

**PROPOSED REGULATION OF THE
DEPARTMENT OF MOTOR VEHICLES**

LCB File No. R084-11

(10/06/2011)

EXPLANATION – Matter *blue italicized* is new

AUTHORITY: Assembly Bill 511; NRS 483.220; 481.051

A REGULATION relating to definitions for autonomous technology; testing requirements; certification requirements; minimal safety requirements; driver’s license endorsement; registration requirements.

Chapter 483 of NAC is hereby amended by adding thereto a new section to read as follows:

Definitions

“Autonomous Technology” means artificial intelligence, sensors, and other technology installed on a vehicle to enable the vehicle to drive itself without the active control and continuous monitoring of a human operator.

“Autonomous Technology” does not include safety systems or driver assistance systems such as electronic blind spot assistance, crash avoidance and emergency braking systems, park assist, adaptive cruise control, lane keep assist, lane departure warning, or traffic jam and queuing assistant, unless such technology is capable of driving the vehicle without the active control or continuous monitoring of a human operator.

Chapter 482 of NAC is hereby amended by adding thereto a new section to read as follows:

Testing Autonomous Vehicles & Geographical Areas

Section 1. Autonomous Vehicles Testing License; Application;

- 1. Any person or business who wishes to test on Nevada highways any autonomous technology equipped on a vehicle that has not yet received a certificate of compliance pursuant to Section 1 of Chapter 487 of the NAC must first apply, on a form created by the Department, for the authorization to test such autonomous technology on Nevada highways.*
- 2. An application for autonomous technology testing must be on a form provided by the Department. In signing the application the applicant must affirm that the autonomous technology is safe to operate on a vehicle on Nevada highways and that the following safety requirements have been met:*

- a. *The vehicle must comply with the requirements established under NRS 484D.485 and the following:*
 - 1. *Have a mechanism that captures and stores the autonomous technology sensor data for the 30 second period of time prior to a collision between the autonomous vehicle and another vehicle, object or person, if the autonomous vehicle was operating in autonomous mode at the time of the collision;*
 - b. *The vehicle must have an engage/disengage switch that is easily accessible without detracting from focus on the road;*
 - c. *Any autonomous technology failure that is detected while the autonomous technology is engaged must safely alert the driver to take control of the vehicle;*
 - d. *The installation of autonomous technology on a vehicle must not hinder the other safety functions of the vehicle.*
- 3. *The Department shall charge a fee of \$100 for the issuance or renewal of a license to operate as a business engaged in testing autonomous technology. Fees collected by the Department pursuant to this subsection must be deposited with the State Treasurer for credit to the Motor Vehicle Fund.*
- 4. *A license expires 1 year from the date of issuance.*
- 5. *Two people must be physically present in the autonomous vehicle at all times during operation of the autonomous technology being tested. One person must be in the driver's seat at all times during such testing and the second person must be in the front passenger seat. Both people must actively monitor the autonomous technology functionality while it is engaged; and*
 - a. *Both people who are actively monitoring the autonomous technology functionality during testing must:*
 - 1. *Hold a valid Nevada driver's license, if a resident of this State,*
 - 2. *Hold a valid driver's license in any other State or jurisdiction if he/she is not a resident of this State.*
- 6. *Prior to testing, each person must be trained to operate the autonomous technology, and must be instructed on the autonomous technology's capabilities and limitations.*
- 7. *As defined by the Department, the applicant shall provide to the Department adequate proof that it has test driven one or more autonomous vehicles for a combined minimum of 10,000 miles in autonomous mode. The Department may deny the application if sufficient proof is not provided.*
- 8. *The Director or their designee must approve each application for testing and the applicant must demonstrate their technology to the Director or their designee as part of the application process. The Director or their designee may deny the application if the demonstration does not meet the requirement that will be established by the Department. The Director or their designee will develop guidelines which will be used to determine the geographical areas to be used for testing.*

Section 2. Autonomous Vehicle Testing Plates; Renewal; Insurance Requirements

- 1. *Any licensee who wishes to test an autonomous vehicle on Nevada highways must apply for plates for each vehicle.*
 - a. *For each set of plates\$12*

- b. *This fee is in lieu of any other fee specified in this chapter except the fee imposed by NRS 482.268.*
 - c. *The plates will expire 1 year after the date of business license issuance. The licensee may renew their registration by submitting to the Department:*
 - 1. *An application for renewal on a form provided by the Department and the fee for renewal of \$12 for each set of plates.*
 - 2. *Any licensee who wishes to operate for testing purposes an autonomous vehicle on any of the Nevada highways must continuously maintain and:*
 - a. *Provide proof of liability insurance that is equal to or greater than the minimum liability requirements for the State of Nevada:*
 - 1. *In the amount of \$15,000 for bodily injury to or death of one person in any one accident;*
 - 2. *Subject to the limit for one person, in the amount of \$30,000 for bodily injury to or death of two or more persons in any one accident; and*
 - 3. *In the amount of \$10,000 for injury to or destruction of property of others in any one accident,*
-  *for the payment of tort liabilities arising from the maintenance or use of the motor vehicle.*
- 3. *An operator's policy will not be accepted by the Department as proof of financial responsibility for an autonomous vehicle.*

Section 3. Surety Bond.

- 1. *Any applicant applying for vehicle testing must provide a surety bond or a deposit in lieu of the bond in the amount of \$1,000,000.*

Section 4. Denial, suspension or revocation of an autonomous vehicle testing license or refusal to renew: Grounds; disclosure of financial records.

- 1. *The Department may refuse to issue a license or may suspend, revoke or refuse to renew a license to operate as an autonomous testing business upon any of the following grounds:*
 - (a) *Conviction of the applicant or licensee or an employee of the applicant or licensee of a felony, or of a misdemeanor or gross misdemeanor for a violation of a provision of this chapter.*
 - (b) *Any material misstatement in the application for the license.*
 - (c) *Willful failure of the applicant or licensee to comply with the motor vehicle laws of this State.*
 - (d) *Failure or refusal by the licensee to pay or otherwise discharge any final judgment against the licensee arising out of the operation of the autonomous testing business.*
- 2. *If the Department has reasonable cause to believe that any model or version of autonomous technology presents an unsafe condition for operation on Nevada public roads, the Department may, pursuant to NRS 484D.570, prohibit that autonomous technology from being engaged in operation on Nevada public roads.*

Chapter 487 of NAC is hereby amended by adding thereto a new section to read as follows:

Autonomous Technology Certification Facility

Certificate of Compliance

Section 1. *Certificate of Compliance*

- 1. Upon the sale of an autonomous vehicle in the State of Nevada, the automobile dealer, which must be licensed to operate in Nevada under NRS Chapter 482, must provide to the buyer a written certificate of compliance affirming that the autonomous technology installed on such vehicle has been tested and that it complies with Section 1 of the Safety Requirements for Autonomous Vehicles. Such certificate shall be supplied to the dealer by either the automobile manufacturer of a vehicle originally produced with autonomous technology or it may be supplied by an Autonomous Technology Certification Facility.*
- 2. The Autonomous Technology Certification Facility also may test any autonomous vehicle without a valid certificate of compliance to determine that the autonomous technology installed on such vehicle complies with Section 1 of the Safety Requirements for Autonomous Vehicles, and may issue a written certificate of compliance to the owner of such vehicle.*

Section 2. *Autonomous Technology Certification Facility License: Application; bond; fee; Directors review and approval; issuance; contents; posting; expiration; renewal.*

- 1. An application for a license to operate an autonomous technology certification facility must be filed with the Department upon forms supplied by the Department. The application must include proof as the Department requires demonstrating that the applicant possesses the necessary knowledge and expertise to certify autonomous technology, and that the autonomous technology complies with Section 1 of the Safety Requirements for Autonomous Vehicles.*
- 2. The Department shall charge a fee of \$300 for the issuance or renewal of a license to operate an autonomous technology certification facility. Fees collected by the Department pursuant to this subsection must be deposited with the State Treasurer for credit to the Motor Vehicle Fund.*
- 3. Must provide a surety bond or a deposit in lieu of the bond in the amount of \$500,000.*
- 4. Prior to the license being issued to the applicant, the Department may inspect the facility and its capabilities.*
- 5. Upon receipt of the application and after the Directors review and approval, the Department shall issue to the applicant a license to operate an autonomous technology certification facility. The license must contain the name and the address of the autonomous technology certification facility and the name of the operator.*
- 6. Upon receipt of the license, the operator shall post the license in a conspicuous place clearly visible to the general public in the autonomous technology certification facility and include the license number on all estimates and invoices.*
- 7. A license expires on April 30 of each year.*
- 8. A licensee may renew his or her license by submitting to the Department:*

- (a) A completed application for renewal upon a form supplied by the Department;*
- (b) The fee for renewal of a license provided in subsection 2.*

Section 3. *Deny the issuance of a license; Suspension or revocation or refusal to renew a license: Grounds; Disclosure of financial records.*

- 1. The Director or his/her designee may deny the issuance of a license or may suspend, revoke or refuse to renew a license to operate an autonomous technology certification facility upon any of the following grounds:*
 - (a) Failure of the applicant or licensee to have or maintain an established place of business in this State.*
 - (b) Conviction of the applicant or licensee or an employee of the applicant or licensee of a felony, or of a misdemeanor or gross misdemeanor for a violation of a provision of this chapter.*
 - (c) Any material misstatement in the application for the license.*
 - (d) Willful failure of the applicant or licensee to comply with the motor vehicle laws of this State.*
 - (e) Failure or refusal by the licensee to pay or otherwise discharge any final judgment against the licensee arising out of the operation of the autonomous technology certification facility.*
 - (f) Failure or refusal to provide to the Department an authorization for the disclosure of financial records for the business as required pursuant to subsection 2.*
 - (g) The display of evidence of unfitness for a license pursuant to Section 4.*
- 2. Upon the receipt of any report or complaint alleging that an applicant or a licensee has engaged in financial misconduct or has failed to satisfy financial obligations related to the operation of an autonomous technology certification facility, the Department may require the applicant or licensee to submit to the Department an authorization for the disclosure of financial records for the business as provided in NRS 239A.090. The Department may use any information obtained pursuant to such an authorization only to determine the suitability of the applicant or licensee for initial or continued licensure. Information obtained pursuant to such an authorization may be disclosed to the Director and only to those employees of the Department who are authorized to issue a license to an applicant, or to determine the suitability of an applicant or a licensee for licensure.*

Section 4. *Evidence of unfitness of applicant, registrant or licensee.*

Evidence of unfitness of an applicant, registrant or licensee for purposes of denial, suspension or revocation of or failure to renew a license of an autonomous technology certification facility:

- 1. Defrauding or attempting to defraud the State or a political subdivision of the State of any taxes or fees in connection with the sale or transfer of a vehicle.*
- 2. Forging the signature of the registered or legal owner of an abandoned vehicle on any document that releases the interest of the owner in the abandoned vehicle.*
- 3. Forging the signature of the registered or legal owner of a vehicle on a certificate of title or other document to obtain or transfer ownership in that vehicle.*

4. *Refusing to allow any peace officer or agent of the state agency to inspect, during normal business hours, all books, records and files of the applicant, registrant or licensee which are maintained within the State.*
5. *Committing any fraud which includes, without limitation:*
 - (a) *Misrepresenting in any manner, whether intentional or grossly negligent, a material fact.*
 - (b) *Intentionally failing to disclose a material fact.*
6. *Willfully failing to comply with any regulation adopted by the Department.*

Section 5. *Temporary suspension of or refusal to renew license of an autonomous technology certification facility; notice; hearing; regulations;*

1. *If the Director finds that the action is necessary in the public interest, upon notice to the licensee, the Director may:*
 - (a) *Temporarily suspend or refuse to renew the license to operate an autonomous technology certification facility for not more than 30 days.*
2. *The Department shall conduct a hearing and issue a final decision on the matter within 30 days after it sends notice of the temporary suspension of a license of an autonomous technology certification facility.*

Section 6. *Licensee to inform Department of changes concerning operation of an autonomous technology certification facility; books and records.*

1. *Any person licensed to operate an autonomous technology certification facility shall inform the Department of the location of each place at which the person conducts business and the name under which the person does business at each location.*
2. *If a licensee does business at more than one location, the licensee shall designate one location as his or her principal place of business.*
3. *If a licensee changes the name or location of any of his or her established places of business, the licensee shall notify the Department of the change within 10 days after the change.*
4. *Every licensee shall keep his or her books and records at his or her principal place of business and shall permit any authorized agent of the Director to inspect them during usual business hours. The records must include the year, make, model and identification number of each motor vehicle which the autonomous technology certification facility certifies.*

Chapter 484 of NAC is hereby amended by adding thereto a new section to read as follows:

Safety Requirements for Autonomous Vehicles

Section 1. *Every autonomous vehicle must meet the following minimum safety requirements before it can be registered to operate on Nevada Highways pursuant to the Autonomous Registration Requirements in Chapter 482:*

1. *The vehicle must comply with the requirements established under NRS 484D.485 and the following:*

- a. *Have a mechanism that captures and stores the autonomous technology sensor data for the 30 second period of time prior to a collision between the autonomous vehicle and another vehicle, object or person, if the autonomous vehicle was operating in autonomous mode at the time of the collision.*
2. *The vehicle must have an engage/disengage switch that is easily accessible without detracting from focus on the road;*
3. *A vehicle with autonomous technology shall comply with the statutes and regulations applicable to operation of a vehicle on a highway:*
 - a. *Compliance with the statutes and regulations applicable to operation of a vehicle on a highway may be achieved with or without a driver depending on the capabilities of the vehicle's autonomous technology; and*
 - b. *If a driver is necessary due to limitations of the autonomous technology, the limitations must be defined in the autonomous technology's owner's manual; and*
 - c. *If a driver is not necessary, the autonomous technology shall be granted all of the rights and shall be subject to all of the duties applicable to the driver of a vehicle, except those provisions which by their nature can have no application.*
4. *Any autonomous technology failure that is detected while the autonomous technology is engaged must result in the following:*
 - a. *Safely alert the driver to take control of the vehicle; and*
 - b. *If the driver is unable to safely take control of the vehicle for whatever reason, or if a driver is not present, the autonomous technology shall cause the vehicle to safely come to a stop.*
5. *In an autonomous vehicle in which the driver is necessary, the vehicle must provide the driver the ability to take control of the vehicle using various mechanisms, which shall include at least the following:*
 - a. *The vehicle brake;*
 - b. *Accelerator pedal,*
 - c. *Steering wheel;**and the autonomous technology must alert the driver that the autonomous mode has been disengaged.*
6. *The installation of autonomous technology on a vehicle must not hinder the other safety functions of the vehicle.*
7. *Have a visual indicator inside the vehicle indicating to the driver that the vehicle is engaged in an autonomous mode.*

Chapter 483 of NAC is hereby amended by adding thereto a new section to read as follows:

Driver's License Endorsement

Section 1. Driver's License Endorsement; Fees

1. *If a driver wishes to engage the autonomous technology on a vehicle the driver must apply with the Department for an autonomous vehicle endorsement as outlined in NRS and NAC Chapter 483.*
2. *Every application for an autonomous vehicle endorsement must:*
 - a. *Be made upon a form furnished by the Department.*
 - b. *Be signed either by a notary or Department representative.*
 - c. *Be accompanied by the required fee.*
 - d. *Include such other information as the Department may require to determine the competency and eligibility of the applicant.*
3. *For every autonomous vehicle endorsement to a driver's license, a fee of \$5 must be charged.*

Section 2. NAC 483.110 Drivers' licenses: Classifications; miscellaneous restrictions and endorsements. (NRS 481.051, 483.220, 483.235, 483.908)

1. The holder of a Class A noncommercial driver's license may drive:
 - (a) Any combination of vehicles with a gross combination weight rating of 26,001 or more pounds, if the gross vehicle weight rating of the trailing vehicle is more than 10,000 pounds;
 - (b) Any combination of vehicles not exceeding 70 feet in length with a gross combination weight rating of 26,000 pounds or less so long as the gross combination weight rating of the towed vehicles does not exceed the gross vehicle weight rating of the towing vehicle; or
 - (c) A vehicle falling within Class B or Class C, but may not drive a motorcycle unless the holder obtains an appropriate endorsement.
2. The holder of a Class B driver's license may drive any single vehicle with a gross vehicle weight rating of 26,001 or more pounds, or any vehicle which is towing another vehicle which does not have a gross vehicle weight rating of more than 10,000 pounds, and all vehicles falling within Class C, but may not drive a motorcycle unless the holder obtains an appropriate endorsement.
3. The holder of a Class C driver's license may drive any single vehicle, or combination of vehicles, that does not meet the definition of a vehicle for which a Class A or Class B driver's license is required, including, without limitation, any single vehicle, or combination of vehicles, that either is designed to transport 16 or more passengers, including the driver, or is used in the transportation of materials found to be hazardous for the purposes of the Hazardous Materials Transportation Act and which require the motor vehicle to be placarded under the Hazardous Materials Regulations, 49 C.F.R. Part 172, Subpart F, a moped or a low-speed vehicle, but the holder of a Class C driver's license may not:
 - (a) Drive a motorcycle, unless the holder obtains an appropriate endorsement;
 - (b) Tow a vehicle with a gross vehicle weight rating of more than 10,000 pounds, unless the holder obtains a J endorsement;
 - (c) Drive a combination of vehicles with a gross combination weight rating of less than 10,000 pounds, unless the holder obtains an R endorsement; or
 - (d) Drive a combination of vehicles exceeding 70 feet in length.
4. The Department may place a restriction 1 on a Class A, Class B or Class C driver's license if the holder of the driver's license does not pass a knowledge test and a driving skills test in a vehicle which is equipped with air brakes.

5. In addition to the tests authorized by chapter 483 of NRS, the holder of a driver's license may be required to pass a driving skills test in an appropriate vehicle to receive an endorsement authorizing the holder to drive a specific type of vehicle.

6. The holder of a driver's license who is exempt from the requirements of NRS 483.900 to 483.940, inclusive, and NAC 483.800 to 483.850, inclusive, pursuant to the provisions of subsection 1 or 2 of NAC 483.850, may operate a vehicle described in subsection 1 or 2 of NAC 483.850 only if the holder obtains an F endorsement on his or her driver's license.

7. The holder of a Class M driver's license may drive a motorcycle, trimobile or moped. The holder of a Class A, Class B or Class C driver's license may drive a motorcycle only if the holder obtains a Class M endorsement on his or her driver's license.

8. An applicant who is administered a test of driving ability on a motorcycle which does not exceed 6 1/2 horsepower or a displacement of 90 cubic centimeters will be issued a Class M driver's license with a U restriction.

9. An applicant who is administered a test of driving ability on a motorcycle which has three wheels in contact with the ground will be issued a Class M driver's license with an X restriction.

10. An applicant who is administered a test of driving ability on a moped will be issued a Class M driver's license with a Z restriction. A Class M driver's license with a Z restriction does not authorize the operation of any other motor vehicle.

11. An applicant who is administered a test of driving ability in a low-speed vehicle will be issued a Class C driver's license with an X restriction. The Department will indicate on the back of such a driver's license that the holder may not drive a vehicle on a highway where the posted speed limit is greater than 35 miles per hour, except to cross a highway at an intersection.

12. As used in this section, unless the context otherwise requires:

(a) "Gross combination weight rating" means:

(1) The weight specified by the manufacturer of a vehicle as the combined loaded weight of that vehicle and a trailing vehicle; or

(2) If the manufacturer fails to specify a weight, the sum of the gross vehicle weight rating of the power unit, the weight of the trailing vehicle and the weight of any load thereon.

(b) "Gross vehicle weight rating" means the weight specified by the manufacturer as the loaded weight of a single vehicle.

(c) "Low-speed vehicle" has the meaning ascribed to it in NRS 484.527.

(d) "Moped" has the meaning ascribed to it in NRS 486.038.

(e) "Motorcycle" has the meaning ascribed to it in NRS 486.041.

(f) "Trimobile" has the meaning ascribed to it in NRS 486.057.

13. The holder of a Nevada driver's license with an endorsement G may engage the autonomous technology on a vehicle but is not required to actively drive and is not required to be in the vehicle if the vehicle is capable of operating without the physical presence of a driver.

Chapter 482 of NAC is hereby amended by adding thereto a new section to read as follows:

Autonomous Vehicle Registration Requirements

Section 1. *Autonomous Vehicle Registration Requirements.*

- 1. Any person or business who is registering an autonomous vehicle in the State of Nevada must:*
 - a. Furnish a valid certificate of compliance specified in Chapter 487 of the NAC; and*
 - b. Comply with all other vehicle registration requirements as defined in NRS and NAC 482; and*
 - c. Comply with all vehicle insurance requirements as defined in NRS and NAC 485.*
 - 1. An operator's policy will not be accepted by the Department as proof of financial responsibility for an autonomous vehicle.*
- 2. As a result of meeting all requirements pursuant to subsection 1, the Department will issue a set of autonomous vehicle license plates with no additional fee required.*