

**PROPOSED REGULATION OF THE
STATE ENVIRONMENTAL COMMISSION**

LCB File No. R130-09

October 14, 2009

EXPLANATION – Matter in *italics* is new; matter in brackets [~~omitted material~~] is material to be omitted.

AUTHORITY: §§1, 2 and 4-6, NRS 445B.210 and 445B.770; §3, NRS 445B.210, 445B.760 and 445B.770; §§7 and 8, NRS 445B.210, 445B.760, 445B.770 and 445B.825; §9, NRS 445B.210 and 445B.760; §10, NRS 445B.210 and 445B.780.

A REGULATION relating to vehicle emissions; requiring a test station and an approved inspector to obtain a license with a “D” rating to test the exhaust emissions of certain heavy-duty motor vehicles that are powered by diesel engines; requiring the equipment for the measurement of smoke opacity from those motor vehicles to include a dynamometer and a smoke opacity meter; making various other changes concerning the procedure for testing those motor vehicles; specifying the standards for exhaust emissions that are applicable to a reconstructed vehicle and a trimobile; and providing other matters properly relating thereto.

Section 1. NAC 445B.460 is hereby amended to read as follows:

445B.460 1. No person may engage in the business of issuing evidence of compliance unless he holds a current license to operate a test station at an established place of business and holds one or both of the ratings set forth in subsection 3.

2. A license that:

(a) Was issued for a test station before September 25, 1998, expires on September 30 of each calendar year.

(b) Is issued on or after September 25, 1998, expires 1 year after the last day of the month in which the license was originally issued.

3. A test station must obtain from the Department:

(a) A “G” rating if it will be testing the exhaust emissions of gasoline-powered motor vehicles. A test station with a “G” rating shall, when conducting inspections of motor vehicles subject to the provisions of NAC 445B.580, use an exhaust gas analyzer that complies with the equipment specifications published by the Department for this rating and at least one approved inspector who has a “G” rating to perform the exhaust emissions tests.

(b) A “D” rating if it will be testing the exhaust emissions of ~~High-duty~~ :

(1) Light-duty diesel motor vehicles ~~[-]~~; *or*

(2) Heavy-duty motor vehicles that are powered by diesel engines and have a manufacturer’s gross vehicle weight rating which does not exceed 14,000 pounds.

↳ A test station with a “D” rating shall, when conducting inspections of motor vehicles subject to the provisions of NAC 445B.589, use a dynamometer and a smoke opacity meter that comply with the requirements of NAC 445B.587 and at least one approved inspector who has a “D” rating to perform the exhaust emissions tests.

4. A facility which holds a license as an authorized inspection station or class 1 fleet station:

(a) Except as otherwise provided in this subsection, may test exhaust emissions but shall not, unless specifically authorized by the Commission, perform any installation, repair, diagnosis or adjustment to any component or system of a motor vehicle that affects exhaust emissions.

(b) May:

(1) Change oil;

(2) Replace an oil filter, air filter, fuel filter, external conventional or serpentine accessory drive belt or cooling system hose; and

(3) With regard to a vehicle with a model year of 1980 or older which has not failed its most recent exhaust emissions test administered in this State:

(I) Replace the spark plugs, secondary cables for the spark plugs, distributor cap, rotor, points or condenser of the vehicle; and

(II) Adjust the dwell and initial ignition timing of the engine of the vehicle, and the settings for idle speed if those settings are accessible.

(c) With regard to a vehicle with a model year of 1981 or newer, shall not perform any service or diagnostic action which has a direct effect on data stored in the vehicle computer which monitors how the engine, transmission or emission control system is operating, including, without limitation, the clearing of diagnostic trouble codes relating to the engine, transmission or emission control system.

5. An authorized inspection station shall not advertise any services which it provides for the testing of exhaust emissions with any services described in subparagraph (3) of paragraph (b) of subsection 4 that the authorized inspection station also provides.

6. A person licensed to operate a test station shall not own or hold any ownership interest in any business which manufactures, sells, repairs, rents or leases exhaust gas analyzers approved by the Department for the testing of exhaust emissions.

7. A person or business which manufactures, sells, repairs, rents or leases exhaust gas analyzers approved by the Department for the testing of exhaust emissions shall not own or hold any ownership interest in any business licensed to operate a test station.

8. An authorized inspection station or class 1 fleet station must not be located immediately adjacent to any business which performs any installation, repair, diagnosis or adjustment of a component or system of a motor vehicle that affects exhaust emissions unless:

(a) The facility for the station is physically separated from the adjacent facility;

(b) The facility for the station and the adjacent facility have separate entrances for customers and do not share any common doors or entries between the facilities;

(c) The adjacent facility has no access to the physical space in which testing occurs at the facility for the station;

(d) No employee of the adjacent facility is employed by the station; and

(e) The facility for the station and the adjacent facility have separate mailing addresses.

9. A facility that holds a license as an authorized inspection station or class 1 fleet station may perform the servicing of a fuel injection system only by using a method that:

(a) Utilizes a cleaning solvent for the fuel system that is registered as a fuel additive with the United States Environmental Protection Agency in accordance with the requirements of 40 C.F.R. Part 79;

(b) Introduces the cleaning solvent into the fuel tank and no other portion of the vehicle's fuel system or air intake system; and

(c) Does not involve the dismantling, removal or adjustment of any portion of the fuel system or air intake system other than the fuel inlet cap.

Sec. 2. NAC 445B.498 is hereby amended to read as follows:

445B.498 1. A person shall not perform any emission inspection for the purpose of issuing evidence of compliance unless he is currently licensed by the Department as an approved inspector.

2. Each license issued to an approved inspector expires 24 months after the date on which the license is issued.

3. Each approved inspector must have one or both of the following license ratings:

(a) A “G” rating to perform certified on-board diagnostic system and two-speed emissions inspections on gasoline-powered motor vehicles using the procedures set forth in NAC 445B.580.

(b) A “D” rating to perform light-duty *or heavy-duty* diesel emissions inspections using the procedures set forth in NAC 445B.589.

Sec. 3. NAC 445B.576 is hereby amended to read as follows:

445B.576 1. A person shall not operate a motor vehicle powered by gasoline which emits smoke.

2. Except as otherwise provided in subsection 3, visible emissions of diesel-powered motor vehicles or special mobile equipment manufactured:

(a) Before January 1, 1970, must not exceed an opacity of 40 percent for more than 15 consecutive seconds or for periods aggregating more than 5 minutes in any 1 hour.

(b) On or after January 1, 1970, must not exceed an opacity of 20 percent for more than 15 consecutive seconds or for periods aggregating more than 5 minutes in any 1 hour.

3. For the purpose of compliance with the inspection and maintenance program of this State required by subsection 1 of NRS 445B.795, visible emissions of light-duty motor vehicles powered by diesel engines *and heavy-duty motor vehicles that are powered by diesel engines and have a manufacturer’s gross vehicle weight rating which does not exceed 14,000 pounds* must not exceed an opacity of:

(a) Thirty percent at an elevation of less than 4,000 feet above mean sea level for more than 5 consecutive seconds or for periods aggregating more than 5 minutes in any 1 hour; or

(b) Forty percent at an elevation of 4,000 feet or more above sea level for more than 5 consecutive seconds or for periods aggregating more than 5 minutes in any 1 hour.

4. Except as otherwise provided in this subsection, a person shall not idle the engine of a diesel truck or a bus for more than 15 consecutive minutes. The provisions of this subsection do not apply to a diesel truck or a bus:

(a) For which the Commission has issued a variance from the requirements of this subsection. A variance is not effective during an air pollution emergency as defined in the air quality plan for the State of Nevada.

(b) Which is an emergency vehicle.

(c) Used for the removal of snow.

(d) Used to repair or maintain other motor vehicles.

(e) Which is stopped because of traffic congestion while in transit on a highway, roadway or street.

(f) Which is idling while a repair or maintenance is being performed on it at a shop or facility for the repair and maintenance of motor vehicles.

(g) The emission from which is contained and treated by a method approved by the Commission.

(h) The engine of which must idle to perform a specific task for which it is designed such as well drilling, trenching or hoisting. Such a diesel truck or a bus may not idle for more than 15 consecutive minutes during an air pollution emergency as defined in the air quality plan for the State of Nevada.

5. As used in this section, “mean sea level” means the average level of the sea between high and low tide.

Sec. 4. NAC 445B.587 is hereby amended to read as follows:

445B.587 1. Equipment for the measurement of smoke opacity from ~~High-duty~~:

(a) *Light-duty* motor vehicles *that are* powered by diesel engines ; *and*

(b) *Heavy-duty motor vehicles that are powered by diesel engines and have a manufacturer's gross vehicle weight rating which does not exceed 14,000 pounds,*

↳ must include a dynamometer and a smoke opacity meter.

2. The dynamometer must have:

(a) The capacity to absorb a minimum of 100 horsepower.

(b) A mechanism for controlling the load that is capable of:

(1) Infinitely variable settings throughout the load and speed range from no-load to full-load;

(2) Being set at a load or speed and, until deactivated, maintaining a preset setting without additional input from the load controller; and

(3) Being operated in the following function modes:

(I) Constant speed;

(II) Constant torque;

(III) Constant horsepower; and

(IV) Manual absorber.

(c) Computer controls which include, without limitation:

(1) A model 286 12-megahertz central processing unit;

(2) A 256 kilobyte video graphic array color card;

(3) A 1.44 megabyte floppy drive;

(4) Five hundred and twelve kilobytes of random access memory;

(5) Parallel printer interface; and

(6) Digital and analog data acquisition interface.

- (d) A minimum roller diameter of 8.5 inches.
- (e) One hundred and fifteen volt AC single phase 60 Hz power.
- (f) A weight limit of 6,000 pounds per axle.
- (g) A provision for checking the accuracy of the calibration of the dynamometer in the field, including, without limitation, an electrical output signal, interface and attendant instrumentation. Equipment, tools and procedures recommended or specified by the manufacturer for the calibration and adjustment of the dynamometer must be available.

3. The smoke opacity meter must have:

- (a) Calibration accuracy within 1 percent.
- (b) Linearity within 1 percent, from 0 to 60 percent opacity.
- (c) Drift within 1 percent of the temperature range specified by the manufacturer.
- (d) A response time of less than 2 seconds from 0 to 90 percent of scale.
- (e) A warm-up time of not more than 10 minutes.
- (f) An operating temperature range from 32 to 120 degrees Fahrenheit.
- (g) One hundred and fifteen volts AC input, if operated from alternating current.
- (h) Batteries which are replaceable or rechargeable, and which allow for the operation of the smoke opacity meter without AC input.
- (i) A RS232C standardized serial interface.
- (j) The ability to measure exhaust opacity continuously.

Sec. 5. NAC 445B.588 is hereby amended to read as follows:

445B.588 A list of equipment approved for testing light-duty motor vehicles *that are* powered by diesel engines and *heavy-duty motor vehicles that are powered by diesel engines and have a manufacturer's gross vehicle weight rating which does not exceed 14,000 pounds,*

including specifications for that equipment , will be on file with the Department. A copy of the list may be obtained by writing to:

Department of Motor Vehicles
Division of Management Services and Programs
555 Wright Way
Carson City, Nevada 89711

Sec. 6. NAC 445B.589 is hereby amended to read as follows:

445B.589 1. An inspector shall comply with the following procedure when testing a light-duty motor vehicle *that is* powered by a diesel engine ~~or~~ *or a heavy-duty motor vehicle that is powered by a diesel engine and has a manufacturer's gross vehicle weight rating which does not exceed 14,000 pounds:*

(a) The test procedure must include, without limitation, a preparation phase, a tampering inspection phase and an opacity test phase.

(b) In the preparation phase:

(1) The vehicle must be placed on a dynamometer, the transmission must be placed in neutral and the vehicle must be properly restrained to prevent any rolling motion.

(2) The inspector may place an auxiliary cooling fan into position approximately 12 inches in front of the cooling system of the motor vehicle.

(3) The inspector shall then affix a smoke opacity meter which has been calibrated and zeroed to the exhaust system of the vehicle according to the recommendations of the

manufacturer of the meter. Vehicles with dual exhaust configurations must have the smoke opacity meter attached to the exhaust pipe displaying the highest observed opacity.

(4) If an exhaust removal system is used, it must be installed so that all of the exhaust from the vehicle being tested is passed through the smoke opacity meter.

(c) In the tampering inspection phase, the inspector shall visually inspect:

(1) All vehicles with a model year of 1981 or newer to ensure that all equipment for emission control which is listed on the manufacturer's emission label is present and appears to be operational; and

(2) All vehicles to verify the presence of a properly installed fuel cap.

(d) During the opacity test phase, the inspector shall:

(1) Verify that the vehicle is at normal operating temperature before beginning the test. If the vehicle has cooled down below its normal operating temperature during its placement on the dynamometer, it must be operated until its normal operating temperature is reached.

(2) Test vehicles with varying engine sizes under the following speed and load conditions:

	Speed	Load
Number of Cylinders	(± 4 miles per hour)	(± 1 horsepower)
4	40	7.0
6	40	15.0
8	40	30.0

(3) Maintain the required speed and load condition on the vehicle being tested for 10 seconds. The engine opacity must be stored and printed at the end of the 10-second interval.

2. The inspector shall issue a certificate of compliance indicating the results of the test. The printout from the opacity meter must be provided with the certificate of compliance. The test is complete if the vehicle passes the tampering inspection phase and the results of the opacity test phase comply with the standards set forth in NAC 445B.576. A vehicle which exceeds the opacity standards or which fails the tampering inspection phase must be considered to have failed the inspection, and the inspector shall issue a certificate of compliance reflecting the failure.

3. A vehicle which fails the tampering inspection phase or the opacity test must be repaired and retested.

4. If a motor vehicle subject to the provisions of this section passes all portions of an inspection but has an improper fuel cap or no fuel cap, the owner or operator of the motor vehicle shall obtain a fuel cap which is in accordance with the specifications of the manufacturer of the vehicle. The inspector shall inspect the new fuel cap and certify its presence in a manner prescribed by the Department, and sign and date the failing vehicle inspection report beneath the fuel cap tamper description. Such a vehicle inspection report may be used as evidence of compliance.

Sec. 7. NAC 445B.590 is hereby amended to read as follows:

445B.590 1. Only the Department may grant a waiver:

(a) From the standards for emissions as set forth in:

(1) Subsection 3 of NAC 445B.576; or

(2) NAC 445B.596; or

(b) For a motor vehicle that fails an inspection pursuant to paragraph (b) of subsection 4 of NAC 445B.5805.

2. An application for a waiver from the provisions of NAC 445B.596 for a motor vehicle powered by gasoline that is subject to an inspection pursuant to:

(a) NAC 445B.594 must include receipts from an authorized station that at least \$200 has been spent on parts other than a catalytic converter, fuel inlet restricter or air injection system or on labor other than emission testing if the repairs evidenced by the receipt were directly related to the deficiency in emissions. If the vehicle is repaired by the owner, the application must include receipts or other evidence that at least \$200 has been spent on parts other than a catalytic converter, fuel inlet restricter or air injection system purchased within 14 calendar days after the initial emissions test. No allowance will be permitted for labor on vehicles repaired by the owner.

(b) NAC 445B.593 must include receipts from an authorized station that at least \$450 has been spent on parts other than a catalytic converter, fuel inlet restricter or air injection system or on labor other than emission testing if the repairs evidenced by the receipt were directly related to the deficiency in emissions.

3. Except as otherwise provided in subsection 4, an application for a waiver for a light-duty motor vehicle powered by a diesel engine *or a heavy-duty motor vehicle that is powered by a diesel engine and has a manufacturer's gross vehicle weight rating which does not exceed 14,000 pounds* from the provisions of subsection 3 of NAC 445B.576 must include:

(a) A copy of the original certificate indicating that the vehicle failed to comply with the provisions of subsection 3 of NAC 445B.576; and

(b) Receipts or other evidence that at least \$750 has been spent on:

(1) Parts other than required emission control equipment; or

(2) Labor other than emission testing if the repairs evidenced by the receipt were directly related to the deficiency in emissions.

↪ Receipts must be dated within 14 calendar days after the date of issuance of the certificate indicating that the vehicle failed to comply with subsection 3 of NAC 445B.576.

4. If the owner of a ~~light-duty~~ motor vehicle ~~powered by a diesel engine~~ *specified in subsection 3* repairs the vehicle, an application for a waiver from the provisions of subsection 3 of NAC 445B.576 must include:

(a) A copy of the original certificate indicating that the vehicle failed to comply with the provisions of subsection 3 of NAC 445B.576; and

(b) Receipts or other evidence that at least \$500 has been spent on parts other than required emission control equipment. No allowance will be permitted for labor on a vehicle repaired by the owner.

↪ Receipts must be dated within 14 calendar days after the date of issuance of the certificate indicating that the vehicle failed to comply with subsection 3 of NAC 445B.576.

5. In addition to any information required pursuant to subsection 2, an application for a waiver for a motor vehicle that fails an inspection pursuant to paragraph (b) of subsection 4 of NAC 445B.5805 must include:

(a) A copy of the original certificate indicating the motor vehicle failed the inspection; and

(b) Any other information required by the Department.

6. The Department will deny an application for a waiver if the parts have not been installed or the repairs performed as indicated on the receipts presented to the Department.

7. The Department will allow registration of the vehicle if:

(a) The provisions of NAC 445B.582 have been complied with; and

(b) The Department finds after inspection that additional costs exceeding the minimum established in this section are needed to bring the vehicle into compliance.

8. A vehicle which qualifies for repairs under a warranty is not eligible for a waiver.

9. A waiver permits the registration of the vehicle.

Sec. 8. NAC 445B.592 is hereby amended to read as follows:

445B.592 The provisions of subsection 3 of NAC 445B.576 and NAC 445B.593 to 445B.596, inclusive, do not apply to any:

1. Motorcycle or moped.
2. Motor vehicle which is subject to prorated registration pursuant to NRS 706.801 to 706.861, inclusive, and is not based in this State.
3. New motor vehicle until the third registration of the vehicle.
4. Motor vehicle permanently converted from gasoline to propane, compressed natural gas (CNG), methane or butane as a fuel.
5. Motor vehicle with a model year before 1968.
6. Heavy-duty motor vehicle which has a manufacturer's gross vehicle weight rating of more than ~~10,000~~ **14,000** pounds and which is powered by a diesel engine.

7. *Trimobile, as defined in NRS 482.129, that meets the definition of a motorcycle set forth in 40 C.F.R. § 86.402-78 or 86.402-98.*

Sec. 9. NAC 445B.596 is hereby amended to read as follows:

445B.596 1. Each motor vehicle powered by gasoline with a model year of 1968 to 1995, inclusive, and, with regard to motor vehicles with a model year of 1996 or newer, each heavy-duty motor vehicle powered by gasoline, that is subject to an inspection pursuant to NAC 445B.593, 445B.594 or 445B.595 must not have:

(a) Smoke in its emissions from its exhaust or crankcase when the prescribed procedure for the testing is used.

(b) Carbon monoxide or hydrocarbon, or both, in its emissions from its exhaust in excess of the limits set forth in subsection 3 or 4.

2. The measurements required by subsection 1 must be made with an approved exhaust gas analyzer and under the prescribed procedure. The engine must be at normal operating temperature, but if it has been operating at an idle for more than 5 minutes, it must be purged before the measurement is taken.

3. The following standards apply to light-duty motor vehicles subject to subsection 1:

Model Year	Maximum CO%	Maximum HC(PPM)
1968-1969	4.0	800
1970-1974	3.5	700
1975-1978	2.5	500
1979-1980	2.0	500
1981-1995	1.2	220

4. The following standards apply to heavy-duty motor vehicles subject to subsection 1:

Model Year	Maximum CO%	Maximum HC(PPM)
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1968-1969	7.0	1400
1970-1978	6.0	1400
1979	5.0	1000
1980	4.0	1000
1981 and newer	3.5	1000

5. Standards for exhaust emissions which apply to a:

(a) Reconstructed vehicle, as defined in NRS 482.100; and

(b) Trimobile, as defined in NRS 482.129, which does not meet the definition of a motorcycle set forth in 40 C.F.R. § 86.402-78 or 86.402-98,

↪ are those standards which were in effect during the year in which the engine of the reconstructed vehicle or trimobile was built.

Sec. 10. NAC 445B.749 is hereby amended to read as follows:

445B.749 “Heavy-duty motor vehicle” means a motor vehicle having a manufacturer’s gross vehicle weight rating of ~~8,500~~ **14,001** pounds or more.