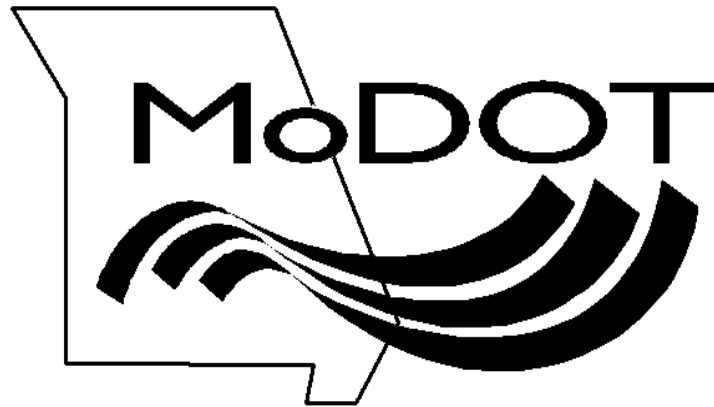


**TECHNICIAN  
CERTIFICATION  
PROGRAM  
POLICY**



# MoDOT Technician Certification Program Policy

## ADMINISTRATION

Policies and Procedures for Administering MoDOT's Technician Certification Program (TCP)

### Introduction

The purpose of the TCP is to ensure the quality of materials incorporated into MoDOT projects by supporting proper and uniform procedures among individuals responsible for the sampling and acceptance testing (including IAS and FAST) of certain non-manufactured materials used in transportation construction projects. These materials are aggregates, soil, concrete and asphalt.

All technicians who perform, or who are required by the FHWA to witness, such sampling and testing shall be deemed as qualified by virtue of successfully completing the requirements of the TCP for that specific technical area. If successful, they will be provided a certification card issued by the MoDOT TCP. The card will note the name of the certified technician and the expiration date of each certification level obtained. They will be required, upon request, to provide a valid photo ID as proof of their identity. Any individual who has not been certified is not eligible to perform sampling and/or testing on MoDOT projects.

Certifications are listed under the Figure 2 link found on the MoDOT TCP web page.

The certification process includes classroom instruction followed by written examinations and performance demonstrations. No exceptions will be made by virtue of previous experience or education.

### Certification Review Board

The State Construction and Materials Engineer will chair this board with two selected members. Replacement members will be made at the discretion of the State Construction and Materials Engineer. The board is responsible for matters involving appeals and de-certification.

## **PROGRAM PROFESSIONALS**

### **Materials Qualification Engineer (MQE)**

Is a materials qualification engineer (MQE), a MoDOT employee responsible for managing and supervising the TCC in the administration of TCP activities statewide.

#### **Responsibilities**

- Directs the Technician Certification Program.
- Responsible for administrative issues.
- Establishes certification programs outside of MoDOT as needed.
- Directs De-certification procedures.

### **Technician Certification Coordinator (TCC)**

Is a MoDOT employee responsible for administering TCP activities statewide.

#### **Responsibilities**

- Reports to the Materials Qualification Engineer
- Administers the TCP, handles everyday operations and inquires on administrative issues.
- Assigns instructors.
- Coordinates development of instruction manuals, course content and certification examinations.
- Sets up certification courses, including scheduling times and locations, and provides instructional aids.
- Monitors the classes for effectiveness and consistency.
- Approves reciprocity requests and establishes review procedures.
- Issues certification cards.
- Maintains database on certification testing results and certification status.
- Maintains security procedures for examination materials and program records.
- Reviews and makes recommendations for updating the program as necessary.
- Serves on the Certification Review Board.
- Develops and maintains a system of regular field review checks.
- Works with the FHWA and other states on reciprocity issues.

### **Instructors**

Is an individual who is qualified by the TCC and MQE in the areas or levels to successfully perform classroom instruction and administer written examinations and performance evaluations. Instructors must be certified in the areas of levels of which they will be instructing.

#### **Responsibilities**

- Administer course contents as required for certification.
- Assure written tests are administered without bias or suspect of collaboration.
- Grades written examinations

- Administer performance evaluations within certification guidelines.
- Provide instructional environment conducive to learning.

### **Evaluators (Proctors)**

Per MQE, this will be an individual who has been approved by the TCC. The evaluator will be approved based on their experience in the test methods administered during performance evaluations. They must be certified in the test methods conducted during performance evaluations. Evaluators will receive a 1 year certification extension after the completion of each certification course conducted for the MoDOT TCP.

### **Responsibilities**

- Administer performance evaluations.

## **INSTRUCTIONS**

### Certification Applicant Instructions

Adequate math and reading comprehension skills are required to successfully complete certification courses.

The application process shall be handled through the TCC.

The applicant shall submit the form provided for this purpose, “Application Form – MoDOT Technician Certification Program” (Figure 1). Except for the certifications below:

Aggregate Technician

Bituminous Technician

Soil Density

Concrete Field

Concrete Strength

Plastic Index

International Roughness Index (IRI) Profile

The applicant will need to register with State Technical College of Missouri at this web address:

<https://www.statetechmo.edu/>

Recent training in radiation safety is required for instruction involving the operation of nuclear gauges.

### Initial Certification Instructions

Classroom instruction is grouped in technical areas of a length adequate to provide guidance in the test methods required for certification. The course content is shown in Figure 2. Initial certification includes a combination of lecture, hands-on proficiency and self-study. Class size

should be held to a limit of 20 students with at least one instructor assigned for every five students during performance evaluations.

The certification material will be distributed by the TCC and will be reviewed yearly for content.

## **TESTING**

### Initial Certification Testing

Initial certification requires passing a written exam and a performance evaluation, which will be given at the end of the review session to determine if the applicant possesses the knowledge and skills necessary to satisfy the certification requirements. Testing will be open book with a 2-hour time limit for all written exams, except for the Superpave QC/QA exam, which will have a 3-hour time limit. The applicant shall retain the manual but not copies of the exam. Authorized personnel will grade and score the examinations.

The score required for passing the written exams are:

- For all courses except Superpave QC/QA the passing grade shall be 85%.
- For Superpave QC/QA, the passing grade shall be 80%.

Passing test results will be reported to the applicant within a timely manner.

Failing test results will be reported to the applicant's supervisor and include the score obtained on the exam. After the failure notification, applicants may review missed questions with the TCC. And the individual will be permitted to take another written examination for that certification within sixty (60) days of the reporting of the failing written examination score. Re-testing will utilize a different exam as provided by the TCC and taken at a time and place determined by the TCC. If that individual fails to achieve a passing score for the second written examination attempt, then he or she must start the process from the beginning by sending in a new application form to retake the initial certification course.

For the performance evaluation, the instructor or evaluator must be completely satisfied that the applicant's technique and knowledge of the test method meets the program's established performance criteria. This may be accomplished by an actual demonstration or by verbally explaining the procedure within a reasonable time limit. The TCC will develop a checklist of procedural steps for each test method.

Scoring of the performance evaluation will be either pass or fail. If the performance evaluation fails, the instructor or evaluator will explain the errors and the applicant will have the opportunity to repeat the test. If the applicant fails on the second attempt to successfully demonstrate the test procedure for the desired certification, the applicant will have to re-take the performance evaluation within 60 days. If the individual fails to successfully demonstrate the performance evaluation on the final attempt, he or she must retake the initial certification course. Instructors or evaluators will report the results on the checklist and forward the results to the TCC.

## **CERTIFICATION**

### Certification Identification

Certification is valid for five years. The identification cards will have the, name, certification(s), and expiration date(s) indicated. Updates to certifications will be by issuance of a temporary card indicating a new expiration date. Permanent cards will be issued in July of each year.

If a replacement card is needed the request form shown in Figure 3 will be required prior to re-issuance of a card.

### Certification Renewal

Each certification is valid for a five-year period. In order to reaffirm and update the technician's qualifications, passing a written examination and performance exam in the applicable test methods, will renew certifications. The testing process and criteria for recertification shall be the same as for the original certification except a score of less than 60% on the initial written examination will require the technician to take the original certification course. If testing failure or proficiency failure occurs, then completion of the full certification course is required.

The technician is allowed a 90-day period beyond the expiration date of their certification to attend a renewal course. After this 90-day period they will be required to attend an initial first time certification course to become certified in the lapsed certification.

### Re-certification

In order to update the technician's certification, the applicant must pass both a written examination and performance evaluation in the applicable test methods. If test scores are in the 84%-60% range, re-testing must be completed within 60 days of the date of notifications. A score of less than 60% on the written examination will require the technician to re-take the initial certification course.

The technician is allowed a 90-day grace period beyond the expiration date of their certification to attend a re-certification session. After 90 days, the technician will be required to repeat and successfully complete the full initial certification course in order to become certified.

Applicants will be notified when they successfully satisfy the certification requirements.

### Certified Technician De-certification

The Materials Qualification Engineer (MQE) shall propose suspension or revocation of the certification for a technician to the review board if he or she is found to have committed fraud, abuse, willful negligence or has demonstrated verifiable incompetence identified by the technician's supervisor or a certified technician, verified by a second certified technician.

The review board shall evaluate any proposal submitted by the MQE, in regards to suspension or revocation of a technician's certification, to determine whether action should be taken against the technician in the public interest. Depending upon the seriousness of the technician's acts or omissions, the review board may take the following actions against that technician:

1. Issue a written reprimand to the technician;
2. Suspend all certifications held by the technician, reserving the right for the review board to establish in each case the effective date and length of any suspension, not to exceed one (1) year in duration;
3. Revoke all certifications held by the technician for one (1) year upon issuance of the revocation, requiring the technician to seek certification and complete all certification requirements again pursuant to 7 CSR 10-23.020;

OR

4. Revoke all certifications held by the technician, prohibiting the technician from seeking certification pursuant to 7 CSR 10-23.020 for a period of up to ten (10) years.

The MQE must notify the technician in writing with in ten (10) working days of any determinations made by the review board on a proposal to suspend or revoke the technician's certification by the MQE.

Any actions taken by the review board against a technician, except for certification revocation, will be removed from the technician's existing record three (3) years after the date of such actions.

## **INTERNS**

## Intern Registration

Intern registration is intended for summer students, but can be used for qualifying new hires and seasonal workers. Even though certification is not required, intern registration is not to replace certification. Instead intern registration should be used to better utilize summer students or prepare new hires for certification.

The supervisor will be responsible for the registration of the intern, all of the interns testing activities, and that the intern has a valid temporary card as a “Registered Intern” when performing tests. In addition the supervisor will also be responsible for assigning an Inspector/Technician who will be directly in charge of the intern out in the field; this Inspector/Technician will oversee the interns work, and hold current certification in the tests being performed by the intern. The Inspector/Technician can vary depending on the certifications held and type of work that is being done that day.

Intern registration will be limited to six months at which time the technician will need to request another Intern Registration or will be required to attend and successfully complete certification courses to perform testing duties.

For summer students who are working as interns, there will be a limit of three Intern Registrations. If the technician is still attending college and working part-time, the TCP may consider granting additional Intern Registrations to the technician.

For qualifying new hires and seasonal workers, a one-time Intern Registration may be granted to prepare these people for their upcoming classes to become certified.

To register as an intern, completely fill out the Intern Registration form. The intern and supervisor shall sign and date the form and send it to the TCP to be processed. Pending the evaluation of the TCC a temporary card may be issued. The form can be located on the MoDOT web site under: Business > Contractor Resources > Technician Certification > Tech Cert > Interns.

## Registered Intern De-certification Process

The MQE shall propose suspension or revocation of the registered intern’s status to the review board if he or she is found to have committed fraud, abuse, willful negligence or has demonstrated verifiable incompetence identified by the registered intern’s supervisor or a certified technician, verified by a second certified technician.

The review board shall evaluate any proposal submitted by the MQE in regards to suspension or revocation of a registered intern’s status to determine whether action should be taken against that registered intern in the public interest. Depending on the seriousness of the registered intern’s acts or omissions, the review board may take the following actions against the registered intern:



1. Issue a written reprimand to the individual and supervisor;
2. Suspend the registered intern status held by the individual, reserving the right for the review board to establish in each case the effective date and length of any suspension, not to exceed six (6) months in duration.
3. Revoke the registered intern status held by the individual, prohibiting the individual from seeking registered intern status and certifications pursuant to 7 CSR 10-23.020 for a period up to one (1) year.

OR

4. Revoke the registered intern status held by the individual from seeking certification pursuant to 7 CSR 10-23.020 for a period up to five (5) years.

The MQE must notify the intern in writing with in ten (10) working days of any determinations made by the review board on a proposal to suspend or revoke the technician' s certification by the MQE.

Any actions taken by the review board against a intern, except for registered intern status revocation, will be removed from the intern's existing record five (5) years after the date of such actions.

## **APPEALS**

### Appeals

Individuals may appeal decisions involving the TCP. Such appeals may be made in writing or by requesting in writing an informal hearing with the Certification Review Board through the TCC. The written appeal or request for the informal hearing must be made within 30 days of the decertification determination made by the review board. If a MoDOT individual remains unsatisfied by the Board's decision, he/she may pursue further action through the department's normal grievance procedure.

## **AUDITS**

## Audits

This assures continuing accuracy and consistency of sampling and testing procedures as well as the proper condition of the testing equipment. The MQE and TCC shall work in conjunction with assigned district auditors to maintain the System Based IAS program. Auditors observing technicians performing acceptance work will complete these reports. Auditors must be certified and have a good understanding of inspection practices.

## **RECIPROCITY**

### Reciprocity

In accordance with FHWA guidelines, other state DOT's may recognize an individual's certification acquired through MoDOT's TCP. Likewise, MoDOT may accept another state's certification as evidence of qualification to the extent that it includes the particular test methods required for MoDOT certification. If necessary, successful completion of additional instruction may be necessary before certification is granted. The TCC will make any determinations on reciprocity.

## **RECORDS**

### Records

Testing and performance checklist information will be kept electronically for the ten (10) years.