



Michigan Department of Agriculture

Laboratory Division

Consumer Protection Section Annual Report 2010

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Consumer Protection Section Mission Statement

Prevent economic fraud and deception concerning weights and measures, motor fuels quality, labeling and advertising of all commodities.

Be responsible for environmental issues as they relate to the distribution of gasoline products.

Provide National Institute of Standards and Technology traceability on the state's standards and measures.

Provide regulatory resource expertise to the public, industry, and government.

Michigan Department of Agriculture
Laboratory Division • Consumer Protection Section
2010 Annual Report

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Metrology Laboratory

The E.C. Heffron Metrology Laboratory calibrated more than 9,200 standards during fiscal year (FY) 2010. This included internal standards for the State of Michigan, official standards for field investigations, and the overall monitoring of commerce including approximately 150 industry customers. External customers utilizing this “fee-for-service” support included other state metrology laboratories, registered service agencies, the automotive industry, pharmaceutical manufacturers, and a variety of other companies. The Lab also participated in three “round-robin” inter-laboratory comparisons where all test data is reviewed and compared against official data gathered from other states throughout the Midwest. These comparisons assist the Lab in monitoring its uncertainty controls to ensure traceability to official U.S. standards of length, mass, and volume.



A weight cart used to inspect heavy capacity commercial scales is certified by a metrologist using a highly accurate balance that has been calibrated against the State of Michigan Standard.

As part of its program to encourage a high degree of technical and professional competence, the Weights and Measures Division (WMD) at the National Institute of Standards and Technology (NIST) developed performance standards and formalized procedures for recognition of state legal metrology laboratories on a voluntary basis. Certificates of Measurement Traceability are issued upon evaluation of a laboratory’s ability to make reliable metrological measurements (principally mass, volume, length, and temperature). The Lab’s Certificate of Measurement Traceability was renewed by NIST on January 1, 2010.

An onsite audit was conducted by the National Voluntary Laboratory Accreditation Program (NVLAP) in September 2010 and the lab maintained its accreditation for a broad range of high echelon calibrations. NVLAP provides third-party accreditation to testing and calibration laboratories and its programs are established in response to Congressional mandates or administrative actions by the Federal Government or from requests by private-sector organizations. NVLAP is in full conformance with the standards of the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), including ISO/IEC 17025 and Guide 58. Michigan’s scope of accreditation can be found online at <http://ts.nist.gov/ts/htdocs/210/214/scopes/2004080.pdf>.

Benefits of the Lab include: ensuring accuracy and stability in the commercial measurement system; technical support of other state agencies; the facilitation of high tech and precision manufacturing; protecting Michigan’s roads from overweight vehicles through the use of portable wheel load scales; and the promotion of safety.

***Metrology—
“the science of measurement” - provides the uniform standards
upon which all other measurements utilized in commerce are based.***

Michigan's standards are traceable to the U.S. Standards maintained at the National Institute of Standards and Technology in Gaithersburg, Maryland.



A customer's linear measuring device is checked against the State standard and certified for commercial use.

Laboratory Activities

Mass standards are test weights used by industry, service companies, and enforcement programs to determine the accuracy of weighing devices. They vary in size from 6,000 pounds to one micropound and from 500 kilograms to one milligram.

Mass Standards Testing Results

	<u>Echelon I</u>	<u>Echelon II</u>	<u>Echelon III</u>
Internal	64	120	198
External	6	1979	5965

Volumetric Standards are provers used in the testing of liquid measuring devices such as gas pumps, fuel oil, and LP Gas measuring meters.

Volumetric Standards Testing Results

	<u>Glassware</u>	<u>LP Gas</u>	<u>Small Volume Provers</u>	<u><= 5 Gallon Test Measures</u>	<u>> 5 and <= 100 Test Measures</u>	<u>> 100 Gallon Test Measures</u>
Internal	2	3	0	67	4	2
External	5	6	13	178	23	18

Other Standards Testing Results

	<u>Thermometers</u>	<u>Other</u>	<u>Linear Standards</u>	<u>Wheel Load Weighers</u>
Internal	23	8	0	0
External	5	-	22	542

Weights and Measures Program

The Weights and Measures Program's primary responsibility is to ensure consumers and businesses that all products and services bought and sold by weight, measure or count **are accurate**, under the authority of the Michigan Weights and Measures Law, P.A. 283 of 1964. This program is also charged with the administration and oversight of the service agency/person registration program, ensuring the technical expertise and compliance of service companies installing and repairing commercial weighing and measuring devices. In addition, weights and measures staff are responsible for investigating consumer complaints involving item pricing and electronic checkout systems per the Consumer Pricing and Advertising Act, P.A. 449 of 1976. The diversity of responsibilities is reflected throughout the course of the year as staff investigates consumer complaints, conducts routine inspections and participates in special projects using a risk based methodology.

During the 2010 fiscal year, staff investigated 1,160 consumer complaints involving short weight/measure packages, misbranded products, false or deceptive advertising, inaccurate weighing or measuring devices, item pricing and scanner errors. Staff tested 15,258 packages for accurate net content approving 44 percent. As a result approximately 550,450 lbs. of short weight/measure products were removed from sale for corrective action, worth an estimated \$350,000. Also, during this period, staff inspected and tested 19,439 commercial devices, approving 94 percent. The devices tested included retail and wholesale motor fuel dispensers, propane meters, small and large capacity scales. Michigan consumers and businesses benefit by knowing that equity in the marketplace is maintained by the weights and measures staff, while companies doing business overseas are aided with meeting the strict weights and measures requirements of the global community.

The program currently monitors the activities of 134 registered service agencies and their 512 registered technicians, through the auditing of test data submitted by companies as required by law, as well as, field audits conducted of new and repaired devices. Information relevant to device operators and service companies is maintained on our website www.michigan.gov/wminfo.

Industry outreach programs continue to be a focus of this program's proactive approach to ensuring compliance. Staff participated in training classes and industry trade shows while maintaining current information relevant to our stakeholders via the internet.

In response to information collected throughout this year, the program will direct more resources to the testing of packages for accurate net content. Constantly evaluating test data enables the program to best serve Michigan consumers and businesses, while maximizing the use of our available resources.



Mobile meter testing units saw greater implementation Statewide resulting in increased inspection efficiency and greater safety for Weights and Measures Field Inspectors.



State Officials' Inspections

Net Content Inspections

Field	<u>Surveys</u>	<u>Packages Approved</u>	<u>Packages Rejected</u>	<u>Compliant</u>	<u>Lots Approved</u>	<u>Lots Rejected</u>	<u>Compliant (%)</u>
	1351	6661	8597	43.66%	236	836	22.01%

Weights and Measures Device Inspections

<u>Commercial Device Type</u>	<u>Approved</u>	<u>Condemned for Use</u>	<u>Condemned for Repair</u>	<u>Compliant (%)</u>
Animal Livestock Scale	1	0	0	100
Counter Scale	2,895	23	59	97.25
Crane Scale	2	0	0	100
Fuel Truck meter	45	1	5	88.24
LPG Meter (25 GPM or less)	43	2	0	95.56
LPG Meter (over 25 GPM)	168	4	11	91.80
Monorail	9	0	0	100
Multiple Grade Gasoline Dispenser	6,755	161	372	92.69
Platform Scale (1,500 lbs or less)	49	5	0	90.74
Platform Scale (over 1,500 lbs)	60	7	11	76.92
Single Grade Gasoline Dispenser	7,590	194	248	94.50
Single Product Meter (over 25 GPM)	208	7	27	85.95
Terminal Meter	29	0	1	96.67
Vehicle scale (2 section)	24	1	3	85.71
Vehicle scale (3+ section)	346	13	60	82.58
TOTAL	18,224	418	797	93.75

<u>Miscellaneous Devices / Standards</u>	<u>Approved</u>	<u>Condemned for Use</u>	<u>Condemned for Repair</u>	<u>Compliant (%)</u>
Weights (Field Tested)	0	0	0	N/A

Certificates Issued

Livestock Weighmasters	4
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Weights and Measures Program field staff test several hundred heavy capacity vehicle scales annually. Properly calibrated scales are key components in maintaining the safety and infrastructure of Michigan's local streets, rural roads, and expansive highway system.



Weights and Measures Information and Statistics

Weights and Measures Undercover Activities

Consumer Protection Section employees are equipped with unmarked vehicles holding calibrated false tanks used to conduct unannounced dispenser accuracy checks. Following are the results of these unannounced purchases during FY2010

Number of Purchases	454
Number of Shortages ≥ 1.0%	7
Percentage of Purchases ≥ 1.0% Short	1.5%

Weights and Measures Complaints Investigated

Item Pricing and Accuracy	97
Retail Motor Fuels Dispensers	*924
Short Weight / Measure	112
All Other Complaints	27
TOTAL	1,160

Gas complaints were jointly investigated with MDA's Motor Fuels Quality Program

Disposition of P.A. 283 Violations

Compliance Meetings	16
Warning Letters	47
Consent Agreements	63
Prosecutions	-
Seizures / Detainment (Short Weight / Measure)	112
Seizures / Detainment (Amount / lbs)	550,450
Seizures / Detainment (Value)	\$349,056
Fine Amounts	\$251,600



Net content of goods packaged for sale to Michigan consumers and others is checked at the point of manufacture, in facilities where repacking bulk product into retail packages occurs, and at the point of sale to verify the weight or volume of product is correctly represented on the package label.

Registered Serviceperson Activities

Registration Activities

Agencies Registered	41
Technicians Registered	194
Service Tests Administered	132

Devices Placed-In-Service by Registered Agencies

Retail Motor Fuel Dispensers	1674
All Other Meters	296
Small Capacity Weighing Devices	2324
Large Capacity Weighing Devices	612

Audit of Serviceperson Activities

	<u>Number Conducted</u>	<u>Compliance Rate</u>
Internal	2,382	87.3%
Field	313	88.5%

Currently 134 Agencies and 512 technicians are successfully registered under the Serviceperson Program.

Motor Fuels Quality Program

In addition to the motor fuels quality inspection and testing work done at motor fuel retail outlets during FY 2010, wholesale marketers were also closely monitored for compliance with gasoline quality and environmental standards. Motor fuels quality specialists conducted 47 inspections and sampled product at the state's 29 motor fuel distribution terminals that receive products by pipeline or barges and sell gasoline. Quality specialists monitored Michigan's only refinery for compliance with the state's motor fuel standards. Staff reviewed wholesalers' procedures and documents including checking for compliance with the new tank labeling rules, outlined in Regulation 562. Most terminals were found to be in compliance and notifications of the new tank labeling requirements were given to all terminals.

Quality specialists obtained 243 enforcement samples including 42 fuel grade ethanol samples and 84 laboratory blends submitted for official testing. Laboratory blends are blends of gasoline and ethanol made to simulate blends of gasoline sold at retail. These blends are then tested for compliance with gasoline standards. Follow up investigations were conducted at four terminals when testing revealed quality issues with ethanol blending, low octane, or high end point temperature.



Motor fuels quality is checked at the terminals to prevent distribution of substandard product to retail locations.

Monitored terminals continued to make improvements to their policies and procedures for the re-blending of pipeline trans-mix products into the regular grade gasoline; and continue to improve their ethanol blending procedures based on the Motor Fuels Quality program's inspection findings. This continuous improvement has helped prevent misrepresented or poorly blended gasoline products from leaving the terminals, and protects hundreds of retailers and their customers from receiving poor quality gasoline.

Motor Fuels Quality Information and Statistics

Stop Sale Information

Excess Water in Underground Storage Tank	21
Failure to Meet Quality Standards	14
Gallons of Product Embargoed Per Stop Sale	2,860
Retail Cost of Embargoed Product per Gallon	\$2.859
Total Estimated Retail Value of Embargoed Product	\$286,186
Average Vehicle Repair Cost Resulting from Motor Fuel Quality Issue as Reported to MDA	\$887

Complaint and Motor Fuels Quality Hotline Information

Complaints Received through 1-800-MDA-FUEL	858*
Gasoline Quality Complaints Investigated	194

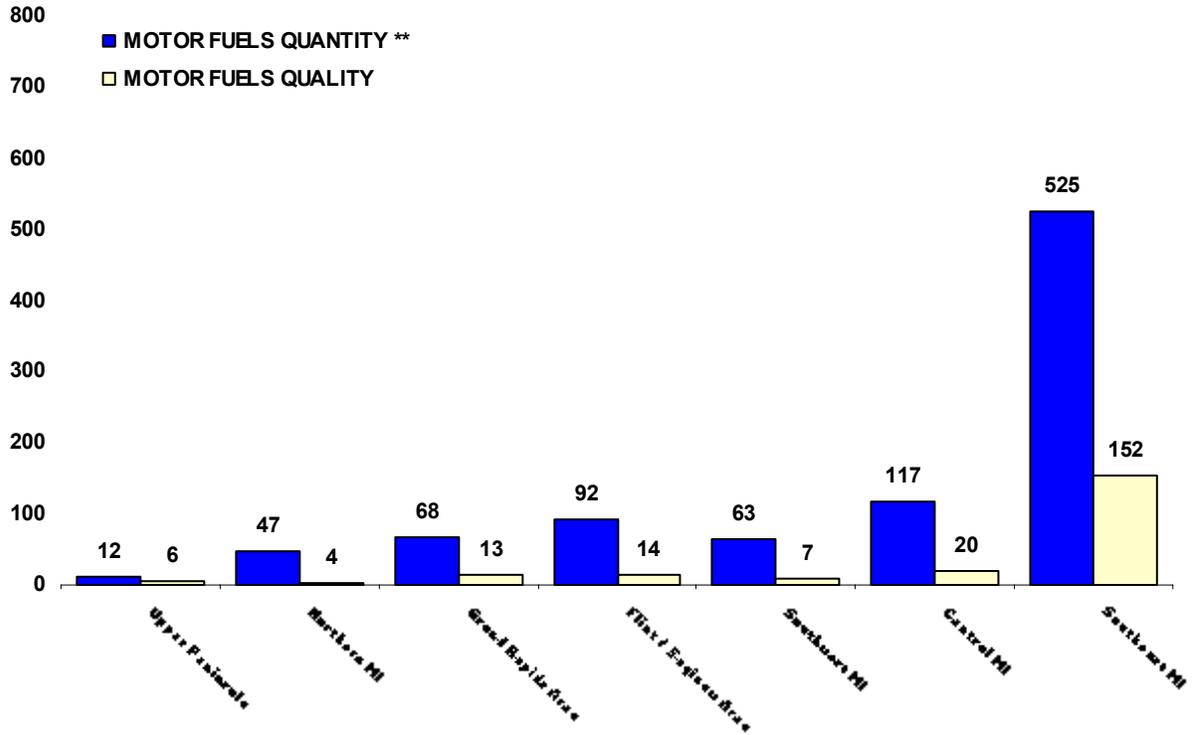
Disposition of P.A. 44 Violations

Compliance meetings	67
Warning Letters	972
Administrative Fines	92
Prosecutions	0
Fine Amounts	\$60,920

Note: Complaints outside the Program's area of responsibility received via the MFQ Hotline were forwarded to the appropriate agency. All gasoline quality complaints were investigated.

Motor Fuels Quality Information and Statistics (continued)

Complaints Investigated by Region



Samples Procured

In addition to licensing, inspection, and complaint investigation responsibilities, Motor Fuels Quality Program staff regularly procures gasoline samples for quality testing. The following results are for fiscal year 2010.

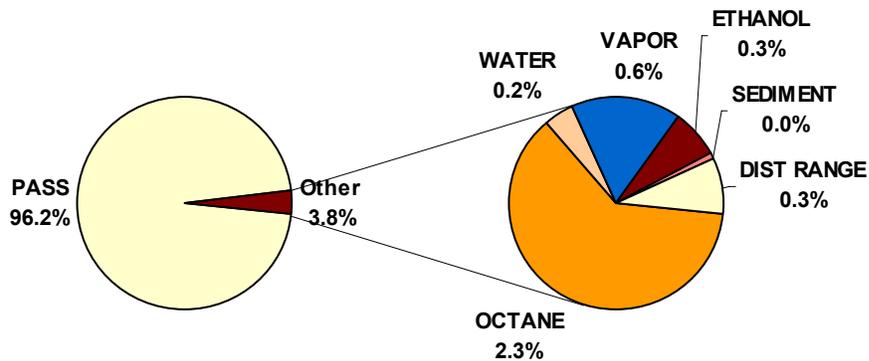
<u>Results</u>	<u>Number</u>
Approved	2623
Warning Letters	96
Non-actionable	4
Administrative Fines	6
Investigations in Progress	-
TOTAL	2729



Motor fuels quality inspectors employ visual observation and analytical data during inspections at retail outlets. When warranted an official sample is collected and sent to in the State's motor fuels laboratory for a more thorough analysis.



Motor Fuels Quality Information and Statistics (continued)
Total Sample Violation Rate Breakdown



Samples were procured for the following reasons: a monthly random quality assurance program, ongoing investigations, consumer complaints, and to assure establishment compliance when there has been a previous violation.

Sample Results by Sampling Method

<u>Sampling Reason</u>	<u>Number of Samples</u>	<u>Number of Violations</u>	<u>Compliant (%)</u>
Routine	6	0	100
Complaint	196	12	93.9
Re-Sample	154	15	90.3
Investigation	47	7	85.1
Confidential / Undercover	127	5	96.1
Other	773	12	98.4
Delinquent License	33	0	100
Quality Risk Assessment	1,244	50	96
Terminal Sampling	149	4	96.6
TOTAL	2,729	106	96.1

Sample Results by Octane ((R+M)/2)

<u>Octane (AKI)</u>	<u>Number of Samples</u>	<u>Number of Violations</u>	<u>Compliant (%)</u>
86	59	2	96.6
87	1,221	16	98.7
88	3	0	100
89	609	20	96.7
90	25	1	96
91	76	4	94.7
92	106	6	94.3
93	585	54	90.8
94	3	3	0
Other	42	0	100
TOTAL	2,729	106	96.1

Sample Results by Region

<u>Region</u>	<u>Number of Samples</u>	<u>Number of Violations</u>	<u>Compliant (%)</u>
Upper Peninsula	309	36	88.3
Northern Michigan	349	6	98.3
Grand Rapids Area	284	7	97.5
Flint / Saginaw Area	324	3	99.1
Southwest Michigan	312	9	97.1
Central Michigan	251	9	96.4
Southeast Michigan	900	36	96
TOTAL	2,729	106	96.1

The Michigan Department of Agriculture's gasoline toll free complaint hotline is available 24 hours a day year round for consumers that feel they have received a short measure of, or poor quality motor fuel.



Vapor Recovery and Reduction

The Motor Fuel Quality Program helps to protect the environment and Michigan residents through the Low Vapor Pressure gasoline sampling/testing program. Gasoline is a mixture of very volatile organic compounds and some of these compounds are toxic to human health and harmful to the atmosphere. The State of Michigan is under a 1990 US Environmental Protection Agency (EPA) mandate to improve the quality of the air in select counties. Eight of these counties in Southeastern Michigan are under lower vapor pressure gasoline contingency measures as part of an air maintenance plan. In those counties, gasoline vaporization is restricted to limit the amount of pollutants released into the atmosphere from tankers refilling storage tanks and vehicle usage. These programs benefit people in the ozone maintenance areas by preventing health risks caused by breathing gasoline vapors or smog created from the vapors. To attain these benefits, the program requires that gasoline dispensed or sold be less volatile (reduction of 2 pounds per square inch from conventional gasoline). The program audits and procures samples at approximately 600 gas dispensing facilities located in Lenawee, Livingston, Macomb, Monroe, Oakland, St. Clair, Washtenaw, and Wayne counties from June 1 to September 15. During the 2010 fiscal year, 611 locations were visited for field audits to monitor vapor pressure of the SE Michigan area gasoline. Three locations (less than 0.1%) were found to be in violation when field audits were conducted. Five of these audits did not contain ethanol.

Field Audit and Sample Results*

	<u>Field Audits</u>	<u>Official Samples</u>	<u>Total</u>
Number of Establishments	611	183	741
Number of Audits Conducted*	614	227	841
Overall Establishments in Violation	3	5	7
Establishment Violation Rate	< 1.0 %		

*When establishments were found in violation, multiple audits were conducted; and at some establishments multiple samples were collected.

Number of Field Audits and Samples Per County

Number of Field Audits per County

Lenawee.....	14
Livingston.....	19
Macomb.....	90
Monroe.....	15
Oakland.....	143
St. Clair.....	17
Washtenaw.....	41
Wayne.....	275

Field Audits without Ethanol (7.0 psi RVP limit)

<u>Octane</u>	<u>RVP Average</u>	<u># of Audits</u>	<u># of Violative Audits</u>
86	-	-	-
87	7.83	1	1
88	-	-	-
89	6.55	2	0
90	-	-	-
91	6.60	1	0
92	-	-	-
93	-	-	-
94	-	-	-
TOTAL	6.88	4	1

Field Audits with Ethanol (8.0 psi RVP limit)

<u>Octane</u>	<u>RVP Average</u>	<u># of Audits</u>	<u># of Violative Audits</u>
86	-	-	-
87	7.83	552	1
88	-	-	-
89	7.75	26	1
90	-	-	-
91	7.92	2	-
92	7.46	2	-
93	7.59	28	-
94	-	-	-
TOTAL	7.74	482	2

STATE OF MICHIGAN



Executive
Office

Jennifer M. Granholm
Governor

CERTIFICATE OF PROCLAMATION

On behalf of the citizens of Michigan, I, Governor Jennifer M. Granholm,
do hereby proclaim the week of March 1, 2010,

Weights and Measures Week

Whereas, The Michigan Department of Agriculture Laboratory Division's Weights and Measures program serves to meet the public need of standard weights and measures in the state of Michigan; and,

Whereas, The employees of the Weights and Measures program are responsible for ensuring that all weighing and measuring devices used in commerce are accurate in both their design and operation; and,

Whereas, Weights and measures activities have an estimated economic impact of over \$170 billion in the state of Michigan annually; and,

Whereas, This year's theme, *Michigan Weights and Measures - Keeping Pace for the Future*, recognizes the state of Michigan as one of the eight original states that partnered together in 1905 to establish uniform weights and measures requirements; and,

Whereas, Each year, the first week in March is set aside to increase public awareness of our nation's first weights and measures law, which was created in 1799, and to showcase how it is used to promote a competitive, fair marketplace, which strengthens Michigan's diverse economy;

Now, Therefore, be it Resolved, That I, Jennifer M. Granholm, governor of the state of Michigan, do hereby proclaim the week of March 1, 2010, Weights and Measures Week in Michigan in conjunction with the national celebration of the 211th anniversary of our nation's first weights and measures law and the 105th year of Michigan's co-founding of the National Conference on Weights and Measures.




Jennifer M. Granholm
Governor

This report is issued under the provision of Act No. 283 of the Public Acts, as amended,
Section 7, being Section 290.607 of the Compiled Laws of 1979.

Electronic copies of this 2010 Annual Report may be obtained via www.michigan.gov/mda

