



Weights and Measures

Petroleum Service Technician Exam Study Guide

Please review the following information before taking your test. The test link is on our LDAF [website](#). Look on the left-hand side and click on the Online Exams. Then click on either the Scale, Mass Flow Meter, Taxi Meter, or Petroleum Service Technician Exam. You only have to pass the exam once in your lifetime, but you may take it as many times as you need to pass. The exam will be automatically graded and a certificate will be issued to you and a copy will be sent to us. If you have any questions, please contact us at 1-225-925-3780 or weightsinfo@ldaf.state.la.us.

The Louisiana Department of Agriculture and Forestry, Division of Weights and Measures, regulates many aspects of commerce and trade throughout the State of Louisiana and ensures that equity prevails in the marketplace for both buyers and sellers, by inspecting over 100,000 commercial weighing, measuring, metering, and scanning devices annually.

- ⊘ All Service Agencies must be registered and licensed with LDAF Weights and Measure to perform work on commercial weighing and measuring devices in Louisiana.
- ⊘ All Service Technicians must be registered and licensed with LDAF Weights and Measures, prior to performing work on commercial weighing and measuring devices in Louisiana.
 - LDAF Service Technician License is required to:
 - Perform repairs to any commercial weighing and measuring device.
 - Calibrate any commercial weighing and measuring device.
 - Operate as a registered service person.
 - Install commercial weighing and measuring devices.
- ⊘ All license renewal fees are due by December 31 for the following year.
- ⊘ All field standards, (weights, volumetric provers, and test measures) used for repairing and calibrating commercial weighing and measuring devices must be certified annually by the LDAF Metrology Laboratory or any NIST qualified alternative State Metrology Laboratory.
- ⊘ If your field standards are not certified by the LDAF Metrology Laboratory, your agency must send in the most recent certifications with the agency's license application. A copy must also be made available upon request of any LDAF weights and measures official.
- ⊘ Louisiana adopts NIST Handbook 44, therefore;



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- all commercial weighing and measuring devices and components must be NTEP approved and installed in accordance with their NTEP Certificate of Conformance, and manufacturer guidelines.
- All devices must be suitable for their intended use.
- All repairs and tests must be completed in conformance with Handbook 44.
- Only Repairs and replacements that bring the device back into conformance with NTEP approved factory conditions may be performed.
- The performance goal of every commercial weighing and measuring device is to be as close to zero error as possible.
- ⊘ Every Service technician must have a thorough working knowledge of all appropriate weights and measures laws, orders, rules, and regulations.
- ⊘ A Placed in Service Report must be submitted to LDAF Weights and Measures using the electronic Jot-Form link within 10 days of servicing and repairing any commercial weighing and measuring device.
 - The Jot-Form link can be found on the LDAF website under the consumer protection weights and measures section.
- ⊘ The service technician may remove a red tag from a retail motor fuel device to perform testing and repairs. The red tag must be securely reattached to the device after the repairs are completed.
- ⊘ Any violation of Weights and Measures Law, Rules, and Regulations may result in a \$500 fine per day per violation.
- ⊘ General Requirements for retail motor fuel dispensers:
 - All retail motor fuels dispensers shall be able to display conspicuously on each side the identity of the product being dispensed.
 - All dispensers must clearly label the octane rating of the product/ products being offered for sale.
 - All unleaded motor fuel containing between 1 and 10 percent ethanol must be labeled with an appropriate ethanol declaration
 - Ex: Contains Ethanol, May Contain Ethanol, Contains up to 10% Ethanol etc...
 - All diesel fuel offered for sale must be identified by grade such as No1-D, No2-D, etc.
 - When a motor fuel dispenser is equipped with a price computing element the dispenser shall accurately compute the total sales price of the product at the offered unit price.



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- € All retail motor fuel dispensers must be calibrated to within the tolerance limits set forth in *NIST handbook 44 Section 3.30 Table T.2*.
 - Retail motor fuel dispensers tolerances are:
 - Small capacity meters <30gpm
 - Acceptance tolerance: +/- 3 cubic inches at five gallons.
 - Maintenance Tolerance: +/- 6 cubic inches at five gallons.
 - Large capacity meters >30gpm
 - Acceptance tolerance: +/- 46.2 cubic inches at 100 gallons.
 - Maintenance Tolerance: +/- 69.3 cubic inches at 100 gallons.
- € Louisiana has its own specific Weights and Measures Law and Rules and Regulations that supersede *NIST handbook 44*. These specific rules and regulations can be found in the Louisiana Revised Statutes.
- € Some of these rules and regulations are listed below:
 - Motor Fuel storage tank moisture(water) accumulation limits:
 - No water phase greater than 6mm (1/4 in) in the storage tank of gasoline-alcohol blende, aviation gasoline, and aviation turbine fuel.
 - No water phase greater than 50mm (2in) in the storage tank of biodiesel, diesel, gasoline (non ethanol), or kerosene
 - The fill connection of any petroleum product storage tank or vessel shall be permanently, plainly, and visibly marked as to the product contained.
 - When the fill device is marked by means of color-coded, the color code shall be conspicuously displayed at the place of business.
 - Louisiana law requires that no person shall sell at retail any petroleum product in a manner that fails to comply with law or regulations promulgated by the commissioner.
 - All equipment in service and all mechanisms and devices attached thereto or used in connection therewith shall be continuously maintained in proper operating condition throughout the period of such service.
 - Examples that will cause a device to be taken out of service:
 - Leaking discharge hose or nozzle.
 - Leaking pump
 - Obscured or inoperable customer displays.
 - Faulty anti drain mechanisms.
 - Abnormal performance of the device.
 - Water in the fuel being dispensed.



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- Inaccurate computation of total sales price.
 - Defective Auto Shut Off
 - Meter creep and/or pump jump
 - Suitability
 - Missing calibration security seal
 - Zero reset malfunction.
- No person shall sell any petroleum product which does not meet the specifications adopted by the commissioner in accordance with this Section unless authorized by the commissioner in regulations promulgated by him.
- All retail motor fuel products must conform to the following at minimum:
 - All Requirements imposed by federal law.
 - Labeled octane, volatility and other requirements established by the American Society for Testing and Materials (ASTM), and NIST.
 - When a product has been red tagged due to water contamination, all contamination must be removed before an LDAF Weights and Measures official will reinspect. It is the responsibility of the person selling the product to ensure the product meets all quality standards and specifications. LDAF recommends the following after water has been detected in a fuel sample obtained from the nozzle:
 - Determine the source or cause of the contamination.
 - Make any necessary repairs to remedy the contamination problem.
 - Have all contamination removed from the fuel storage tank.
 - Have any and all contaminated fuel removed from the tank.
 - Receive new fuel after all contamination has been removed from the tank.
 - Have all lines flushed with fresh fuel without returning the fuel to the storage tanks.
 - Replace all product filters.
 - Send a placed in service report to LDAF when ready for reinspection.