

An Overview of Weights and Measures in Pennsylvania

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By Dean F. Ely, Executive Director
Pennsylvania Association of Weights and Measures

“Weights and measures may be ranked among the necessities of life to every individual of human society. They enter into the economical arrangements and daily concerns of every family. They are necessary to every occupation of human industry; to the distribution and security of every species of property; to every transaction of trade and commerce; “

A quote from John Q. Adams 1821 report to congress on weights and measures.

When a mother has a prescription compounded for her sick child, when a housewife buys a quart of milk, when you fill your vehicle with thirty dollars worth of fuel, when the farmer spends \$6000 for twenty tons of custom feed for his dairy herd, even when Pen Dot spends hundreds of millions of dollars of taxpayers money on limestone, asphalt or highway salt, they are all entering into that trust that as buyers and sellers, equity will prevail in all transactions.

As history and records will note, equity does not always prevail in such transactions. During the last 35 years, the Bureau of Weights and Measures has documented shortages in just about any product you can name and likewise they have recorded devices with inaccuracies that impacted the value of whatever commodity or service was being provided. To be sure most inequities are caused by negligence or poor QC, but there are also hundreds of documented cases of intentional fraud. **When no independent arbiter systematically spot checks commercial devices or transactions, the human element will prevail.**

In Pennsylvania, weights and measures matters are governed by Act #155 of 1996, Pennsylvania Title 70 and NIST Handbooks-44, 133 and 130. Nearly every aspect of inspection, testing and enforcement are covered in these documents.

There are essentially three ways products and services are purchased in our system of weights and measures. All three involve a weighing or measuring device that is required by law to be examined and certified on a regular basis.

The first type of product or service delivery involves the customer being present, where he or she makes a purchase through a legal-for-trade commercial device. Some examples would be gasoline or kerosene at a fuel dispenser, deli items, meats, cheese or produce over a scale, L P Gas by weight for your 20 pound tank, a laundry dryer, an air dispenser or vacuum at a car wash or a parking meter in a local city or borough.

A second type of commercial transaction is where the consumer arranges to purchase some type of "bulk" commodity such as coal, mulch, top soil, animal feed, fertilizer, grain, etc. These products may be ordered by phone and delivered to the consumer's location or the consumer may be present during purchase and measurement. The majority of these products are required to be weighed by a licensed public weighmaster and accompanied by a certified invoice or receipt.

The third type of transaction is when a consumer purchases some type of pre-packaged product. The vast majority of commodities found in the modern grocery store, hardware, drug store, department store, office supply store, farm and garden store or automotive store would fall into this category. An essential element of this type of transaction is the proper labeling of the product. The specific requirements for package labeling are found in NIST Handbook-130 as well as in the Federal Fair Packaging and Labeling Act. Needless to say, nearly all commodities are required to display the **product identity, the net contents and the packager or distributors name and address**. Their content accuracy is determined through routine inspections by weights and measures officials in the retail store or at the point of fill.

All commercial devices are required to be inspected and tested on a schedule established by the Department of Agriculture. Each commercial device you encounter in the marketplace should bear a current seal or decal indicating the date of inspection.

The following commercial devices are required to be inspected on a twelve month basis.

Small capacity retail computing scales.
Retail package shipping scales. (UPS, Fed Ex, etc.)
Airline baggage scales.
Small platform scales which weigh items up to 1000 pounds.
Vehicle scales.
Truck mounted fuel oil meters.
Truck mounted L P Gas and Anhydrous ammonia meters.
Compressed natural gas meters. (for vehicle fueling)
Retail motor fuel dispensers.
Universal Product Code scanning systems.
Price Look-up devices.

The Department will inspect all types of commercially used weighing and measuring devices not specifically assigned a 12 month inspection interval as noted above, at intervals of "**no greater than 36 months**". The following is a list of the most commonly found commercial devices assigned to the 36 month category.

Pharmacy scales.
Precious metals scales. (For gold, silver & other precious metals)
Linear measures for gold chains, etc. (found at mall kiosks)
Precious gems balance. (Carat weight)
Non-computing scales and balances in smoke shops.
Platform scales over 1000 pound capacity.
Fertilizer hopper scales.
Small capacity net-weight scales found in USDA plants and other food processing plants.
Railroad scales & railroad hopper scales.
On-board vehicle scales.
Fork lift mounted scales.
Front end loader scales.
Meat beams & mono rail scales in slaughter houses.
Livestock & animal scales.
Laundry scales.
Grain moisture meters & related scales for bushel weight and docking charges at feed mills.
Feed mill scales utilized for adding antibiotics, minerals and other ingredients for custom feed orders.
Wire & cordage measuring device.
Multiple dimension measuring devices.(Utilized for calculating freight, storage or postal charges based on weight and volume or dimensions).
Automatic weighing systems.(Utilized primarily in food and non-food packaging operations with high-speed filling lines.)

METERS

Loading rack meters. (For loading fuel trucks)
Carbon dioxide liquid metering devices.(This product is used in manufacturing, the food industry and was also utilized to euthanize thousands of chickens during our Avian Flu outbreak in Union and Snyder counties)
Milk meters.
Truck mounted Carbon Dioxide Meters.

Lubricant meters. (Jiffy Lube, etc)
Airport fuel meters.
Marina fuel meters.
Mass flow meters.
Salvage oil meters.

TIMING DEVICES

*Parking meters: Law amended to a five (5) year inspection cycle starting in 2013 for parking meters only.

Parking lots/garages with timed charges.
Air vending timers.
Car wash timers.
Vacuum timers.

Laundromat dryer timers.

FARM BULK MILK TANKS. Farm bulk milk tanks are stainless steel refrigerated vessels that are utilized to cool and store raw milk on the farm until the product is picked up for transport to the dairy plant for processing. These vessels are commercial devices and are comprised of the vessel, a graduated dip stick and a weight chart depicting the weight value of each graduation on the dip stick. Milk has traditionally been purchased from the farmer by weight with a gallon of milk weighing a standard 8.6 pounds.

As consumers there are a few things you can do anytime you interact with a commercial device or with the person operating that device. The most important is to educate yourself with the various modes of sales and measurement and to be aware of a few basic requirements regarding commercial devices.

- (1.) Always look for the seal or decal of approval on any commercial measuring device. Keeping the one year and three year inspection scenarios in mind, you should be able to determine if the device has been inspected and approved in the required time frame. One problem in the past was that there was no decal available for some devices like parking meters. This is no longer the case as the Department of Agriculture has developed a small round decal, slightly larger than a nickel, which you should find on every parking meter. Delinquent decals should be immediately reported to the appropriate state or county authority. (**1-877-837-8007 or 1-717-787-9089**)

When purchasing fuel, look for the approval decal, make sure the device starts at zero gallons and zero dollars, make sure the LCD's are clear and legible, note the hose condition looking for any leaks, deep cracks or other signs of extreme wear and make sure the price you pay agrees with any advertised price such as "senior discounts" or "customer appreciation day" discounts.

- (2.) If you are making a purchase of cold meat, produce or other deli type products, first observe that the scale is legally sealed and that the seal is no more than one year old. Also observe to ensure that the scale is on zero and to see if the clerk takes the appropriate tare for the container. Some cups and containers used for macaroni or potato salad can weigh up to one ounce (.06lb). If you purchase one pound of potato salad in this type of container, the gross weight should be around 1.06lb.
- (3.) If you heat with home heating oil or L P Gas always check the truck to make sure the approval seal is visible and up to date. It is Bureau policy to place that decal at the rear of the truck in full view of the public. Also make sure you get a complete delivery ticket. The gallon amount must always be **printed** by the device (never hand written) and the ticket must bear a non-repetitive serial number along with all other pertinent information regarding the sale including date, time, product id, truck number, etc.
- (4.) When purchasing cuts of pre-packaged meats, cheeses, etc. you can check the weight in one of two ways. Take your selected item to the deli department and ask a clerk to assist you in verifying if any tare has been taken. For example, if you have a package of

chicken drumsticks that is labeled 2.00 lbs., it should gross weigh somewhere around 2.05 lbs. if appropriate tare has been taken. The gross weight of the product and tare should always be more than the labeled weight. A second way to verify the weight is to ask the meat manager to re-measure it for you.

- (5.) If you purchase a product like top soil or mulch, and you provide the trailer or truck to haul it, pre-measure the truck or trailer box to get an idea of how many cubic feet or yards it will hold. You can do the same thing when the product is delivered by the vendor. Prior to unloading, have him level the product and measure it for you. You must however, allow for some settling if you measure it at the delivery point.

- (6.) If you encounter any of the above problems and you feel it is significant enough to report, contact your local court house or if there is no local program, contact the nearest Pennsylvania Department of Agriculture Regional office and ask for Weights and Measures.

While this information we have provided may seem to be extensive and complete, it is by no means the complete story of weights and measures. We have not discussed here the scanning issue, method of sale of commodities, labeling or a myriad of other transactions that take place on a daily basis.

We thank you for your patience and interest in this area of commerce that still remains below the radar of most consumers.

“Do not cheat anyone by using false measures of length, weight or quantity. Use honest scales, honest weights, and honest measures”

Leviticus, Chapter 19, vs 35