

**ADOPTED REGULATION OF THE  
STATE BOARD OF AGRICULTURE**

**LCB File No. R080-20**

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

AUTHORITY: §§1 and 4, NRS 561.105; §2, NRS 561.105, 590.040 and 590.080; §§3 and 6-13, NRS 561.105 and 590.070; §5, NRS 590.070 and 590.073.

A REGULATION relating to engine products; establishing standards for the viscosity grade classification of motor oil; establishing standards for certain types of diesel fuel; updating the titles of certain standards adopted by reference by the State Board of Agriculture; updating the purchase prices for certain standards adopted by reference by the Board; establishing antiknock index requirements for certain types of gasoline and blends of gasoline and oxygenate; and providing other matters properly relating thereto.

**Legislative Counsel’s Digest:**

Existing law requires all motor oil sold in this State to: (1) have a label that identifies the viscosity grade classification of the motor oil; and (2) meet the specifications for engine oil performance and engine service classification set by SAE International. (NRS 590.040, 590.080) **Section 2** of this regulation adopts by reference the most recent standards for viscosity grade classifications and the specifications for engine oil performance and engine service classification published by SAE International.

Existing law requires the State Board of Agriculture to adopt regulations regarding specifications for motor vehicle fuel. (NRS 590.070) **Section 3** of this regulation establishes certain standards for diesel fuel labeled “premier,” “premium,” “super” or “supreme” on retail dispensers.

Under existing regulations, the Board has adopted by reference ASTM D975, “Standard Specification for Diesel Fuel Oils” as published by ASTM International. (NAC 590.050, 590.051) **Sections 6 and 7** of this regulation: (1) update the name of that standard to ASTM D975, “Standard Specification for Diesel Fuel” to reflect a name change approved by ASTM International; (2) update the purchase price for that publication; and (3) make conforming changes.

Under existing regulations, the Board has adopted by reference ASTM D6751, “Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels” and ASTM

D7467, “Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20).” (NAC 590.051) **Section 7** of this regulation updates the purchase prices for those publications.

Under existing regulations, the Board has adopted by reference ASTM D5797, “Standard Specification for Fuel Methanol (M70-M85) for Automotive Spark-Ignition Engines.” (NAC 590.052) **Section 8** of this regulation updates the name of that standard to ASTM D5797, “Standard Specification for Methanol Fuel Blends (M51-M85) for Methanol-Capable Automotive Spark-Ignition Engines.”

Under existing regulations, the Board has adopted by reference ASTM D5798, “Standard Specification for Ethanol Fuel Blends for Flexible-Fuel Automotive Spark-Ignition Engines.” (NAC 590.053) **Section 9** of this regulation updates the purchase price for that publication.

Under existing regulations, the Board has adopted by reference ASTM D2650, “Standard Test Method for Chemical Composition of Gases By Mass Spectrometry.” (NAC 590.054) **Section 10** of this regulation updates the purchase price for that publication.

Existing regulations require a person who sells motor vehicle fuel that contains manganese or any other compound containing manganese to post a label on the pump or dispensing device that satisfies certain requirements. (NAC 590.059) **Section 11** of this regulation updates the address for the office of the Division of Consumer Equitability of the State Department of Agriculture where a person may obtain such labels free of charge.

Existing law requires the Board to adopt regulations that establish specifications that ensure motor vehicle fuel is of a sufficient quality for appropriate performance. (NRS 590.070) **Section 12** of this regulation establishes antiknock index standards for gasoline and blends of gasoline and oxygenate.

Under existing regulations, the Board has adopted by reference ASTM D4814 “Standard Specification for Automotive Spark-Ignition Engine Fuel” contained in the *Annual Book of ASTM Standards* published by ASTM International. (NAC 590.065) **Section 13** of this regulation updates the purchasing price for that publication and the name of a table from that publication.

**Section 1.** Chapter 590 of NAC is hereby amended by adding thereto the provisions set forth as sections 2 and 3 of this regulation.

**Sec. 2. 1.** *The State Board of Agriculture hereby adopts by reference the most recent version of the following standards published by SAE International:*

*(a) SAE J183, “Engine Oil performance and Engine Service Classification”; and*

*(b) SAE J300, “Engine Oil Viscosity Classification.”*

*2. Each new revision of the standards adopted by reference in subsection 1 shall be deemed approved by the Board unless the revision is disapproved by the Board or its designee within 120 days after the date of publication of the revision by SAE International. A copy of each standard is available for inspection pursuant to NAC 590.045 and may be purchased from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, or at the Internet address <http://www.sae.org> for the price of \$83.*

*3. All motor oil offered for sale in this State must meet the standard set forth in SAE J183. Motor oil offered for sale in this State that is labeled with a viscosity grade specification must also meet the standard of that specification pursuant to SAE J300.*

*4. Any other test method may be used if the State Sealer of Consumer Equitability determines that another method produces results equivalent to the results of the specified method. A method approved by SAE International or ASTM International that has not yet been published shall be deemed to meet the appropriate criteria.*

**Sec. 3. 1.** *The State Board of Agriculture hereby adopts by reference the most recent version of the standards set forth in paragraphs (a) to (k), inclusive, as set forth in the Annual Book of ASTM Standards published by ASTM International. Each new revision of the standards set forth in paragraphs (a) to (k) shall be deemed approved by the Board unless the revision is disapproved by the Board or its designee within 120 days after the date of publication of the revision by ASTM International. A copy of each standard is available for inspection pursuant to NAC 590.045 and may be purchased from ASTM International, 100*

*Barr Harbor Drive, P.O. Box C700, West Conshohocken, Pennsylvania 19428-2959, or at the Internet address <http://www.astm.org>, for the following prices:*

- (a) ASTM D975, “Standard Specification for Diesel Fuel” for the price of \$75;*
- (b) ASTM D613, “Standard Test Method for Cetane Number of Diesel Fuel Oil” for the price of \$58;*
- (c) ASTM D6890, “Standard Test Method for Determination of Ignition Delay and Derived Cetane Number (DCN) of Diesel Fuel Oils by Combustion in a Constant Volume Chamber” for the price of \$58;*
- (d) ASTM D7668, “Standard Test Method for Determination of Derived Cetane Number (DCN) of Diesel Fuel Oils—Ignition Delay and Combustion Delay Using a Constant Volume Combustion Chamber Method” for the price of \$58;*
- (e) ASTM D2500, “Standard Test Method for Cloud Point of Petroleum Products and Liquid Fuels” for the price of \$52;*
- (f) ASTM D4539, “Standard Test Method for Filterability of Diesel Fuels by Low-Temperature Flow Test (LTFT)” for the price of \$52;*
- (g) ASTM D6371, “Standard Test Method for Cold Filter Plugging Point of Diesel and Heating Fuels” for the price of \$52;*
- (h) ASTM D6079, “Standard Test Method for Evaluating Lubricity of Diesel Fuels by the High-Frequency Reciprocating Rig (HFRR)” for the price of \$52;*
- (i) ASTM D7688, “Standard Test Method for Evaluating Lubricity of Diesel Fuels by the High-Frequency Reciprocating Rig (HFRR) by Visual Observation” for the price of \$52;*

*(j) ASTM D7548 “Standard Test Method for Determination of Accelerated Iron Corrosion in Petroleum Products” for the price of \$58; and*

*(k) ASTM D2068, “Standard Test Method for Determining Filter Blocking Tendency” for the price of \$52.*

*2. The State Board of Agriculture hereby adopts by reference the most recent version of NACE TM0172, “Determining Corrosive Properties of Cargoes in Petroleum Product Pipelines” published by NACE International. Each new revision of that standard shall be deemed approved by the Board unless the revision is disapproved by the Board or its designee within 120 days after the date of publication of the revision. A copy of the standard is available for inspection pursuant to NAC 590.045 and may be purchased from NACE International, 15835 Park Ten Place, Houston, Texas 77084, or at the Internet address <http://nace.org>, for the price of \$79.*

*3. Any diesel fuel identified on retail dispensers as “premier,” “premium,” “super” or “supreme”:*

*(a) Must have a cetane number of 47 or more as determined by ASTM D613, ASTM D6890 or ASTM D7668.*

*(b) Must have a maximum wear scar diameter of 460 micrometers as determined by ASTM D6079 or ASTM D7688.*

*(c) Must have a corrosion rating of “B+” or better as determined by NACE TM0172 or ASTM D7548.*

*(d) Must have filter blocking tendency of 2.2 or less as determined by procedure B of ASTM D2068.*

*(e) If sold between October 1 and March 31, must have a cold flow performance measurement which satisfies the tenth percentile minimum ambient air temperature charts from ASTM D975 as determined by ASTM D2500 or ASTM D4539. ASTM D6371 may be used when the test results are 6 degrees Celsius (42.8 degrees Fahrenheit) or less below the cloud point.*

*4. Any diesel fuel:*

*(a) Sold under an select grade classification other than “premier,” “premium,” “super” or “supreme”;*

*(b) Sold under a product name that implies improved performance; or*

*(c) Advertised as providing improved performance on any marketing device, including, without limitation, a dispenser, pump topper, pole sign or bollard,*

*↪ must provide a substantial functional benefit that is measurable using industry accepted test methodologies developed by the ASTM, SAE or other standards organization approved by the State Board of Agriculture.*

**Sec. 4.** NAC 590.041 is hereby amended to read as follows:

590.041 As used in NAC 590.041 to 590.070, inclusive, *and sections 2 and 3 of this regulation*, unless the context otherwise requires, “gallon” means 231 cubic inches.

**Sec. 5.** NAC 590.045 is hereby amended to read as follows:

590.045 A copy of each standard adopted by reference pursuant to NAC 590.041 to 590.070, inclusive, *and sections 2 and 3 of this regulation*, is available for inspection at the offices of the State Department of Agriculture located at 405 South 21st Street, Sparks, Nevada 89431, and 2300 ~~McLeod Street,~~ *E. St. Louis Avenue*, Las Vegas, Nevada 89104.

**Sec. 6.** NAC 590.050 is hereby amended to read as follows:

590.050 1. Except as otherwise provided in subsection 2, the State Board of Agriculture hereby adopts by reference the most recent version of ASTM D975, “Standard Specification for Diesel Fuel ,” ~~{Oils,}~~ contained in the *Annual Book of ASTM Standards* published by ASTM International. Each new revision of that standard shall be deemed approved by the Board unless the revision is disapproved by the Board or its designee within 120 days after the date of publication of the revision by ASTM International. A copy of the standard is available for inspection pursuant to NAC 590.045 and may be purchased from ASTM International, 100 Barr Harbor Drive, *P.O. Box C700*, West Conshohocken, Pennsylvania 19428-2959, or at the Internet address <http://www.astm.org>, for the price of ~~1\$67.1~~ \$75.

2. The flash point for No. 2 diesel fuel ~~{oil}~~ must not be lower than 37.8 degrees Celsius (100 degrees Fahrenheit) when the No. 2 diesel fuel ~~{oil}~~ has been treated to prevent gelling and the No. 2 diesel fuel ~~{oil}~~ has been labeled “winterized.”

3. The grade assigned by ASTM International for diesel fuel : ~~{oil}~~

(a) Dispensed from a pump or other device for dispensing the diesel fuel ~~{oil}~~ must be posted on that pump or device, except that such posting does not need to include the term “Ultra Low Sulfur Diesel” or “ULSD.”

(b) Transported or stored in a vehicle which is used for the delivery of diesel fuel ~~{oil}~~ must be posted on the label of that vehicle as required pursuant to NRS 590.040.

4. Any other test method may be used if the State Sealer of Consumer Equitability determines that another method produces results equivalent to the results of the specified

method. A method approved by ASTM International that has not yet been published shall be deemed to meet the appropriate criteria.

**Sec. 7.** NAC 590.051 is hereby amended to read as follows:

590.051 1. Except as otherwise provided in this section, the State Board of Agriculture hereby adopts by reference the most recent version of the following standards for biodiesel and diesel fuel set forth in the *Annual Book of ASTM Standards* published by ASTM International:

(a) ASTM D6751, “Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels”;

(b) ASTM D7467, “Standard Specification for Diesel Fuel Oil, Biodiesel Blend (B6 to B20)”;

(c) ASTM D975, “Standard Specification for Diesel Fuel.” ~~{Oils.}”~~

↪ Each new revision of those standards shall be deemed approved by the Board unless the revision is disapproved by the Board or its designee within 120 days after the date of publication of the revision by ASTM International. Each standard is available for inspection pursuant to NAC 590.045 and may be purchased from ASTM International, 100 Barr Harbor Drive, **P.O. Box C700**, West Conshohocken, Pennsylvania 19428, or at the Internet address <http://www.astm.org>. The price of ASTM D6751 is ~~{**\$52.**}~~ **\$58**, the price of ASTM D7467 is ~~{**\$52.**}~~ **\$72**, and the price of ASTM D975 is ~~{**\$67.**}~~ **\$75**.

2. The ratio for biodiesel fuel blended in accordance with ASTM D7467 must be not less than 6 percent but not more than 20 percent by volume of biodiesel fuel which complies with the specifications for feedstock and composition set forth in ASTM D6751. The remainder of the

biodiesel blend which contains not less than 6 percent but not more than 20 percent by volume of biodiesel fuel must comply with the requirements for diesel fuel set forth in NAC 590.050.

3. Biodiesel fuel blends which contain not more than 5 percent by volume of biodiesel fuel must comply with the requirements for diesel fuel set forth in NAC 590.050.

**Sec. 8.** NAC 590.052 is hereby amended to read as follows:

590.052 1. The State Board of Agriculture hereby adopts by reference the most recent version of ASTM D5797, “Standard Specification for ~~Fuel Methanol (M70-M85) for~~ **Methanol Fuel Blends (M51-M85) for Methanol-Capable** Automotive Spark-Ignition Engines,” as set forth in the *Annual Book of ASTM Standards* published by ASTM International. Each new revision of that standard shall be deemed approved by the Board unless the revision is disapproved by the Board or its designee within 120 days after the date of publication of the revision by ASTM International.

2. The standard is available for inspection pursuant to NAC 590.045 and may be purchased from ASTM International, 100 Barr Harbor Drive, **P.O. Box C700**, West Conshohocken, Pennsylvania 19428-2959, or at the Internet address **<http://www.astm.org>**, for the price of ~~+\$52+~~ **\$58**.

**Sec. 9.** NAC 590.053 is hereby amended to read as follows:

590.053 1. The State Board of Agriculture hereby adopts by reference the most recent version of ASTM D5798, “Standard Specification for Ethanol Fuel Blends for Flexible-Fuel Automotive Spark-Ignition Engines,” set forth in the *Annual Book of ASTM Standards* published by ASTM International. Each new revision of that standard shall be deemed approved by the

Board unless the revision is disapproved by the Board or its designee within 120 days after the date of publication of the revision by ASTM International.

2. The standard is available for inspection pursuant to NAC 590.045 and may be purchased from ASTM International, 100 Barr Harbor Drive, *P.O. Box C700*, West Conshohocken, Pennsylvania 19428-2959, or at the Internet address <http://www.astm.org>, for the price of ~~1\$46.1~~ \$52.

**Sec. 10.** NAC 590.054 is hereby amended to read as follows:

590.054 1. The State Board of Agriculture hereby adopts by reference the most recent version of ASTM D2650, “Standard Test Method for Chemical Composition of Gases By Mass Spectrometry,” set forth in the *Annual Book of ASTM Standards* published by ASTM International. Each new revision of that standard shall be deemed approved by the Board unless the revision is disapproved by the Board or its designee within 120 days after the date of publication of the revision by ASTM International. The standard is available for inspection pursuant to NAC 590.045 and may be purchased from ASTM International, 100 Barr Harbor Drive, *P.O. Box C700*, West Conshohocken, Pennsylvania 19428-2959, or at the Internet address <http://www.astm.org>, for the price of ~~1\$46.1~~ \$52.

2. A person shall not sell, offer for sale, supply or offer to supply in this State any hydrogen that is intended for use in a vehicle if the hydrogen, after it is analyzed in accordance with ASTM D2650, contains:

- (a) Less than 98 percent per mole of hydrogen;
- (b) Less than 99.9 percent per mole of any combination of hydrogen, water and oxygen; or
- (c) More than 0.01 percent per mole of total hydrocarbons.

3. Any hydrogen specified in subsection 2 must not contain any dust, sand, dirt, gum, oil or other substance in an amount which may damage any equipment located at a fueling station or a vehicle being fueled at that station. If the hydrogen is introduced in gaseous form into a vehicle's system for storing fuel, the hydrogen under ambient conditions must have a distinctive odor which may be detected in a concentration in air of not more than one-fifth of the lower limit of flammability.

**Sec. 11.** NAC 590.059 is hereby amended to read as follows:

590.059 1. The octane rating number of the motor vehicle fuel from the proof of transfer must be posted on the pump or other device for dispensing the motor vehicle fuel.

2. The octane rating number of the product that is in the pump or other device for dispensing motor vehicle fuel must not be lower than the octane rating that is posted on the pump or device.

3. In addition to the requirements set forth in subsections 1 and 2, any person who sells motor vehicle fuel at retail shall, if the motor vehicle fuel contains manganese or any compound containing manganese, including, without limitation, MMT, post on the pump or other device for dispensing the motor vehicle fuel a label which:

- (a) Meets the requirements of subsections 4 and 6;
- (b) Is affixed during any period required by subsection 5; and
- (c) Includes the following language:

WARNING: Read label before dispensing fuel.

Motor vehicle fuel contains manganese, manganese compound or MMT.

Recommend vehicle operator consult owner's manual before using this motor fuel.

4. The label required pursuant to subsection 3 must:

- (a) Be legible and conspicuous;
- (b) Be at least as large as 4 inches wide by 4 inches long;
- (c) Consist of black ink on a background that is white; and
- (d) Be written in at least 12-point font.

5. The label required pursuant to subsection 3 must be affixed to the applicable pump or other device for dispensing motor vehicle fuel in the manner described in subsection 6:

(a) At the time motor vehicle fuel containing manganese or any compound containing manganese, including, without limitation, MMT, is loaded into or otherwise placed in a storage tank from which the pump or other device for dispensing motor vehicle fuel draws its supply of fuel, and before the pump or other device for dispensing motor vehicle fuel may be used to dispense such fuel;

(b) For 6 months immediately after the time specified in paragraph (a); and

(c) For an additional 6 months immediately after any subsequent instance in which motor vehicle fuel containing manganese or any compound containing manganese, including, without limitation, MMT, is loaded into or otherwise placed in a storage tank from which the pump or other device for dispensing motor vehicle fuel draws its supply of fuel.

6. The label required pursuant to subsection 3 must, during any period specified in subsection 5, be affixed:

(a) To the exterior of each side of the pump or other device for dispensing motor vehicle fuel from which a consumer may dispense the fuel; and

(b) In a manner that is conspicuous and readily observable by the consumer.

7. The labels described in subsections 3 to 6, inclusive, may be obtained free of charge from the Division of Consumer Equitability of the State Department of Agriculture, ~~2150 Frazer Avenue,~~ *405 South 21st Street*, Sparks, Nevada 89431.

8. As used in this section, “MMT” means methylcyclopentadienyl manganese tricarbonyl.

**Sec. 12.** NAC 590.061 is hereby amended to read as follows:

590.061 1. The State Board of Agriculture hereby adopts by reference the antiknock index for testing the octane rating of gasoline that is defined in the most recent version of ASTM D4814, “Standard Specification for Automotive Spark-Ignition Engine Fuel,” adopted by reference pursuant to NAC 590.065.

2. Gasoline that is brought into this State for delivery to a person in this State must have an octane rating number which is determined by the antiknock index method described in subsection 1.

3. Gasoline and any blend of gasoline and ethanol that is sold outside the area of this State which is east of the 117th degree of west longitude and north of the 38th degree of north latitude must have an octane rating number of 87 or more.

4. *Effective 90 days after the effective date of this regulation, gasoline and any blend of gasoline and oxygenate that is sold outside the area of this State which is east of the 117th degree of west longitude and north of the 38th degree of north latitude:*

*(a) Labeled as “premium,” “super,” “supreme” or “high test” must have an octane rating number of 91 or more.*

*(b) Labeled as “mid-grade” or “plus” must have an octane rating number of 89 or more.*

*(c) Labeled as “regular” or “unleaded” must have an octane rating number of 87 or more.*

*5. Effective 90 days after the effective date of this regulation, gasoline and any blend of gasoline and oxygenate sold inside the area of this State which is east of the 117th degree of west longitude and north of the 38th degree of north latitude:*

*(a) Labeled as a “premium,” “super,” “supreme” or “high test” must have an octane rating number of 90 or more.*

*(b) Labeled as “mid-grade” or “plus” must have an octane rating number of 87 or more.*

*(c) Labeled as “regular” or “unleaded” must have an octane rating number of 85 or more.*

6. A person who transfers fuel to a person in this State, other than the consumer of the fuel, shall provide a proof of transfer to the person receiving the fuel. The proof of transfer must be:

(a) A delivery ticket;

(b) An invoice;

(c) A bill of lading;

(d) A bill of sale;

(e) A terminal ticket; or

(f) Any other proof of transfer that is approved by the State Board of Agriculture.

~~15.1~~ 7. The proof of transfer must contain:

(a) The name of the person making the transfer;

(b) The name of the person to whom the fuel is transferred;

(c) The date of the transfer; and

(d) If the fuel is gasoline, the octane rating number of the gasoline.

~~16.1~~ **8.** The person receiving the fuel must keep a copy of the proof of transfer at the location at which the fuel was received for not less than 30 days after the date of the delivery of the fuel. After that period, the proof of transfer must be retained at any location for not less than 1 year after the date of the delivery of the fuel and be made available to the State Department of Agriculture upon request.

~~17.1~~ **9.** Any other test method may be used if the State Sealer of Consumer Equitability determines that another method produces results equivalent to the results of the specified method. A method approved by ASTM International that has not yet been published shall be deemed to meet the appropriate criteria.

**Sec. 13.** NAC 590.065 is hereby amended to read as follows:

590.065 1. Except as otherwise provided in this section, the State Board of Agriculture hereby adopts by reference the most recent version of ASTM D4814, “Standard Specification for Automotive Spark-Ignition Engine Fuel,” contained in the *Annual Book of ASTM Standards* published by ASTM International. Each new revision of that standard shall be deemed approved by the Board unless the revision is disapproved by the Board or its designee within 120 days after the date of publication of the revision by ASTM International. The standard is available for inspection pursuant to NAC 590.045 and may be purchased from ASTM International, 100 Barr Harbor Drive, *P.O. Box C700*, West Conshohocken, Pennsylvania 19428-2959, or at the Internet address <http://www.astm.org>, for the price of ~~167.1~~ **\$75.**

2. Notwithstanding the provisions of Table 4 (“Schedule of *U.S.* Seasonal and Geographical Volatility Classes”) of ASTM D4814 that apply to this State, the schedule that is designated in Table 4 for the area of this State that lies north of the 38th degree of north latitude applies to the

entire area of this State unless the United States Environmental Protection Agency requires a county to comply with a different requirement relating to vapor pressure.

3. Except as otherwise provided in subsection 4, gasoline:

(a) Sold between June 1 and September 15 of each calendar year containing:

(1) Not less than 9 percent ethanol by volume and not more than 10 percent ethanol by volume must not exceed the limits for vapor pressure set forth in ASTM D4814 by more than 1 pound per square inch.

(2) Less than 9 percent ethanol by volume must not exceed the limits specified in ASTM D4814.

(b) Sold during any other period in a calendar year containing not more than 10 percent ethanol by volume must not exceed the limits specified in ASTM D4814 by more than 1 pound per square inch.

4. Gasoline and any blend of gasoline and ethanol sold in Clark County between October 1 and the following March 31 must not exceed a vapor pressure of 13.5 pounds per square inch.

5. A person shall not sell, offer for sale, supply or offer to supply in this State any gasoline intended for use in a vehicle which is primarily driven on a highway if:

(a) It contains more than 0.05 gram of lead per gallon;

(b) It contains more than 0.005 gram of phosphorus per gallon;

(c) It contains more than 10 percent ethanol by volume; or

(d) It contains more than 95 parts per million of sulfur.

6. Any other test method may be used if the State Sealer of Consumer Equitability determines that another method produces results equivalent to the results of the specified

method. A method approved by ASTM International that has not yet been published shall be deemed to meet the appropriate criteria.