

PROPOSED REGULATION OF THE DEPARTMENT OF MOTOR VEHICLES

LCB File No. R134-15

Nevada Dept. of Motor Vehicles
Management Services & Programs Division
Semi-Autonomous Regulation Changes
December 9, 2015

Proposed Regulatory Changes – AV Definitions and Testing

Sec. 1.

(NEW) “Autonomous technology” interpreted. As used in NRS 482A.025, the Department will interpret the term “autonomous vehicle” to include technology which is installed on a motor vehicle and which has the capability to drive the motor vehicle without the active control or monitoring of a human operator. The term does not include an active safety system or a system for driver assistance, including, without limitation, a system to provide electronic blind spot detection, crash avoidance, emergency braking, parking assistance, adaptive cruise control, lane keeping assistance, lane departure warning, or traffic jam and queuing assistance, unless any such system, alone or in combination with any other system, enables the vehicle on which the system is installed to be driven:

- 1. Without the active control or monitoring of a human operator, or*
- 2. With active control as interpreted under “active control” definition, in section 2 of the proposed regulations.*

Sec. 2.

(NEW) “Active Control” interpreted. As used in NRS 482A.025, the Department will interpret the term “active control” to include:

- 1. The driver of a vehicle having full direct physical control of their vehicle, and not allowing the vehicle to be driven by autonomous technology, or*
- 2. The driver is directly monitoring and controlling the mechanical operations of the vehicle electronically, through the use of sensors or other automated technology, without physically controlling or touching the brake, steering, or accelerator pedal.*

Sec. 3.

(New) “Physical Disability” defined. As used in NAC 482A.100 to 482A.180, and section 1 through 16 of the proposed regulations, inclusive, unless the context otherwise requires, “Physical Disability” means, with respect to a person:

- 1. A physical impairment that substantially limits one or more of the major life activities of the person;*
- 2. A record of such an impairment; or*
- 3. Being regarded as having such an impairment.*

Sec. 4.

(New) “Autonomous pilot vehicle” defined. As used in NAC 482A.100 to 482A.180, and sections 1 thru 16 of the proposed regulations, inclusive, unless the context otherwise requires, “autonomous pilot vehicle” means a vehicle being operated by a valid licensed driver that is directly in front of an autonomous test vehicle where the autonomous test vehicle is operated by a restricted autonomous test driver pursuant to section 9 of the proposed regulations.

LICENSE TO TEST AUTONOMOUS TECHNOLOGY

Sec. 5.

NAC 482A.100 “Licensee” defined. (NRS 482A.100) As used in NAC 482A.100 to 482A.180, *and sections 1 thru 16 of the proposed language*, inclusive, unless the context otherwise requires, “licensee” means a person who is licensed to test autonomous vehicles on the highways of this State.

(Added to NAC by Dep’t of Motor Veh. by R084-11, 2-15-2012, eff. 3-1-2012)

Sec. 6.

NAC 482A.110 License: Application; affirmation; requirements of applicant; fee; insurance; bond; validity; renewal. (NRS 482A.100)

1. A person may apply for a license to test the autonomous technology installed on the autonomous vehicles of the person by submitting an application to the Department on a form provided by the Department. A license issued pursuant to this section authorizes the testing of the autonomous technology installed on the autonomous vehicles of the licensee on the highways of this State even if certificates of compliance have not been issued for the autonomous vehicles pursuant to NAC 482A.190.

2. The form provided by the Department must require the applicant to affirm that, to the best of the applicant’s knowledge and belief, each autonomous vehicle to be tested:

(a) Is safe to operate on the highways of this State.

(b) Has a separate mechanism in addition to, and separate from, any other mechanism required by law, to capture and store the autonomous technology sensor data for at least 30 seconds before a collision occurs between the autonomous vehicle and another vehicle, object or natural person while the vehicle is operating in autonomous mode. The autonomous technology sensor data must be captured and stored in a read-only format by the mechanism so that the data is retained until extracted from the mechanism by an external device capable of downloading and storing the data. Such data must be preserved for 3 years after the date of the collision. The provisions of this paragraph do not authorize or require the modification of any other mechanism to record data that is installed on the autonomous vehicle in compliance with federal law.

(c) Has a switch to engage and disengage the autonomous vehicle that is easily accessible to the operator of the autonomous vehicle and is not likely to distract the operator from focusing on the road while engaging or disengaging the autonomous vehicle.

(d) Has a system to safely alert the operator of the autonomous vehicle to take control of the autonomous vehicle if a technology failure is detected.

(e) Is equipped with autonomous technology which does not adversely affect any other safety features of the vehicle which are subject to federal regulation.

(f) If the test driver operating the vehicle holds a valid Nevada restricted autonomous testing driver's license, pursuant to section 9 of the proposed regulations, the autonomous pilot vehicle must maintain their position directly in front of the autonomous test vehicle at all times. The following safety procedures must be taken immediately if, for any reason, the pilot vehicle is no longer directly in front of the test vehicle:

(1) The operator of the autonomous test vehicle must safely pull the autonomous test vehicle to the side of the road without disruption to other vehicles and citizens; or

(2) The front passenger in the test vehicle must disengage the autonomous technology and be able to take complete physical control of the vehicle until the autonomous pilot vehicle can regain the position directly in front of the autonomous test vehicle.

3. An applicant to operate a business to test autonomous vehicles pursuant to this section must:

(a) Submit proof to the Department that each autonomous vehicle which will be tested in this State is covered by insurance in an amount that meets or exceeds the minimum requirements for a vehicle registered in this State as set forth in NRS 485.185, and not an operator's policy of liability insurance as described in NRS 485.186. Any change in the information submitted concerning a policy of insurance pursuant to this section must be reported to the Department within 10 business days after the effective date of the change.

(b) Submit with the application proof satisfactory to the Department that one or more of the autonomous vehicles of the applicant has been driven by the applicant for a combined minimum of not less than 10,000 miles in autonomous mode. The applicant must further provide proof that such autonomous vehicle or vehicles of the applicant have been driven in various conditions for a number of miles that demonstrates the safety of the vehicle or vehicles in those conditions. Such conditions include, without limitation, operating the autonomous vehicle in various weather conditions, on various types of roads and during various times of the day and night.

(c) Demonstrate the artificial intelligence and technology used in its autonomous vehicles to the Department for approval.

(d) Submit the proposed geographic locations where the applicant wishes to test the autonomous vehicles. The applicant must establish to the satisfaction of the Department that the autonomous vehicles of the applicant are capable of being driven in the conditions of the proposed geographic locations in compliance with the traffic laws and other laws applicable to drivers and motor vehicles operated in this State.

4. An application to test autonomous vehicles submitted pursuant to this section must be accompanied by a nonrefundable fee of \$100 and:

(a) Proof of insurance or self-insurance acceptable to the Department in the amount prescribed by NRS 482A.060; or

(b) A surety bond or deposit of cash in lieu of the bond in the amount prescribed by NRS 482A.060.

5. The Department may require such additional information, documentation and affirmations as the Department deems necessary or appropriate before approving an application to test autonomous vehicles that is submitted pursuant to this section.

6. A license to test autonomous vehicles that is issued by the Department pursuant to this section is valid for 1 year after the date of issuance and may be renewed by submitting an application in the same manner as for the initial license. To avoid a lapse in the license issued pursuant to this section, a licensee wishing to renew his or her license must submit an application for renewal at least 30 days before the date on which the license is set to expire.

(Added to NAC by Dep't of Motor Veh. by R084-11, 2-15-2012, eff. 3-1-2012; A by R027-13, 10-23-2013)

Sec. 7.

NAC 482A.130 Physical presence and duties of persons in vehicle during testing; testing limited to authorized geographic locations; report to Department regarding accidents or citations. (NRS 482A.100)

1. Unless otherwise approved in advance by the Department, a licensee shall ensure that at least two persons are physically present in an autonomous vehicle at all times that the autonomous vehicle is being tested on a highway in this State, one of whom is the operator and must at all times be seated in a position which allows the person to take complete control of the vehicle, including, without limitation, control of the steering, throttle and brakes. *The second operator must be seated in the front passenger seat of the vehicle.*

(a) If the operator seated in the driver position of the autonomous vehicle holds a valid restricted autonomous testing driver's license, pursuant to section 9 of the proposed regulations, the second operator in the front passenger seat must be able to safely:

- 1. Engage and disengage the autonomous vehicle, and*
- 2. Have the necessary controls in the passenger seat position to take complete control of the vehicle, including, without limitation, control of alternate steering, throttle and brake systems.*

2. The two persons who are required to be physically present in an autonomous vehicle while it is tested on a highway in this State:

(a) Must each hold a valid driver's license that has been issued in the state in which the person resides, but are not required to have a driver's license endorsement to operate the autonomous vehicle as provided in NAC 482A.040; *or*

- 1. The operator in the driver's seat of the test vehicle may hold a valid restricted autonomous testing driver's license issued pursuant to sections 9 and 10 of the proposed regulations; and*
- 2. The operator in the front passenger seat of the test vehicle must hold a valid driver's license pursuant to subsection (2)(a) above.*

(b) Must be trained in the operation of the autonomous vehicle and have received instruction concerning the capabilities and limitations of the autonomous vehicle; and

(c) Shall each actively monitor for any aberration in the functioning of the autonomous vehicle while it is engaged.

3. An autonomous vehicle may only be tested on a highway in this State which is located in a geographic location that the Department has approved for such use for vehicles tested by the licensee and indicated on the certificate issued to the licensee pursuant to NAC 482A.120.

4. A licensee shall submit a report to the Department within 10 business days after an autonomous vehicle of the licensee that is tested in this State is involved in an accident during the course of testing or after an operator of such autonomous vehicle is issued a citation for any violation of the traffic laws or other laws applicable to drivers and motor vehicles operated in this State during the course of testing. The report must include a copy of any accident report prepared regarding an accident and any citation issued to the operator or licensee and such additional information as may be required by the Department.

(Added to NAC by Dep't of Motor Veh. by R084-11, 2-15-2012, eff. 3-1-2012)

Sec. 8.

(NEW) License: Application; affirmation; requirements of applicant; fee; insurance; bond; validity; renewal. (NRS 482A.100)

- 1. A person applying for a restricted autonomous testing driver's license in this section shall comply with all autonomous testing requirements used in NAC 482A.100 to 482A.180, and Section 1 thru 16 of the proposed language.*

Sec. 9.

(NEW) Restricted Autonomous Testing Driver's License Application: Form; submission; contents. [NRS 482A.100(2)(c)(f)]

1. An application for a restricted autonomous testing driver's license issued pursuant to this chapter must be completed on a form provided by the Department and submitted to the Division of Management Services and Programs Division. The applicant is a person who is physically disabled, pursuant to section 3 of the proposed regulations, and may not currently hold a valid Nevada driver's license.

2. An application must include:

- (a) The full legal name, date of birth and social security number of the applicant;*
 - (b) The applicant's mailing address and address of principal residence, if that address is different from the mailing address;*
 - (c) The full legal name, address and telephone number or other contact information requested by the Department of the licensed Nevada autonomous testing company who has appointed the applicant as their test driver;*
 - (d) A description of the testing conditions and routes the physically disabled applicant will be driving for the licensed Nevada autonomous testing company if it is less than the full testing authority given to the company;*
 - (e) A description of the applicant's physical disability;*
 - (f) The driver's license number and State the applicant holds a current license in, if applicable; and*
 - (g) Provide to the satisfaction of the Department, documented proof from the licensed Nevada autonomous testing company that the physically disabled applicant has been hired to test their autonomous vehicles on our roadways.*
 - (h) Pursuant to NRS 482A.060, provide to the satisfaction of the Department documented proof that the licensed Nevada autonomous testing company has valid insurance coverage for the physically disabled applicant who will be test driving their vehicles.*
 - (i) Any other information requested by the Department.*
- (3) The company who holds the valid Nevada autonomous testing license must provide documentation to the Department outlining their training program for their physically disabled autonomous test driver and team.*
- (4) In addition to the requirements set forth in NAC 482A.110(3)(b), the disabled autonomous test driver applicant must provide documentation from the licensed Nevada autonomous testing company that the disabled test driver has logged, at a minimum, 50 hours of testing in approved autonomous test vehicle. The minimum driver hours can be completed in the following ways:*
- (a) 50 hours of driving on a race track or any private course that is not on a public roadway; or*
 - (b) 40 hours of subsection (a) and 10 hours of driver simulation training.*

Sec. 10.

(New) Factors for determining whether to issue a restricted autonomous testing driver's license.

1. Upon receipt of a completed application, the Department will consider the following factors in determining whether to issue a restricted autonomous testing driver's license, pursuant to section 9 of the proposed regulations:

- (a) The training provided by the licensed Nevada autonomous testing company to the applicant, pursuant to section 9, subsection 3 of the proposed regulations.*
- (b) The number of hours the disabled autonomous test driver has driven the vehicle and in what conditions, pursuant to section 9, subsection 4 of the proposed regulations.*
- (c) Any other information the Department may require to evaluate the application to ensure the safety of the test driver and community.*

Sec. 11.

(New) Denial of a Restricted Autonomous Testing Driver's License: Grounds.

The Department will deny an application for a restricted autonomous testing driver's license if:

- 1. The Department believes that in the best interest of the public's safety, the licensed Nevada autonomous testing company and/or applicant for the restricted autonomous testing driver's license has not provided sufficient proof that the vehicle can be operated safely on Nevada roadways.*

Sec. 12.

(New) Denial of a Restricted Autonomous Testing Driver's License: Notification by certified mail; appeal.

The Department will notify the applicant by certified mail of a denial of an application for a restricted autonomous testing driver's license issued pursuant to section 9 and 10 of the proposed regulations, and of the reason for the denial. The applicant may appeal the decision to the Department hearing officer within 30 days after receipt of the notice of denial.

Sec. 13.

(New) Contents of a Restricted Autonomous Testing Driver's License; expiration.

1. A restricted autonomous testing driver's license issued pursuant to sections 9 and 10 of the proposed regulations will contain the following information:

(a) Autonomous testing driving restrictions on the license, which will include, but not limited to:

- (1) The conditions under which the licensee may drive;*
- (2) The type of driving privilege authorized;*
- (3) The days and hours the licensee is permitted to drive; and*
- (4) The autonomous testing driving routes along which the licensee is permitted to drive; and*

(b) Any other applicable instructions.

2. Except as otherwise provided, unless the Department establishes an earlier date of expiration, the expiration date of the restricted autonomous testing driver's license issued pursuant to sections 9 and 10 shall be the same as the expiration date of the licensed Nevada

autonomous company who employs the restricted driver. The expiration date of the restricted autonomous testing driver's license shall not exceed 1 year from date of issuance.

Sec. 14.

(New) Restrictions on use of a Restricted Autonomous Testing Driver's License.

1. The holder of a restricted autonomous testing driver's license issued pursuant to sections 9 and 10 of the proposed regulations, shall not operate the autonomous test vehicle except:

(a) On scheduled days with the licensed Nevada autonomous testing company for the sole purpose of testing the autonomous technology within the vehicle;

(b) Along the approved autonomous testing locations and environmental conditions granted to the licensed Nevada autonomous testing company; and

(c) Pursuant to any other restrictions the Department may impose.

2. The holder of a restricted autonomous testing driver's license issued pursuant to sections 9 and 10 of the proposed regulations, shall not transport passengers in the autonomous test vehicle operated by him or her, unless it is an authorized employee of the licensed Nevada autonomous testing company.

Sec. 15.

(New) Renewal of a Restricted Autonomous Testing Driver's License prohibited; requirements for extension of license; examinations not required under certain circumstances.

1. The Department may annually renew a restricted autonomous testing driver's license issued pursuant to sections 9 and 10 of the proposed regulations.

2. The applicant must submit an application and supporting documentation pursuant to section 9 of the proposed regulations.

3. The restricted autonomous testing driver's license will expire 1 year from the date of issuance, and on the same date the test license expires for the licensed Nevada autonomous company who employs the restricted driver.

Sec. 16.

(New) Cancellation of a Restricted Autonomous Testing Driver's License.

The Department will cancel a restricted autonomous testing driver's license issued pursuant to sections 9 and 10 of the proposed regulations if:

1. The holder of the restricted autonomous testing driver's license:

(a) Is convicted of a moving violation or has his or her privilege to drive suspended, revoked or cancelled for any reason;

(b) Does not comply with the conditions of the restricted autonomous testing driver's license and the autonomous testing vehicle requirements of NAC 482A.100 to 180;

(c) Falsified any of the information on his or her application for the restricted autonomous testing driver's license;

(d) Is no longer insured under the licensed Nevada autonomous testing companies policy pursuant to NRS 482A.060; or

(e) Is no longer employed by the licensed Nevada autonomous testing company.

2. The Department becomes aware that the licensed Nevada autonomous testing company for which the restricted autonomous testing driver's license was issued no longer holds a license to test autonomous vehicles in the State.