


**STATE OF MISSISSIPPI  
DEPARTMENT OF AGRICULTURE AND COMMERCE  
ANDY GIPSON, COMMISSIONER**



**Weights and Measures Division  
P. O. Box 1609  
Jackson, MS 39201**

**Mississippi Solid Waste and Recycling Conference  
May 16, 2018  
Bay St. Louis, MS**

## **Weights and Measures Division**

The Weights and Measures Division is charged with the responsibility of the inspection and testing of most scales and measurement equipment used in commerce to ensure equity in the market place. In addition, the division provides training to inspectors on various laws, rules and regulations administered by the division, emphasizing how enforcement is to be used to better serve the citizens of Mississippi.

## Weights and Measures Division Staff

**Director** - Administers and enforces the provisions of Weights and Measures Law, Rules and Regulations. Performs other duties which may include services designed to aid and protect consumers.

**Inspector Supervisor** – Trains, delegates and provides ongoing guidance and support to inspectors as they complete their day-to-day job duties for the division.

**Administrative Assistant** - Provides advanced administrative support and technical program assistance for the Weights and Measures Division and assists in the overall day-to-day functioning of the agency. Licenses weighmasters, pulpwood facilities, livestock facilities, livestock auctioneers, scale service Repairmen and companies.

**Intermediate Inspectors** – Inspects & tests small and medium capacity scales; such as precision scales used to purchase precious metals, co-op, shipping, meat, frozen yogurt scales and etc. Inspects packaged commodities to ensure they contain the labeled quantities. Performs Universal Product Code (UPC) inspections to verify accurate pricing at check out counters.

**Heavy Inspectors** – Inspects & tests large capacity scales; such as railroad, vehicle, livestock and hopper scales. These scales are often found at landfills, sawmills, grain elevators, scrap metal salvage yards and other various industries.

{ 3 }

## Mississippi Metrology Laboratory

The Mississippi Department of Agriculture and Commerce maintains the Mississippi Metrology Laboratory located on the campus of Alcorn State University. The Mississippi Metrology Laboratory is accredited by the National Institute of Standards and Technology (NIST). The metrology laboratory uses standards traceable to NIST to calibrate the field test weights and volume measures used by inspectors and service personnel to test and calibrate weighing and measuring devices being used in commerce in the state of Mississippi.

The laboratory is a 2.25 million dollar facility.



{ 4 }

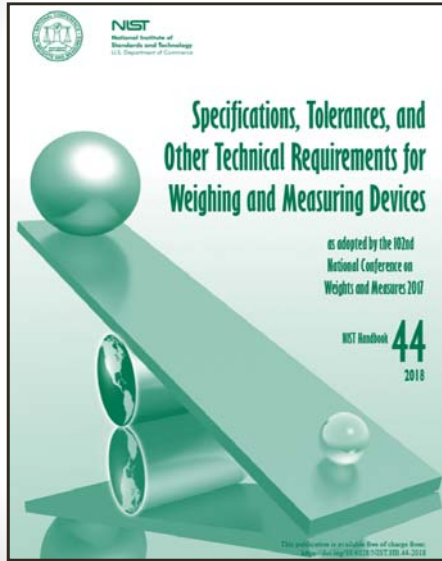
Mississippi Metrology Laboratory is accredited through the National Institute of Standards & Technology (NIST).



### Moisture Meter Testing Laboratory Stoneville, MS.

The Mississippi Moisture Meter Laboratory provides testing and inspection of devices used to measure the moisture content of agricultural products offered for sale, processed or stored, using standard methods set by the USDA. The Moisture Meter Laboratory also compiles grain standards used in the inspection of grain moisture meters tested in the State of Mississippi. The laboratory is part of the Weights and Measures Division and is located on the campus of the Delta Research and Extension Center in Stoneville, Mississippi.

## National Institute of Standards and Technology (NIST) Handbook 44



Mississippi has adopted NIST Handbook 44, which sets the specifications, tolerances, test procedures and user requirements for commercial weighing and measuring devices.

Handbook 44 is published by NIST as adopted & amended by National Conference on Weights and Measures (NCWM). Copies can be obtained from NCWM or NIST.



{ 7 }

## State of Mississippi Weights & Measures Law of 1964



### MISSISSIPPI WEIGHTS AND MEASURES LAWS



MISSISSIPPI DEPARTMENT OF AGRICULTURE AND COMMERCE

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{ 8 }

### Calibrated test weights



Scales must be tested with calibrated test weights from an accredited metrology laboratory

[ 9 ]

### Scale Preliminary Inspection



[ 10 ]



## Inspecting Vehicle Scales

### Increasing load test:



\* Tested at multiple points across weighing range

{ 11 }

### Shift Test



Test load placed over each load bearing point

{ 12 }



{ 13 }

### Strain Load Test



{ 14 }

Allows testing at higher weight ranges than would be practical otherwise

### Strain Load Test



[ 15 ]



Test cart with test weights are transported back to test truck to reload

[ 16 ]





[ 17 ]

Test weights being loaded into test truck



[ 18 ]

Test cart being loaded into test truck

## Electronic Records

- **Approved** – Correct devices
- **Rejected** – Incorrect devices
- Scale test information is entered into a computer.
- Inspector reviews results with responsible party & obtains a signature



19

**APPROVED**

If scale is approved; a certification sticker is affixed to devices approved for use in commerce.

The month of the inspection will be punched out.



20

REJECTED

21

If a device/scale is rejected a rejection tag is affixed to the device

### Rejected Devices/Scales

| Device Type  | Stop Use After | Condemned             |
|--------------|----------------|-----------------------|
| Intermediate | 5 days         | Removed from premises |
| Heavy        | 5 days         | Removed from premises |

**A Licensed Repairman** can install, test, adjust, repair and remove “Rejected for Repairs” red tags placed on weighing and measuring devices by Mississippi Weights and Measures Officials, and place in service, on a temporary basis, newly installed devices until such time as an official inspection can be made by Mississippi Weights and Measures Officials.

22

### Scale Identification Data Plates



{ 23 }

### Zero Balance

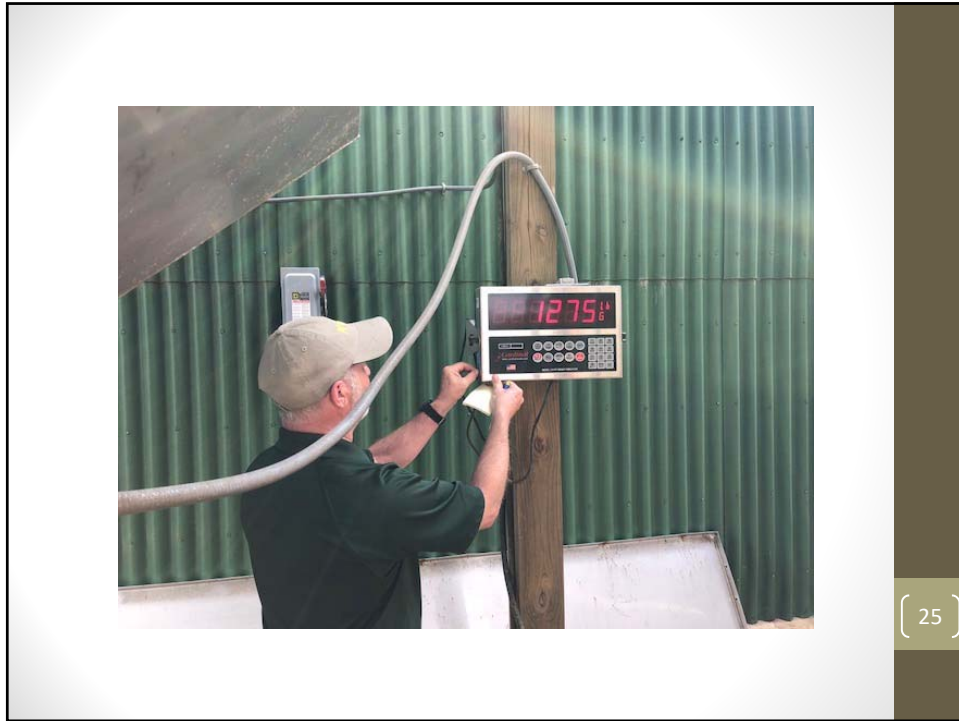


Scales must be maintained at **0.00 balance** prior to weighing.



{ 24 }





## National Type Evaluation Program (NTEP)

- Administered by National Conference on Weights and Measures (NCWM)
- Inspects & tests an example of each model to ensure compliance with NIST Handbook 44.
- Device manufacturers submit different designs to NTEP for evaluation
  - All components having a metrological effect (indicators, load cells, platforms, etc.) must be submitted
- Certificate of Conformance (NTEP CC) issued to compliant devices
- Commercial use devices in MS must be traceable to an NTEP CC

Certificate Number: 01-011A8  
Page 1 of 2

NATIONAL TYPE EVALUATION PROGRAM  
*Certificate of Conformance*  
for Weighing and Measuring Devices

|   |   |
|---|---|
| <p><b>For:</b><br/>Indicating Element<br/>Digital Indicator<br/>Models: 200, 205, 210, 210-F, 210-FE, 212-G, 212-GX, 215, 220 and 225<br/>Acc. 10/000<br/>Accuracy Class: III / III L</p> | <p><b>*Submitted by: Customer Info. Updated September 2015</b><br/>Central Scale Manufacturing Company<br/>205 East Deshler Street<br/>Wash. Ctr., MO 64679<br/>Tel: 417-674-6611 x-2111<br/>Fax: 417-675-7001<br/>Customer Etc. Guidelines<br/>Email: <a href="mailto:sg@central.com">sg@central.com</a><br/>Web: <a href="http://www.central.com">www.central.com</a></p> |
|---|---|

**Standard Features and Options:**

**Standard Features:**

- Semi-Automatic Zero (Push-Button)
- Auto-Automatic Zero (Push-Button)
- Automatic Zero Tracking (Auto-Zero/AUTZ)
- Gross-Net Display
- Gross-Net Weight Accumulation
- Bi-Directional RS232 Serial Interface
- Cash Counter/Scale
- Display Element: Zero Key
- LCD or LED Display
- Zero Function Key
- Motor-Driven Scale
- AC Power Supply
- Capacity: Physical Seal
- Livestock Weighing Platform (210, 212-G and 212-GX only)

**Options:**

- DC Power Supply with Low Battery Indication (Models 205, 210, 212-G, 212-GX and 219)
- Dual RS232 or Analog Interface
- Wireless Interface

**Also see table on Page 2.**

**Temperature Range: -10 °C to 40 °C (14 °F to 104 °F)**

This device has been tested under the National Type Evaluation Program and was found to comply with the applicable technical requirements of NIST Handbook 44 Specifications, Uniform and other Technical Requirements for Weighing and Measuring Devices. Evaluation results and device characteristics necessary for inspection and use are contained on the following page(s).

|   |  |
|---|--|
| <p><i>[Signature]</i><br/>_____<br/>Suzanne Bergmann<br/>Chairman, NCWM, Inc.</p> | <p><i>[Signature]</i><br/>_____<br/>Evert Fries<br/>Chairman, National Type Evaluation Program Committee<br/>Issued: April 9, 2013</p> |
|---|--|

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# Legal for Trade Scales



## NTEP CC Database

NCWM maintains an online database of NTEP Certificates of Conformance

<http://www.ncwm.net/certificates>

Before you purchase a scale (or scale system) make sure it's traceable to an NTEP CC. On devices with separable components such as vehicle scales, the indicator, load cells, and platform will have separate NTEP CCs.

{ 27 }

## MS Code 75-27-67 Licensing scale service companies and repairmen

MS. Code 75-27-67: Licensed scale company and repair person.  
Installation of scales.

It shall be unlawful and a misdemeanor:

- (1) for any person other than the owner or his regular employees, to repair any weighing or measuring device unless he holds the above prescribed license.
- (2) for any person to retain any remuneration for repairing any weighing or measuring device unless the repairing involved causes such device to meet the requirements of the article for at least ninety days after such repairing; or
- (3) for any person to violate any of the provisions of this section.

{ 28 }

## Vehicle Scale Approach Requirements

- Mississippi requirements differ somewhat from NIST Handbook 44
- Must be at least as wide as the platform
- Must be at least half the length of the scale (but not required to be more than 40 feet)
- 1<sup>st</sup> 10 feet must be level and in same plane as platform
- Any slope of remaining portion must provide ease of vehicle access, ease for testing purposes, and drainage away from the scale.
- Any slope on required remaining portions of approaches cannot exceed ½ inch per foot
- Entire approach must be constructed of concrete if installed in 1 location for more than 6 months



[ 29 ]

## Remote Displays

NIST Handbook 44 requires that customers, if present, be allowed to observe the weighing process, including the scale indications.

Scales installations, such as vehicle and livestock scales, often require a remote display to meet this requirement.



[ 30 ]



{ 31 }



### Tipping the Scales

Proverbs 16:11 "A just weight and balance are the LORD'S: all the weights of the bag are his work."

{ 32 }





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{ 33 }