

American Concrete Institute

Certification Policies
for
Aggregate Testing Technician – Level 1
Aggregate Testing Technician – Level 2

*Approved by the Certification Programs Committee
July 6, 2007*

The certification program policies are broken down into eight sections as follows:

- Section 1. Certification Criteria
- Section 2. Examination Criteria
- Section 3. Reexamination Criteria
- Section 4. Appeals Criteria
- Section 5. Sponsoring Group Criteria
- Section 6. Examiner/Supplemental Examiner Criteria
- Section 7. ACI Responsibilities
- Section 8. Recertification Criteria

SECTION 1.0 CERTIFICATION CRITERIA

- 1.01 The American Concrete Institute (ACI) certification programs for Aggregate Testing Technician – Level 1 (ATT1) and Aggregate Testing Technician – Level 2 (ATT2) shall require successful completion of both a written examination and a performance examination.
- 1.02 No specific education or work experience are required for ATT certifications. Certification as an ACI ATT2 requires current ACI ATT1 certification.
- 1.03 ACI certification for ATT1 and/or ATT2 shall be valid for a period of five [5] years from the date of completion of all certification requirements.
- 1.04 A technician shall be permitted to renew certification by satisfying the recertification requirements.

SECTION 2.0 EXAMINATION CRITERIA

GENERAL REQUIREMENTS

- 2.01 The content of the written examination for certification as an ACI ATT1 shall be derived directly from the following eight (8) Standards:

ASTM/AASHTO

D75/T2	Sampling of Aggregates
C702/T248	Reducing Samples of Aggregates to Testing Size
C117/T11	Materials Finer Than 75- μ m (No. 200) Sieve in Mineral Aggregates by Washing
C136/T27	Sieve Analysis of Fine and Coarse Aggregates
C127/T85	Specific Gravity and Absorption of Coarse Aggregate
C128/T84	Specific Gravity and Absorption of Fine Aggregate
C566/T255	Total Evaporable Moisture Content of Aggregate by Drying
C40/T21	Organic Impurities in Fine Aggregates for Concrete

The content of the performance examination for certification as an ATT1 shall be derived from the afore-referenced resource standards.

Information contained in the *notes* of the afore-referenced resource Standards shall be subject for examination. Information contained in the *appendices* of the afore-referenced resource standards shall not be subject for examination except for Appendix X1 of ASTM/AASHTO D75/T2.

The written and performance examinations for ATT1 certification must be successfully completed within a one (1) year period.

2.02 The content of the written examination for certification as an ACI ATT2 shall be derived directly from the following ten (10) Standards:

ASTM/AASHTO

C29/T19	Bulk Density (“Unit Weight”) and Voids in Aggregate
C88/T104	Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate
C123/T113	Lightweight Pieces in Aggregate
C131/T96	Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
C535	Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
C142/T112	Clay Lumps and Friable Particles in Aggregate
D2419/T176	Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test
C1252/T304	Uncompacted Void Content of Fine Aggregate
D5821	Determining the Percentage of Fractured Particles in Coarse Aggregate
D4791	Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate

The content of the performance examination for certification as an ATT2 shall be derived from the afore-referenced resource Standards except C88/T104, C131/T96, and C535.

Information contained in the *notes* of the afore-referenced resource standards shall be subject for examination. Information contained in the *appendices* of the afore-referenced resource standards shall not be subject for examination.

The written and performance examinations for ATT2 certification must be successfully completed within a one (1) year period.

2.03 The examinations shall be conducted by the examiner, proctors, and/or supplemental examiners as applicable. [See Section 6.]

2.04 The examiners, proctors, supplemental examiners, and/or sponsoring groups have no jurisdiction over the content of any examination, or over the grading of the written examination.

2.05 The written examinations are open book; reference materials other than those approved by ACI shall not be permitted in the examination area. The performance examination is closed book; notes or other technical material shall not be permitted in the examination area. Simple function (non-programmable) pocket calculators shall be permitted for all examinations.

WRITTEN EXAMINATION

- 2.06 The written examinations shall consist of approximately one hundred [100] multiple choice questions, with eight to twelve [8-12] questions on each Standard.
- 2.07 A maximum of two [2] hours shall be permitted for completion of each written examination.
- 2.08 Oral administration of the written examinations is permitted, contingent upon approval by the ACI Certification Department.
- 2.09 Successful completion of the written examination shall be considered as meeting both of the following requirements:
- A) Score sixty percent [60%] or higher on each individual Standard (e.g. six [6] correct out of ten [10] questions); AND
 - B) Score a minimum of seventy percent [70%] for the overall examination (e.g., seventy [70] correct out of a possible one hundred [100])

PERFORMANCE EXAMINATION

- 2.10 The performance examination for certification as an ACI ATT1 and/or ATT2 shall require the examinee to perform, pursuant to the contents of the ACI performance examination checklists, procedures described in each of the Standards noted in Sections 2.01 and 2.02, respectively.
- Note: Some procedures and test methods may be described verbally as indicated on the performance exam checklists. Specific instructions keyed to these areas and describing administration procedures will be included with the exam materials for each session.*
- 2.11 The examinee shall conduct the performance examination in the direct presence of the examiner or supplemental examiner(s).
- 2.12 The examinee's performance shall be evaluated based on the criteria of the performance examination checklist.
- 2.13 Grading for the individual performance examinations shall be on a pass/fail basis only, with the examiner/supplemental examiner indicating pass or fail for each step of the checklist.
- 2.14 Incorrect performance, or omission of one or more of the steps of the performance checklist, shall constitute failure of that trial.

- 2.15 All sections of the performance exam required for certification must be taken within a single examination session not exceeding eight calendar days.
- Note: This provision was adopted to address the number of tests on the performance exam, their complexity, and the amount of time in setup and administration necessary to conduct one initial full exam (all sections) once through in its entirety. It is not intended that examinees be allowed more than two attempts to pass any one test method within any single eight-day exam session.*
- 2.16 An examinee shall be allowed a second trial, on the same day of the examination, if the first trial was not successfully completed for each of the applicable Standards.
- 2.17 The second trial of a particular test shall not be conducted immediately following the first trial.
- 2.18 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.
- 2.19 The examiner/supplemental examiner shall not stop a trial at any point which an error is made.
- 2.20 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.
- 2.21 Immediately following completion of each trial, the examiner/supplemental examiner shall inform the examinee of the results, either pass or fail.
- 2.22 When a failure of a trial occurs, the examiner/supplemental examiner shall inform the examinee of the particular step(s) performed incorrectly.
- 2.23 The examinee shall be permitted to leave the examination area between trials to consult notes or books.
- 2.24 It shall be the Sponsoring Group's responsibility to provide equipment which conforms to the applicable Standards and that it is in good working order. The examinee shall not be penalized as a result of faulty or incorrect equipment.
- Note:** *In cases where the Supplemental Examiners have been approved to conduct the performance examination without the direct supervision of an approved Examiner (6.06), the Supplemental Examiner shall be responsible for determining that the equipment requirements listed in Section 2.24 are met.*
- 2.25 Failure on any of the required Standards after two [2] trials will constitute failure of that section of the performance examination.

SECTION 3.0 REEXAMINATION CRITERIA

- 3.01 Failure of the written examination by either of the criteria cited under Section 2.09 shall require reexamination on the entire written examination.

- 3.02 Failure or invalidation (for example non-conformance with Section 6.05) of any of the required Standards covered by the performance examination in any one session shall require reexamination on the entire performance examination.
- 3.03 Reexamination on the written or 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 4.0 APPEALS CRITERIA

- 4.01 All appeals shall be directed initially to the examiner.
- 4.02 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 Chairman of the Certification Programs Committee, and the Chairman of Committee C620]
 4. Committee C620, Laboratory Testing Technician Certification
 5. Certification Programs Committee
- 4.03 Appeals submitted to ACI for consideration must be received, in writing, within sixty [60] days of the receipt of the examination at ACI Headquarters.

SECTION 5.0 SPONSORING GROUP CRITERIA

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 6.0 EXAMINER / SUPPLEMENTAL EXAMINER CRITERIA

- 6.01 The examiner shall be authorized by ACI to conduct the ACI certification examinations for ATT1 and ATT2.
- 6.02 The examiner shall be approved by ACI. Qualifications shall be submitted on Form D1/D3 and shall be evaluated in accordance with the criteria on Form D-13.

- 6.03 The examiner shall meet the following requirements:
- A) Be a registered professional engineer;
 - B) Have had at least two [2] years of recent experience in construction, including aggregate testing; and
 - C) Be thoroughly familiar with the current applicable Standards.
- 6.04 Examiners, supplemental examiners, and proctors shall be unrelated professionally and personally to the examinees.
- 6.05 Examiners/supplemental examiners shall not examine anyone on the performance examination who is employed in the same organization. Governmental or other organizations may petition ACI, in writing, and request a waiver of this requirement. Waivers shall be granted, on a case by case basis, only if it can be shown that the intent of the policy will be maintained.
- 6.06 Supplemental examiners shall be permitted to assist in conducting the performance examination, and may be authorized to conduct the performance examination without direct supervision of an Examiner with prior approval of ACI Committee C620.
- 6.07 Supplemental examiners shall satisfy the following requirements:
- A) Have had recent experience in aggregate testing;
 - B) Be selected and adjudged qualified by the examiner or ACI Committee C620;
 - C) Be considered trustworthy and conscientious.
- 6.08 Proctors shall be permitted to assist the examiner in conducting the written examination.
- 6.09 Proctors shall satisfy the following requirements:
- A) Be considered trustworthy and conscientious by the Examiner.
- 6.10 The examiner shall be directly responsible for:
- A) Selection of the supplemental examiners and proctors, except in cases where the supplemental examiners are approved by ACI Committee C620;
 - B) Verification that the qualifications of the supplemental examiners and proctors conform to the criteria outlined in Section 6.04 through 6.09 of this policy;
 - C) Assuring the secure handling of examination materials;
 - D) Verification of the identity of each examinee, and assuring that the examinees are aware of the certification criteria;

- E) Verification that the examinees have signed the release statement on the written and performance examinations prior to testing;
- F) Verification that the performance evaluations are conducted by approved supplemental examiners, and co-signing the performance checklists where appropriate;
- G) Entering the appropriate grade for the completed performance examination on the checklist report;
- H) Assuring that all examinees have an opportunity to take a second trial on any failed procedure of the performance examination; and
- I) Assuring that terms are not defined and examination questions are not interpreted during the course of the written examination.

6.11 Examiners or supplemental examiners shall not observe more than one examinee conducting tests at any one time during the performance examination.

6.12 The examination sessions must be supervised constantly by the examiner, supplemental examiner(s) and/or proctor(s).

SECTION 7.0 ACI: DUTIES AND RESPONSIBILITIES

7.01 ACI shall approve the local sponsoring group.

7.02 ACI shall authorize the local sponsoring group to conduct examination sessions for ATT1 and ATT2 certifications.

7.03 ACI shall approve the examiner.

7.04 ACI shall grade the written examinations, review the performance examinations, and notify examinees and the examiner of the final results in writing.

7.05 ACI shall certify the examinees that have satisfied the certification requirements.

7.06 ACI shall issue certificates and wallet cards to successful examinees.

SECTION 8.0 RECERTIFICATION CRITERIA

Recertification as an ATT1 or ATT2 requires successful completion of the certification requirements outlined in Sections 1.0, 2.0 and 3.0 of this policy.