

Certification Policies for Concrete Transportation Construction Inspectors

Approved by the ACI Board of Direction March 28, 2006

Last revised by the Certification Programs Committee March 21, 2014; effective January 1, 2015

The statements contained herein are a consolidation of approved policies and procedures. This policy statement will supersede all previous action of the ACI Board of Direction with respect to Concrete Transportation Construction Inspector Certification and is effective March 28, 2006. The certification program policies are organized into seven sections as follows:

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

Section 1.0	Certification Criteria
Section 2.0	Examination Criteria – Associate Inspector
Section 3.0	Examination Criteria – Inspector
Section 4.0	Appeals Criteria
Section 5.0	Sponsoring Group Criteria
Section 6.0	Examiner/Proctor Criteria
Section 7.0	ACI Responsibilities
Section 8.0	Recertification Criteria

SECTION 1.0 CERTIFICATION CRITERIA

1.1 The American Concrete Institute (ACI) shall recognize two classifications of certification for Concrete Transportation Construction Inspectors:

Concrete Transportation Construction Inspector; and Associate Concrete Transportation Construction Inspector

- 1.2 Certification as an <u>Associate Concrete Transportation Construction Inspector</u> shall require:
 - A) Successful completion of respective written examinations on inspection and plans reading.
 - B) Fulfillment of requirements in ACI Concrete Field Testing Technician—Grade I as follows:
 - Be currently certified as an ACI Concrete Field Testing Technician—Grade I OR
 - 2. Have been certified as an ACI Concrete Field Testing Technician—Grade I at one time

AND

- 3. Pass the current ACI Concrete Field Testing Technician—Grade I written exam within one year of passing the Inspector exam.
- 1.3 If the Concrete Field Testing Technician—Grade I requirement is not held at the time of testing for <u>Associate Concrete Transportation Construction Inspector</u>, the requisite Concrete Field Testing Technician—Grade I certification or validation of prior Concrete Field Testing Technician—Grade I certification with successful completion of the current Concrete Field Testing Technician—Grade I written examination must be obtained within one year of the first examination passed for Inspector. Otherwise, the written inspection and plans reading examinations must be retaken in their entireties. No specific education or work experience shall be required to sit for the examination for Associate Concrete Transportation Construction Inspector.
- 1.4 Certification as a Concrete Transportation Construction Inspector shall require:
 - A) Successful completion of respective written examinations on inspection and plans reading.
 - B) Fulfillment of requirements in ACI Concrete Field Testing Technician—Grade I as follows:
 - 1. Be currently certified as an ACI Concrete Field Testing Technician—Grade I

OR

2. Have been certified as an ACI Concrete Field Testing Technician—Grade I at one time

AND

3. Pass the current ACI Concrete Field Testing Technician—Grade I written exam within one year of passing the Inspector exam.

If the ACI Concrete Field Testing Technician—Grade I requirement is not held at the time of testing for <u>Concrete Transportation Construction Inspector</u>, the requisite ACI Concrete Field Testing Technician—Grade I certification or validation of prior ACI Concrete Field Testing Technician—Grade I certification with successful completion of the current ACI Concrete Field Testing Technician—Grade I written examination must be obtained within one year of the first examination passed for Inspector. Otherwise, the written inspection and plans reading examinations must be retaken in their entireties.

- C) Demonstrate satisfactory education and work experience.
- 1.5 The education and work experience required for Concrete Transportation Construction Inspector certification is as follows:
 - 1. A minimum of two years of college or technical school, earning at least 60 credit hours, plus two years of satisfactory work experience, or
 - 2. A high school diploma, or equivalent, plus a minimum of three years of satisfactory work experience, or
 - 3. Five years of satisfactory work experience.
- 1.6 Satisfactory work experience must include:
 - 1. Decision making responsibility and authority.
 - 2. Verification of compliance with plans, specifications, and codes.
 - 3. Evaluation of concrete construction in the field.
 - 4. Documentation and reporting of inspection results.
 - 5. Concrete Transportation Construction Inspector Certification requires proficiency in the following areas of inspection: formwork installation and removal, reinforcement, embedments, sampling and testing of freshly mixed concrete, conveying, placement, consolidation, finishing, jointing, curing, protection, drilled piers, pilings, pavements and soil cement.
- 1.7 ACI certification shall be valid for a period of five years from the date of completion of all certification requirements.

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SECTION 2.0 EXAMINATION CRITERIA

Certification as an Associate Concrete Transportation Construction Inspector

- 2.1 The written inspection examination shall consist of approximately 40 multiple choice questions pertaining to inspection and reporting of inspection information for preplacement, placement, and post-placement periods of concrete construction. The written plans reading examination shall consist of approximately 10 multiple choice questions designed to test the examinee's ability to read and understand engineering drawings.
- 2.2 The written inspection examination includes questions on formwork installation and removal, reinforcement, embedments, conveying, placement, consolidation, finishing, jointing, curing, protection, as appropriate. The written plans reading examination includes questions on terminology, reinforcement, tolerances, and special requirements as expressed on engineering drawings.
- 2.3 The body of knowledge covered on the Associate Concrete Transportation Construction Inspector examination is contained in the publications listed in Appendix "A", Resource Materials.
- 2.4 The examinations are open book. The technical materials allowed into the examination room are limited to the resource materials listed in Appendix "A" as appropriate.
- 2.5 A maximum time of 90 minutes shall be allowed to complete the written inspection examination. A maximum time of 30 minutes shall be allowed to complete the plans reading examination.
- 2.6 The examination shall be supervised by an ACI-approved Examiner, assisted, when necessary, by a proctor appointed by the Examiner.
- 2.7 The Examiner, proctors, and members of the Sponsoring Group have no jurisdiction over the content of questions on any specific examinations.
- 2.8 Oral administration of the examinations shall be permitted, contingent upon prior approval by the ACI Certification Department.
- 2.9 Successful completion of each written examination requires a minimum grade of 70%.
- 2.10 The written inspection and plans reading examinations may be taken separately, but must be passed within one [1] year of each other. Otherwise, both the written inspection and plans reading examinations must be retaken in their entireties.
- 2.11 Examinations shall be graded by ACI.

- 2.12 Multiple versions of the examinations, of approximately equal difficulty, shall be provided.
- 2.13 Arrangements for reexamination shall be made with the Sponsoring Group

SECTION 3.0 EXAMINATION CRITERIA

Certification as a Concrete Transportation Construction Inspector

- 3.1 The written inspection examination shall consist of approximately 80 multiple choice questions pertaining to inspection and reporting of inspection information for preplacement, placement, and post-placement periods of concrete construction. The written plans reading examination shall consist of approximately 20 multiple choice questions designed to test the examinee's ability to read and understand engineering drawings.
- 3.2 The written inspection examination includes questions on formwork installation and removal, reinforcement, embedments, conveying, placement, consolidation, finishing, jointing, curing, protection, drilled piers, pilings, pavements and soil cement, as appropriate. The written plans reading examination includes questions on terminology, reinforcement, tolerances, and special requirements as expressed on engineering drawings.
- 3.3 The body of knowledge covered on the Concrete Transportation Construction Inspector examination is contained in the publications listed in Appendix "B" Resource Materials.
- 3.4 The examinations are open book. The technical materials allowed into the examination room are limited to the resource materials listed in Appendix "B" as appropriate.
- 3.5 Other technical materials may be allowed into the examination room if they contain one or more of the references listed in Appendix "B" and have been pre-approved by ACI.
 - Pre-approved references are: The Annual Book of ASTM Standards, Section 4, Volume 04.02; ACI SP-15, "Specifications for Structural Concrete for Buildings"; and the ACI Manual of Concrete Practice, Parts 2 and 3.
- 3.6 A maximum time of three hours shall be allowed to complete the written inspection examination. A maximum time of one hour shall be allowed to complete the written plans reading examination.
- 3.7 The examination shall be supervised by an ACI-approved Examiner, assisted, when necessary, by a proctor appointed by the Examiner.

- 3.8 The Examiner, proctors, and members of the Sponsoring Group have no jurisdiction over the content of questions on any specific examinations.
- 3.9 Oral administration of the examinations shall be permitted, contingent upon prior approval by the ACI Certification Department.
- 3.10 Successful completion of each written examination requires a minimum grade of 70%.
- 3.11 The written inspection and plans reading examinations may be taken separately, but must be passed within one [1] year of each other. Otherwise, both the written inspection and plans reading examinations must be retaken in their entireties.
- 3.12 Examinations shall be graded by ACI.
- 3.13 Multiple versions of the examinations, of approximately equal difficulty, shall be provided.
- 3.14 Arrangements for reexamination shall be made with the Sponsoring Group.

SECTION 4.0 APPEALS CRITERIA

- 4.1 An appeal procedure shall be available if the examinee feels some aspect of the examination is unclear, incorrect, or unfair.
- 4.2 Appeals regarding the conduct of the examination should be referred initially to the Examiner. If the Examiner cannot satisfy the complaint, it should be referred to the Sponsoring Group.
- 4.3 Appeals regarding specific questions shall be referred to ACI in writing.
- 4.4 A challenge form shall be provided with each exam on which the examinee may describe a complaint involving specific questions. It should be returned with the completed examination.
- 4.5 ACI will consider a written appeal if it is received by the ACI Certification Department within 60 days from the receipt of the examination by ACI.
- 4.6 Appeals referred to ACI are handled in order by the following people or groups:
 - 1. ACI Director of Certification
 - The Certification Appeals Committee [consisting of the Director of Certification, the Certification Programs Committee Chairman, and the Chairman of Committee C631.]

- 3. Committee C631, Concrete Transportation Construction Inspector Certification.
- 4. Certification Programs Committee

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.

SECTION 6.0 EXAMINER/PROCTOR CRITERIA

6.1 The Examiner shall be authorized by ACI to conduct the ACI certification examinations for:

Concrete Transportation Construction Inspector; and Associate Concrete Transportation Construction Inspector

- 6.2 The Examiner shall be present and in full supervision during the examination session.
- 6.3 The Examiner shall be approved by ACI. Qualifications shall be submitted on the Examiner Application.
- 6.4 The Examiner shall meet the following requirements:
 - 1. Be a registered professional engineer.
 - 2. Have had five years of recent experience in inspection of concrete construction.
 - 3. Be adjudged qualified by ACI.
- 6.5 Proctors shall be permitted to assist the Examiner in conducting the written and plans reading examinations.
- 6.6 Proctors shall satisfy the following requirements:
 - 1. Have some knowledge of concrete construction.
 - 2. Be trustworthy and conscientious.
 - 3. Be adjudged qualified by the examiner.
- 6.7 Examiners and proctors shall be unrelated professionally and personally to the examinees. Government 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.

6.8 The Examiner shall:

- 1. Select the proctors and inform ACI of their names.
- 2. Verify the identity of each examinee, and assure that the examinees are aware of the certification criteria.
- 3. Confirm the suitability of the facilities selected by the Sponsoring Group.
- 4. Maintain secrecy of the examination content.
- 5. Refrain from defining terms or interpreting examination questions while conducting the examination.

SECTION 7.0 ACI RESPONSIBILITIES

7.1 ACI SHALL:

- 1. Approve the Sponsoring Group.
- 2. Approve the Examiner.
- 3. Certify the successful examinees and issue certificates to them.
- 4. Grade the examinations and notify the examinee and the examiner of the final results in writing.
- 5. Evaluate education and work experience and determine conformance with requirements of applicants as a Concrete Transportation Construction Inspector.
- 6. Authorize the Sponsoring Group to conduct examination sessions for:
 - Concrete Transportation Construction Inspector; and/or Associate Concrete Transportation Construction Inspector
- 7. Issue a certificate and wallet card to successful examinees.
- 8. Process appeals.

SECTION 8.0 RECERTIFICATION CRITERIA

8.1 Recertification criteria shall be the successful completion of the then current requirements for certification. Reevaluation of work experience is not required for recertification at the same certification level.

Appendix A -- Resource Materials ACI Associate Concrete Transportation Construction Inspector Certification Program

Document

SP-2

ACI Terminology

ACI 117

ACI 213R

ACI 301

ACI 304R

ACI 304.2R

ACI 305R

ACI 306R

ACI 308R

ACI 309R

ACI 325.9R

ACI 347R

ASTM C 94/C 94M

CRSI Manual of Standard Practice, (MSP)

APPENDIX B — Resource Materials ACI Concrete Transportation Construction Inspector Certification Program

Document

SP-2

ACI Concrete Terminology

ACI 117

ACI 213R

ACI 301

ACI 304R

ACI 304.2R

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ACI 305R

ACI 306R

ACI 308R

ACI 309R

ACI 318

ACI 325.9R

ACI 325.10R

ACI 336.3R

ACI 345R

ACI 347R

ACI 543R

PCA Soil-Cement Construction Handbook

PCA Soil-Cement Inspector's Manual

CRSI Manual of Standard Practice (MSP)