ANNUAL REPORT
ON THE TESTING AND
INSPECTION ACTIVITIES
OF THE
DEPARTMENT OF AGRICULTURE AND
CONSUMER SERVICES
WEIGHTS AND MEASURES PROGRAM

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Annual Report on the Testing and Inspection Activities of the Department of Agriculture and Consumer Services Weights and Measures Program

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EXECUTIVE SUMMARY

This document is submitted pursuant to § 3.1-928 B of the Code of Virginia (Code), which requires the Commissioner of Agriculture and Consumer Services to report by October 1 of each year to the Chairmen of the Senate Committee on Finance and the Senate Committee on Agriculture, Conservation and Natural Resources, and the Chairmen of the House Appropriations Committee and House Committee on Agriculture, Chesapeake and Natural Resources, the results of testing and inspection activities carried out by staff in the weights and measures program of the Department of Agriculture and Consumer Services. During the fiscal year ending June 30, 2006, staff:

- Inspected 63,983 weights and measures devices, or 59% of the 108,587 such devices used in commercial transactions in Virginia
- Posted an overall frequency of inspection per device of 20 months
- Investigated 1,146 consumer complaints

The report also includes several informational charts.

LEGISLATIVE MANDATE

This document complies with the provisions of § 3.1-928 B of the Code of Virginia, which requires the Commissioner of Agriculture and Consumer Services to report by October 1 of each year to the Chairmen of the Senate Committee on Finance and the Senate Committee on Agriculture, Conservation and Natural Resources, and the Chairmen of the House Appropriations Committee and House Committee on Agriculture, Chesapeake and Natural Resources, the results of testing and inspection activities carried out by staff in the weights and measures program of the Department of Agriculture and Consumer Services, including the number and frequency of inspections for the weights and measures devices.

I. FUNDING OVERVIEW

VDACS' weights and measures program has been traditionally funded by general fund (GF) appropriations. The 2003 Appropriations Act eliminated all general fund appropriations, and the Commissioner of VDACS was required to collect a registration fee of $9.00 for each weights and measures device that was subject to inspection. The 2004 General Assembly, responding to concerns raised by industry, reduced the registration fee from $9.00 to $4.00 per device. At that time, the Commissioner of VDACS was also instructed to develop a long-term plan for the weights and measures program in conjunction with industry representatives. The 2005 Session of the General Assembly eliminated the $4.00 fee and approved a number of changes to Title 3.1, Chapters 35 and 35.1 of the Code of Virginia, which granted the Commissioner discretion to determine the frequency interval for inspections of commercial weight and measure devices, allowed for the random re-inspection of rejected devices and random initial verification of newly installed devices, and allowed for the acceptance of inspections of weights and measures by private companies as official inspections. The 2006 Session of the General Assembly provided $1,964,000 in GF appropriations, which allowed the program to restore staffing to pre-2003 levels.

II. WEIGHTS AND MEASURES DEVICES IN VIRGINIA

VDACS weights and measures database currently lists 13,397 active business locations that operate 108,587 commercial weighing and measuring devices, an increase of 871 devices over the previous year. The following table details the number of devices by type. See the Appendix for the definition of each device type.

Device Type	Number
Petroleum Dispensers	75,686
Computing/Hanging/Counter/Platform Scales	23,663
Vehicle Tank Meters	1,968
Taxi Meters	1,377
Liquefied Petroleum Gas Meters	1,431
Vehicle Scales	1,407
Truck Stop Dispensers	1,075
Bulk Plant Meters	630
Warehouse Scales	486
Hopper Scales	251
Farm Scales	245
Vehicle On-Board Weighing System	167
Moisture Machines	61
Livestock Scales	61
Railroad Scales	49
Analytical Balance	24
Belt Conveyor Scales	5
Monorail Scales	1
Total Number of Devices	108,587

III. STAFFING RESOURCES

As of June 30, 2006 the weights and measures program had 32 FTE positions filled and carried 12 FTE vacancies. Of the filled FTE positions, two are involved in the regulation and sampling of motor fuel quality and two are involved with program administration, training and compliance activities. Thus, the effective number of filled FTE positions that performs weights and measures inspection is 28, divided as follows:

Two positions perform metrology calibrations for government and industry clients. These are laboratory positions that perform calibrations of mass standards as small as a micro-pound (.000001 lb.) to over 2,500 pounds, and volumetric calibrations from one milliliter to over 2,000 gallons. The laboratory performs calibrations of time and frequency, temperature, and length. The laboratory is recognized by the National Institute of Standards and Technology and it is accredited under its National Voluntary Laboratory Accreditation Program. This level of accreditation gives laboratory clients direct traceability to national standards of measurement.

23 positions are involved in the testing of small capacity devices, such as retail motor fuel devices, retail computing scales, medium capacity bench, counter, and floor scales. They also determine the accuracy of point-of-sales systems, verify the accuracy of packaged commodities, enforce advertising and method of sale requirements, audit sales activities, and investigate consumer complaints.

Three of the 28 positions are engaged in the testing and inspection of all large capacity weighing and measuring devices, which include fuel oil and liquid petroleum gas (LPG) meters, both vehicle mounted and bulk; as well as large capacity scales which includes vehicle, belt conveyor, and railroad scales.

All field inspectors are responsible for the enforcement of the Commission Merchant, Cotton Handlers, Weights and Measures Service Agency and Technician, Burley Tobacco, and Public Weighmaster Laws. The program also utilizes part-time employees to inspect livestock scales annually at approximately 250 privately owned farms.

Training is an important consideration that impacts staff availability. New inspectors typically undergo six months of initial classroom and field training, but it may take up to three years for them to become fully proficient in the many technical complexities of the program. Seasoned inspectors also undergo in-service training. During FY 2006, staff received over 2,678 work hours of instruction on technological advancements and changes to applicable laws.

IV. INSPECTION ACTIVITIES BY DEVICE GROUP

The largest area of inspection activity involves testing and inspecting 80,790 petroleum product measuring devices that are used to measure gasoline, diesel fuel, fuel oils, liquefied petroleum gas products (LPG), kerosene, aviation gasoline, and jet fuel. During FY 2006, inspections were completed on 48,259 of the measuring devices or 60 percent of the total population, a seven percent reduction in the number of this type of devices inspected compared to FY 2005. Staff coordinated the transfer of inspections of approximately 1,400 taxi meters to the respective locality or governing authority.

Measuring Device Inspections

Device Type	Population	Number Inspected	Percent Rejected	Number of Reinspections
Petroleum Dispensers	75,686	46,272	16%	3,243
Vehicle Tank Meters	1,968	1,357	33%	89
LPG Meters	1,431	158	38%	33
Truck Stop Meters	1,075	422	24%	43
Bulk Plant Meters	630	50	30%	49
Total	80,790	48,259	17%	3,457

The second largest area of inspection involves 26,424 weighing devices, which are used to weigh retail purchases, road and other construction materials, agricultural products, and household goods. During FY 2006, staff inspected 15,724 weighing devices, or 60 percent of the total population, an 11% reduction in the number of this type of devices inspected compared to FY 2005.

Weighing Device Inspections

Device Type	Population	Number Inspected	Percent Rejected	Number of Reinspections
Retail Scales	23,663	13,775	7%	263
Vehicle Scales	1,407	981	23%	98
Warehouse Scales	486	267	11%	13
Farm Scales	255	313	17%	14
Hopper Scales	251	175	7%	5
On-Board Weighing	167	95	15%	2
Livestock Scales	61	89	10%	4
Other Scales	134	29	0%	1
Total	26,424	15,724	8%	400

The previous tables do not include the inspections of 61 devices used to determine moisture content of peanuts and 24 analytical balances used in conjunction with the moisture machines.

V. OTHER FIELD INSPECTION ACTIVITIES

During FY 2006, surveillance activities related to motor fuel quality, accuracy of packaged commodities, sales of agricultural products, and point-of-sales systems involved over 6,155 inspection hours. The number of samples is listed below.

Inspection Activity	Samples Verified
Retail Store Prepared Packaged Commodities	39,004
Point-of-Sales Pricing Verified (Scanners)	15,272
Motor Fuel Quality Samples	3,908
Factory Prepared Packaged Commodities	541
Bagged Commodities	108
Tobacco Piles Reweighed for Accuracy at Time of Sale	15
Total	58,848

VI. METROLOGY ACTIVITIES

The work unit operates a Metrology Laboratory which during FY 2006 performed 11,668 calibration tests for industry and government clients, as listed below.

Standard Type	Industry Client	Government Client
Tolerance Test Less than 10 lbs	3,830	1,392
Tolerance Test 10 to 50 lbs	1,746	304
Tolerance Test 51 to 1,000 lbs	418	83
Value Determination 3 kg and less	84	149
Volumetric Provers Less than 10 gallons	227	94
Thermometers	26	3
Tolerance Test over 1,000 lbs.	15	6
Volumetric Provers Greater than 10 gallons	21	3
Length Standards	5	0
Radar Tuning Forks	0	3,253
Value Determination Greater than 3 kg	3	6
Total	6,375	5,293

VII. COMPLAINT INVESTIGATION ACTIVITIES

Each year, the work unit receives an average of 600 consumer complaints that require field investigation. During FY 2006, staff spent over 3,791 work hours in the investigation of 1,146 consumer complaints, an 81 percent increase in the number of complaints from the previous year. Investigations determined violations in 14 percent of the complaints reported by consumers. The following table summarizes the investigation activities.

Consumer Complaint Investigations

Type of Complaint	Number Received	Number of Allegations Found Valid	Percent of Complaints Found Valid
Petroleum Quantity	455	47	10%
Petroleum Pricing	235	2	1%
Petroleum Other	203	56	28%
Petroleum Quality	96	15	16%
Petroleum Advertising	76	21	28%
Other Measuring	18	3	17%
Other Weighing	17	4	24%
Retail Weighing	11	4	36%
Point-of-Sales (Scanners)	10	2	20%
Firewood Measurement	5	3	60%
Other	20	5	25%
Total	1,146	162	14%

VIII. ENFORCEMENT AND COMPLIANCE ACTIVITIES

The program seeks to administer its assigned legislative and regulatory mandates in the least intrusive manner possible. Our philosophy is to inform, educate, and as a final step, take enforcement action. Typically, when a device is found to be incorrect the device is rejected, which involves the placement of a seal upon the device that notifies the device owner and the consumer that the device is in need of corrective repairs. The device owner is generally allowed up to 10 days to either initiate the necessary repairs or remove the device from commercial use. In extreme situations involving egregious errors, the device is condemned and immediately removed from commercial use.

Situations involving repeat violations or actions of a criminal nature are subject to civil penalty assessments or prosecution under the Virginia Weights and Measures Law as Class 1 misdemeanors. During FY 2006, penalty assessments totaling $13,600 were issued for eight misrepresentations in sales violations and seven shortweight violations.

IX. OPERATIONAL IMPACT OF 2005 AMENDMENTS TO TITLE 3.1

The 2005 Session of the General Assembly adopted changes to Chapter 35 and 35.1 of Title 3.1 of the Code of Virginia which eliminated the 12-month inspection interval for commercial weight and measure devices by VDACS, granted the Commissioner discretion to determine the frequency of such inspections, provided for the random re-inspection of newly installed as well as rejected devices, and allowed the Commissioner to accept inspection reports of weight and measures devices submitted by private companies in lieu of a state inspection and approval for such devices.

The implementation of revised inspection strategies in response to the legislative changes in 2005 resulted in 63,983 inspections of the 108,587 weights and measures devices used in commercial transactions in Virginia, or 59% of the total population. The overall frequency of inspection per device was 20 months. There was also a 57 percent reduction in the number of re-inspection of devices, from 9,326 during FY 2005 to 3,857 during FY 2006.

Throughout the year, several program staff retired, resigned, served on active duty in the military, or sustained injuries, which effectively reduced the availability of inspectors in the field. This situation was exacerbated by the dramatic increase in the number of motor fuel related complaints handled by the program in the wake of Hurricanes Katrina and Rita and the ensuing disruption in the normal flow of motor fuels. These anomalies made FY 2006 a rather unique year for the program, and one during which the impact of the legislative changes previously discussed would be difficult to estimate accurately.

Appendix

Glossary

Petroleum Dispensers – A device designed for the measurement and delivery of liquids used as fuel for internal-combustion engines. Normal single deliveries of less than 50 gallons.

Truck Stop Dispensers – A device designed for the measurement and delivery of liquids used as fuel for internal-combustion engines. Normal single deliveries of 50 gallons or more.

Taxi Meters – A device that automatically calculates, at a predetermined rate or rates, and indicates the charge for hire of a vehicle.

Moisture Machines – A device that indicates either directly or through the use of conversion tables and/or correction tables the moisture content of grains and seeds.

Vehicle Tank Meters – A meter mounted on a vehicle tank including those used for the measurement and delivery of petroleum products or agri-chemical liquids such as fertilizers, feeds, pesticides, and bulk deliveries of water.

Bulk Plant Meters – A device capable of delivering liquid products at a high rate of volume per minute.

Liquefied Petroleum Gas (LPG) Meters – A system including a mechanism or machine of the meter type designed to measure and deliver liquefied petroleum gas in the liquid state by a definite quantity, whether installed in a permanent location or mounted on a vehicle.

Computing/Hanging/Counter/Platform Scales – A device with a low nominal rated capacity used in the majority of direct retail sales transactions.

Warehouse Scales – A device usually having a nominal rated capacity greater than 5,000 pounds which is permanently mounted in the floor where located.

Vehicle Scales – A scale adapted to weighing highway, farm, or other large industrial vehicles loaded or unloaded.

Hopper Scales – A scale designed for weighing bulk commodities whose load-receiving element is a tank, box, or hopper mounted on a weighing element.

Livestock Scales – A scale equipped with stock racks, gates, and other adaptations for weighing livestock standing on the scale platform.

Monorail Scales - A device used to weigh livestock carcasses that may be used as a static or dynamic indicator, mounted on a truck and tree assembly that travels on a monorail system.

Railroad Scales - A device used to weigh railroad cars that may be used as a static or dynamic indicator.

Analytical Balance – A device used for precision measurements with a value of the verification scale division equal to or greater than 5 grams, and having at least 100 scale divisions, however no more than 1,200 scale divisions.

Belt Conveyor Scales – A device that employs a weighing element in contact with a belt to sense the weight of the material being conveyed and the speed (travel) of the material, and integrates these values to produce the total delivered weight.

Crane Scales – A device with a nominal capacity of 5,000 pounds or more designed to weigh loads while suspended freely from an overhead, track-mounted crane.

Vehicle On-Board Weighing System – A weighing system designed as an integral part of or attached to the frame, chassis, lifting mechanism, or bed of a vehicle, trailer, industrial truck, industrial tractor, or forklift truck.