Maryland Ready Mixed Concrete Association
presents

NRMCA Concrete Field Testing Technician Grade II Certification Program

Introduction

For more than 25 years Grade I certified technicians have been asking the question..”How can I obtain the Concrete Field testing technician Grade II??” … and for 25 years we have had to answer with …”there is no Grade II certification”. Finally, for the first time …there is a Grade II certification and the Maryland Ready Mixed Concrete Association is one of the first in the nation to offer such an exam.

NRMCA Concrete Field Testing Technician Grade II

Definition
A *Concrete Field Testing Technician - Grade II* is an individual who has demonstrated the knowledge to understand specifications, procedures and record the results of standardized freshly mixed concrete tests. The Concrete Field Testing Technician Grade II must hold a valid ACI Concrete Field Testing Certification-Grade I at time of Certification. A Grade II technician is required for concrete placements where a higher level of concrete testing expertise is needed such as jobs where acceptance testing is very critical. Such examples of projects would include instances where an understanding of tolerances and specifications for ready mixed concrete are found in ASTM C94. Jobs that require special knowledge of self consolidating concrete or pervious concrete would be another example. Those special jobs that require non- destructive testing and core drilling to ensure crucial acceptance testing is accomplished by highly qualified individuals. Finally a Grade II technician is needed on airport runway and paving jobs where special needs for flexural strength testing are required.

Scope and Knowledge
The program requires a working knowledge of the following *NRMCA Summary of ASTM Standards*:
C 94 – Specification for Ready Mixed Concrete
C 42 – Test method for Obtaining and Testing Drilled Cores
C 31 – Practice for Making and Curing Concrete Test Specimens in the Field (Beams)
C 125 - Terminology
C 803 – Penetration Resistance of Hardened Concrete (Windsor Probe)
C 805 – Rebound Number of Hardened Concrete (Rebound Hammer)
C1611 – Slump Flow of Self Consolidating Concrete
C1688 – Density of Pervious Concrete

The scope and knowledge is developed for summaries of the ASTM Standards rather than the standards themselves solely. Information contained in these ASTM Standards that are not contained in the NRMCA Summary shall not be subject for examination. Questions regarding general concrete technology shall not be included on the examination.

Certification Requirements

NRMCA will grant a certification only to those applicants who meet both of the following requirements:

1) A passing grade on the NRMCA written grade II examination; and
2) A current ACI Concrete Field Testing Technician Grade I Certification.

Recertification is necessary every five (5) years, and requires successful completion the entire written examination. The content of the written examination shall be derived directly from the NRMCA Summary of eight (8) ASTM Standards and additional information.

Study Material

Title: Technician's Workbook for NRMCA Certification of Concrete Field Testing Technician - Grade II

Description: A study guide for the examinee, providing information and instructional material on the required ASTM Standards. ASTM Standards covered include C31, C42, C94, C125, C803, C805, C1611 and C1688. Also included are study questions and answers. (This training workbook is included in the training session.

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Written Examination Rules

The examinations shall be conducted by the examiner, as applicable. The examiners and sponsoring groups have no jurisdiction over the content of either examination, or over the grading of the examination. The examination is closed book. Notes or other technical material related to the subject matter shall not be permitted in the examination area. Non-programmable calculators shall be permitted.

The written examination shall consist of approximately 90 multiple choice questions, with eight to 15 [8-15] questions on each Summary of ASTM Standard. Two hours shall be permitted for completion of the written examination, after which the exam answer sheets must be collected. Additional time, up to one half hour, with access to the exam question booklet will be allotted to the examinee to facilitate exam question challenges. If an examinee is incapable of understanding the written examination, it may be administered orally upon pre-approval of the Examiner.

Successful completion of the written examination shall require the examinee:

a) Score sixty percent [60%] or higher on each individual ASTM Standard (i.e. five [5] correct out of eight [8] questions); AND
b) Score a minimum of seventy percent [70%] for the overall examination.

Re-Examination Criteria

Failure of the written examination by either of the criteria cited under previous paragraph shall require a reexamination on the entire written examination.

Appeals Criteria

Appeals regarding the conduct of the exam should be made during the exam session and shall be directed to the examiner. In the event that the examinee is not satisfied with the decision of the examiner regarding an appeal, the examinee may pursue an appeal with NRMCA according to the following order:

1. Local Sponsoring Group
2. NRMCA Senior Vice President of Engineering
3. NRMCA RES Committee

Appeals submitted directly to NRMCA for consideration after the exam session must be received, in writing, within sixty [60] days of the receipt of the examination at NRMCA Headquarters.