

ALDOT-407-01
CALIBRATION VERIFICATION OF TRUCK MOUNTED WATER METERS

1. Scope

- 1.1 This procedure will outline the requirements necessary to verify the calibration of truck mounted water meters used in all Alabama Department of Transportation, herein referred to as ALDOT or as the Department, projects.
- 1.2 This procedure will also establish the verification frequency for truck mounted water meters.

2. Required Equipment

- 2.1 The following equipment shall be supplied by the concrete producer:
 - 2.1.1. A 1000 lb {454kg} platform scale.
 - 2.1.2. Standard test weights {masses} to verify scale accuracy.
 - 2.1.3. A 55-gallon {210 L} drum reserved for calibration verification.

3. Calibration Verification Procedure

- 3.1 The concrete producer's Concrete Technician, certified by the Department, shall perform the calibration verification procedure in the presence of an ALDOT representative.
- 3.2 Verify that the calibration of the scale does not exceed six months.
 - 3.2.1. If the last calibration exceeds six months, the scale shall be re-calibrated before proceeding with the calibration verification of the truck mounted water meters.
- 3.3 Determine the scale accuracy by weighing 500lb {227 kg} of the standard test weights {masses}. Note any deviation for later adjustments.

- 3.4 Place drum on scale and determine its tare weight {mass}.
- 3.5 Discharge 25 gallons {94.6 L} of water into the drum through the meter and record the weight {mass}.
- 3.6 Adjust the weight {mass} for any deviation obtained in step 3.3 and record as total weight {mass}.
- 3.7 The total weight {mass} recorded shall be 208.63 lb {94.63 kg} \pm 1%.
- 3.8 If the total weight {mass} recorded is not within 1% of 208.63 lb {94.63kg} the concrete producer shall adjust the meter in accordance with the manufacturer's recommendations.
- 3.9 After the meter is adjusted repeat steps 3.4 through 3.7.

4. Calibration Verification Frequency

- 4.1 The verification of the calibration of truck mounted water meters shall be performed every twelve months or when the Engineer suspects inaccuracy in the meter readings.
- 4.2 A record of the calibration verification will be maintained by the Department on BMT – 172, "*Record of Calibration Verification of Truck Mounted Water Meters.*"