

### **American Concrete Institute**

## Certification Policies for Adhesive Anchor Installation Inspector

Last approved by the Certification Programs Committee January 13, 2017

The statements contained herein are a consolidation of approved policies and procedures. This policy statement is effective January 13, 2017.

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

Section 1. Certification Criteria

- Section 2. Examination Criteria
- Section 3. Re-examination Criteria

Section 4. Appeals Criteria

Section 5. Sponsoring Group Criteria

Section 6. Examiner Criteria

Section 7. ACI Duties and Responsibilities

Section 8. Recertification

Revision I - 03/27/17

#### SECTION 1.0 CERTIFICATION CRITERIA

- 1.1 The American Concrete Institute (ACI) certification program for Adhesive Anchor Installation Inspector shall require successful completion of a two-part written examination and attendance at an Adhesive Anchor Installer hands-on practice session as conducted by an ACI Sponsoring Group.
- 1.2 ACI requires applicants for the Adhesive Anchor Installation Inspector certification examination to meet the following eligibility criteria:
  - 2. Be of age adequate for legal employment as a special inspector.
  - 3. Be able to read and communicate in English.\*
  - 4. Be familiar with all physical tasks associated with installing adhesive concrete anchors, including but not limited to operating a drill, assembling and using adhesive injection apparatus, and the ability to reach overhead.

\* This eligibility requirement reflects the language availability of the inspection-related resource materials referenced by this program at the time these Policies were adopted. Additional languages may be added as resource and exam materials in those languages become available.

- 1.3 Candidates who possess current ACI-CRSI Adhesive Anchor Installer certification are exempt from attending the hands-on practice session; however, those examinees must still take the Part I–Installation as well as Part II–Inspection written exams.
- 1.4 ACI certification for Adhesive Anchor Installation Inspector shall be valid for a period of 5 years from the date of certification.
- 1.5 Certification may be renewed by satisfying the recertification requirements.

#### **SECTION 2.0 EXAMINATION CRITERIA**

#### GENERAL REQUIREMENTS

- 2.1 The content of the written examinations for certification as an ACI Adhesive Anchor Installation Inspector is derived from the resource materials listed in Annex 1.
- 2.2 The written examinations are closed-book (Part I—Installation) and open-book (Part II— Inspection); only the referenced materials listed in the Inspection Section of Annex 1 will be permitted in the exam room during the Part II—Inspection exam.
- 2.3 The examinations shall be conducted by the examiner, and/or proctors, as applicable (See Section 6).

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- 2.4 The examiners, proctors, and/or sponsoring groups have no jurisdiction over the content of examination materials, or over the grading of the written examination.
- 2.5 Both examinations and attendance/participation at an Adhesive Anchor Installer hands-on practice session are to be passed and completed, respectively, within a one-year period.

#### WRITTEN EXAMINATIONS

#### Part I—Installation

2.6 The examinee will be required to pass a closed-book written examination covering knowledge and procedural issues related to **installation** of adhesive concrete anchors as addressed in the reference material; Adhesive Anchor Installer (CP-80). This exam will consist of approximately 45 questions for which the examinee will be allowed 45 minutes to complete.

#### Part II—Inspection

- 2.7 The examinee will be required to pass an open-book written examination covering knowledge and procedural issues related to **inspection** of and installation of adhesive concrete anchors as addressed in the reference materials listed in the Inspection Section of Annex 1. This exam will consist of approximately 55 questions for which the examinee will be allowed 75 minutes to complete.
- 2.8 The entire written examination will consist of approximately 100 questions. The questions will be multiple-choice.
- 2.9 Verbal administration of the written exam may be permitted in special cases when conducted in accordance with ACI guidelines.
- 2.10 Passing scores for each exam are based on the combined difficulty of all scored questions determined through statistical analysis. The Part I—Installation exam requires a minimum score of 74% and the Part II—Inspection exam requires a minimum score of 70%.

#### INSTALLATION PRACTICE SESSION

2.11 While this program policy does not require the examinee to demonstrate proficiency as an adhesive anchor installer, it is <u>required</u> that the examinee attend an Adhesive Anchor Installer hands-on practice session at which both Piston Plug and Retaining Cap systems are used and demonstrated. These sessions are offered by ACI sponsoring groups that currently offer the Adhesive Anchor Installer (AAI) certification program. Attendance at one of these sessions shall be documented by an ACI Sponsoring Group representative.

#### SECTION 3.0 RE-EXAMINATION CRITERIA

- 3.1 Failure of either Part I—Installation or Part II—Inspection of the written examination by the criteria cited in Section 2.10 shall require reexamination on that part failed.
- 3.2 Both parts of the written examination must be passed within one year of each other; otherwise, both parts must be retaken.

#### 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 Managing Director of Certification
  - 3. The Certification Appeals Committee (consisting of the ACI Managing Director of Certification, and the Chairman of Committee C681)
  - 4. Committee C681, Adhesive Anchor Installation Inspector 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 ACI Certification.

#### **SECTION 6.0 EXAMINER CRITERIA**

- 6.1 The examiner shall be approved by ACI. Applicants must submit their qualifications on an ACI application form via their sponsoring group.
- 6.2 To be approved as an examiner, the applicant must be an approved Examiner for the ACI/CRSI Adhesive Anchor Installer certification program, or:
  - A) Be a registered professional engineer,

<u>AND</u>

B) Have at least two years of experience in inspection and or testing of anchors

#### <u>AND</u>

- C) Assist in the administration of at least one (1) ACI/CRSI Adhesive Anchor Installer examination session (including evaluation of tube cross-sections), performing to the satisfaction of the examiner of record.
- 6.3 Examiners are responsible for the overall administration of the certification exam session, and its adherence to the program's administrative policies. The examiner must be present and in full supervision during the examination sessions.
- 6.4 Proctors are assigned by the Examiner to assist in administration of the written exam, if offered. There are no experience requirements for proctors; examiners must select individuals whom they believe are trustworthy and conscientious.
- 6.5 Examiners and proctors shall not be professionally or personally related to the examinees.
- 6.6 The examiner shall be directly responsible for the following activities:
  - A) Selection of the proctors, when needed.
  - B) Verify the qualifications of the proctors per the criteria outlined in Section 6.4 and 6.5.
  - C) Order and receive examinations, or coordinate these activities with a Sponsoring Group representative.
  - D) Verify the identity of each examinee, and ensure that the examinees are aware of the certification criteria.
  - E) Verify that the examinees have signed the release statement on the examinations prior to testing.
  - F) Verify that materials and equipment are suitable for the program.
  - G) Collect and summarize all forms (complete and sign the practice session verification form for each examinee) and collate with written examinations.
  - H) Forward all certification materials to ACI Certification.
  - Evaluate examiner applicants assisting in administering sessions, assessing their abilities in administering examinations, and forwarding the results of their evaluation to ACI Certification.

#### **SECTION 7.0 ACI DUTIES AND RESPONSIBILITIES**

- 7.1 ACI shall approve the Sponsoring Group.
- 7.2 ACI shall approve the Examiner.
- 7.3 ACI may suspend or revoke Examiner approval at any time.
- 7.4 ACI shall authorize the sponsoring group to conduct examination sessions for Adhesive Anchor Installation Inspector Certification.
- 7.5 ACI shall grade the written examinations and review the documentation of participation in an AAI hands-on practice session, and notify the examinee and examiner of the final results.
- 7.6 ACI shall certify the examinees who have satisfied the certification requirements.
- 7.7 ACI shall issue appropriate credentials to successful examinees.
- 7.8 ACI shall facilitate processing of appeals.

#### **SECTION 8.0 RECERTIFICATION**

- 8.1 Recertification shall require successful completion of both parts of the written examination.
- 8.2 ACI reserves the right to update the written examination at any time. This right shall extend to the convening of a subject matter expert (SME) meeting to formulate new examination questions.

## **ANNEX 1** Resource Materials

#### Part I-Installation Exam Resources (closed book exam)

• Chapters 2 through 7 of the Adhesive Anchor Installer workbook (CP-80)

#### Part II—Inspection Exam Resources (open book exam)

- Special Inspector Guidelines for Post-Installed Anchors- CAMA Whitepaper
- Inspecting Adhesive Anchors on the Job Do's & Don'ts– Silva & Mattis, Concrete International, May2017
- 318-14, Chapter 17 Special Inspections and Testing
- 318-14, Chapter 26 Construction Documents & Inspection
- 2015 IBC, Chapter 17 Special Inspections and Tests
- 355.4 Qualification of Post Installed Adhesive Anchors, Chapters 1, 2, 3, and 10-13
- ICC-ES Evaluation Report (Powers ICC ESR 2583)
- Adhesive Anchor Installation and Inspection, Wollmershauser & Mattis, *Concrete International,* December 2008
- *Note:* Annex 1 is updated periodically to reflect editions of resource materials referenced in current exams.