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# ATTI - PERFORMANCE CHECKLIST

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## Field Technician

### Cone Correction

- SEC: 4.1.1.1. Fill the apparatus with the appropriate sand.
- SEC: 4.1.2. Weigh and record the mass of the apparatus filled with sand to **0.01lbs (1 gram)**.
- SEC: 4.2.1  
- 4.2.3 Place the **base plate on a level surface**. Invert the sand-cone filled with sand and seat inside the recess of the base plate. Open valve fully and allow the sand to flow until it stops. Close the valve.
- SEC: 4.2.3 Weigh and record the mass of the apparatus after the flow of sand to **0.01lbs (1 gram)**. The difference between these two weights is the **cone correction**.

### Determine the Bulk Density of Sand

- SEC: 4.3.1 Fill the apparatus with sand and determine the weight to **0.01lbs (1 gram)**.
- SEC: 4.3.2  
- 4.3.4 Place the **calibration container on a level surface**. Place the **baseplate on the calibration container**. Invert apparatus and seat funnel in recess of baseplate. Open valve fully until sand stops flowing. Close the valve.
- SEC: 4.3.4  
- 4.3.7 Weigh and record the mass of the apparatus after the flow of sand to **0.01lbs (1 gram)**. **Repeat** the procedure 2 more times. The determination of the bulk density of sand **procedure is done 3 times TOTAL & the average of the results of the calculation is recorded**.

## Procedure

- SEC: 5.1.1* Fill the apparatus with sand and record the weight to **0.01lbs (1 gram)**.
- SEC: 5.1.2* Prepare the **surface so that it is level**.
- SEC: 5.1.3* Place the **base plate on the surface**. **Dig** the test hole inside the opening of the base plate. Place all loosened soil in a container, being careful to avoid losing any material. **Avoid moisture loss** during digging.
- SEC: 5.1.4* Place the **apparatus** on the **base plate and open the valve**. After the sand has **stopped** flowing, **close the valve**.
- SEC: 5.1.5* Weigh the apparatus and record **weight to 0.01lbs (1 gram)**.
- SEC: 5.1.6* **Weigh the moist material that was removed** from the test hole.
- SEC: 5.1.7* **Mix the material and weigh a sample for moisture content**.
- SEC: 5.1.8* **Calculate the moisture content** to 0.1 % according to the procedure used by the technician.