LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
VERIFICATION PROCEDURE

MECHANICAL SHAKER

Equipment

1. Hand sieves conforming to AASHTO M92 consisting of the following size sieves: 1 1/2", 1", 3/4", 1/2", 3/8", No. 4, No. 16, No. 50, No. 100, and No. 200.
2. Snug fitting pan and cover for sieves.
3. Balance conforming to AASHTO M231 readable to the nearest 0.1 percent of the total sample weight.

Procedure

1. Perform the sieving procedure shown in AASHTO T27 using the mechanical shaker.
2. After completion of sieving, hand sieve the materials retained on each sieve for 1 minute as follows:
   A. Hold the individual sieve, the hand sieve and the material fitting pan and cover, in a slightly inclined position in one hand.
   B. Strike the side of the sieve sharply and with an upward motion against the heel of the other hand at the rate of about 150 times per minute turning the sieve about one-sixth of a revolution at intervals of about 25 strokes.
   C. For sieving sizes larger than the No. 4 sieve, limit the material on the sieve to a single layer of particles.

Note: If the size of the mounted testing sieves makes the above sieving motion impractical, use 8" diameter sieves to verify the sufficiency of sieving.

3. Weigh and record the amount passing each sieve.
4. Calculate the percent by weight of total sample passing each sieve after hand sieving as follows:

$$P = (W/T) \times 100$$

Where: P = Percent passing each hand sieve
W= Weight passing each hand sieve
T= Total sample weight

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

VERIFICATION OF
MECHANICAL SHAKER
(AASHTO T 27)

Verification procedure used: DOTD A8

Verification frequency: 12 months Previous verification date: _____

Date of verification: _____ Next verification due: _____

Identification no.: _____ Mfg./distributor: _____

Verified by: _____ Verification equipment used: _____

_____

_____

Total sample weight (T) = _____ Percent passing = (W/T) X 100

Sieve size	Weight passing (W)	Percent passing	Pass/fail (toler. = 0.005xT)
1 ½ inch			
1 inch			
¾ inch			
½ inch			
3/8 inch			
No. 4			
No. 16			
No. 50			
No. 100			
No. 200			

Recommended action: repair _____ replace _____ none _____

Comments: _____

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