

SENATE  
STATE OF MINNESOTA  
NINETY-FIRST SESSION

S.F. No. 2173

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Introduction and first reading  
Referred to Transportation Finance and Policy

OFFICIAL STATUS

1.1 A bill for an act  
1.2 relating to motor vehicles; regulating autonomous vehicle testing; establishing a  
1.3 penalty; requiring a report; amending Minnesota Statutes 2018, section 169.011,  
1.4 by adding subdivisions; proposing coding for new law in Minnesota Statutes,  
1.5 chapter 174.

1.6 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

1.7 Section 1. Minnesota Statutes 2018, section 169.011, is amended by adding a subdivision  
1.8 to read:

1.9 Subd. 3b. Automated driving system. "Automated driving system" means technology  
1.10 that allows a vehicle to be tested without any control or monitoring by a human.

1.11 Sec. 2. Minnesota Statutes 2018, section 169.011, is amended by adding a subdivision to  
1.12 read:

1.13 Subd. 29a. Federal motor vehicle safety standards automated vehicle  
1.14 exemption. "Federal motor vehicle safety standards automated vehicle exemption" means  
1.15 an exemption from the United States secretary of transportation from the motor vehicle  
1.16 safety standards under the National Traffic and Motor Vehicle Safety Act.

1.17 Sec. 3. Minnesota Statutes 2018, section 169.011, is amended by adding a subdivision to  
1.18 read:

1.19 Subd. 34a. Highly automated vehicle. "Highly automated vehicle" means a motor  
1.20 vehicle equipped with automated technology with the capability to function without a human  
1.21 operator present in the vehicle. A highly automated vehicle does not include a vehicle  
1.22 enabled with active safety systems or operator assistance systems, including but not limited

2.1 to a system to provide electronic blind spot assistance, crash avoidance, emergency braking,  
2.2 parking assistance, adaptive cruise control, lane-keeping assistance, lane departure warning,  
2.3 or traffic jam and queuing assistance, unless these technologies alone or in combination  
2.4 with other systems enable the vehicle to test without any control or monitoring by an operator.

2.5 Sec. 4. Minnesota Statutes 2018, section 169.011, is amended by adding a subdivision to  
2.6 read:

2.7 Subd. 40b. **Minimal risk condition.** "Minimal risk condition" means a low risk operating  
2.8 mode in a highly automated vehicle that allows the vehicle to reach a reasonably safe state  
2.9 such as bringing the vehicle to a complete stop or activating the hazard lamps if the automated  
2.10 driving system experiences failures or operates outside of its design parameters.

2.11 Sec. 5. Minnesota Statutes 2018, section 169.011, is amended by adding a subdivision to  
2.12 read:

2.13 Subd. 50a. **Operator.** "Operator" means the person who drives or is in actual physical  
2.14 control, or the natural person remotely testing a highly automated vehicle or who engages  
2.15 the automated driving system. For purposes of Minnesota law an operator is equal in  
2.16 responsibility and penalty to a driver as defined in subdivision 24.

2.17 Sec. 6. **[174.46] AUTOMATED VEHICLE TESTING.**

2.18 Subdivision 1. **Permit required.** A permit is required to engage an automated driving  
2.19 system on a highly automated vehicle on the public roads of this state. The permit may  
2.20 include conditions and restrictions to ensure safety, minimize congestion, and address other  
2.21 transportation needs.

2.22 Subd. 2. **License and vehicle registration requirements.** (a) A license to lawfully  
2.23 operate a motor vehicle is required, unless the highly automated vehicle does not have the  
2.24 ability to be operated by a human.

2.25 (b) Commercial vehicles, as defined in section 169.011, subdivision 16, must have a  
2.26 human operator present in the highly automated vehicle able to immediately assume control  
2.27 of the vehicle.

2.28 (c) The highly automated vehicle must be registered in accordance with state law or  
2.29 lawfully registered outside of this state.

2.30 Subd. 3. **Permit to test.** (a) The commissioner may grant or deny a permit application  
2.31 for the testing of a highly automated vehicle. To obtain a permit for the testing of a highly

3.1 automated vehicle a person must submit an application on a form prescribed by the  
3.2 commissioner. An application must include:

3.3 (1) dates and locations of the proposed test;

3.4 (2) certification that the highly automated vehicle meets federal safety standards, received  
3.5 a federal motor vehicle safety standards automated vehicle exemption, or is otherwise in  
3.6 compliance with federal safety regulations;

3.7 (3) certification that operators meet the license requirements of subdivision 2;

3.8 (4) identification of the owner on the proof of insurance of the highly automated vehicle  
3.9 to determine liability;

3.10 (5) proof that the highly automated vehicle is lawfully registered;

3.11 (6) a description of previous testing experience and results of previous tests;

3.12 (7) whether or not a human is testing the highly automated vehicle;

3.13 (8) whether an exemption from any state law is being requested;

3.14 (9) proof of valid and sufficient insurance, surety bond, or self-insurance in an amount  
3.15 specified by the commissioner; and

3.16 (10) any additional information deemed necessary by the commissioner.

3.17 (b) The commissioner may require the highly automated vehicle to be tested at a closed  
3.18 facility before the vehicle is allowed to operate on public roadways.

3.19 (c) The commissioner must obtain approval from the commissioner of public safety  
3.20 before granting a permit.

3.21 (d) The commissioner must notify and coordinate with local and tribal governments if  
3.22 the proposed testing route is located on local or tribal roads. A local road authority may  
3.23 require a permit for testing if a permit would be otherwise required for a vehicle other than  
3.24 a highly automated vehicle.

3.25 (e) The commissioner may deny an application. Notice of the reasons for denying an  
3.26 application must be provided in writing. Failure to approve a permit application within 60  
3.27 days does not constitute an approval of the application.

3.28 Subd. 4. **Restrictions.** A highly automated vehicle may be tested with the automated  
3.29 driving system engaged and without a human driver being present in the vehicle if:

3.30 (1) the owner or operator has been granted a permit under this section;

4.1 (2) the vehicle has the capability to meet the applicable requirements of traffic and motor  
4.2 vehicle safety laws and regulations of this state unless an exemption, as requested in  
4.3 subdivision 3, has been granted by the commissioner of public safety for the limited purpose  
4.4 of testing highly automated vehicles under this section; and

4.5 (3) the operator must continuously monitor the vehicle's performance while it is being  
4.6 operated and, if necessary, immediately take control of the vehicle's movements. If the  
4.7 operator does not or is unable to take control of the vehicle, the vehicle must be capable of  
4.8 achieving a minimal risk condition.

4.9 Subd. 5. **Collision reporting and data.** In the event of a collision, the driver, operator,  
4.10 or owner of a highly automated vehicle must promptly contact law enforcement to report  
4.11 the accident, and the highly automated vehicle and its driver or operator must remain at the  
4.12 scene of the accident as otherwise required by law. If the highly automated vehicle is being  
4.13 operated remotely, the operator must make reasonable efforts to establish and maintain  
4.14 communication with law enforcement. The driver, operator, or owner must comply with  
4.15 collision reporting requirements as otherwise required by law. In the event of a collision,  
4.16 the operator must submit information on whether the automated driving system was engaged  
4.17 at the time of the collision and what specific component of the automated driving system  
4.18 failed at the time of the collision, if known.

4.19 Subd. 6. **Compliance with laws; misdemeanor; public safety.** (a) Testing a highly  
4.20 automated vehicle without a permit constitutes a misdemeanor. Upon issuing a citation, law  
4.21 enforcement may impound or immobilize the vehicle. The vehicle may not be used until  
4.22 the operator has obtained the required permit in accordance with this section.

4.23 (b) The commissioners of public safety or transportation may immediately prohibit  
4.24 testing of a highly automated vehicle if it poses a risk to public safety or fails to comply  
4.25 with the conditions of the approved permit.

4.26 Subd. 7. **Data; reporting.** (a) Data related to highly automated vehicles is governed by  
4.27 the requirements of chapter 13. Trade secret data provided by the industry is protected under  
4.28 section 13.37. The tester must meet with the commissioner and the Minnesota Council on  
4.29 Disability to discuss lessons learned and best practices.

4.30 (b) No later than October 31 each year until 2024, the commissioner must submit a report  
4.31 to the chairs and ranking minority members of the senate and house of representatives  
4.32 transportation committees on highly automated vehicle testing. The report must include the  
4.33 number of highly automated vehicles on the road, testing locations, whether the highly  
4.34 automated vehicles were on public roads, and whether any collisions occurred.

5.1        Subd. 8. **Uniform laws.** Unless otherwise provided in this section, highly automated  
5.2 vehicles, automated driving systems, and any commercial use or operation of highly  
5.3 automated vehicles shall be governed by this section, notwithstanding any other provision  
5.4 of law or rule to the contrary. No rules or regulations relative to the operation of highly  
5.5 automated vehicles or automated driving systems shall be adopted which limit the authority  
5.6 to operate such vehicles or systems conferred by this section or which conflict with this  
5.7 section. This section does not limit a local unit of government's authority to enforce local  
5.8 parking and land use ordinances.