

American Concrete Institute

Certification Policies for Tilt-Up Supervisor

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 Tilt-Up Supervisor certification and is effective November 10, 2009.

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: Duties and Responsibilities
- Section 8. Recertification Criteria

SECTION 1.0 CERTIFICATION CRITERIA

- 1.01 The American Concrete Institute (ACI) certification program includes both Tilt-Up Supervisor and Tilt-Up Technician categories.
- 1.02 Certification as a Tilt-Up Supervisor requires:
 - A. Successful completion of a written examination. (See Section 2.08)
 - B. A minimum of 5 years (7500 hours) of verifiable construction experience of which at least 3 years (4500 hours) is tilt-up supervisory, assistant supervisory and/or tilt-up technician experience as enumerated in section 2.09.
- 1.03 Time in the classroom while in an apprentice or other formal training program shall not be included in meeting the required work experience noted in Section 1.02 B.
- 1.04 Certification as a Tilt-Up Technician requires only the successful completion of the written examination.
- 1.05 ACI Certification for Tilt-Up Supervisor or Technician shall be valid for a period of five (5) years from the date of completion of all applicable certification requirements.
- 1.06 A certified Tilt-Up Technician may upgrade to Tilt-Up Supervisor at any time during the five (5) year certification period by completing the then current Tilt-Up Supervisor experience requirements.
- 1.07 If a Technician upgrades to Supervisor status, certification as a Supervisor shall be valid for the remainder of the original Technician certification period.

SECTION 2.0 EXAMINATION CRITERIA

GENERAL REQUIREMENTS

- 2.01 The content of the written examination shall be derived directly from the *Tilt-Up Supervisor and Technician Reference Guide*, ACI CP-50, as enumerated below:
 - A. Basic Concrete Technology (ACI CCS-1)
 - B. Concrete Materials and Mix Proportioning (ACI CCS-1)
 - C. Tilt-Up Concrete Construction Guide (ACI 551.1R)
 - D. Temporary Wind Bracing Guidelines (TCA)
 - E. Tilt-Up Design and Construction Manual (TCA, Sections 2-8)
- 2.02 The examination(s) shall be conducted by the ACI approved examiner, proctors, and/or supplemental examiners as applicable. (See Section 6.0)

- 2.03 The ACI approved examiners, proctors, and/or sponsoring groups shall not have any jurisdiction over the content of the examination(s), or over the grading of the written examination.
- 2.04 The examination is closed book. Notes or other technical material shall not be permitted in the examination area.

WRITTEN EXAMINATION

- 2.05 The written examination shall consist of at least eighty (80) multiple choice and/or true/false questions.
- 2.06 A maximum of two hours shall be permitted for completion of the written examination.
- 2.07 Oral administration of the written examination shall be permitted, contingent upon approval by the ACI Certification Department.
- 2.08 A minimum test score of 70% shall be considered as successful completion of the written examination.

WORK EXPERIENCE AFFIDAVIT

- 2.09 The examinee, as part of the 3 year (4500 hour) requirement for experience as a tilt-up supervisor, shall document a minimum of 2000 hours of experience and training as a tilt-up supervisor distributed as indicated in parenthesis () in the areas enumerated below. A minimum of 75% of the required hours must be field experience. Training is defined as a TCA or ACI sponsored seminar or class in the respective area.

A. Tilt-up supervisory experience areas:

- 1. Safety (400)
- 2. Plan Reading (50)
- 3. Scheduling (100)
- 4. Site Preparation & Foundations (50)
- 5. Slabs on Grade (50)
- 6. Layout (300)
- 7. Forming (400)
- 8. Concrete Properties & Placement (200)
- 9. Erection (400)
- 10. Structural Systems (50)

B. Experience shall be documented by a signed affidavit or affidavits from current and/or previous employers enumerating:

- 1. A listing of tilt-up projects on which the examinee has worked including project names and addresses;
- 2. A description of each of the above projects including size, height or stories, and special concerns or characteristics;

3. The examinees involvement in the above listed jobs;
 4. The duration of the examinees involvement in the respective areas listed in Section 2.09A.
- 2.10 Affidavits for work experience and work performance shall be signed by a project superintendent, and/or a previously certified tilt-up superintendent, and/or owner of a company.
- 2.11 In cases where the examinee is self-employed and cannot furnish proof of employment as defined in Section 2.09 and 2.10, letters of reference from design professionals or general contractors on at least three tilt-up projects in which the applicant has performed in a supervisory role shall be provided attesting to the applicants work experience.
- 2.12 ACI reserves the right to verify submitted credentials of any candidate or affidavit respondent.

SECTION 3.0 REEXAMINATION CRITERIA

- 3.01 Failure of the written examination by the criteria cited under Section 2.08 shall require a reexamination on the entire written examination.

SECTION 4.0 APPEALS CRITERIA

- 4.01 Appeals shall be directed initially to the examiner, who shall respond within 10 working days.
- 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 Appeal Committee [consisting of the Director of Certification, the Certification Programs Committee, Chairman and the Chairman of Committee C650]
 4. Committee C650
 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.

SECTION 6.0 EXAMINER CRITERIA

- 6.01 In order to be considered for approval as an examiner for the ACI Tilt-Up Supervisor Certification program, an individual shall:
- A. Be a registered professional engineer or architect;
- or**
- B. Satisfy the following alternate criteria:
 - 1. The individual shall have proctored under an approved examiner for a minimum of 2 Tilt-Up Supervisor exams; and
 - 2. The individual shall have passed the written examination for the program; and
 - 3. The individual shall provide 3 written references from registered design professionals (architects or engineers).
- 6.02 The examiner shall be approved by ACI.
- 6.03 The examiner shall be authorized by ACI to conduct the ACI certification examination for Tilt-Up Supervisor and Tilt-Up Technician.
- 6.04 The examiner shall be present and in full supervision during the examination session.
- 6.05 Examiners and proctors shall be unrelated professionally and personally to the examinees.
- 6.06 Proctors shall be permitted to assist the examiner in conducting the written examination.
- 6.07 Proctors shall be selected by the examiner by virtue of their being trustworthy and conscientious.
- 6.08 The examiner shall be directly responsible for the following:
- A. Final approval of the proctors;
 - B. Verify conformance to Section 6.05 of the Policy;
 - C. Order and receive examination;
 - D. Verify the identity of each examinee, and assure that the examinees are aware of the certification criteria;
 - E. Return all written examinations (used and unused) to ACI headquarters.
- 6.09 Examiners and proctors are not allowed to define terms or interpret examination questions during the written examination.

SECTION 7.0 ACI DUTIES AND RESPONSIBILITIES

- 7.01 ACI shall approve the local sponsoring group.
- 7.02 ACI shall approve the examiner.
- 7.03 ACI shall authorize the local sponsoring group to conduct examination sessions for Tilt-Up Supervisor or Technician certification.
- 7.04 ACI shall grade the written examinations and notify the examinee and the examiner of the final results in writing.
- 7.05 ACI shall certify the examinees who have satisfied the certification requirements.
- 7.06 ACI shall issue a certificate, laminated wallet card, and hard-hat decal to successful examinees.

SECTION 8.0 RECERTIFICATION CRITERIA

- 8.01 Recertification shall extend the ACI certification as a Tilt-Up Supervisor or Technician for a period of five (5) years, beginning the date recertification requirements are completed.
- 8.02 Recertification will require successful completion of the then-current written examination.
- 8.03 A ninety (90) days grace period will be permitted from date of certification expiration until successful completion of the written examination.

APPENDIX

TILT-UP SUPERVISOR EXPERIENCE AREAS

Safety	All forms and aspects of site safety implementation, including clearing and grubbing, excavation, foundations, forming of panels; handling rebar; concrete placement, structural member erection, roofing, exterior treatment application, interior construction and equipment commissioning and testing. Pre-erection and/or safety meetings; personal protection and equipment training and inspections; use of tools; review MSDS sheets; daily jobsite inspections, and first aid training or recertification.
Plan Reading	Reading and interpretation of structural and architectural drawings; reinforcement drawings; tilt-up panel drawings; structural steel drawings; MEP drawings for coordination; lift insert drawing; and bracing drawing.
Scheduling	Scheduling the delivery and staging of all construction material; allocation of manpower and equipment; panel and steel erection; and completion of building shell.
Site Preparation & Foundations	Reading, use, and interpretation of soils report; architectural and structural drawings; rebar shop drawings; and coordination of jobsite conditions such as overhead power lines and underground utilities. Knowledge of proper soil preparation procedures.
Slabs on Grade	Reading structural and architectural plans. Knowledge and understanding of the preparation and placement of slabs on grade including blockouts, reinforcing steel, placement, finishing, and curing. Proper use of bondbreakers, hardeners and sealers.
Layout	Layout of tilt-up panels; steel embeds; brace inserts; lifting inserts; layout of temporary bracing and anchorage; crane travel areas; and, storage of materials.
Forming	Knowledge and understanding proper use of forming materials – wood, composites, and steel; attachment of panel forms and form liners - adhesives, screws, nails; and application of bond breakers.
Concrete Properties & Placement	Knowledge and understanding of concrete mix design; ingredients of concrete: aggregate, cement, sand and admixtures; placement methods for concrete – pump, chute, buggy, conveyor; finishing processes and curing.
Erection	Knowledge and understanding of crane capacity; layout of panels; rigging; erection hardware; safety requirements of erection; analysis of the surroundings of the erection crane; bracing components; and, lifting hardware.
Structural Systems	Knowledge and understanding of the attachments of the structural systems to the tilt-up panels; removal of bracing; and various structural systems such as wood, concrete, steel, and hybrid systems; and, safety involved with the structural systems.