SCOPE: Provide guidance on the calibration, automation and recordation requirements for WMA production when utilizing WMA technologies which are introduced at the Hot Mix Asphalt (HMA) production facilities.

GENERAL: The following requirements apply to all WMA technology equipment which introduces an additive (water, zeolite, chemical or wax) at the HMA production facility to produce WMA:

1. WMA technology introduction equipment must be automatically controlled by the batching computer or a separate off-line system.
2. Provide a means of calibrating the technology’s introduction system in accordance with Materials Method 27. Metered additives shall meet delivery tolerance of ±1% of the quantity of additive recorded. Scales used for weighed additives shall be calibrated every 90 days.
3. At drum mix facilities, record the accumulated weight of additive simultaneously with the weights of the other mix constituents. Resolution for additive addition must be no greater than 0.001 ton.
4. At drum mix facilities a positive no-flow shall be incorporated into the additive introduction system which alerts the operator to a no flow condition. This no-flow condition shall interrupt production if not remedied within 5 seconds.
5. At batch plant facilities, the additive target and batched quantity must be recorded on the batch recordation, or print the additive target, quantity, time and date utilizing the separate offline system printer. Liquid additives shall not be included in the total batch weight. If using liquid additives, convert the metered volume to weight in pounds with a resolution no greater than 0.01 pounds.
6. For all plants, batching tolerance for the additive shall be within ±0.1% of the target value based on the virgin PG Binder content. At batch plant facilities, because tolerance values are based on the total batch size, the tolerance value for the additive shall be ±0.005% to meet the required batching tolerance.

APPROVAL: Technologies used to provide WMA to Department projects shall meet the requirements of this procedure and appear on the Department’s Approved List for Technologies for Warm Mix Asphalt (WMA) (712-10).