



## SELF-DRIVING COALITION FOR SAFER STREETS 2022 MODEL BILL

### SECTION 1. Definitions

**AUTOMATED DRIVING SYSTEM.** The hardware and software that are collectively capable of performing the entire *dynamic driving task* on a sustained basis, regardless of whether it is limited to a specific *operational design domain*.

**DYNAMIC DRIVING TASK (DDT).** All of the real-time operational and tactical functions required to operate a vehicle in on-road traffic, excluding the strategic functions such as trip scheduling and selection of destinations and waypoints, and including without limitation:

- (A) Lateral vehicle motion control via steering;
- (B) Longitudinal motion control via acceleration and deceleration;
- (C) Monitoring the driving environment via object and event detection, recognition, classification, and response preparation;
- (D) Object and event response execution;
- (E) Maneuver planning; and
- (F) Enhancing conspicuity via lighting, signaling, and gesturing.

**DDT FALLBACK.** The response by the person or human driver to either perform the DDT or achieve a minimal risk condition after occurrence of a DDT performance-relevant system failure(s) or upon operational design domain exit, or the response by an automated driving system to achieve minimal risk condition, given the same circumstances.

**FULLY AUTONOMOUS VEHICLE.** A motor vehicle equipped with an automated driving system designed to function without a human driver as a level 4 or 5 system under SAE J3016B.

**HUMAN DRIVER.** A natural person in the vehicle with a valid license to operate a motor vehicle who controls all or part of the dynamic driving task.



**MINIMAL RISK CONDITION.** A condition to which a person, human driver, or an ADS may bring a vehicle after performing the DDT Fallback in order to reduce the risk of a crash when a given trip cannot or should not be completed.

**ON-DEMAND AUTONOMOUS VEHICLE NETWORK.** A transportation service network that uses a software application or other digital means to dispatch or otherwise enable the pre arrangement of transportation with fully autonomous vehicles for purposes of transporting passengers or goods, including for-hire transportation and transportation of passengers or goods for compensation.

**OPERATIONAL DESIGN DOMAIN (ODD).** Operating conditions under which a given automated driving system is specifically designed to function, including, but not limited to, environmental, geographical, and time-of-day restrictions, and/or the requisite presence or absence of certain traffic or roadway characteristics.

**[[PERSON.** A natural person, corporation, business trust, estate, trust, partnership, limited liability company, association, joint venture, governmental agency, public corporation, or any other legal or commercial entity.]] [[Note: Definition only needed if not already addressed in the vehicle code.]]

**REQUEST TO INTERVENE.** Notification by an automated driving system to a human driver, that the human driver should promptly begin or resume performance of part or all of the dynamic driving task.

**SAE J3016B.** The *Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles* published by SAE International in June 2018.

**SECTION 2. Operation of Fully Autonomous Vehicles Without a Human Driver**

- (a) A person [as defined in (INSERT cross-reference to state definition if appropriate)] may operate a fully autonomous vehicle on the public roads of this state without a human driver provided that the automated driving system is engaged and the vehicle meets the following conditions:



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

(2) the fully autonomous vehicle is capable of operating in compliance with the applicable traffic and motor vehicle safety laws and regulations of this state when reasonable to do so, unless an exemption has been granted by [RELEVANT AGENCY]; and

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

(b) Prior to operating a fully autonomous vehicle on the public roads of this state without a human driver, a person [as defined in (INSERT cross-reference to state definition if appropriate)] shall submit a law enforcement interaction plan to the [RELEVANT AGENCY] that describes:

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

(2) How to safely remove the fully autonomous vehicle from the roadway;

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

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

### **SECTION 3. Licensing**

[INSERT cross-reference to state licensing section] is amended as follows:



When an automated driving system installed on a motor vehicle is engaged:

- (1) The automated driving system is considered the driver or operator, for the purpose of assessing compliance with applicable traffic or motor vehicle laws and shall be deemed to satisfy electronically all physical acts required by a driver or operator of the vehicle; and
- (2) The automated driving system is considered to be licensed to operate the vehicle.

**SECTION 4. Insurance.**

Before operating a fully autonomous vehicle on public roads in this state without a human driver, a person shall submit proof of financial responsibility satisfactory to the [RELEVANT AGENCY] that the fully autonomous vehicle is covered by insurance or proof of self-insurance that satisfies the requirements of applicable [INSERT cross-reference to state motor vehicle financial responsibility laws, (e.g. the respective state laws for personal vehicle ownership, transportation network companies, leasing, vehicle rental, vehicle-for-hire, etc.)].

**SECTION 5. Duties following crashes involving fully autonomous vehicles**

In the event of a crash:

- (1) The fully autonomous vehicle shall remain on the scene of the crash when required by [cross-reference to state laws pertaining to duties following crashes], consistent with its capability under Section 2.
- (2) The owner of the fully autonomous vehicle, or a person on behalf of the vehicle owner, shall report any crashes or collisions consistent with [cross-reference to state laws pertaining to crash reporting].

**SECTION 6. On-demand autonomous vehicle network**

An on-demand autonomous vehicle network shall be permitted to operate pursuant to state laws governing the operation of transportation network companies, taxis, or any other ground transportation for-hire of passengers [or other relevant law governing transportation of goods, etc.], with the exception that any provision of [the cross-referenced state laws] that reasonably applies only to a human driver would not apply to the operation of fully autonomous vehicles with the automated driving system engaged on an on-demand autonomous vehicle network.



**SECTION 7. Registration and title**

- (a) A fully autonomous vehicle shall be properly registered in accordance with [INSERT cross-reference to background laws re: vehicle registration]. If a fully autonomous vehicle is registered in this state, the vehicle shall be identified on the registration as a fully autonomous vehicle.
  
- (b) A fully autonomous vehicle shall be properly titled in accordance with [INSERT cross-reference to background law re: vehicle titles]. If a fully autonomous vehicle is titled in this state, the vehicle shall be identified on the title as a fully autonomous vehicle.

**SECTION 8. Operation of a motor vehicle with an automated driving system by a human driver**

- (a) A person may operate a motor vehicle equipped with an automated driving system capable of performing the entire dynamic driving task if --
  - (i) such automated driving system will issue a request to intervene whenever the automated driving system is not capable of performing the entire dynamic driving task with the expectation that the person will respond appropriately to such a request; and
  
  - (ii) the automated driving system is capable of being operated in compliance with [INSERT cross-reference to background law re: rules of the road] when reasonable to do so unless an exemption has been granted by [RELEVANT AGENCY].
  
- (b) Nothing in this Act prohibits or restricts a human driver from operating a fully autonomous vehicle equipped with controls that allow for the human driver to control all or part of the dynamic driving task.

**SECTION 9. Operation of Commercial Vehicles**

A fully autonomous vehicle that is also a commercial motor vehicle pursuant to [INSERT cross-reference] may operate pursuant to state laws governing the operation of commercial motor vehicles, except that any provision that by its nature reasonably applies only to a human driver does not apply to such a vehicle operating with the automated driving system engaged.



**SECTION 10. Vehicle Equipment Standards**

A fully autonomous vehicle that is designed to be operated exclusively by the automated driving system for all trips is not subject to motor vehicle equipment laws or regulations of this state that: (1) relate to or support motor vehicle operation by a human driver seated in the vehicle; and (2) are not relevant for an automated driving system.

**SECTION 11. Controlling authority**

(a) Unless otherwise provided in this chapter and notwithstanding any other provision of law, fully autonomous vehicles and automated driving systems are governed exclusively by this [Act]. [RELEVANT AGENCY] is the sole and exclusive state agency that may implement the provisions of this [Act].

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