



A Guide for Petroleum Distributors

Understanding the Agriculture and Markets Laws Regulating Petroleum Product Bulk Sales

**New York State
Department of Agriculture and Markets
Bureau of Weights and Measures
March 2008**

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Governor**

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Introduction

New York Law and Regulations require distributors of petroleum products to provide certifications for both the quantity and quality of products they sell or transfer. This brochure was created to explain the requirements applicable to distributors and provide guidance on acceptable methods of compliance. The certifications required are typically provided on the Bill of Lading (BOL), which provides a significant amount of information. If properly implemented, the BOL will satisfy all of the New York requirements.

In general, the quantity certification requirements are related to the measurements employed in the custody transfer of these products. These requirements may be unique to New York. They were enacted to ensure that purchasers, primarily retail merchants, received the full amount they were billed for. The quantity certification (Agriculture and Markets Law Section 192) must be on a mechanically produced meter document (i.e. printed directly from the metering system). The meter can be on the delivery vehicle or it can be a terminal meter used to load the delivery vehicle. Under the statute, hand-written or hand-typed quantity statements on delivery documents are not acceptable.

The quality certifications (Agriculture and Markets Law Sections 192-a and 192-c) cover gasoline octane rating, gasoline ethanol content, diesel fuel cetane rating, and other fuel specifications adopted in regulations. These certifications ensure that a purchaser is provided with full disclosure of the fuel quality and with specific information they need to properly identify the product and either certify it or label it when they sell it to other distributors or to retail customers.

To the extent possible, the quality certification requirements were written to be identical with other concurrent federal and state certifications, such as the automotive fuel ratings of the Federal Trade Commission (gasoline octane) and gasoline vapor pressure standards of the New York State Department of Environmental Conservation.

Am I covered by these requirements?

If you purchase, transport, store, or cause the transportation or storage of petroleum products at any point between commercial entities, you are a distributor and the requirements apply to you.

What agencies enforce these laws/regulations?

These requirements are generally enforced by the Department of Agriculture and Markets and by municipal weights and measures officials throughout the State. Cases involving reformulated gasoline and other environmental standards may be referred to the New York Department of Environmental Conservation (DEC) or to the Federal Environmental Protection Agency (EPA). Cases involving automotive fuel ratings may be referred to the Federal Trade Commission (FTC). Each of these other agencies may also enforce their regulations through independent actions.

What are the potential consequences if I fail to meet these requirements?

You may be subject to stop-use orders directing you to cease a particular act or practice. You may be subject to stop-removal orders directing you to cease sale of non-conforming products until the product is brought into compliance. You may also be subject to civil penalties that can be as high as \$10,000 per violation.

What information must I provide when transferring or selling petroleum products?

Section 224.5 in the Agriculture and Markets Regulations (1 NYCRR) contains a summary of all of the disclosure requirements for a bulk transfer to anyone who is not a consumer. The text of that section is printed below. Specific comments and questions about those requirements follow the text.

224.5 Bulk delivery disclosure requirements. For any bulk shipment of petroleum products which is transferred, sold or delivered to anyone who is not a consumer, the refiner or distributor shall provide, at the time of each transfer, sale or delivery, a delivery ticket or other written proof of the transfer. It shall contain the following information and certifications:

- (a) Business or corporate name and address of the refiner or distributor supplying the products.
- (b) Business or corporate name and address of the distributor, wholesale purchaser-consumer or retailer receiving the products.
- (c) Business or corporate name and address of the person who delivered the products, and the identification of the delivery vehicle (e.g. truck number). This information shall be supplied by the person who made the delivery, e.g. common or contract carrier.
- (d) Date of delivery.
- (e) Identity and grade of each product transferred, sold, or delivered.
 - (1) Automotive gasoline shall be identified as leaded or unleaded.
 - (2) Diesel motor fuel shall be identified as grade 1-D or 2-D Diesel fuel. If the fuel is enhanced diesel motor fuel, the identification shall also include the term "enhanced".
 - (3) Kerosene shall be identified as grade 1-K or 2-K.
- (f) Quantity of each type of petroleum product transferred, sold or delivered.
 - (1) The quantity shall be recorded on a mechanically prepared meter document and shall be expressed in terms of gallons or liters.
 - (2) Temperature compensation, wholesale transactions. Wholesale sales of gasoline or diesel motor fuel may be in units of gallons or liters compensated to 60 degrees Fahrenheit (15.6 degrees Celsius). Where products are sold compensated to 60 degrees Fahrenheit (15.6 degrees Celsius) the documentation shall clearly indicate the following:
 - (i) The uncompensated or "gross" volume before compensation. This value shall be recorded on a mechanically prepared meter document.
 - (ii) Product temperature at the time of measurement in degrees Fahrenheit or Celsius.
 - (iii) The API gravity of the product.

- (iv) The compensated or "net" volume, when compensated to 60 degrees Fahrenheit (15.6 degrees Celsius).
- (g) Certifications. The refiner or distributor supplying the products shall certify the appropriate quality values required below to the person receiving the product. The certification shall be based on the values determined by him or the values certified to him by his supplier. The certifications required by this section may be made either on the delivery documents, or on a letter or other written statement. A certification by letter or other written statement shall remain in effect until a new certification is made.
- (1) Automotive gasoline.
 - (i) Minimum octane rating (R+M)/2 method, as described in section 9 of this part.
 - (ii) Maximum vapor pressure in pounds per square inch.
 - (iii) Ethanol content. If the product contains more than 1% ethanol by volume, the maximum percentage of ethanol in the gasoline.
 - (iv) Methanol content. If the product contains more than three-tenths percent (0.3%) methanol by volume, the maximum percentage of methanol and the minimum percentage of co-solvent in the gasoline.
 - (2) Diesel motor fuel - Minimum cetane number.
- (h) Unless otherwise prescribed in this part, refiners, distributors, wholesale purchaser-consumers, and retailers shall maintain copies of the documentation required in this section for six months. However, in the case of a certification made by letter or other written statement, a copy of the certification shall be maintained while in force and for six months after it has been superseded by a new certification. These copies shall be kept at the normal place of business, on the retail premises in the case of a retail establishment, and shall be available for inspection by weights and measures officials during normal business hours.

Comments on specific parts of the regulation:

- Grade designations, subparagraphs (e)(2) – To fully describe the grade of diesel fuel under EPA rules and pursuant to the diesel fuel standards adopted in part 224.3, you must also declare the sulfur content. This is typically done as a SXXX designation under ASTM specifications. For example a 500 ppm 2-D diesel fuel would be labeled as 2-D –S500. A declaration in ppm units, like 2-D 500 ppm sulfur, is also acceptable.
- Quality Certifications, subparagraphs (g)(1) and (g)(2) –The certifications for parameters other than gasoline octane or diesel fuel cetane need only be a statement declaring compliance. The specific word “certify” is not generally required provided the meaning is clear. For example, an octane certification may be as simple as “Gasoline 87 octane.” In keeping with the policy of the Department of Environmental Conservation, the Department does not require specific certifications for values of gasoline vapor pressure. It is acceptable to declare on the documents that the fuel meets the applicable state and federal requirements. The general statement will also certify compliance with other specifications for the fuel.
- The records under this section must be kept for 6 months. However, the octane certification documents must be kept for 1 year under other regulations (1 NYCRR Part 224.9 and 224.10) at the principal place of business.

What are the grades of gasoline?

Gasoline is graded by octane rating. Under Department regulations, the grade is a numeric value e.g. 93, 89, 87, etc. Any 87 octane gasoline must be designated “regular,” and 87 octane gasoline may not be sold under a different name. The typical names for higher octane gasoline like “mid-grade” and “premium” have no specific meaning under the regulation. You may use any descriptive names for grades other than regular 87 but each must be accompanied by the corresponding numerical octane rating.

What are the grades of Diesel Fuel and how do they differ?

Diesel fuels are divided into grades 1-D and 2-D in the American Society for Testing and Materials (ASTM) standards which are adopted in Department regulations. In addition to the grade, the Tax Department requires a designation if the diesel fuel is enhanced, such as when adding grade 1-D to grade 2-D in the winter to improve cold flow performance.

- Grade 1-D is a lighter product very similar to K-1 kerosene. The API gravity is typically in the low 40's. This fuel will burn cleaner than 2-D grade but will provide less power (less BTU's/gallon). Grade 1-D fuels may be used in situations where clean burning is a concern, like city busses
- Grade 2-D is the typical product used for on-road diesel fuels. The API gravity is typically in the low to mid 30's. This fuel will provide more power than a 1-D grade (more BTU's/gallon). Grade 2-D fuels are typically used in large trucks to provide better fuel economy and more power than 1-D grade

How will the Diesel Grades be affected by the EPA sulfur regulations for Ultra-Low Sulfur Diesel?

New rules governing on-road diesel fuels take effect June 1 2006. Under these rules Grades 1-D and 2-D diesel fuel will remain the same, but each grade will now have two sub-grades for on-highway use, either low sulfur (LSD) at 500 ppm (parts per million) or ultra-low sulfur (ULSD) at 15 ppm. Under EPA rules the sulfur levels must be disclosed in the delivery documents with each transfer. The ASTM standard D975 uses an SXXX designation for these sub-grades. For example: Grade 1-D S500 represents a 500 ppm sulfur product, and Grade 2-D S15 represents a 15 ppm sulfur product.

How do I produce a mechanically prepared meter document as required in (f)(1) of the regulations?

The mechanically prepared meter document must be produced by the metering device either on the delivery vehicle or at the terminal meter used to load a transport vehicle. Hand-written tickets and hand typed tickets are not permitted. Printers today are generally electronic rather than mechanical, but to qualify they must be directly driven by the measuring components of the system. At the terminal, the measurement information may go directly to a computer system that generates the BOL. This is acceptable provided there is no human action required to get the information into the computer system.

What is temperature compensation and how do you make the corrections?

All liquids expand and contract with temperature, meaning that the same weight of a product may have very different volumes depending on the temperature. Most sales in the State are presently on an uncompensated or gross basis. "Gross gallons" means the actual volume of the product at the temperature at the time of the measurement. At the wholesale level, you are permitted to sell petroleum products compensated to 60 F, often called "Net" sales. "Net gallons" means the quantity you will have if the product is heated or cooled to 60 F.

The compensation for temperature is made using measuring device with a compensation system. The device takes the gross gallon reading from the meter and the temperature of the product, then automatically makes the correction based on standard temperature conversion factors. If you sell compensated to 60 F, you must provide the uncompensated, or "gross" meter reading, the API gravity of the product and the temperature at which the product was measured. These values permit validation of the net calculation.

How must a BOL delineate products when my delivery vehicle has more than one tank compartment?

If you use the BOL from the terminal meter you must separate each individual product that will be transferred to another individual/company. If a transport load is sold to more than one customer (split load), a separate BOL must be provided for each individual/company and the BOL for each customer must separate each individual product sold. Note: a single product entry on the BOL may occupy more

than one compartment provided the contents all of those compartments are delivered at the same time into the receiving tank. For a discussion of octane blended products (like 89 mid-grade) see next question.

Loads must be split by product and compartment (or combination of compartments), such that the entire contents are delivered at the time of delivery. When loading a transport vehicle that has compartments, care must be taken to ensure that entire compartments are delivered consistent with the quantities for each mechanically prepared volume entry on the BOL.

Example 1. Sale to a single customer - 6,000 gallons of regular are loaded into compartments 1, 2, and 3, and 2,500 gallons of premium are loaded in compartments 4 and 5. The BOL must show both products and the quantities, 6,000 gal of regular 87 and 2,500 gal of premium 93. All of the regular in compartments 1, 2 and 3 must be delivered to the regular receiving tank and all of the premium in compartments 4 and 5 must be delivered into the premium receiving tank.

Example 2. Sale to two customers – 3,500 gallons of regular in compartments 1 and 2 and 1,500 gallons of premium in compartment 3 are loaded for customer 1. 2,500 gallons of regular in compartment 4 and 1,200 gallons of premium in compartment 5 are loaded for customer 2. Each customer must receive a BOL for the quantities they purchased. Each customer’s product must be segregated in separate compartments in the transport and each must get the entire contents of their respective compartments.

If you choose to use a meter on the vehicle, you may measure and deliver any quantity to multiple customers. You must provide each customer with a delivery ticket printed from the meter system printer. Other quality certifications may be preprinted on the ticket, printed on a separate document, or hand written on the delivery ticket at the time of transfer.

How must octane of blended products be represented on the BOL?

Because the BOL provides both quantity and quality certifications, octane blends must be shown as a separate product on the BOL. There are usually two methods of blending octane. Both examples below describe a load containing 5,000 gal regular 87, 1,500 gal mid-grade 89 and 2,500 gal premium 93.

- In-line blending occurs in systems that combine the products in the proper ratio before they are metered or in systems that automatically meter each of the base products in sequence. Each of these options uses a single loading arm and meter indication. The BOL from in-line blending will provide a single entry for the total volume of blended product and additional entries for each of the other products loaded in other compartments. In this case 1,000 gallons of 87 and 500 gallons of 93 are blended to make the 89 octane. Example:
Premium 93 octane 2,500 gal
Mid-grade 89 octane 1,500 gal
Regular 87 octane 5,000 gal
- Splash Blending is a process where the base products in the blend are individually added to a single tanker compartment, or where the base products are loaded in separate compartments and blended as they are delivered into the receiving tank. Each of these options uses a separate loading arm for each product in the blend and a separate meter indication. The BOL from splash blending will include entries for each product in the blend and additional entries for each of the other unblended products loaded in other compartments. The BOL must contain specific entries for each of the products combined in the blend, separate from any other unblended product. In addition, a separate certification must be added to the BOL to certify the octane rating of the blend (see italic print) to the person receiving the product. This certification for the blend may be hand written.

Example:

Premium 93 octane	2,500 gal		
Premium 93 octane	500 gal	→	<i>=1500 gal 89 octane</i>
Regular 87 octane	1,000 gal	↗	
Regular 87 octane	5,000 gal		

Can petroleum products on a single BOL be split between stations owned by the same person?

Yes this is permitted since the regulations consider it one transaction.

How must I certify the Octane of gasoline?

The New York regulations are identical to those of the Federal Trade Commission. You are required to include four critical items on the delivery documents provided with each transfer you make. They are (1) your name, (2) the name of the person you are transferring the product to, (3) the quantity of product and (4) the octane rating of the gasoline. The names of the parties involved are self explanatory. The New York requirement for a mechanically prepared meter document covers the quantity. The last item, octane rating, is a measure of the resistance of the fuel to pre-ignition or knocking. It must be certified as a numerical value on the delivery documents.

How do I determine the octane rating?

You may obtain the octane rating in one of three ways. Octane ratings are required to be a whole or half-number, e.g. 87 or 87.5. Other fractions like 92.7 and 87.3 are not permitted.

- Certification from your supplier – Provided you make no change to the product supplied to you, such as blending with other octane products, you may certify an octane rating equal to or less than the value certified by your supplier. The refiner is required to measure the octane rating and certify that when transferring product to a distributor. Each distributor who transfers the product in the distribution chain must pass along the octane certification.
- Measure the octane yourself – You may have the gasoline tested at a capable laboratory and certify based on the value obtained in that test. You may certify an octane rating as a whole or half-number equal to or less than the value obtained in your test.
- If you blend gasoline – You must certify based on the lowest octane in the blend, or the average octane, weighted by volume, for the products in the blend. You may certify an octane rating as a whole or half-number equal to or less than the value obtained from your weighted average calculation.

$$\text{Blend octane} = \frac{((\text{octane 1} \times \text{volume 1}) + (\text{octane 2} \times \text{volume 2}))}{(\text{volume 1} + \text{volume 2})}$$

For example, you blend 1,000 gallons of 87 octane with 500 gallons of 93 octane.

$$\text{Blend octane} = \frac{((87 \times 1,000) + (93 \times 500))}{(1,000 + 500)} = \frac{(87,000 + 46,500)}{1,500} = \frac{133,500}{1,500} = 89.0$$

For this blend you may certify 89, or some lower value, such as 88.5, 88, etc.

What are my responsibilities if another distributor loads from my terminal?

Many terminal operators do not own the product in the storage tanks. Under New York Law you are still acting as agent for the distributor who owns the product. If we take enforcement action, it will be against the person owning the product. You should ensure that those who use your facilities are properly trained to use the metering equipment in order to produce correct BOL's.

What are my responsibilities if I purchase from a terminal and have a hauler pick up the products and deliver directly to my customer?

This is a common occurrence. To meet the requirements to provide a mechanically prepared meter document, you will have to ensure that the BOL for the delivery, showing the quantities transferred to you, is delivered to the person receiving the product. Since this document covers the transfer from the terminal source to you, you must provide another delivery ticket or invoice to the person receiving the product to show the transfer from you to them. It must contain your name, the receiving person's name, the quantity, and octane rating of each product delivered. The terminal will issue you an invoice that can serve as your record of transfer from them. You must keep the records of the transfer to you and the transfer from you to your customer.

What responsibilities does the common carrier/independent hauler have with regard to certifications?

A common carrier, or independent or contract hauler, has limited responsibilities under the law and regulations. The common carrier acts as agent for either the buyer or seller. The carrier is specifically responsible for delivering the BOL or other certification documents to the person receiving the product. Any errors made by the carrier are the responsibility of the company they work for. This is particularly important when doing splash blending of octane as described above. Carriers should be properly trained to operate terminal loading equipment so that a correct BOL is produced and delivered to the customer.

What actions are required of the carrier at the time of delivery?

The carrier or delivery agent is specifically required by other sections of the law and regulations to verify the volume in the receiving tank before and after delivering the product and keep a record of that action. These records provide evidence that all of the product on the delivery documents was properly delivered to the correct storage tanks. The carrier is further required to check the water level in a below-ground storage tank. If the water level exceeds 2 inches, they are prohibited from making the delivery into that storage tank.

What should the delivery agent do if the entire contents of a compartment, or multiple compartments, will not fit into the designated storage tank?

This should be a rare event. When the volume in the tank is checked before delivery as required by the regulation, the driver will know in advance that the load will not fit and should make alternative arrangements for delivery somewhere else. In the event that the load should fit but some circumstance prevents the complete delivery of the quantity on the BOL into the storage tank, the delivery agent should carefully document the event to explain the deviation from a normal delivery. They should make their best effort to document the actual quantities delivered and note this on the BOL.

This situation creates two problems; one, that the entire quantity on the BOL is not delivered into the correct storage tank and two, that there is some volume of product still remaining on the tanker. With appropriate documentation, this remaining product may be downgraded, i.e. higher octane product added to a lower octane storage tank without altering the certified octane rating. Upgrading of product, i.e. putting lower octane product into a higher octane tank, would require the person receiving the product to lower the octane rating appropriately when selling the product. For example, if 200 gallons of regular 87 are added to 5,000 gallons of premium, the octane rating is lowered from 93 to 92.7. For this blended product the retailer would have to remark all of his premium pumps to show either 92.5 or 92 octane. If the dispensers blend premium with regular to produce mid-grade gas, the mid-grade 89 posting would have to also be lowered or the blend ratio settings changed accordingly.

Can the records be maintained in a computer system or do I have to have paper copies?

Computer records are acceptable for computer driven actions, such as terminal loading records. Other records such as daily inventory and water level measurements may be kept in electronic format. If the

record is kept on paper forms, those forms, or appropriate electronic conversion of the paper documents, must be kept.

Where can I go to get additional information on required certifications?

You may contact the Bureau of Weights and Measures at the address and phone number below. You can also find information on the web for the Department or the Federal Trade Commission at the sites listed below.

NYS Department of Agriculture and Markets

10B Airline Drive

Albany, NY 12235

Phone: 518-457-3146 Fax: 518-457-5693

Email: agmweigh@agmkt.state.ny.us

URL: www.agmkt.state.ny.us (Look under "Divisions" for Weights and Measures)

NYS Department of Environmental Conservation

URL: www.dec.state.ny.us/website/dar/bms/fuels.html (Fuel Programs)

Federal Trade Commission

URL: <http://www.ftc.gov/bcp/online/edcams/eande/index.html> (Search under Automotive Fuel Ratings)

U.S. Environmental Protection Agency

URL: www.epa.gov (Search under Fuels and Fuel Additives)