response by the person or human driver to either perform
19 the DDT or achieve a minimal risk condition after occurrence of a DDT performance-relevant
20 system failure(s) or upon operational design domain exit, or the response by an automated driving
21 system to achieve minimal risk condition, given the same circumstances.

22 (d) “Fully autonomous vehicle” means a motor vehicle equipped with an automated driving
23 system (ADS) designed to function without a human driver as a level 4 or 5 system under SAE
24 J3016.

25 (e) “Human driver” means a natural person in the vehicle with a valid license to operate a
26 motor vehicle who controls all or part of the dynamic driving task (DDT).

27 (f) “Minimal risk condition” means a condition to which a person, human driver or an ADS
28 may bring a vehicle after performing the DDT fallback in order to reduce the risk of a crash when
29 a given trip cannot or should not be completed.

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

35 (h) “Operational design domain” or “ODD” means operating conditions under which a
36 given automated driving system (ADS) is specifically designed to function, including, but not
37 limited to, environmental, geographical and time-of-day restrictions, and/or the requisite presence
38 or absence of certain traffic or roadway characteristics.

39 (i) “Person” means a natural person, corporation, business trust, estate, trust, partnership,
40 limited liability company, association, joint venture, governmental agency, public corporation, or
41 any legal or commercial entity.

42 (j) “Platooning” means a situation when no more than three fully autonomous vehicles are
43 traveling in concert, pursuant to a pre-determined written travel plan that identifies the vehicles
44 and proposed route.

45 (k) “Request to intervene” means notification by an automated driving system (ADS) to a
46 human driver, that the human driver should promptly begin or resume performance of part or all
47 of the dynamic driving task (DDT).

48 (l) “SAE J3016” means the *Taxonomy and Definitions for Terms Related to Driving*
49 *Automation Systems for On-Road Motor Vehicles* published by the Society of Automotive
50 Engineers (SAE) International in April, 2021.

§17H-1-4 Construction.

1 Nothing in this article shall be construed to:

2 (1) Prohibit a human driver from operating a fully autonomous vehicle to control all or part
3 of the DDT; or

4 (2) Prohibit a fully autonomous vehicle from operating without a human driver.

§17H-1-5 Operation of Fully Autonomous Vehicles Without a Human Driver.

1 (a) A person may operate a fully autonomous vehicle on the public roads of this state
2 without a human driver provided that the automated driving system (ADS) is engaged and the
3 vehicle meets the following conditions:

4 (1) If a failure of the automated driving system occurs that renders the system unable to
5 perform the entire dynamic driving task (DDT) relevant to its intended operational design domain,
6 the fully autonomous vehicle will achieve a minimal risk condition;

7 (2) The fully autonomous vehicle is capable of operating in compliance with the applicable
8 traffic and motor vehicle safety laws and regulations of this state when reasonable to do so, unless
9 an exemption has been granted by the Department of Transportation; and

10 (3) When required by federal law, the vehicle bears the required manufacturer's
11 certification label indicating that at the time of its manufacture it has been certified to be in
12 compliance with all applicable Federal Motor Vehicle Safety Standards, including reference to any
13 exemption granted by the National Highway Traffic Safety Administration. (b) Prior to operating a
14 fully autonomous vehicle on the public roads of this State without a human driver, a person as
15 defined in §17C-1-29 shall submit a law enforcement interaction plan to the department that
16 describes:

17 (1) How to communicate with a fleet support specialist who is available during the times
18 the vehicle is in operation;

19 (2) How to safely remove the fully autonomous vehicle from the roadway and steps to
20 safely tow the vehicle;

21 (3) How to recognize whether the fully autonomous vehicle is in autonomous mode; and

22 (4) Any additional information the manufacturer or owner deems necessary regarding
23 hazardous conditions or public safety risks associated with the operation of the fully autonomous
24 vehicle.

§17H-1-6. Operation of a Fully Autonomous Motor Vehicle With an ADS by a Human Driver.

1 (a) A person may operate a motor vehicle equipped with an ADS capable of performing
2 the entire dynamic driving task (DDT) if:

3 (1) Such ADS will issue a request to intervene whenever the ADS is not capable of
4 performing the entire DDT with the expectation that the person will respond appropriately to such
5 a request; and

6 (2) The ADS is capable of being operated in compliance with the applicable provisions of
7 and regulations promulgated under this article, unless an exemption has been granted by the
8 Department of Transportation or the National Highway Traffic Safety Administration.

9 (b) Nothing in this Act prohibits or restricts a human driver from operating a fully
10 autonomous vehicle equipped with controls that allow for the human driver to control all or part of
11 the DDT.

§17H-1-7 Operation of Fully Autonomous Commercial and Motor Carrier Vehicles.

1 (a) A fully autonomous vehicle that is also a commercial vehicle under West Virginia law
2 may operate pursuant to state laws governing the operation of commercial motor vehicles, except
3 that any provision that by its nature reasonably applies only to a human driver does not apply to
4 such a vehicle operating with the ADS engaged.

5 (b) A fully autonomous vehicle that is also a motor carrier vehicle requiring a commercial
6 driver's license pursuant to Federal or state law may operate pursuant to Federal and State laws
7 governing commercial drivers and the operation of commercial motor vehicles, except any
8 provision which by its nature reasonably applies only to a human driver shall not apply to a fully
9 autonomous vehicle operating with the ADS engaged. This section shall not apply to a school
10 bus.

§17H-1-8 Operation of an On-Demand Autonomous Motor Vehicle Network.

1 An on-demand autonomous motor vehicle network shall be permitted to operate pursuant
2 to State laws governing the operation of transportation network companies, taxis, or any other
3 ground transportation for-hire of passengers, with the exception that any provision of such laws
4 that reasonably applies only to a human driver would not apply to the operation of fully
5 autonomous vehicles with the ADS engaged on an on-demand autonomous vehicle network.

§17H-1-9 Licensing, Titling, and Registration.

1 (a) When an automated driving system (ADS) installed on a motor vehicle is engaged:

2 (1) The ADS is considered the driver or operator, for the purpose of assessing compliance
3 with applicable traffic or motor vehicle laws and shall be deemed to satisfy electronically all
4 physical acts required by a driver or operator of the vehicle; and

5 (2) The ADS is considered to be licensed to operate the vehicle.

6 (b) A fully autonomous vehicle shall be properly registered in accordance with the laws of
7 this state. If a fully autonomous vehicle is registered in this state, the vehicle shall be identified on
8 the registration as a fully autonomous vehicle. The requirements under this article relating to
9 exhibiting a driver's license and registration card are satisfied if the license and vehicle registration
10 card are in the fully autonomous vehicle physically or electronically, and available for inspection
11 by a police officer.

§17H-1-10 Insurance.

1 Before operating a fully autonomous motor vehicle on public roads in this state without a
2 human driver, a person shall submit proof of financial responsibility satisfactory to the Department
3 of Motor Vehicles that the fully autonomous vehicle is covered by insurance or proof of self-
4 insurance that satisfy the applicable laws of this state.

§17H-1-11 Control.

1 (a) Unless otherwise provided in this chapter and notwithstanding any other provision of
2 law, fully autonomous vehicles and automated driving systems are governed exclusively by this

3 Act. The Department of Transportation is the sole and exclusive state agency that may implement
4 the provisions of this Act.

5 (b) No state agency, political subdivision, municipality, or local entity may prohibit the
6 operation of fully autonomous vehicles, automated driving systems, or on-demand autonomous
7 vehicle networks, or otherwise enact or keep in force rules or ordinances that would impose taxes,
8 fees, or other requirements (including performance standards), specific to the operation of fully
9 autonomous vehicles, automated driving systems, or on-demand autonomous vehicle networks
10 in addition to the requirements of this Act.

§17H-1-12 Platooning.

1 (a) General rule. The department shall be the lead state agency on fully autonomous
2 vehicle platooning under this section.

3 (b) Platoon restrictions. A platoon shall observe the following restrictions:

4 (1) A maximum of three vehicles shall be in a platoon.

5 (2) Vehicles in a platoon shall travel only on limited access highways or interstate
6 highways, unless otherwise permitted by the Department or the West Virginia Division of
7 Highways.

8 (3) The department or the West Virginia Division of Highways, as applicable under
9 paragraph (2), may restrict movement under this section for operational or safety reason,
10 including, but not limited to, emergency conditions; and

11 (4) Consistent with applicable Federal and State laws, the lead vehicle in a platoon may
12 operate with a driver and non-lead vehicles may operate with an ADS engaged, with or without a
13 driver.

14 (c) Plan for general platoon operations. A person may operate a platoon on a highway of
15 this State if the person files and reviews a plan for general platoon operations with the department.
16 The department shall review the plan in consultation with the West Virginia State Police and the
17 West Virginia Division of Highways, as applicable. If the plan is not rejected by the department

18 within 30 days after receipt of the plan, the person may operate the platoon.

19 (d) *Non-lead vehicles.* Non-lead vehicles in a platoon shall not be subject to violations of
20 this code relating to following too closely.

21 (e) *Visual identifiers required.* Each vehicle in a platoon must be marked with a visual
22 identifier. The department, after consultation with the West Virginia State Police and the West
23 Virginia Division of Highways shall establish the criteria and placement of the visual identifier.

§17H-1-13 Fully Autonomous Vehicles Not Exempt From State Laws Pertaining to
Ownership.

1 Unless expressly stated in this section, fully autonomous vehicles, whether traveling
2 individually or in a platoon, are not exempt from any other laws or regulations applicable to the
3 ownership and operation of any non-fully autonomous vehicle in this state.

§17H-1-14 Duties Following Crashes Involving Fully Autonomous Vehicles.

1 In the event of a crash:

2 (1) The fully autonomous vehicle shall remain at the scene of the crash when required by
3 State law consistent with its capability under §17H-1-5; and

4 (2) The owner of the highly automated motor vehicle, or a person on behalf of the vehicle
5 owner, shall promptly report any crashes or collisions consistent with §17C-4-1, et seq.

§17H-1-15 Fully Autonomous Vehicle Equipment Standards.

1 A fully autonomous vehicle that is designed to be operated exclusively by an ADS for all
2 trips is not subject to motor vehicle equipment laws or regulations of this State that:

3 (1) relate to or support motor vehicle operation by a human driver seated in the vehicle;
4 and

5 (2) are not relevant for an ADS.

§17H-1-16 Effective Date.

1 This Act shall take effect in 90 days.

NOTE: The purpose of this bill is to create the Fully Autonomous Vehicle Act permitting vehicles with automated driving systems to operate on West Virginia roadways and highways.

Strike-throughs indicate language that would be stricken from a heading or the present law