

Certification Policies - Materials Technician Conventional Density Assessment Certification Program

Program Description: This Program will instruct and certify Materials Technicians in the proper procedures for conducting assessments on certified Conventional Density Technicians actively performing density acceptance tests.

Prerequisites: Successful completion of both the Conventional Density Certification Class (Course: MAT 230) and a field certification conducted by a Technical Trainer to perform density Tests 1a, 1 and moisture density curve (Anyone attempting to obtain this certification must be in “Active” status for Conventional Density Testing in HiCAMS prior to beginning with Step 1)

Duration of Certification: 5 years

Registration: Complete and submit (electronically) registration form from the M&T website:

http://www.ncdot.org/doh/operations/materials/tschedule12/default_12.html.

Certification Process: The certification process will involve 3 steps and each step must be successfully completed prior to moving to the next step. If requested prior to beginning the certification process, a Technical Trainer will provide any refresher training that may be needed.

Step 1 – Materials Technician must attend the lecture portion of Conventional Density Assessment Certification Class

Step 2 - Technical trainers will provide soil boxes for the “hands-on demo” portion of the class. Each student must bring their conventional density equipment to successfully and individually perform a Test 1a (short test) without any input or guidance from a technical trainer. If, while performing Test 1a, a student realizes that an error was made, he/she will be allowed to abort the test and start over. The technical trainer will inform the student that he/she made a procedural error(s), if any occurred, once the student completes the test. No specific information will be given regarding the error(s) however, the student may review the procedures in the manual or notes to determine which procedural error(s) occurred. The student will have the option to immediately complete a second attempt while being observed by the Field Engineer or request to receive additional field training at a later date. If the student does not successfully complete the second attempt, the Field Engineer will inform the individual which procedural error(s) occurred. The student will be required to schedule additional training with a technical trainer at a later date. Once the additional training is completed, the student will be allowed to perform another Test 1a. After successful completion of the lecture and “hand-on demo”, the Materials Technician must take a **closed-book** written examination. The minimum passing grade is 70. If the Materials Technician fails the written examination he/she will be allowed one re-take of exam. If the Materials Technician fails the exam on the second attempt, the Field Operations Engineer will be notified. If requested by the Field Operations Engineer the certification process will start over with Step 1.

Step 3 – The Materials Technician will contact C.K. Su to schedule a conventional density assessment. For this step the Materials Technician will perform an assessment on a technician from the Soils Laboratory. This step will be completed at the M&T Central Laboratory and the Soils Laboratory technician will provide the equipment and soil box. The technician may or may not have programmed errors and the Materials Technician must accurately document the discrepancies. Once the Materials Technician successfully completes all three steps, he/she will be entered into HiCAMS and a certification will be granted. If the Materials Technician fails Step 3, the Materials Technician must repeat Step 2. If the Materials Technician fails Step 3 on the second attempt the Field Operations Engineer will be notified.

Frequency of Assessment: The Materials Technicians will be assessed annually.

Annual Assessment: If desired, the Materials Technician may request and receive refresher training from a Technical Trainer. The Materials Technician will contact Jim Sawyer at the Central Laboratory to schedule an appointment with a Technical Trainer. The Technical Trainer will perform an assessment on the Materials Technician. The Technical Trainer will provide the soil box and the Materials Technician must bring their assigned density equipment. Upon successful completion of the assessment, the Materials Technician will be required to take a closed-book written examination. The minimum passing grade for the written exam is 70. If the Materials Technician fails the written exam or the assessment is “Unsatisfactory”, the Field Operations Engineer will be notified and the Materials Technician’s Density Gauge Assessment Certification will be suspended. In order to regain their certification, the Materials Technician must complete the certification process beginning with Step 1. A copy of the assessment checklist and exam will be retained in a database at the Central Soils Laboratory.