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SAE J3016B;

2024 South Dakota Legislature

House Bill 1095

Introduced by: Representative Chase

- 1 An Act to establish provisions for the operation of automated motor vehicles.
- 2 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF SOUTH DAKOTA:
- 3 Section 1. That a NEW SECTION be added to title 32:

4		The terms used in this chapter mean:
5	(1)	"Automated driving system," the hardware and software that are collectively
6		capable of performing the entire dynamic driving task on a sustained basis;
7	<u>(2)</u>	"Dynamic driving task," all of the real-time operational and tactical functions
8		required to operate a vehicle in on-road traffic within an automated driving
9		system's operational design domain, excluding strategic functions such as trip
LO		scheduling and selection of destinations and waypoints, including without
l1		<u>limitation:</u>
12		(a) Lateral vehicle motion control via steering;
13		(b) Longitudinal motion control via acceleration and deceleration;
L4		(c) Monitoring the driving environment via object and event detection,
15		recognition, classification, and response preparation;
16		(d) Object and event response execution;
L7		(e) Maneuver planning; and
18		(f) Enhancing conspicuity via lighting, signaling, and gesturing;
L9	(3)	"Dynamic driving task fallback," the response by the person or human driver to
20		either perform the dynamic driving task or achieve a minimal risk condition after
21		the occurrence of a dynamic driving task performance-relevant system failure or
22		upon operational design domain exit, or the response by an automated driving
23		system to achieve minimal risk condition, under the same circumstances;
24	<u>(4)</u>	"Fully autonomous vehicle," a motor vehicle equipped with an automated driving
25		system designed to function without a human driver as a level 4 or 5 system under

- "Human driver," a natural person with a valid license to operate a motor vehicle 1 (5) 2 who controls all or part of the dynamic driving task; 3 (6) "Minimal risk condition," a reasonably safe condition to which a person, human 4 driver, or an automated driving system may bring a vehicle after performing the <u>dynamic driving task fallback to reduce the risk of a crash when a given trip cannot</u> 5 6 or should not be completed; 7 (7) "Motor vehicle," all vehicles or machines, trailers, semitrailers, recreational 8 vehicles, truck tractors, and road tractors propelled by any power other than 9 muscular and used upon the public highways for the transportation of persons or property, or both; 10 "On-demand autonomous vehicle network," a transportation service network that 11 (8) 12 uses a software application or other digital means to dispatch or otherwise enable 13 the pre-arrangement of transportation with fully autonomous vehicles for purposes 14 of transporting passengers or goods; 15 (9) "Operational design domain," the operating conditions under which a given 16 automated driving system is designed to function, including environmental, 17 geographical, and time-of-day restrictions, or the presence or absence of certain
- 19 (10) "Request to intervene," notification by an automated driving system to a human 20 driver that the human driver should promptly begin or resume part or all of the 21 dynamic driving task; and
- 22 (11) "SAE J3016B," the Taxonomy and Definitions for Terms Related to Driving
 23 Automation Systems for On-Road Motor Vehicles published by SAE International in
 24 April 2021.

Section 2. That a NEW SECTION be added to title 32:

traffic or roadway characteristics;

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- A fully autonomous vehicle may operate on public roads of this state without a

 human driver, provided that the automated driving system is engaged, and the vehicle:
 - (1) Achieves a minimal risk condition if the vehicle exits the operational design domain of its automated driving system;
- 30 (2) Achieves a minimal risk condition if a failure renders the vehicle's automated
 31 driving system unable to perform the entire dynamic driving task relevant to its
 32 operational design domain;
- Is capable of operating in compliance with the applicable traffic and motor vehicle
 safety laws and regulations of this state; and

When required by federal law, bears the required manufacturer's certification label 1 (4) 2 indicating that at the time of the vehicle's manufacture, it complied with all 3 applicable federal motor vehicle safety standards and any exemption granted by 4 the National Highway Traffic Safety Administration. 5 Section 3. That a NEW SECTION be added to title 32: When an automated driving system installed on a motor vehicle is engaged: 6 7 The automated driving system is the driver and operator, for the purpose of (1) 8 assessing compliance with applicable traffic or motor vehicle laws, and shall satisfy 9 electronically all physical acts required by a driver or operator of the vehicle; 10 (2) The automated driving system is licensed to operate the vehicle; and 11 (3) The vehicle's failure to comply with applicable traffic and motor carrier laws must be imputed to the owner of the vehicle, who may be charged and convicted of a 12 13 violation. 14 Section 4. That a NEW SECTION be added to title 32: 15 A fully autonomous vehicle operating on public roads must be covered by proof of 16 financial responsibility that satisfies the requirements of chapter 32-35. 17 Section 5. That a NEW SECTION be added to title 32: 18 In the event of an accident involving a fully autonomous vehicle: 19 (1) The fully autonomous vehicle must remain on the scene of the crash as required 20 by chapter 32-34; 21 (2) The owner of the fully autonomous vehicle, or a person on behalf of the vehicle 22 owner, shall report any crashes or collisions consistent with chapter 32-34; and 23 The vehicle's failure to remain at the scene of the accident or to otherwise operate (3) 24 in compliance with the requirements of chapter 32-34 must be imputed to the 25 owner of the vehicle, who may be charged and convicted of a violation of chapter 26 32-34. Section 6. That a NEW SECTION be added to title 32: 27 28 An on-demand autonomous vehicle network is permitted to operate pursuant to 29 chapter 32-40, with the exception that any provision of chapters 32-12 or 32-12A that 30 reasonably applies only to a human driver would not apply to the operation of a fully

autonomous vehicle with the automated driving system engaged on an on-demand
 autonomous vehicle network.

Section 7. That a NEW SECTION be added to title 32:

A fully autonomous vehicle must be titled in accordance with chapter 32-3. The vehicle's autonomy level as defined under SAE J3016B must be submitted to the Department of Revenue and the applicant shall submit documentation that attests to its autonomy level.

A fully autonomous vehicle must be registered in accordance with chapter 32-5. The vehicle's autonomy level as defined under SAE J3016B must be submitted to the Department of Revenue and the applicant shall submit documentation that attests to its autonomy level.

Section 8. That a NEW SECTION be added to title 32:

A person may operate a motor vehicle equipped with an automated driving system capable of performing the dynamic driving task if:

- (1) Whenever the automated driving system is not capable of performing the entire dynamic driving task, the automated driving system will achieve a minimal risk condition or issue a request to intervene to the person;
- (2) The person will respond to the request to intervene from the automated driving system; and
- (3) The automated driving system is capable of being operated in compliance with all applicable traffic and motor vehicle safety laws and regulations of this state.

Nothing in this chapter prohibits a human driver from operating a fully autonomous vehicle equipped with controls that allow the human driver to control all or part of the dynamic driving task.

Section 9. That a NEW SECTION be added to title 32:

A fully autonomous vehicle that is also a commercial motor vehicle as defined in § 32-9-1 may operate pursuant to state laws governing the operation of commercial motor vehicles, except that any provision that reasonably applies only to a human driver does not apply to a vehicle operating with the automated driving system engaged.

Section 10. That a NEW SECTION be added to title 32:

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 motor vehicle operation by a human driver seated in the vehicle; and
- (2) Are not relevant to an automated driving system.

Section 11. That a NEW SECTION be added to title 32:

Except as provided in section 12, no state agency, or political subdivision may prohibit the operation of fully autonomous vehicles, automated driving systems, or ondemand autonomous vehicle networks, or otherwise enact or keep in force rules or ordinances that would impose taxes, fees, or other requirements specific to the operation of fully autonomous vehicles, automated driving systems, or on-demand autonomous vehicle networks, in addition to the requirements of this chapter.

Section 12. That a NEW SECTION be added to title 32:

The Transportation Commission shall promulgate rules pursuant to chapter 1-26 to implement the provisions of this chapter.

Section 13. That a NEW SECTION be added to title 32:

Nothing in section 11 of this Act may be interpreted or construed to prohibit a political subdivision of the state from exercising the powers and authorities provided by law to govern the public streets and roadways within their respective jurisdictions, provided it does not impose additional requirements in conflict with this Act or otherwise differentiate the treatment of fully autonomous vehicles, automated driving systems, or on-demand autonomous vehicle networks from non-autonomous vehicles.