



CONCRETE TECHNICIAN CERTIFICATION PROGRAM

FIELD TECHNICIANS

Initial Certification Requirements, Recertification Requirements and Application Procedures

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**Pennsylvania Department of Transportation
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Quality Assurance Divisions**

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION
Concrete Technician Certification Program

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I. BACKGROUND

This publication provides information concerning the minimum requirements needed to become a Certified Concrete Technician doing work for the Pennsylvania Department of Transportation, and the requirements to maintain the certification. These requirements are part of the Department's technician certification program developed to satisfy the requirements circulated in the Code of Federal Regulations, 23 CFR, Part 637, Quality Assurance (QA) Procedures for Construction, issued June 29, 1995. These Federal Regulations contained the following statement:

“After June 29, 2000, all sampling and testing data to be used in the acceptance decision or the independent assurance program will be executed by qualified sampling and testing personnel.”

In response to the Federal regulation, the Department began development of a concrete technician certification program. The program included two components:

- 1) ACI Concrete Field Testing Technician – Grade 1
- 2) PENNDOT Certified Concrete Field Testing Technician

The program has recently been revised and updated by the Bureau of Construction and Materials' Quality Assurance Divisions.

This publication includes the minimum requirements for Technician-in-Training Certification, Initial Certification and Recertification and the application procedures for applicants requesting to become certified concrete technicians as follows:

- PENNDOT Certified Concrete Field Technician-in-Training
- PENNDOT Certified Concrete Field Technician

For the Technician-in-Training category, the certification period will be for one (1) year from the date of approval by a DME/DMM or their representative.

The initial certification for a PENNDOT Certified Concrete Field Technician will be for five (5) years and any subsequent recertification will continue the technician's certification for an additional five (5) years.

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II. PENNDOT CONCRETE FIELD TECHNICIAN-IN-TRAINING CERTIFICATION

A. Technician-in-Training Certification Requirements

1. Applicant must have a minimum of 24 hours (3 full working days) of documented work experience on a PENNDOT project under the direct instruction and supervision of someone who is a PENNDOT Certified Concrete Field Technician. Experience must have been obtained within the last three months.
2. Applicant must have a signature from and the certification number (issued by PENNDOT) of the technician who directly instructed and supervised them for the minimum work experience required above.
3. Applicant must submit a completed PENNDOT Concrete Field Technician-in-Training Evaluation Form to the DME/DMM for the District where the project is located.
4. The DME/DMM or their representative will evaluate the applicant. Upon satisfactorily completing the evaluation, the DME/DMM or their representative will sign the evaluation form and provide the applicant with the signed original.
5. The DME/DMM is to maintain a copy of the evaluations and forward a copy to:

PENNDOT Certified Concrete Tech.-in-Training Administrator
Quality Assurance Division
P.O. Box 2926
Harrisburg, PA 17105-2926
6. The PENNDOT Certified Technician-in-Training Certification is valid for one (1) year from the date of issuance by the DME and will be acceptable in ALL Districts for that period.
7. Applicant must take the next available Concrete Field Technician Certification Course in their area.

B. Re-Certification Procedures

1. An individual may only receive Technician-in-Training status for the initial (1) year they were certified. The technician **MUST** then become a PENNDOT Certified Concrete Field Technician by following the Initial Certification procedures in Section III.

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III. PENNDOT CERTIFIED CONCRETE FIELD TECHNICIAN - INITIAL CERTIFICATION

A. Initial Certification Requirements

1. Applicant must have obtained status as a PENNDOT Certified Concrete Field Technician-in-Training, OR completed two (2) construction seasons working in concrete field or plant operations.
2. Applicant must successfully complete ACI's Concrete Field Testing Technician – Grade 1 Course
3. Applicant must successfully complete PENNDOT's Certified Concrete Field Testing Technician Course.

Note: *A Concrete Field Technician in Training may temporarily be assigned a Concrete Field Technician status until the next available PENNDOT Concrete Field Technician Course, if agreed to in writing by a DME/DMM.*

B. Initial Certification Application Procedures

1. Attend and successfully complete the ACI Concrete Field Testing Technician – Grade 1 Course.

ACI issues a wallet card to the individual upon successful completion of the course. Acceptable proof of having completed the course is a photocopy of the applicant's current ACI Concrete Field Testing Technician – Grade 1 wallet card.

This requirement need only be completed once in the applicant's career provided their status as a Certified PENNDOT Concrete Field Technician continues uninterrupted.

2. Upon successful completion of the ACI Concrete Field Testing Technician – Grade 1 Course requirement above, the applicant should apply to take the next available PENNDOT Certified Concrete Field Technician Course. The applicant must submit the required registration form along with a photocopy of their ACI wallet card to register for the course.
3. Attend and successfully complete the PENNDOT Certified Concrete Field Testing Technician Course.
4. The Department or its administrative representative will issue a wallet card upon successful completion of the above requirements. This card will be valid for a period of 5 years.

Note: *Should an individual allow their status as a PENNDOT Certified Concrete Field Technician to lapse, the Department will require them to retake and successfully complete a current ACI Concrete Field Testing Technician – Grade 1 course.*

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III. PENNDOT CERTIFIED CONCRETE FIELD TECHNICIAN - RE- CERTIFICATION

A. Re-Certification Requirements

1. Applicant must be a current PENNDOT Certified Concrete Field Technician.

B. Re-Certification Application Procedures

1. Complete the Registration Form for Re-certification as a PENNDOT Certified Concrete Field Technician.
2. Attend and successfully complete the PENNDOT Certified Concrete Field Testing Technician Course.
3. The Department or its administrative representative will issue a new wallet card upon successful completion of the above requirements. This card will be valid for a period of 5 years.

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X. EXAMINATION REVIEW

An examination review process has been implemented for applicants who do not pass the examination for PENNDOT Certified Concrete Field Technician. Upon notification of exam results, applicants not passing may request the opportunity to review their performance on the test by contacting NECEPT's Director of Operations by mail or telephone (814-865-1320) to make an appointment. It is generally necessary for the applicant to travel to the NECEPT office at the Pennsylvania Transportation Institute located in the Research Office Building on the Penn State University campus in State College for the review. There is a fee per reviewer for each review appointment, with the fee amount and method of payment indicated on the current registration form.

Appointments may be scheduled to take place within regular business hours (8:00 a.m. to 5:00 p.m. Monday through Friday) when a NECEPT representative is expected to be available to answer questions that may arise, although applicants will conduct the reviews mostly on their own. A room is reserved at PTI for the applicant's use, typically for 3 to 4 hours, although longer appointments may sometimes be arranged if needed. The applicant is provided with the answer sheet(s) he or she filled out and a copy of each of the corresponding examination form(s) showing the correct answers, then left alone to go through the exam and determine for him/herself what are the strong and weak areas of understanding. It is recommended that the applicant bring the books, manuals and handouts received during the review course to aid in reviewing his/her examination. Supervisors or other experienced co-workers may accompany applicants as desired at no additional charge to enhance learning. Applicants may take notes, but may not keep or copy the examination form(s) or answer sheet(s).

XI. RETEST

Applicants may retest twice without success for PENNDOT Certified Concrete Field Technician before they are required to repeat the review and certification course. There are two ways to retest. Applicants may register to take a retest along with the regularly scheduled certification examination during any scheduled PENNDOT Certified Concrete Field Technician class, as long as there is sufficient space available in the classroom to accommodate them. The alternative is to wait until the end of the current PENNDOT Certified Concrete Technician course program. After all of the participants have had time to receive their test results and review their exams, a Retest Session will be scheduled and applicants for retest will be notified. Applicants must register for retests by submitting a completed registration form, using the current course schedule or retest announcement to indicate the specific date(s) and location(s) desired in order of preference, to assure that appropriate test forms will be available. Registration for retest applicants will be confirmed on a space-available basis. A fee will be charged for any retest with the fee amount and method of payment indicated on the current registration form.

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XII. PERFORMANCE REVIEW PROCESS

A. Purpose and Makeup

The performance review process evaluates the performance of PENNDOT Certified Concrete Field Technicians to determine if their substandard performance or intentional misrepresentation requires any action to be taken against their current certification status. The review of a certified Concrete technician’s substandard performance or intentional misrepresentation will be conducted by the Concrete Technician Certification Board (CTCB). The CTCB is composed of the representation shown in Table 1.

Table 1	
Representation on the Concrete Technical Certification Board (CTCB)	
Organization	Number of Representatives
PENNDOT-Bureau of Construction and Materials	1
Pennsylvania Association of Concrete and Aggregate Producers (PACA)	1
FHWA-PA Division	1

Representatives to the CTCB will be identified by their organization through a scheduled meeting of the Concrete Paving Quality Improvement Task Force (CPQITF) or other official means. Each representative will serve for a three-year term. Representatives may serve on the CTCB for an unlimited number of consecutive terms.

In general, the review process will rely on written documentation of a PENNDOT Certified Concrete Field Technician not following practices identified in the Certification Course or intentionally misrepresenting quality of the work. The written documentation should only be provided to the CTCB after the PENNDOT Certified Concrete Field Technician has been verbally notified that they are not following practices identified in the Certification Course or that they have intentionally misrepresented quality of the work. The CTCB will review the written documentation and allow for an interview prior to making a determination on the certification status of the PENNDOT Certified Concrete Field Technician.

B. Procedure

1. PENNDOT Certified Concrete Field Technician Not Following Practices, Procedures and Specifications

The official procedure when a PENNDOT Certified Concrete Field Technician is not following, or has not followed, practices identified as acceptable PENNDOT practices, procedures and specifications, is as follows:

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- a. A PENNDOT, Consultant, Industry or other Certified PENNDOT Concrete Field Technician, hereafter referred to as the Observer, observes another PENNDOT Certified Concrete Field Technician, hereafter referred to as the technician, not following a practice or practices identified in the Certification Course. Immediately, the Observer is to verbally notify the technician that they are not following a practice or practices identified in the Certification Course. The Observer must record the verbal notification, including the time, date, location, technician's name and company or organization, and the specific practice or practices not being followed.
- b. If a second occurrence is observed where the same technician is not following a practice or practices identified in the Certification Course, immediately, the Observer is to again verbally notify the technician that they are not following a practice or practices identified in the Certification Course. In addition, the Observer must notify the technician's supervisor, by verbal or written communication, that the technician is not following a practice or practices identified in the Certification Course and that the technician has been verbally notified for two occurrences. The Observer is to record the second occurrence and the notifications given to the technician and the technician's supervisor as detailed in XI.B.1.a. above. In addition, the Observer is to record the name of the technician's supervisor, the date, and the time (if verbal notification was given) that the supervisor was contacted.
- c. If a third occurrence is observed where the same technician is not following a practice or practices identified in the Certification Course, immediately, the Observer is to again verbally notify the technician that they are not following a practice or practices identified in the Certification Course. In addition, the Observer is to officially document the entire situation. The official documentation should provide as much detail as possible, providing as a minimum, the full name and certification number of the Observer, the S.R., Section, Contract Number, Plant Name and Location, the full name and certification number of the technician, and the full name of the technician's supervisor. The Observer is to provide copies of all previously recorded verbal or written notifications and a detailed account of the entire situation. Only one document will be accepted by the CTCB per situation and, for this reason, it is important to include all pertinent information in this documentation. Pending action by the CTCB, the technician will be temporarily suspended.
- d. Upon the third occurrence of the same technician not following a practice or practices identified in the Certification Course, the technician will be removed from the project or plant, may be restricted in the work they can do, or may be temporarily suspended until the situation is reviewed by the CTCB. If temporarily suspended, the technician must immediately forfeit their valid wallet-sized certification card to the District Materials Engineer or appropriate Department personnel. The District Materials Engineer or appropriate Department personnel will hold the confiscated wallet-sized certification card. The temporary suspension will restrict the technician from doing any technician work, including materials testing or materials certification, on Department construction or maintenance projects or any projects using liquid fuels tax monies.

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- e. The Observer is to provide one photocopy of the documentation to the technician and retain one photocopy in their project or plant office files. The Observer is to submit the original copy of the documentation to the Chairperson of the Concrete Technician Certification Board at the address below:

Chairperson, Concrete Technician Certification Board
PA Department of Transportation
Bureau of Construction and Materials
P.O. Box 2926
Harrisburg, PA 17105

Submit documentation within 14 calendar days of the date of the third occurrence. Documentation not received by the Bureau of Construction and Materials within 21 calendar days of the third occurrence will be void.

- f. The technician will be afforded the opportunity to submit a written appeal to the Chairperson of the CTCB at the address indicated in XI.B.1.e. and the opportunity to appear before the CTCB. The technician is to provide one photocopy of the appeal to the Observer and to retain one photocopy for their project files. Only one written appeal will be accepted by the CTCB per situation and, for this reason, it is important to include all pertinent information in the written appeal. Submit written appeals to the Chairperson of the CTCB within 35 calendar days of the documented third occurrence. Appeals received more than 40 calendar days after the third occurrence will be void.
- g. The documentation and written appeal (if provided) will be logged by the Bureau of Construction and Materials and then forwarded to the chairperson of the CTCB for action.
- h. The chairperson of the CTCB will review the documentation and the appeal (if provided) with the other members of the CTCB. The CTCB will provide a written response to the Bureau of Construction and Materials within 21 calendar days from the date the documentation was sent to the CTCB. The written response will provide the action that is to be taken concerning the situation. The written response of the CTCB will be final and will be logged and filed by the Bureau of Construction and Materials. Possible actions of the CTCB will include but are not limited to: CTCB written warning; CTCB written reprimand; CTCB certification suspension (1, 2, or 3 months); CTCB rescindment of certification. CTCB suspension or rescindment of certification will require the technician to forfeit their wallet-sized certification card to the CTCB.
- i. The Bureau of Construction and Materials will immediately forward the CTCB's written response concerning certification status to the technician.

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2. PENNDOT Certified Concrete Field Technician Involved in Deceptive, Questionable or Unethical Activities.

- a. A PennDOT, Consultant, Industry or other PENNDOT Certified Concrete Field Technician, hereafter referred to as the Observer, observes or becomes aware of an action of another PENNDOT Certified Concrete Field Technician, hereafter referred to as the technician, which may be an attempt to mislead or deceive others about the quality of the materials, about materials testing, or about test results or, an action which may be questionable or unethical. Immediately, the Observer is to report the incident to the appropriate District Materials Engineer, or other appropriate Department personnel. Together the Observer and the District Materials Engineer, or other appropriate Department personnel, are to immediately contact any member of the CTCB. Initial contacts and information concerning these actions will be kept strictly confidential.
- b. The District Materials Engineer, or other appropriate Department personnel, will coordinate with the CTCB to institute an investigation of the action. The investigation will determine whether or not the deceptive, questionable, or unethical action was willful. The investigation will be documented to support the final determination.
- c. With support from the CTCB member initially contacted, and before the investigation is completed, the technician and the technician's supervisor or employer will be verbally notified immediately by the District Materials Engineer, or other appropriate Department personnel, that the technician will be restricted in the work they can do and will be temporarily suspended, until the investigation is completed and reviewed by the CTCB. If temporarily suspended, the technician must immediately forfeit their valid wallet-sized certification card to the District Materials Engineer or appropriate Department personnel. The District Materials Engineer, or appropriate Department personnel, will hold the confiscated wallet-sized certification card pending the investigation by the CTCB. Temporary suspension will restrict the technician from doing any technician work, including materials testing or materials certification, on Department construction or maintenance projects or any projects using liquid fuels tax monies.
- d. The District Materials Engineer, or other appropriate Department personnel, with coordination from the CTCB, will complete the investigation and officially document the entire incident and subsequent investigation. The documentation should provide as much detail as possible and be similar to the documentation required in XI.B.1.c. above. The District Materials Engineer or appropriate Department personnel will provide copies and submit the documentation as instructed in XI.B.1.e. above and within 21 calendar days of the verbal notification described in XI.B.2.c.
- e. The technician will be afforded the opportunity to submit a written appeal and request an interview with the CTCB. Provide copies and submit written appeals as instructed in XI.B.1.f. and within 35 calendar days from the date of the verbal notification described in XI.B.2.c. Appeals received more than 40 calendar days after the verbal notification described in XI.B.2.c. will be void.
- f. The documentation and appeal (if provided) will be considered by the CTCB as described in XI.B.1.g. to XI.B.1.i. above.

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XIII. PENNDOT CERTIFIED CONCRETE TECHNICIAN CODE OF ETHICS.

The Concrete Technician Certification Board (CTCB) has found that the following rules are necessary to establish and maintain the high standard of integrity and dignity in the Concrete Technician profession and are necessary in the public interest to protect the public against unprofessional conduct on the part of the Concrete Technician. PENNDOT Certified Concrete Field Technicians are put on notice that an ethical violation by themselves or by an individual rendering or offering to render Concrete Technician services under their supervision, as provided by this Publication, may result in disciplinary procedures against them in accordance with Department Publication 351, Section XI.B.2.

A. Principle 1. Beneficence/autonomy. A PENNDOT Certified Concrete Field Technician will demonstrate a concern for the welfare and dignity of the recipients of the services, including Department personnel.

1. A PENNDOT Certified Concrete Field Technician will provide services without discriminating on the basis of race, creed, national origin, sex, age, handicap, disease, social status, financial status, or religious affiliation.
2. A PENNDOT Certified Concrete Field Technician will act for his client or employer in professional matters as a faithful agent or trustee, and will not accept a direct fee for services rendered as a certified Concrete technician from other than the technician's employer.
3. A PENNDOT Certified Concrete Field Technician will not attempt to injure falsely or maliciously, directly or indirectly, the professional reputation, prospects, or business of anyone.
4. A PENNDOT Certified Concrete Field Technician will not attempt to supplant another Concrete technician after definite steps have been taken toward his employment.
5. A PENNDOT Certified Concrete Field Technician will not compete with another Concrete technician for employment by the use of unethical practices.
6. A PENNDOT Certified Concrete Field Technician will not review the work of another Concrete technician for the same client, except with the knowledge of such Concrete technician, or unless the connection of such Concrete technician with the work has terminated.
7. A PENNDOT Certified Concrete Field Technician will not attempt to obtain or render technical services or assistance without fair and just compensation commensurate with the services rendered: Provided, however, the donation of such services to a civic, charitable, religious, or eleemosynary organization will not be deemed a violation.
8. A PENNDOT Certified Concrete Field Technician will not advertise in self-praising language, or in any other manner, derogatory to the dignity of the profession.

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B. Principle 2. Competence. A PENNDOT Certified Concrete Field Technician will maintain high standards of professional competence.

1. A PENNDOT Certified Concrete Field Technician will not attempt to practice in work in which the Concrete Technician is not proficient or practice in work outside the standards of the profession.
2. A PENNDOT Certified Concrete Field Technician will consult with other service providers when additional knowledge and expertise is required.
3. A PENNDOT Certified Concrete Field Technician will accurately record and report information related to Concrete Technician services provided to the Department.
4. A PENNDOT Certified Concrete Field Technician will require those whom the technician supervises in the provision of Concrete Technician services to adhere to this Code of Ethics.

C. Principle 3. Public Information. A PENNDOT Certified Concrete Field Technician will provide accurate information about Concrete technician services.

1. A PENNDOT Certified Concrete Field Technician will accurately represent their competence and training.
2. A PENNDOT Certified Concrete Field Technician will not use or participate in the use of a form of communication that contains a false, misleading, or deceptive statement or claim.
3. A PENNDOT Certified Concrete Field Technician will not use or permit the use of their signature on work over which the technician was not in responsible charge.

D. Principle 4. Professional Relationships. A PENNDOT Certified Concrete Field Technician will function with discretion and integrity in relations with colleagues and other professionals.

1. A PENNDOT Certified Concrete Field Technician will report illegal, incompetent or unethical practice by colleagues or other professionals to the appropriate authority.
2. A PENNDOT Certified Concrete Field Technician who employs or supervises colleagues will provide appropriate supervision as necessary to provide Concrete Technician services in conformance with this Code of Ethics.