

# **AGGREGATE TECHNICIAN CERTIFICATION PROGRAM**

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**Initial Certification Requirements, Recertification Requirements  
and Application Procedures**

**January 2015**

Pennsylvania Department of Transportation  
Bureau of Project Delivery  
Innovation and Support Services Division  
Laboratory Testing Section

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## I. BACKGROUND

This publication provides information concerning the minimum requirements needed to become a certified aggregate technician performing work for PennDOT. 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 this Federal regulation, the Department began development of an aggregate technician certification program in 1997. The program included the certification of aggregate technicians. Continuous improvements have been made to the aggregate technician certification program since 1997. As part of these improvements, the Department agreed upon minimum requirements for initial certification and recertification of aggregate technicians. Each applicant must meet these minimum requirements before they are eligible to become a certified aggregate technician.

This publication includes the minimum requirements for initial certification and recertification and the application procedures for applicants requesting to become certified aggregate technicians as follows:

- Aggregate Technician in Training
- Aggregate Technician

The initial certification and any subsequent recertification period will be five (5) years.

## II. AGGREGATE TECHNICIAN IN TRAINING – CERTIFICATION

### A. Certification Requirements

1. Applicant must have a minimum of 300 hours of documented work experience under the direct supervision of a PennDOT Certified Aggregate Technician.
2. Applicant must have the signature and the certification number of the PennDOT Certified Aggregate Technician who directly instructed and supervised them for the work experience required above.
3. The District Materials Engineer/ Manager (DME/DMM) or their representative will evaluate the applicant by administering the Aggregate Technician Certification/Re-Certification Test (on page 12). Upon satisfactorily completing the evaluation, the DME/DMM will sign the evaluation form and provide the applicant with the signed original.
4. The DME/DMM is to maintain a copy of the evaluation and forward a copy to:  
  
 PennDOT Aggregate Technician- in-Training Administrator  
 Bureau of Project Delivery  
 Innovation and Support Services Division  
 Laboratory Testing Section  
 81 Lab Lane  
 Harrisburg, PA 17110-2543
5. The PennDOT Certified Aggregate Technician-in-Training status is only valid from the date of issuance by the DME/DMM until the date of the last scheduled Aggregate Technician Certification Course in the same year and will be acceptable in all Districts for that period.

6. Applicant must take the next available Aggregate Technician Certification Course at Harrisburg Area Community College (HACC).
7. The Aggregate Technician in Training MUST become a PennDOT Certified Aggregate Technician by following the Initial Certification procedure in Section III.

### **III. AGGREGATE TECHNICIAN – INITIAL CERTIFICATION**

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#### **A. Initial Certification Requirements**

1. Applicant must have a valid Aggregate Technician-in-Training certification.
2. Applicant must attend and successfully complete PennDOT's Aggregate Technician Certification Program at HACC.

#### **B. Initial Certification Application Procedures**

1. Applicant must fill out and submit the completed registration form to HACC including a list of the quarries, dates, and the name of their immediate supervisor where they received one (1) year or more of experience in aggregate testing or a copy of their Aggregate Technician-in-Training certification.
2. Applicant must attend and successfully complete the PennDOT's Aggregate Technician Certification program.
3. 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 five (5) years.

Note: Should an individual allow their status as a PennDOT Certified Aggregate Technician to lapse, the Department will require them to retake and successfully complete the next available PennDOT's Aggregate Technician Certification Program at HACC. If the individual's certification is expired for more than two years, the individual will be required to repeat the process outlined in Section III, Initial Certification.

### **IV. AGGREGATE TECHNICIAN - RECERTIFICATION**

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#### **A. Recertification Requirements**

1. Applicant must have been a certified Aggregate Technician for the previous five (5) years prior to application for recertification.
2. Applicant must successfully complete the Aggregate Technician Recertification Test prior to the expiration date on the certified aggregate technician's wallet card.
3. Applicant must have performed 500 hours of technician experience.

#### **B. Recertification Application Requirements**

1. List the quarries, dates, and the name of applicant's immediate supervisor where applicant received 500 hours or more technician experience since date of last certification. Provide the list to the DME/DMM prior to taking the Aggregate Technician Recertification Test.
2. The DME/DMM or their representative will evaluate the applicant as per the Aggregate Technician Recertification Test. Upon satisfactorily completing the evaluation and providing the

list of the quarries, dates, and the name of applicant's immediate supervisor where applicant received 500 hours or more technician experience since date of last certification, the DME/DMM will sign the evaluation form and provide the applicant with the signed form.

3. Complete and submit the NECEPT Registration Form indicating the application is for recertification of an Aggregate Technician. Submit a copy of the signed Aggregate Technician Recertification Test
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 five (5) years.

## V. RETEST

Applicants may retest twice without success for the PennDOT Aggregate Technician before they are required to repeat the Aggregate Technician Course presented by HACC. There are two ways to retest. Applicants may register to take a retest along with the regularly scheduled certification examination on the last day of any scheduled PennDOT session, as long as there is sufficient space available in the classroom to accommodate them. The alternate is to wait until the end of the current PennDOT Aggregate Technician Certification 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 current program 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.

## VI. PERFORMANCE REVIEW PROCESS

### A. Purpose and Makeup

The performance review process evaluates the performance of certified aggregate technicians, in accordance with the requirements outlined in Bulletin 14 and the Aggregate Technician Certification Program, 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 aggregate technician's substandard performance or intentional misrepresentation will be conducted by the Technician Certification Board (TCB). The TCB is composed of the representation shown in Table 1.

<b>Table 1: Representation on the Technical Certification Board (TCB)</b>	
<b>Organization</b>	<b>Number of Representatives</b>
PennDOT- Innovation and Support Services Division (ISSD)	1
Pennsylvania Aggregates and Concrete Assoc. (PACA)	1
FHWA-PA Division	1

Representatives to the TCB will be identified by their organization through a scheduled meeting of the Aggregate Quality Improvement Committee (AQIC) or other official means. Each representative will serve for a three-year term. Representatives may serve on the TCB for an unlimited number of consecutive terms.

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

## **B . Procedure**

### **1. Certified Aggregate Technician Not Following Practices, Procedures and Specifications**

The official procedure when a certified aggregate technician is not following, or has not followed, practices identified as acceptable PennDOT practices, procedures and specifications, is as follows:

- a. A PennDOT, Consultant, Industry or other certified aggregate technician, hereafter referred to as the Observer, observes another certified aggregate technician, hereafter referred to as the technician, not following a practice or practices identified in the Aggregate Technician Certification Program. Immediately, the Observer is to verbally notify the technician that they are not following a practice or practices identified in the Aggregate Technician Certification Program. 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 Aggregate Technician Certification Program, immediately, the Observer is to again verbally notify the technician that they are not following a practice or practices identified in the Aggregate Technician Certification Program. 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 Aggregate Technician Certification Program 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 VI.B.1.a.. 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 Aggregate Technician Certification Program, immediately, the Observer is to again verbally notify the technician that they are not following a practice or practices identified in the Aggregate Technician Certification Program. 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, Quarry 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 TCB per situation and, for this reason, it is important to include all pertinent information in this documentation. Pending action by the TCB, the technician will be temporarily suspended.

- d. Upon the third occurrence of the same technician not following a practice or practices identified in the Aggregate Technician Certification Program, 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 TCB. If temporarily suspended, the technician must immediately forfeit their valid wallet-sized certification card to the DME/DMM or appropriate Department personnel. The DME/DMM 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.
- 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 Technician Certification Board at the following address:

Chairperson, Aggregate Technician Certification Board  
PA Department of Transportation  
Innovation and Support Services Division  
81 Lab Lane  
Harrisburg, PA 17110

Submit documentation within 14 calendar days of the date of the third occurrence.

Documentation not received by the Innovation and Support Services Division 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 TCB at the address indicated in VI.B.1.e. and, the opportunity to appear before the TCB. 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 TCB 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 TCB 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 Innovation and Support Services Division and then forwarded to the chairperson of the TCB for action.
- h. The chairperson of the TCB will review the documentation and the appeal (if provided) with the other members of the TCB. The TCB will provide a written response to the Innovation and Support Services Division, Laboratory Testing Section within 21 calendar days from the date the documentation was sent to the TCB. The written response will provide the action that is to be taken concerning the situation. The written response of the TCB will be final and will be logged and filed by the Innovation and Support Services Division, Laboratory Testing Section. Possible actions of the TCB will include but are not limited to: TCB written warning; TCB



written reprimand; TCB certification suspension (1, 2, or 3 months); TCB rescindment of certification. TCB suspension or rescindment of certification will require the technician to forfeit their wallet-sized certification card to the TCB.

- i. The Innovation and Support Services Division, Laboratory Testing Section will immediately forward the TCB's written response concerning certification status to the technician.

**2. Certified Aggregate Technician Involved in Deceptive, Questionable or Unethical Activities.**

- a. A PennDOT, Consultant, Industry or other certified aggregate technician, hereafter referred to as the Observer, observes or becomes aware of an action of another certified aggregate 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 DME/DMM, or other appropriate Department personnel. Together the Observer and the DME/DMM, or other appropriate Department personnel, are to immediately contact any member of the TCB. Initial contacts and information concerning these actions will be kept strictly confidential.
- b. The DME/DMM, or other appropriate Department personnel, will coordinate with the TCB 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 TCB 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 DME/DMM, 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 TCB. If temporarily suspended, the technician must immediately forfeit their valid wallet-sized certification card to the DME/DMM or appropriate Department personnel. The DME/DMM, or appropriate Department personnel, will hold the confiscated wallet-sized certification card pending the investigation by the TCB. 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 DME/DMM, or other appropriate Department personnel, with coordination from the TCB, 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 VI.B.1.c.. The DME/DMM or appropriate Department personnel will provide copies and submit the documentation as instructed in VI.B.1.e. above and within 21 calendar days of the verbal notification described in VI.B.2.c.
- e. The technician will be afforded the opportunity to submit a written appeal and request an interview with the TCB. Provide copies and submit written appeals as instructed in VI.B.1.f. and within 35 calendar days from the date of the verbal notification described in VI.B.2.c. Appeals received more than 40 calendar days after the verbal notification described in VI.B.2.c. will be void.
- f. The documentation and appeal (if provided) will be considered by the TCB as described in VI.B.1.g. to VI.B.1.i.

## VII. AGGREGATE TECHNICIAN CODE OF ETHICS

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

### A. Principle 1. Beneficence/Autonomy

A certified aggregate technician will demonstrate a concern for the welfare and dignity of the recipients of the services, including Department personnel.

1. A certified aggregate 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 certified aggregate technician will act for their 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 aggregate technician from other than the technician's employer.
3. A certified aggregate technician will not attempt to injure falsely or maliciously, directly or indirectly, the professional reputation, prospects, or business of anyone.
4. A certified aggregate technician will not attempt to supplant another aggregate technician after definite steps have been taken toward their employment.
5. A certified aggregate technician will not compete with another aggregate technician for employment by the use of unethical practices.
6. A certified aggregate technician will not review the work of another aggregate technician for the same client, except with the knowledge of such aggregate technician, or unless the connection of such aggregate technician with the work has terminated.
7. A certified aggregate 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 certified aggregate technician will not advertise in self-praising language, or in any other manner, derogatory to the dignity of the profession.

### B. Principle 2. Competence

A certified aggregate technician will maintain high standards of professional competence.

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

**C. Principle 3. Public Information**

A certified aggregate technician will provide accurate information about aggregate technician services.

1. A certified aggregate technician will accurately represent their competence and training.
2. A certified aggregate 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 certified aggregate 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 certified aggregate technician will function with discretion and integrity in relations with colleagues and other professionals.

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

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**AGGREGATE TECHNICIAN -CERTIFICATION/RE-CERTIFICATION TEST**

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**PASS / FAIL**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

NECEPT #: \_\_\_\_\_ Company: \_\_\_\_\_

Technician must be able to perform the following:

1. Sample aggregates in accordance with AASHTO T-2..... Y ☐ N ☐
2. Reduce sample of aggregate to testing size in accordance with AASHTO T-248..... Y ☐ N ☐
3. Sieve analysis of aggregate in accordance with PTM No. 616..... Y ☐ N ☐
4. Amount of material finer than No. 200 sieve in aggregate in accordance with PTM 100. .... Y ☐ N ☐
5. Determining the percentage of crushed fragments in gravel in accordance with ASTM D-5821. . Y ☐ N ☐
6. Unit weight of aggregate in accordance with AASHTO T-19. .... Y ☐ N ☐
7. Total moisture in anti-skid material in accordance with PTM No. 513. .... Y ☐ N ☐
8. Knowledge of Plant Book Documentation. .... Y ☐ N ☐
9. Completion of CS-4171 Certification. .... Y ☐ N ☐
10. Plot test results on straight lines and establish action points..... Y ☐ N ☐
11. Documentation of failures and action required according to their Quality Control Plan. .... Y ☐ N ☐
12. Knowledge of truck loading and weighing procedures..... Y ☐ N ☐
13. Calibrate Equipment ..... Y ☐ N ☐
14. Thin & Elongated particles in accordance with ASTM D 4791 ..... Y ☐ N ☐

Remarks: \_\_\_\_\_

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Witnessed by: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature)DME/DMM: \_\_\_\_\_ Date: \_\_\_\_\_  
(Signature)