

AMERICAN CONCRETE INSTITUTE

Certification Policies for Concrete Field Testing Technician – Grade I

*Approved by the ACI Board of Direction
October 29, 1992*

*Last revised by the Certification Programs Committee
March 28, 2006*

The statements contained herein are approved policies and procedures. This revised policy statement supercedes all previous action of the ACI Board of Direction with respect to Concrete Field Testing Technician certification.

The certification program policies are organized into seven sections as follows:

- Section 1. Certification Criteria
- Section 2. Definitions
- Section 3. ACI Responsibilities
- Section 4. Examiner, Supplemental Examiner, and Proctor
Criteria and Responsibilities
- Section 5. Examination Criteria
- Section 6. Re-examination Criteria
- Section 7. Appeals Procedure

SECTION 1.0 CERTIFICATION CRITERIA

- 1.01 The American Concrete Institute (ACI) certification program for Concrete Field Testing Technician – Grade I shall require successful completion of both a written examination and a performance examination.
- 1.02 No specific education or work experiences are required as prerequisites for Concrete Field Testing Technician – Grade I certification.
- 1.03 ACI certification for Concrete Field Testing Technician – Grade I shall be valid for a period of five [5] years from the date of completion of all certification requirements.
- 1.04 Recertification requires the successful completion of both a written and performance examination according to Section 5 of this policy.
- 1.05 Groups desiring to conduct ACI Certification program(s) shall adhere to the current Policy on Sponsoring Groups for Certification.

NOTE: The Sponsoring Group Policy was approved by the ACI Board of Direction on March 21, 1991.

SECTION 2.0 DEFINITIONS

- 2.01 Examinee – a person taking either the written or performance examination, or both.
- 2.02 Examiner – a person authorized by ACI to be in responsible charge of an examination session.
- 2.03 Performance Exam Checklist – a list of criteria used by the supplemental examiner to judge the compliance of the examinee with the provisions of the performance examination.
- 2.04 Proctor – a person authorized to assist the Examiner in conducting the written examination.
- 2.05 Supplemental Examiner – a person who assists the Examiner by administering the performance examination.

SECTION 3.0 ACI RESPONSIBILITIES

- 3.01 ACI shall assemble, maintain and distribute all examination materials.
- 3.02 ACI shall approve the local sponsoring group.
- 3.03 ACI shall authorize the local sponsoring group to conduct examination sessions for Concrete Field Testing Technician – Grade I certification.

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- 3.04 ACI shall approve the examiner.
- 3.05 ACI shall grade the written examinations, review the performance examinations, and notify the examinee and the examiner of the final results in writing.
- 3.06 ACI shall certify examinees who meet the certification requirements.
- 3.07 ACI shall issue a certificate, wallet card, and hard hat decal to examinees who meet the certification requirements.

SECTION 4.0 EXAMINER, SUPPLEMENTAL EXAMINER, AND PROCTOR CRITERIA AND RESPONSIBILITIES

- 4.01 To maintain access to ACI examination materials, the examiner shall maintain approval from ACI and authorization from the Local Sponsoring Group.
- 4.02 Individuals seeking to become ACI-approved examiners shall submit their qualifications to ACI on Form D-1.
- 4.03 The examiner shall meet the following requirements:
 - A) Be a registered professional engineer, or hold equivalent international credentials;
 - B) Have had at least two [2] years of experience in concrete construction, inspection or testing; and
 - C) Be thoroughly familiar with the current applicable ASTM or CSA Standards.
- 4.04 The examiner shall be present at, and supervise, the examination session.
- 4.05 The examiner shall be directly responsible for the following activities:
 - A) Select the supplemental examiners and proctors;
 - B) Verify the qualifications of the supplemental examiners and proctors according to the criteria outlined in Section 4.06 through 4.12 of this policy;
 - C) Order examinations;
 - D) Verify the identity of each examinee;
 - E) Assure that the examinees are aware of the certification criteria;
 - F) Verify that the examinees have signed the release statement on the performance examination prior to performing any test methods or procedures;
 - G) Verify the performance evaluations conducted by the supplemental examiners by co-signing the performance examination checklist report;
 - H) Enter the appropriate grade for the completed performance

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- examination on the checklist report;
 - I) Assure that all examinees have an opportunity to perform each test method at least once and to take a second trial on any failed procedure of the performance examination;
 - J) Refrain from interpreting examination questions during the course of the written examination
 - K) Assist, if requested, the examinee by providing definitions for general use words (i.e. “depict” = “shows”). Examiners shall not define terms specific to the ASTM Standards whose definitions are readily available through adequate study of the Standards.
- 4.06 Proctors may assist the examiner in conducting the written examination.
- 4.07 Proctors shall satisfy the following requirements:
- A) Be selected, and adjudged qualified by the examiner; and
 - B) Be considered trustworthy and conscientious.
- 4.08 Supplemental examiners shall assist the examiner by conducting the performance examination.
- 4.09 Supplemental examiners shall satisfy the following requirements:
- A) Have had experience in concrete testing;
 - B) Be selected and adjudged qualified by the examiner;
 - C) Be considered trustworthy and conscientious;
 - D) Be certified as an ACI Concrete Field Testing Technician – Grade I or be an ACI-approved examiner. An individual currently certified through the Canadian Standards Association (CSA) in the standard tests and procedures covered by the ACI CSA-based Field Testing Technician – Grade I Certification program is permitted to serve as a Supplemental Examiner for the ACI CSA-based Field Testing Technician – Grade I Certification program.
 - E) Be thoroughly familiar with current applicable ASTM or CSA Standards as appropriate.
- 4.10 Examiners, supplemental examiners, examiners acting as supplemental examiners and proctors shall not conduct any portion of the examination for anyone with whom he/she is personally related.
- 4.11 Examiners, supplemental examiners, and examiners acting as supplemental examiners shall not examine anyone on the performance examination who is employed in the same organization. Governmental organizations may petition ACI, in writing, and request a waiver of this requirement. Waivers shall be granted only if it can be shown that the intent of the policy will be maintained.

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- 4.12 Supplemental examiners, and examiners acting as supplemental examiners monitoring the performance examination for ASTM C 231 shall be qualified for whichever type meter he/she is monitoring.

SECTION 5.0 EXAMINATION CRITERIA

- 5.01 The content of the written and performance examinations shall be derived directly from the seven (7) following ASTM Standards or their equivalents: C172, C143, C138, C231, C173, C31 and C1064. Information contained in appendices of these ASTM Standards shall not be subject for examination.
- 5.02 Questions regarding general concrete technology shall not be included on either examination.
- 5.03 The examinations shall be conducted by the examiner, proctors, and supplemental examiners as applicable. [See Section 4.]
- 5.04 The examiners, proctors, supplemental examiners, and sponsoring groups have no jurisdiction over the content of either examination, or over the grading of the written examination.
- 5.05 Both the written and performance examinations are 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.

WRITTEN EXAMINATION

- 5.06 The written examination shall consist of approximately fifty-five [55] multiple choice questions, with five to ten [5-10] questions on each ASTM Standard.
- 5.07 One hour 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.
- 5.08 If an examinee is incapable of understanding the written examination, it may be administered orally upon approval of the Examiner.
- 5.09 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 (i.e., thirty-nine [39] correct out of a possible fifty-five [55]).

PERFORMANCE EXAMINATION

- 5.10 Successful completion of the performance examination shall require the examinee to satisfactorily perform each of the following ASTM Standard Test Methods: C172, C143, C138, C231, C173, C1064, and C31.
- 5.11 It shall be the sponsoring group's responsibility to provide equipment which conforms to the applicable ASTM Standards and that is in good working order. The examinee shall not be penalized as a result of faulty or incorrect equipment.
- 5.12 The examinee shall conduct the performance examination in the direct presence of the supplemental examiner or the examiner when acting as a supplemental examiner.
- 5.13 Supplemental examiners, and examiners acting as supplemental examiners shall observe only one examinee conducting tests at a time while conducting the performance examination.
- 5.14 The procedures of ASTM C172 may be described verbally or performed at the local sponsoring group's discretion.
- 5.15 The examinee shall have the option of using either a Type A or Type B meter when performing method C 231 if a supplemental examiner qualified in the operation of a Type A meter is available (see Section 4.12).
- 5.16 For ASTM C31, the examinee shall fabricate a compression test specimen.
- 5.17 At the conclusion of performing each test method the examinee must record the results of the test.
- 5.18 The examinee's performance shall be evaluated based on the criteria of the performance examination checklist.
- 5.19 The supplemental examiner shall indicate pass or fail for each step on the checklist.
- 5.20 Grading for the performance examination shall be on a pass/fail basis only.
- 5.21 An examinee shall be permitted to suspend one trial and begin the procedure over again. A voluntary suspension of a trial shall not be counted as a failure of that trial.
- 5.22 The supplemental examiner shall not stop a trial at any point which an error is made.
- 5.23 Incorrect performance, or omission, of one or more of the steps of the performance checklist shall constitute failure of that trial.

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- 5.24 An examinee shall be allowed a second trial for each standard test method if the first trial was not successfully completed.
- 5.25 The second trial of a particular test shall not be conducted immediately following the first trial.
- 5.26 The second trial shall be administered by a different supplemental examiner than the first trial if more than one supplemental examiner is available.
- 5.27 A second trial, or voluntary repeat of a trial, shall require performance of the entire test method from the beginning, not from the point the error was made.
- 5.28 Immediately following completion of each trial, the supplemental examiner shall inform the examinee of the results, either pass or fail.
- 5.29 When a failure of a trial has occurred the supplemental examiner shall inform the examinee of the particular step(s) performed incorrectly.
- 5.30 The examinee shall be permitted to leave the examining area between trials to consult notes or books.
- 5.31 Failure on any of the prescribed ASTM Standards after two [2] trials will constitute failure of that part of the performance examination.

SECTION 6.0 RE-EXAMINATION CRITERIA

- 6.01 Failure of the written examination by either of the criteria cited under Section 5.09 shall require a reexamination on the entire written examination.
- 6.02 Invalidation of the performance examination (for example non-conformance with Section 4.11) or **failure on one [1] or more** of the seven [7] required ASTM Standards shall require reexamination on the entire performance examination.
- 6.03 Reexamination on the written or the performance examination must be taken within one [1] year of the initial examination. Otherwise, both the written and the performance examinations must be retaken in their entireties.

SECTION 7.0 APPEALS CRITERIA

- 7.01 Appeals regarding the conduct of the exam should be made during the exam session and shall be directed to the examiner.

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7.02 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 ACI according to the following order:

1. Local Sponsoring Group
2. ACI Director of Certification
3. The Certification Appeals Committee [consisting of the Director of Certification; the Certification Programs Committee Chairman, and the Chairman of Committee C 610.]
4. Committee C 610, Field Testing Technician Certification
5. Certification Programs Committee

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