Certification

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

Last revised by the Certification Programs Committee
November 10, 2009

The statements contained herein are a consolidation of approved policies and procedures. This policy statement supersedes all previous action of the ACI Board of Direction with respect to Aggregate Testing Technician certification.

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

Section 1.0 Certification Criteria
Section 2.0 Examination Criteria
Section 3.0 Re-examination Criteria
Section 4.0 Appeals Criteria
Section 5.0 Sponsoring Group Criteria
Section 6.0 Examiner/Supplemental Examiner Criteria
Section 7.0 ACI Responsibilities
Section 8.0 Recertification Criteria

SECTION 1.0 CERTIFICATION CRITERIA

1.1 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.

1.2 No specific education or work experience are required for ATT certifications. Certification as an ACI ATT2 requires current ACI ATT1 certification.

1.3 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.

1.4 A technician shall be permitted to renew certification by satisfying the recertification requirements.

SECTION 2.0 EXAMINATION CRITERIA

GENERAL REQUIREMENTS

2.1 The content of the written and performance examinations for certification as an Aggregate Testing Technician – Level 1 is derived from the *Job-Task Analysis for ACI Aggregate Testing Technician – Level 1 Certification* (Annex 620.3-1). ACI will grant certification to examinees who successfully complete both the written and performance examinations within a one (1) year period.

2.2 The content of the written and performance examinations for certification as a Concrete Strength Testing Technician is derived from the *Job-Task Analysis for ACI Aggregate Testing Technician – Level 2 Certification* (Annex 620.3-2). ACI will grant certification to examinees who successfully complete both the written and performance examinations within a one (1) year period.

2.3 The examinations shall be conducted by the examiner, proctors, and/or supplemental examiners as applicable. [See Section 6.0]

2.4 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.

2.5 The written examinations are open book; reference materials other than those approved by ACI shall not be permitted in the examination area. The performance examinations are 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

2.6 The written examinations shall consist of approximately one hundred [100] multiple choice questions, with eight to twelve [8-12] questions on each Standard.

2.7 A maximum of two [2] hours shall be permitted for completion of each written examination.

2.8 Oral administration of the written examination is permitted, contingent upon prior approval in writing by the ACI Certification Department.

2.9 Successful completion of the written examination shall be considered as meeting both 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 referenced in Sections 2.1 and 2.2, 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 (6.6), 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 RE-EXAMINATION CRITERIA

3.1 Failure of the written examination by either of the criteria cited under Section 2.9 shall require reexamination on the entire written examination.

3.2 Failure or invalidation (for example non-conformance with Section 6.5) of any of the required Standards covered by the performance examination in any one session shall require reexamination on the entire performance examination.

3.3 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

4.1 All appeals shall be directed initially to the examiner.

4.2 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. 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 C 620]
4. Committee C 620, Laboratory Technician Certification
5. Certification Programs Committee

4.3 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

5.1 Groups desiring to conduct ACI Certification program(s) shall adhere to the current *Policy on Sponsoring Groups for Certification* (Annex 620.3-3).

SECTION 6.0 EXAMINER / SUPPLEMENTAL EXAMINER CRITERIA

6.1 The examiner shall be authorized by ACI to conduct the ACI certification examinations for ATT1 and ATT2.

6.2 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.

6.3 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.

6.4 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.

6.5 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.

6.6 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.

6.7 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.

6.8 Proctors shall be permitted to assist the examiner in conducting the written examination.

6.9 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 6.4 through 6.9 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 examinations 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

7.1 ACI shall approve the local sponsoring group.

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

7.3 ACI shall approve the examiner.

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

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

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

SECTION 8.0 RECERTIFICATION CRITERIA

8.1 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.

End of Policy Text

ANNEX 620.3-1

Job-Task Analysis (JTA) for ACI Aggregate Testing Technician—Level 1 Certification 12/17/16

HOW TO USE THIS JTA:

On the written examination, the Candidate must:

- **Understand** the following general concepts, which may not have specified values, procedures, or measurements; *and*
- **Know** the following specific procedures or values; performance of these items may also be assessed on the performance examination.

On the performance examination:

- **Perform**—or describe verbally, where allowed—the following tasks or steps, which are part of the specified procedure; knowledge of these items may also be assessed on the written examination.

RESOURCES:

AASHTO T 2/ASTM D75 – Standard Method of Test for Sampling of Aggregates
AASHTO T 248/ASTM C702 – Standard Method of Test for Reducing Samples of Aggregate to Testing Size
AASHTO T 11/ASTM C117 – Standard Method of Test for Materials Finer than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing
AASHTO T 27/ASTM C136 – Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates
AASHTO T 85/ASTM C127 – Standard Method of Test for Specific Gravity and Absorption of Coarse Aggregate
AASHTO T 84/ASTM C128 – Standard Method of Test for Specific Gravity and Absorption of Fine Aggregate
AASHTO T 255/ASTM C566 – Standard Method of Test for Total Evaporable Moisture Content of Aggregate by Drying
AASHTO T 21/ASTM C40 – Standard Method of Test for 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 the written examination. Information contained in the appendices of the afore-referenced resource standards shall not be subject for examination except for Appendix X1 of AASHTO T2/ASTM D75.

AASHTO T 2/ASTM D75 – Standard Method of Test for Sampling of Aggregates

• Understand scope of practice	1
• Understand distinction between "maximum" and "nominal maximum" aggregate sizes	3.1.2
• Understand significance and use of this practice	4
• Know general sampling requirements	5.1
• Know general inspection requirements of sample	5.2
• Know sampling requirements for a flowing aggregate stream	5.3.1
• Know sampling requirements for a conveyor belt	5.3.2
• Know sampling requirements for stockpiles and transportation units	5.3.3

ANNEX 620.3-1

Job-Task Analysis (JTA) for ACI Aggregate Testing Technician—Level 1 Certification (Continued)

• Understand scope of sampling practice from stockpiles and transportation units	X1.1
• Know procedure for sampling aggregate from stockpiles	X1.2
• Know procedure for sampling aggregate from transportation units	X1.3
• Understand number and masses of field samples	5.4.1
• Know how to determine mass of field samples	5.4.2
• Understanding shipping requirements of samples	6.1-6.2

AASHTO T 248/ASTM C702 – Standard Method of Test for Reducing Samples of Aggregate to Testing Size

• Understand scope of practice	1.1
• Understand significance and use of practice	4.1
• Reduction in size may not be recommended in some circumstances	4.2
• Know requirements for reducing fine aggregates	5.1-5.1.2
• Know reducing requirements for coarse aggregate	5.2
• Know equipment requirements for mechanical splitters	7
• Know and perform the procedure for introducing sample to splitter	8.1
• Know and perform procedure for quartering sample	10.1-10.1.1
• Understand alternative procedure for quartering sample	10.1.2
• Know and perform procedure for miniature stockpile samples	12

AASHTO T 11/ASTM C117 – Standard Method of Test for Materials Finer than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing

• Understand scope of procedure	1.1
• Know washing requirements, if not specified	1.2, 7.1
• Understand general summary of method	3.1
• Know significance and use of practice	4.1-4.2
• Know the procedure and parameters under which the efficiency of the washing operation should be checked	4.1
• Know proper apparatus and materials	5
• Understand sampling procedure and requirements for combined samples	6.1
• Know the sample size requirements for different aggregate sizes	6.2
• Know and perform procedure for washing	8-9
• Know and perform calculation for amount of material passing 75-µm sieve by washing	10
• Know and demonstrate the reporting requirements for percentage of material passing 75-µm sieve	11

AASHTO T 27/ASTM C136 – Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates

• Understand scope of test method	1
• Understand general summary of test method	4
• Understand general use of test method specific to aggregates	5.1
• Accurate determination of 75 µm cannot be achieved by this method alone	5.2

ANNEX 620.3-1

Job-Task Analysis (JTA) for ACI Aggregate Testing Technician—Level 1 Certification (Continued)

- Recognize appropriate apparatus and requirements 6.1-6.2, 6.4
- Know sieving requirements for mechanical sieve shakers 6.3
- Know that size of field sample shall be at least four times required test sample 7.1
- Know requirements for reducing sample to suitable testing size 7.2
- Know how to determine size of test samples for fine and coarse aggregates 7.3-7.4
- Know material requirements for testing a combined sample 7.7-7.7.3
- Know the requirements for testing an oven dried sample 8.1
- Know the requirements for sieve selection and adequacy of sieving 8.2
- Know the requirements for limiting the amount of materials on a sieve 8.3-8.3.1.3, Note 5
- Know the procedure for hand sieving and the requirements for sufficiency of hand sieving 8.4
- Understand procedures for hand sieving oversized aggregate 8.5
- Know the requirements for verifying the masses after the test 8.6
- Know the calculations, percent passing, etc., to nearest 0.1% 9.1
- Know the requirements for calculating fineness modulus 9.2
- Know and demonstrate the reporting requirements 10

AASHTO T 85/ASTM C127 – Standard Method of Test for Specific Gravity and Absorption of Coarse Aggregate

- Understand scope of practice 1.1
- Know definition of terms for specific gravity 3.1
- Understand general summary of test method 4
- Accuracy of balance required 0.05% 6.1
- Know requirements for sample container 6.2
- Know requirements for water tank 6.3
- Know requirements and procedure for sample preparation 7.2
- Know requirements for minimum sample size 7.3
- Understand requirements for individual size fractions 7.4
- Know the sequence of operations for the test procedure 8
- Know soaking requirements 8.1
- Know procedure for obtaining a SSD condition sample 8.3
- Know the procedure for determining submerged weight 8.4
- Know the procedure for obtaining the dry weight 8.5
- Calculate relative density, Density OD, Density SSD and apparent density and absorption 9
- Know and demonstrate reporting, with required precision, of specific gravity & type and absorption 10

AASHTO T 84/ASTM C128 – Standard Method of Test for Specific Gravity and Absorption of Fine Aggregate

- Understand scope of test method 1
- Know definition of terms 3.1
- Understand significance and use of test method 4.1-4.2
- Know the difference between dry, moist, SSD and free water on aggregates 4.3

ANNEX 620.3-1

Job-Task Analysis (JTA) for ACI Aggregate Testing Technician—Level 1 Certification (Continued)

• Understand balance (scale) requirements	5.1
• Know types of pycnometer that can be used	5.2
• Mold and tamper shape and size	5.3-5.4
• Sample and size of test specimen	7.1
• Know requirements for sample preparation before test	7.1.1
• Understand alternative procedure for sample preparation	7.1.2
• Spread sample and let air dry	7.2
• Know requirements for performing the cone test for surface moisture	7.2.1
• Know & perform the gravimetric procedure	8.1-8.2
• Understand the alternate method for obtaining equivalent dry weight of sample used in gravimetric procedure	Note 5
• Understand the volumetric procedure	8.2.2
• Know & perform aggregate drying to constant mass	8.3
• Understand the alternate method for obtaining equivalent dry weight of sample used in volumetric procedure	8.3.1
• Determine mass of pycnometer with water	8.4
• Calculate bulk specific gravity (relative density)	9.1
• Calculate bulk specific gravity (relative density), SSD	10.1
• Calculate apparent specific gravity (apparent density)	11.1
• Calculate absorption	12.1
• Know and demonstrate reporting, with required precision, of specific gravity (relative density) and absorption	13

AASHTO T 255/ASTM C566 – Standard Method of Test for Total Evaporable Moisture Content of Aggregate by Drying

• Understand scope of test method	1.1
• Understand significance and use of test method	4
• Know required accuracy of the balance	5.1
• Understand types of heat sources	5.2
• Know requirements for type and size of container	5.3
• Know sample size requirements	6.1
• Know & demonstrate requirements for securing sample to prevent moisture loss	6.2
• Determine initial mass to 0.1%	7.1
• Know requirements for drying sample	7.2
• Understand detrimental effects of rapidly heating the sample	7.2.1
• Know when sample is thoroughly dry	7.4
• Determine final mass to 0.1%	7.5
• Calculate total evaporable moisture content	8.1
• Know surface moisture content	8.2

AASHTO T 21/ASTM C40 – Standard Method of Test for Organic Impurities in Fine Aggregates for Concrete

• Understand scope of test method	1.1
• Understand significance and use of test method	3.1
• Understand results of the test method	3.2

ANNEX 620.3-1

Job-Task Analysis (JTA) for ACI Aggregate Testing Technician—Level 1 Certification (Continued)

• Know requirements of glass bottles	4.1
• Understand requirements for glass color standard	4.2.1, Note 1
• Know requirements for Reagent Sodium Hydroxide Solution	5.1
• Understand requirements and procedure for Standard Color Solution	5.2
• Know requirements for sample size and preparation	7.1
• Know requirements for introducing sample in the glass bottle	8.1
• Know requirements for introducing NaOH solution	8.2
• Know requirements for agitating the sample, and waiting period	8.3
• Understand method used for standard color solution procedure	9.1
• Know procedure for glass color standard	9.2
• Know proper procedure for interpreting results	10.1

ANNEX 620.3-2

Job-Task Analysis (JTA) for ACI Aggregate Testing Technician—Level 2 Certification

HOW TO USE THIS JTA:

On the written examination, the Candidate must:

- **Understand** the following general concepts, which may not have specified values, procedures, or measurements; *and*
- **Know** the following specific procedures or values; performance of these items may also be assessed on the performance examination.

On the performance examination:

- **Perform**—or describe verbally, where allowed—the following tasks or steps, which are part of the specified procedure; knowledge of these items may also be assessed on the written examination.

RESOURCES:

AASHTO T 19/ASTM C29/C29M Standard Method of Test for Bulk Density ("Unit Weight") and Voids in Aggregate
AASHTO T 96/ASTM C131 Standard Method of Test for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
AASHTO T 104/ASTM C88 Standard Method of Test for Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate
AASHTO T 112/ASATM C142 Standard Method of Test for Clay Lumps and Friable Particles in Aggregate
AASHTO T 113/ASTM C123/C123M Standard Method of Test for Lightweight Pieces in Aggregate
AASHTO T 176/ASTM D2419 Standard Method of Test for Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test
AASHTO T 304/ASTM C1252 Standard Method of Test for Uncompacted Void Content of Fine Aggregate
ASTM C535 Standard Method for Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM D4791 Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate
ASTM D5821 Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate

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

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

AASHTO T 19 Standard Method of Test for Bulk Density ("Unit Weight") and Voids in Aggregate

• Understand the scope of the method	1.1
• Know the terminology of the method	3.1–3.2
• Understand the significance and use of the method	4
• Know the equipment required for the procedure	5.1–5.4, Note 2
• Know the requirements for sampling	6
• Know the requirements for sample size	7
• Understand the requirements and procedures for equipment calibration	8
• Know the requirements for procedure selection	9
• Know and perform the requirements for the rodding procedure	10
• Know the requirements for the jigging procedure	11

ANNEX 620.3-2

Job-Task Analysis (JTA) for ACI Aggregate Testing Technician—Level 2 Certification (Continued)

- Know the requirements for the shoveling procedure 12
- Know and perform the calculation requirements for the test method 13
- Know and perform the reporting requirements 14

AASHTO T 96 Standard Method of Test for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine

- Understand the scope of the method 1.1, Note 1
- Understand the summary of the method 4
- Understand the significance and use of the method 5
- Know the equipment required for the procedure 6
- Know the requirements for sampling 7
- Know the requirements for fabricating the test samples 8, Table 1
- Know the procedure for performing the test method 9
- Know the calculation requirements for the test method 10
- Know the reporting requirements 11

AASHTO T 104 Standard Method of Test for Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate

- Understand the scope of the method 1.1–1.2
- Know the equipment required for the procedure 3.1–3.9
- Know the requirements for the solutions used in the procedure 4.1–4.2
- Know the requirements for fabricating the samples for testing 5.1–5.3
- Know the requirements for preparation of fine aggregate samples 6.1
- Know the requirements for preparation of coarse aggregate samples 6.2
- Know the procedure for storage of samples in solutions 7.1
- Know the procedure for drying samples after immersion 7.2
- Know the requirements for determining the number of cycles 7.3
- Understand the procedure for determining a quantitative analysis 8
- Understand the procedure for determining a qualitative analysis 9
- Understand the reporting requirements 10

AASHTO T 112 Standard Method of Test for Clay Lumps and Friable Particles in Aggregate

- Understand the scope of the method 1.1
- Understand the significance and use of the method 3
- Know the equipment required for the procedure 4
- Know the requirements for fabricating the test samples 5
- Know and perform the procedure for performing the test method 6
- Know and perform the calculation requirements for the test method 7.1
- Know and perform the reporting requirements 7.2

AASHTO T 113 Standard Method of Test for Lightweight Pieces in Aggregate

- Understand the scope of the method 1.1–1.2
- Understand the significance and use of the method 3
- Know the equipment required for the procedure 4
- Know the requirements for the heavy liquids used in the test method 5, Note 1
- Know the requirements for sampling 6
- Know and perform the procedure for performing the test method 7

ANNEX 620.3-2

Job-Task Analysis (JTA) for ACI Aggregate Testing Technician—Level 2 Certification (Continued)

- Know and perform the calculation requirements for the test method 8
- Know and perform the reporting requirements 9

AASHTO T 176 Standard Method of Test for Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test

- Understand the scope of the method 1.1, 1.3
- Know the requirements for rounding result 1.2
- Understand the significance and use of the method 3
- Know the equipment required for the procedure 4.1–4.7, 4.10–4.14
- Understand the requirements for the stock solution 4.8
- Know the requirements for the working solution 4.9
- Understand the requirements for temperature control 5
- Know the requirements for sampling 6
- Know and perform the requirements for sample preparation (air dry) 7.1–7.1.1
- Understand the requirements for sample preparation (pre wet) 7.1.2
- Understand the requirements for sample preparation (reference method) 7.1.2
- Know and perform the procedure for performing the test method 8.1–8.4
- Understand the procedure for performing the mechanical shaker method (reference method) 8.4.1
- Understand the procedure for performing the mechanical shaker method 8.4.2
- Know and perform the procedure for performing the hand method 8.4.3
- Know and perform the procedure for performing the test method 8.5–8.10
- Know and perform the calculations required and the reporting requirements 9
- Understand the precautions for the test method 10

AASHTO T 304 Standard Method of Test for Uncompacted Void Content of Fine Aggregate

- Understand the scope of the method 1.1–1.3
- Understand the summary of the method 4
- Understand the significance and use of the method and the purpose of the results obtained for each method 5
- Know the equipment required for the procedure 6
- Know the requirements for sampling 7
- Know the requirements for calibrating the measure 8
- Know the requirements for preparing a standard graded test samples 9.1
- Know the requirements for preparing individual size fraction test samples 9.2
- Know and perform the requirements for preparing an as received test samples 9.3
- Know and perform the procedure for the test method 10
- Know and perform the calculations required and the reporting requirements 11
- Know and perform the reporting requirements 12

ASTM C535 Standard Method for Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine

- Understand the scope of the method 1.1, Note 1
- Understand the summary of the method 4
- Understand the significance and use of the method 5
- Know the equipment required for the procedure 6
- Know the requirements for sampling 7
- Know the requirements for fabricating the test samples 8, Table 1
- Know the procedure for performing the test method 9

ANNEX 620.3-2

Job-Task Analysis (JTA) for ACI Aggregate Testing Technician—Level 2 Certification (Continued)

• Know the calculation requirements for the test method	10
• Know the reporting requirements	11

ASTM D4791 Standard Test Method for Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate

• Understand the scope of the method	1.1–1.2
• Know terminology	3
• Understand the summary of the method	4
• Understand the significance and use of the method	5
• Know the equipment required for the procedure	6
• Know the requirements for sampling	7
• Know and perform the procedure for performing the test method	8.1–8.2
• Know and perform the procedure Method A for performing the test method	8.3
• Know and perform the procedure Method B for performing the test method	8.4
• Know and perform the calculation requirements for the test method	9
• Know and perform the reporting requirements	10

ASTM D5821 Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate

• Understand the scope of the method	1.1–1.2
• Know the terminology of the method	3.1.1–3.2.1
• Understand the significance and use of the method	4
• Know the equipment required for the procedure	5
• Know the requirements for sampling	6
• Know the requirements for sample preparation	7
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ANNEX 620.3-3

AMERICAN CONCRETE INSTITUTE

Policy on Sponsoring Groups for Certification

Approved by the ACI Board of Direction
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In developing certification exams for the concrete construction industry, the American Concrete Institute (ACI) has set forth minimum criteria by which an individual's proficiency is to be judged. Typically, ACI is not in a position to deliver certification exams directly to participants; therefore, it is necessary for ACI to have the ability to delegate this authority. However, if the need arises, ACI reserves the right to conduct exam sessions itself according to each program Policy.

In order to allow others to deliver its certification exams, ACI has adopted the "Sponsoring Group" concept. Sponsoring Groups act as agents of ACI in the delivery of ACI certification exams. Therefore, prior to being selected as an ACI Sponsoring Group, and for the duration of the period in which the group is authorized to act as a Sponsoring Group, such groups are subject to the following policies:

1. Sponsoring Groups shall be approved, in writing, by ACI's Certification Department (hereafter referred to as ACI) before they will be permitted to conduct an ACI[1] certification exam session. In all cases, approval of Sponsoring Groups shall be at the sole discretion of ACI.

2. In reviewing applications, ACI will consider, among other factors, the following:

   A) The ability and willingness of the applicant to include in their constituency segments of the concrete construction industry impacted by the exams which they have applied to conduct. This includes individuals involved in the specification, production, design, construction, testing and inspection of concrete and concrete products. The applicant must establish a governance structure with representation appropriate to all of the exams for which the applicant has applied.

[1] For the purposes of this policy, references to "ACI certification" and "ACI certification program(s)" include only those administered solely by ACI (ACI programs). Programs with cosponsors are not directly addressed by this Policy.

B) The interest, experience and technical expertise necessary to conduct exam sessions exhibited by the applicant and/or their certification governance structure.

C) The legitimate need for the applicant to conduct a specific ACI certification exam within their approved operational jurisdiction.

D) The primary objective of the applicant in applying for sponsorship, which must coincide with ACI's overall mission of improving the quality of concrete construction within the political, social, and cultural dynamics of the intended operational jurisdiction.

3. Sponsoring Groups are required to maintain a governance structure to oversee the delivery of ACI exams. The governance structure shall consist of a committee of at least three (3) individuals, each working for a different employer and each producing a different product or service related to the concrete construction industry. At all times, at least one (1) member of the committee shall be a member of ACI. Further, ACI shall be furnished with a complete and accurate listing of contact information for all committee members including names, employers, type of businesses, physical addresses, email addresses, and both office telephone and cell phone numbers as available.

4. The certification committee shall obtain the services of ACI-approved examiners. The examiners shall operate under the direct supervision of the certification committee to conduct ACI certification exam sessions. Examiners are permitted to conduct ACI certification exam sessions only under the auspices of ACI or ACI-approved Sponsoring Groups; and they must comply with all ACI certification policies and procedures.

5. At the time of approval, ACI shall assign Sponsoring Groups specific geographical areas within which they will have authority to conduct ACI certification exam sessions. This area is the approved operational jurisdiction for the Sponsoring Group.

6. ACI shall approve each Sponsoring Group on a calendar year basis for a period not to exceed two (2) years. Prior to the conclusion of this period, all groups shall reapply to ACI for approval to continue to act as an ACI Sponsoring Group.

7. In the U.S., in areas where no Sponsoring Group is actively administering a specific ACI examination, the local ACI chapter (not a student chapter) shall have first rights to administer that specific exam. International sponsorship for any ACI examination will be assessed on a case-by-case basis.

8. If an existing Sponsoring Group or ACI Chapter is solicited to administer an examination and participation is declined, or if a sponsor does not request an examination upon initial availability from ACI, or if a requested examination is not administered within two years following approval, administration of said examination may become available to other potential sponsors.

9. If more than one applicant wishes to sponsor an ACI certification exam in the same operational jurisdiction and there is documented need for more than one group to conduct the examination in that jurisdiction or portion thereof, a system of coordination between those groups shall be established. A description of this system shall be considered along with any new Sponsoring Group application and must be included in the governance system for any existing Sponsoring Group. In all cases, ACI reserves the right, in its sole discretion, to select a delivery system that in its judgment is best able to serve the interests of ACI.

10. Applicants wishing to sponsor ACI certification examinations on a "national" or "regional" basis will, in appropriate circumstances, be approved to conduct exams under specific conditions at the discretion of ACI.

11. Approved Sponsoring Groups are responsible for:

A) Maintaining control over the administration of ACI Certification exams offered within their operational jurisdiction. This includes, but is not limited to, maintaining control over the ethical and professional integrity of every sponsored examination session and providing ongoing oversight of exam session coordinators, examiners, and other exam delivery personnel.

B) Conducting a sufficient number of exam sessions and providing equitable access to those exam sessions for all individuals seeking ACI Certification within the group’s operational jurisdiction.

C) Conducting all ACI exams in a manner which complies with the intent of ACI's policies and procedures governing certification.

D) Formulating, publishing, and enforcing consistent and equitable pricing for ACI Certification exams offered by the Sponsoring Group within their operational jurisdiction.

E) Developing and implementing participant registration processes that satisfy the policy requirements of each exam offered by the Sponsoring Group and verifying that each participant has met the eligibility requirements of the program before being allowed to complete an ACI exam.

F) Collecting exam fees from participants, paying materials invoices to ACI within 30 days of receipt, and distributing compensation to examiners and other program delivery personnel as warranted.

G) Developing a program delivery process that establishes separation between the education/training and testing divisions of the Sponsoring Group.

12. ACI has the right to revoke a Sponsoring Group's authority to conduct an ACI certification exam at any time, with or without cause, and with or without notice.

13. Appeals resulting from the denial or revocation of Sponsoring Group status will be reviewed by ACI Staff for determination of appropriate action on a case-by-case basis.

14. This policy shall become effective sixty (60) days after its approval by the ACI Certification Programs Committee, and shall render all previous Policy versions null and void. Sponsoring Groups shall be notified of this new policy in writing within thirty (30) days after it is approved by the ACI Certification Programs Committee.

15. The Certification Programs Committee shall review, revise as necessary, and reapprove this Policy at intervals not exceeding two years in length.