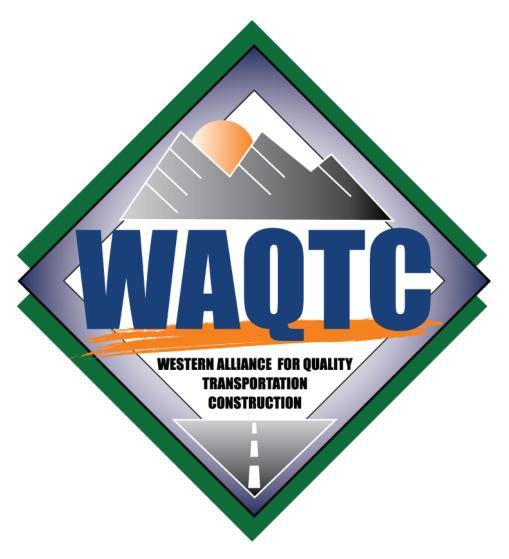
Transportation Technician Qualification Program

Registration, Policies, and Information Handbook



ABOUT THIS HANDBOOK

The Registration, Policies, and Information Handbook (RP&IH) is intended to be a guidance document for the technician or laboratory for the Transportation Technician Qualification Program (TTQP) policies and procedures. It is, however, the responsibility of the technician to remain up to date on all matters pertaining to the program. If you have questions about the program, contact the appropriate Agency person listed in this Handbook.

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TABLE OF CONTENTS

Section	Page
ABOUT THIS HANDBOOK	i
COPYRIGHT WAQTC / NAQTC "1998"	ii
TABLE OF CONTENTS	iii
LIST OF ABBREVIATIONS	v
INTRODUCTION	1
MISSION STATEMENT	1
PURPOSE OF THE WAQTC	1
BENEFITS OF MEMBERSHIP	1
ORGANIZATIONAL STRUCTURE	2
EXECUTIVE BOARD	2
ACCREDITED CONTRIBUTING MEMBERS	2
TTQP QUALIFICATION ADVISORY COMMITTEE	2
AGENCY QUALIFICATION COMMITTEE	2
REPRESENTATIVES AND CONTACT POINTS	3
TRANSPORTATION TECHNICIAN QUALIFICATION PROGRAM (TTQP)	4
PURPOSE OF THE TTQP	4
TTQP OBJECTIVES	4
DEFINITION OF CERTIFICATION AND QUALIFICATION (QUALIFIED)	4
WHO MUST HOLD A CERTIFICATION?	5
CERTIFICATION RECIPROCITY	5
DISCLAIMERS	5
CANDIDATES WITH DISABILITIES	5
SAMPLING AND TESTING QUALIFICATIONS	6
QUALIFICATION PROCESS	6
PROGRAM MANAGEMENT	7
CERTIFICATION REGISTRATION	7
OUT-OF-STATE APPLICANTS	7
FEES FOR CERTIFICATION	7
RIGHTS AND RESPONSIBILITIES AGREEMENT	7
CANCELLATION POLICY	7

REFUND POLICY	{	8
EXAMINATION	{	8
WRITTEN EXAMINATION	{	8
PERFORMANCE EXAMINATION		9
RE-EXAMINATION		0
TECHNICIAN NOTIFICATION		0
LENGTH OF TECHNICIAN CERTIFICATION		0
CERTIFIED TECHNICIAN REGISTRY		1
COURSE EVALUATIONS	1	1
REGISTRATION, POLICIES, AND INFORMATION HANDS	300K 11	1
WAQTC WEBSITE (HTTP://WAQTC.ORG/)		2
CERTIFICATION RENEWAL POLICY		2
REVOCATION OR SUSPENSION OR DENIAL OF CERTIFI	CATION12	2
NOTIFICATION OF CERTIFICATION REVOCATION OR	SUSPENSION 13	3
ANNEX A QUALIFICATION PROCESSES AND MANDATOR	RY TEST METHODS	I
EXAMINATION PROCESS	II	Ι
AGGREGATE (AGTT) QUALIFICATION PROCESS	<i>V</i>	Į
ASPHALT I (ASTT) QUALIFICATION PROCESS	VI	Ι
ASPHALT II (ASTT II) QUALIFICATION PROCESS	IX	ζ
CONCRETE (CTT) QUALIFICATION PROCESS	X	Ι
SELF-CONSOLIDATING CONCRETE (SCCTT) QUALIFICA	ATION PROCESS XII	Ι
EMBANKMENT AND BASE (EBTT) QUALIFICATION PRO	OCESSXV	Į
IN-PLACE DENSITY (DTT) QUALIFICATION PROCESS	XVI	Ι
EMBANKMENT AND BASE/IN-PLACE DENSITY (EBTT/DPROCESS	OTT) QUALIFICATION	
SAMPLING AND REDUCTION (SRTT) QUALIFICATION F	PROCESSXXI	Ι
ANNEX B EXAMPLE REGISTRATION FORM AND RIGHTS AGREEMENT		J
WAQTC TRANSPORTATION TECHNICIAN QUALIFICAT REGISTRATION FORM		Ι
TRANSPORTATION TECHNICIAN QUALIFICATION PRO	GRAM RIGHTS AND	T

LIST OF ABBREVIATIONS

AgTT Aggregate Testing Technician

ADOT Arizona Department of Transportation

AKDOT & PF Alaska Department of Transportation & Public Facilities

AQC Agency Qualification Committee

AsTT Asphalt Testing Technician I
AsTT II Asphalt Testing Technician II

CDOT Colorado Department of Transportation
CFLHD Central Federal Lands Highway Division

CTT Concrete Testing Technician

DTT In-Place Density Testing Technician

EBTT Embankment and Base Testing Technician

EBTT/DTT Embankment and Base Testing Technician/ In-Place Density Testing

Technician

FHWA Federal Highway Administration
ITD Idaho Transportation Department
LQP Laboratory Qualification Program

MDT Montana Department of Transportation

NDDOT North Dakota Department of Transportation

ODOT Oregon Department of Transportation
QAC Qualification Advisory Committee

RP&IH Registration, Policies, and Information Handbook SCCTT Self-Consolidating Concrete Testing Technician

SRTT Sampling and Reduction Testing Technician

TTQP Transportation Technician Qualification Program

UDOT Utah Department of Transportation

WAQTC Western Alliance for Quality Transportation Construction

WFLHD Western Federal Lands Highway Division

WSDOT Washington State Department of Transportation

WESTERN ALLIANCE FOR QUALITY TRANSPORTATION CONSTRUCTION (WAQTC)

INTRODUCTION

The Western Alliance for Quality Transportation Construction (WAQTC) is comprised of the States of Alaska, Arizona, Colorado, Idaho, Montana, North Dakota, Oregon, Utah, and Washington, and the Western and Central Federal Lands Highway Division (WFLHD and CFLHD) of the Federal Highway Administration. This organization is dedicated to improving the quality of transportation products and services.

MISSION STATEMENT

Provide leadership in the pursuit of continuously improving quality in transportation construction. Through our partnership, we will:

- Promote an atmosphere of trust, cooperation, and communication between government agencies and the private sector
- Respond in a unified and consistent manner to identify quality improvement needs and new technologies that impact the products that we provide,
- Provide a forum to promote uniform test standards,
- Provide highly skilled, knowledgeable materials sampling and testing technicians,
- Provide reciprocity opportunities for qualified testing technicians among Accredited Contributing Members.

PURPOSE OF THE WAQTC

The WAQTC is comprised of at least one representative of each of the member agencies. WAQTC is focused on three main areas: standardizing test methods (WAQTC, AASHTO, and ASTM), certifying technicians through the Transportation Technician Qualification Program (TTQP), and working together on significant national programs including research, training, and technology deployment.

BENEFITS OF MEMBERSHIP

Cost savings

Partnering

Savings to contractors and consultants working in more than one state

Sharing resources: human, tech, financial

Reducing wasteful duplication

ORGANIZATIONAL STRUCTURE

- Executive Board
 - Contributing Member
 - Accredited Contributing Members
 - Advisory member
 - Guest
- Transportation Technician Qualification Program (TTQP) Committees
 - Qualification Advisory Committee (QAC)
 - Agency Qualification Committee (AQC)

EXECUTIVE BOARD

The Executive Board is composed of at least one representative of each of the member Agencies of the WAQTC. This committee is responsible for the mission, objectives, structure, policy decisions, the direction of the WAQTC, and other programs that may be undertaken in the future. Operational guidance for this committee can be found in the WAQTC Bylaws, Appendix A.

ACCREDITED CONTRIBUTING MEMBERS

Agencies that have agreed to follow the standards of the TTQP accreditation program will have the status of Accredited Contributing Membership on the Executive Board. These member agency representatives shall have a single vote on all operational matters of the TTQP. Further guidelines can be found in the TTQP Operational Agreement, Appendix B.

TTQP QUALIFICATION ADVISORY COMMITTEE

The Qualification Advisory Committee (QAC) is the committee that has the principal task of overseeing technical portions of the TTQP. The QAC acts in an advisory capacity to the Executive Board and reports directly to them. The QAC reviews the program and suggests changes or updates and ensures that the program continues to meet the highest standards. Additional information is contained in the TTQP Operational Agreement, Appendix B.

AGENCY QUALIFICATION COMMITTEE

The Agency Qualification Committee (AQC) is the Agency level committee that is responsible for oversight of the TTQP within the Agency to ensure region wide consistency in the implementation of the program. The Chairman of the committee is an Agency employee.

The type, size, and makeup of the committee is at the Agency's discretion. Members of the AQC are knowledgeable in the administrative procedures of the TTQP. The AQC may provide comments and suggestions to the QAC, may review, compile, and provide comments obtained from the course evaluations to the QAC, may hear and act on allegations of technician misconduct, or may act upon other such matters required for the efficient operation of the program within the Agency.

REPRESENTATIVES AND CONTACT POINTS

WAQTC Executive Board (Contributing Members)

Michael San Angelo – AKDOT&PF Michael SanAngelo@dot.state.ak.us	Paul Bushnell – MDT pbushnell@mt.gov
Michael Voth – FHWA Michael Voth@dot.gov	Amy Beise – NDDOT <u>abeise@nd.gov</u>
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TTQP Contacts

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Colorado CDOT	Madeline Enright madeline.enright@state.co.us (303) 398-6587	Utah UDOT	Gilbert Arredondo garredondo@utah.gov (801) 330-3820
Idaho ITD	Isabelle Panos <u>isabelle.panos@itd.idaho.gov</u> (208) 3324-8828 ext. 78828	Washington State WSDOT	Mark Willoughby willoum@wsdot.wa.gov (564) 669-3746
Montana MDT	Misty Miner mminer@mt.gov (406) 233-3607		

Current course or qualification information, Qualified Technician, updates, and other useful information can be accessed at: www.waqtc.org or by contacting the respective agencies at the listed numbers.

TRANSPORTATION TECHNICIAN QUALIFICATION PROGRAM (TTQP)

PURPOSE OF THE TTQP

The Transportation Technician Qualification Program (TTQP) portion of the Administrative Manual contains uniform program policies and guidance for Agencies of the Western Alliance for Quality Transportation Construction (WAQTC). Agencies are expected to adhere to the content of this manual in order to maintain accreditation while creating uniformity and program integrity. Agencies are not authorized to make changes to content, unless specifically stated in this manual.

The purpose of this Qualification program is to provide improved quality in the transportation products. One means of accomplishing this is by ensuring that technicians have demonstrated abilities to engage in quality assurance activities (quality control, acceptance, and independent assurance) in transportation construction work under the jurisdiction of the WAQTC contracting Agencies and those laboratories that perform Agency work meet an acceptable level of performance. Unless otherwise specified in the contract documents all WAQTC members that are contracting Agencies will require that technicians who perform Agency contract work will have successfully completed the Transportation Technician Qualification Program, and laboratories that perform sampling and testing on Agency projects will have been Qualified by a Laboratory Qualification Program in their respective States.

This program is prescribed to meets, in part, the requirements of The Code of Federal Regulations (CFR) 637, Subpart B - Quality Assurance Procedures for Construction.

TTQP OBJECTIVES

- To provide highly skilled, knowledgeable materials sampling and testing technicians.
- To promote uniformity and consistency in testing.
- To provide reciprocity opportunities for qualified testing technicians among participating agencies.
- To create a harmonious working atmosphere between public and private employees based upon trust, open communication, and equivalency of qualification.

DEFINITION OF CERTIFICATION AND QUALIFICATION (QUALIFIED)

Within the context of this guide and program the term *Certification* is defined as confirmation (certificate) that the technician has successfully met the qualification requirements, as defined elsewhere in this guide, in one of the technical areas in which WAQTC offers such credentials. *Qualification (qualified)* is defined as the demonstration of the requirements in one of these technical areas.

These are solely credentials as defined by WAQTC and establish that the recipient has demonstrated a required level of knowledge and is eligible to perform work on certain transportation projects under the jurisdiction of the member contracting Agencies or others that use this program. This definition does not in any way suggest an affiliation with any national or other organization that

provides for similar credentials, or accredited organizations to provide for similar credentials, in any like areas to those that are included in the WAQTC program.

WHO MUST HOLD A CERTIFICATION?

All technicians responsible for sampling of materials and performing and reporting on tests, in any of the technical areas in which certification is offered, as defined elsewhere, on any project under the jurisdiction of one of the WAQTC contracting agencies, must hold a certificate of qualification, unless otherwise designated in the contract documents. Certification may be granted only after successfully completing the qualification requirements of this program. "Grandfathering" or "exceptions" to the TTQP, other than as noted in the Concrete Qualification, will not be granted.

CERTIFICATION RECIPROCITY

WAQTC certification in any agency may facilitate qualification in another member agency. Each agency will outline the additional requirements for their qualifications. Each technician should verify specific agency requirements before seeking reciprocity.

DISCLAIMERS

Certification of a technician by the TTQP indicates only that the technician has demonstrated a certain level of competence on a written or performance examination, or both, in a selected field of activity. Members of the WAQTC that are also contracting Agencies may require certification of technicians performing activities specified in work contracts or other activities.

Each technician or organization using technicians with certifications must make its own independent judgment of the overall competence of those technicians. The WAQTC specifically disclaims any responsibility for the actions, or the failure to act, of technicians who have received certifications through the TTQP.

CANDIDATES WITH DISABILITIES

Technicians with disabilities and those who have special needs should notify the TTQP representative at the time of registration so that appropriate accommodation can be made.

SAMPLING AND TESTING QUALIFICATIONS

Aggregate Testing Technician **AgTT** Asphalt Testing Technician I **AsTT** Asphalt Testing Technician II AsTT II **CTT** Concrete Testing Technician Self-Consolidating Concrete Testing Technician **SCCTT** In-Place Density Testing Technician DTT Embankment and Base Testing Technician **EBTT** Embankment and Base/In-Place Density Testing Technician EBTT/DTT

Sampling and Reduction Testing Technician SRTT

Refer to Annex A for specific processes and mandatory test methods for each Qualification Area.

QUALIFICATION PROCESS

A technician may obtain certification by either of the following methods:

Method I

- Meet applicable prerequisites for obtaining the Certification.
- Forward the registration form, Rights and Responsibilities Agreement, documentation of applicable prerequisites, and any applicable fee to the appropriate Agency (according to that Agency's specific guidance) to secure a position in an upcoming course and examination.
- Attend the appropriate Qualification course in its entirety.
- Successfully pass the written and performance examinations.

Method II

If a technician is confident of their knowledge and experience in a Qualification subject area, he/she may obtain certification in that area, without attending a Qualification course, upon successfully completing the written and performance examination requirements as defined under each Qualification section. This alternate method of obtaining certification is subject to the limitations set forth elsewhere in this document.

The Qualification process is:

- Meet applicable prerequisites for obtaining the Certification.
- Forward the registration form, Rights and Responsibilities Agreement, documentation of applicable prerequisites, and any applicable fee to the appropriate Agency to secure a position in an upcoming examination.
- Successfully pass the written and performance examinations.

Refer to Annex B for an example registration form and Rights and Responsibilities Agreement.

A Certification obtained in this manner will expire no later than the indicated three (3) or five (5) years from the last day of the month on which requirements were successfully completed.

PROGRAM MANAGEMENT

CERTIFICATION REGISTRATION

To be eligible for Certification each technician must complete a registration form and forward it to the appropriate Agency TTQP address along with a check for any applicable fee, a signed and dated Rights and Responsibilities Agreement, applicable documentation of prerequisites, or other Agency required information. These materials must be received by the Agency at least two (2) weeks before the beginning of the Qualification course or examination. An example registration form is provided in this document. Agencies may add their specific information to this form in the designated spaces and use it, or they may develop a registration form, as long as it reflects that it pertains to the TTQP.

OUT-OF-STATE APPLICANTS

The requirements for technicians from non-WAQTC member States or Agencies wishing to obtain Certifications under the TTQP will be the same as for those from member States or Agencies. Those holding valid Certifications from other programs and showing proper documentation may be extended Certification by the TTQP if the Certification is judged to offer equal credentials as the TTQP and is approved by the Executive Board.

FEES FOR CERTIFICATION

Each Agency may assess fees as deemed necessary.

RIGHTS AND RESPONSIBILITIES AGREEMENT

All Certifications will be contingent upon the technician signing a Rights and Responsibilities Agreement. This agreement will inform the technicians of their rights and responsibilities along with the consequences of the violation of these responsibilities. The technician will submit a signed agreement with their registration for Certification. A copy of the agreement is included in this manual. Agencies may add their name to this form and may change the wording from "Qualification" to "Certification" as needed. The form may need to be tailored to conform to the legal requirement of the qualifying agency.

CANCELLATION POLICY

Each Agency should state a specific cancellation policy in the Registration, Policies, and Information Handbook. A minimum policy follows: Each Agency may designate a minimum class size for each course or examination.

If the minimum class size is not reached, the course or examination may be canceled. Courses or examinations may be canceled for other reasons not specifically stated herein. Every effort will be made to notify the registered technicians well in advance if a cancellation is necessary. If a course or examination is canceled, the registered technician may either request refund of any fee or ask that they be enrolled in the next available course or examination.

REFUND POLICY

Each Agency may establish its own refund policy for Certification fees where applicable. Suggested guideline:

- 1. The registration form, *Rights and Responsibilities Agreement*, fee, and any other required documentation must be received at least two (2) weeks before the start of the course.
- 2. Cancellation by the registered technicians within seven (7) days (without the class position being filled) will result in 50 percent of the fees being refunded. If the class position can be filled, 85 percent of the fees will be refunded (15 percent will be retained for administrative costs).
- 3. Unforeseen emergency during the course or Qualification proceedings will result in no refund of fees but the registered technicians will be allowed to retake the course or Qualification examinations, whichever is applicable, at a later date with an additional fee of 15 percent of the course cost.
- 4. No refund of fees will be made for failure to successfully complete the examination portions of the Qualification proceedings.

EXAMINATION

As part of the Qualification process, each technician will be required to pass both written and performance examinations which are designed to demonstrate both knowledge and understanding of the test procedures. Written exam Administrators and performance exam Examiners should thoroughly explain to the technicians what the exams will entail and the examination rules before the beginning of the exams. It is anticipated that multiple examination stations will be required during the performance examination; therefore, there will be multiple Examiners required for the performance portion of the examination.

Failure of either the written or performance portions of the Qualification process will require reexamination and a passing grade in the exam(s) failed, if Certification is still desired, subject to the criteria described herein.

WRITTEN EXAMINATION

The written examination will consist of multiple-choice questions, some of which will require calculations, or true/false questions. All questions require detailed knowledge of the test method procedures and basic reading comprehension.

The examination is closed book which requires that no technical materials, notes, or cellular devices are allowed to be accessed during the examination. Calculations may be required for some questions; therefore, a calculator (non-cellular) may be brought to the examination. Calculators may not be shared. All written exams will be administered within a specified time frame which will be consistent within each Agency. At the end of the designated period all exams and used scratch paper will be collected by the exam Administrator. Scratch paper will be destroyed. Exam scores are to remain confidential.

The written exam material is not to be discussed with, or provided to, any unauthorized individual. The exam should be scored and the results given to the designated Agency person no later than the end of the first business day after the exam is given.

A technician will successfully pass the written examination by meeting the following criteria:

- a. A minimum score of 70 percent on the entire written exam for that Qualification area.
- b. A minimum score of 60 percent on each segment (test method) of the written examination.

PERFORMANCE EXAMINATION

The performance examination may be performed with the procedure open for reference; however, referral to the exam checklist, or any notes or other material reflecting the content of the checklist, by the technician will not be permitted during the exam. Each procedure will be completed within the time limit designated by the Agency for that method. The technician is required to successfully perform all steps of the designated test procedures for the Qualification area, with the exception that a technician may be asked to explain various steps to a procedure to reduce the total test time.

All test method time limits set by the Agency will consider the reduction of time due to accelerated steps. A technician may be required to verbally describe the procedures for sampling of a material, such as Sampling Freshly Mixed Concrete, if performance of the method is not practical or feasible.

Judgment will be based on the ability to correctly perform all required procedures for each of the methods based on criteria shown on the performance examination checklists. Omission of one or more of the prescribed procedures will constitute failure of that test method. The inability to complete the test method within the designated time limit will constitute failure of the method. The technician may perform one repeat trial of a failed method, at the Examiner's convenience, on the day of the exam; however, repeat trials will be allowed in not more than 50 percent of the total test methods in that performance exam. The technician may request that a different Examiner administer a repeat trial of a failed test method. Failure of any one of the prescribed test methods after two trials will constitute failure of the performance examination portion of the Qualification process. Scoring of the exam will be on a pass/fail basis.

The performance examination will occur in the direct presence of the Examiner or the combination of performance samples and Examiner direct oversight at an Agency designated qualification facility. All steps of the method must be performed, except that certain steps may be accelerated when properly explained to the Examiner.

The Examiner may not respond to questions or assist in the performance of the method. Immediately after completion of the method, the Examiner will tell the technician if they have passed or failed that trial. If a failure has occurred, the Examiner will denote which part of the method was performed or described incorrectly. The Examiner will not stop a trial when an error has occurred, nor will they in any way signify approval or disapproval. Any disputes will be referred immediately to and reconciled by the course or exam Administrator. The results of the performance examination, as well as all performance examination checklists, will be provided to the designated Agency person no later than the end of the first business day after the exam is given.

RE-EXAMINATION

Re-examination for both the written and performance exams will be conducted according to the same criteria as the original examinations. The one exception is on the written examination, an initial exam score above 70 percent overall, but below 60 percent on one or more test methods, a re-examination on only those test methods may be administered at the agency's discretion. See Annex A for detailed information. A technician may be eligible for re-examination subject to other restrictions outlined elsewhere in this manual. The technician may either make individual arrangements with the Agency for re-examination or apply to take a scheduled exam, depending upon Agency preference or policy. Guidelines for technicians failing either examination the second time will be set by the qualifying agency. It is recommended that technicians attend the training course for that Qualification area if Certification is still desired.

TECHNICIAN NOTIFICATION

The agency conducting the qualification proceedings should notify each technician of successful or unsuccessful completion of the Qualification Requirements within ten (10) working days of the date of the completion of the examination.

Presence on the agency's **Certified Technician Registry** may serve as certification verification for those technicians that are successful in completing the qualification requirements.

If an agency elects to use a certification card, or similar method, to identify those technicians that have successfully completed a qualification area, the format and appearance should be coordinated with the other agencies and should reflect that it pertains to the WAQTC TTQP.

If the technician is unsuccessful in completing the qualification requirements, the procedure for reexamination should be explained, if applicable.

LENGTH OF TECHNICIAN CERTIFICATION

The length of time in which a technician may remain qualified in any qualification area will be set by the qualifying agency. This period shall be on a three (3) or five (5) year re-certification cycle.

The agency must apply the same re-certification cycle for all certifications. Technicians that are qualified by an agency using a five-year re-certification cycle may be required to demonstrate proficiency when requesting reciprocity with an agency using a three-year re-certification cycle.

CERTIFIED TECHNICIAN REGISTRY

Within ten (10) working days after completion of any qualification proceeding, the agency conducting the qualification exams should log each participant that has successfully completed the qualification requirements on the **Certified Technician Registry** for that agency which is linked to the WAQTC Website. The required information to be logged in the appropriate field is:

• A unique certification number assigned from the following Agency allotments.

Alaska	00,001 - 19,999	Montana	120,000 - 139,999
Idaho	20,000 - 39,999	Not used	140,000 - 159,999
Oregon	40,000 - 59,999	Utah	160,000 - 179,999
Washington	60,000 - 79,999	Colorado	180,000 - 199,999
Arizona	80,000 - 99,999	Not used	200,000 - 219,999
Not used	100,000 - 119,999	North Dakota	220,000 - 240,000

The number assigned with the first certification will remain with that technician no matter if additional certifications may be attained through other WAQTC Agencies. Should a technician obtain a certification in a state other than the one designated by the assigned certification number, the agency issuing the additional certification will notify the agency where the certification number originated so that the certification may be properly registered.

- The successful technician's full name
- The area in which the certification is received is designated by:

Aggregate	AgTT	Concrete	CTT
Asphalt	AsTT	Self-Consolidating Concrete	SCCTT
Asphalt II	AsTT II	Embankment and Base	EBTT
In-Place Density	DTT	Sampling and Reduction	SRTT
Embankment and Base /	In-Place Densit	ry (combined) EBTT/	DTT

• The day, month, and year of the Certification expiration.

COURSE EVALUATIONS

Course evaluations will be obtained for each Qualification course administered by member Agencies. Instructors should stress the importance of thoughtful completion of these forms. The AQC in each participating Agency should review and compile these comments and provide suggestions to the QAC for consideration during their scheduled program meetings. An evaluation form is included in the training materials for each course.

REGISTRATION, POLICIES, AND INFORMATION HANDBOOK

Guidance for technician registration in a course or exam, TTQP policies, and other information intended for the use of the technician is contained in the TTQP *Registration*, *Policies and Information Handbook* (RP&IH) which is a TTQP standardized document. This handbook should

be kept up to date by each agency. Agency specific policies, information, examination, or training requirements, etc., as defined below and elsewhere in this manual, may be entered in this handbook, to supplement the standard TTQP information, for reference by the technician or laboratory.

WAQTC WEBSITE (http://waqtc.org/)

The WAQTC Website is intended to provide useful information both to the member agencies, other agencies, and the public about the TTQP and other programs of the WAQTC.

It is intended that the information entered will be of a like appearance between agencies so coordination will be required as new needs are identified. It is the responsibility of each agency to keep their specific information up to date in accordance with the guidelines set forth in this manual. Suggestions for improvement to the Website, or other facets of the program, may be provided to a member of the WAQTC or by the home page email link.

CERTIFICATION RENEWAL POLICY

Certification renewal is required to be completed by the certification's expiration date. The technician is responsible for obtaining their applicable certification renewal and must do so before the expiration date of the certification. The procedures for certification renewal are the same as for the initial certification. Although renewal is the responsibility of the technician, an agency may adopt other policies, such as notifying the technician before the expiration date, if desired. Interim or certification refresher courses may be offered; however, it is also the responsibility of the technician to stay abreast of changes to procedures and test methods.

Renewal of certification may be obtained in the following manner:

A technician obtains renewal of certification by passing the written and performance exam, as applicable, required for that certification. The agency may either require that the technicians be responsible for scheduling their own written and/or performance examination, or the agency may schedule specific times and locations in which this is accomplished.

Re-examination policies, for those failing to pass a certification renewal on the first attempt, will be the same as for the original certifications.

REVOCATION OR SUSPENSION OR DENIAL OF CERTIFICATION

Certifications awarded by the TTQP may be revoked at any time by the Agency Qualification Committee (AQC) for just cause. Proposed revocations or denial will be sent to the technician in writing along with the technician's right to appeal the proposed revocation or denial. A proposed revocation is effective upon receipt by the technician and will be affirmed, modified, or vacated following any appeal. The reasons that technicians will be subject to revocation, suspension or denial of their certifications are *negligence* or *abuse* of their responsibilities.

Agencies may disqualify technicians for other reasons of just cause, which may or may not be specifically defined herein following the due process procedures outlined herein.

Negligence is defined as unintentional deviations from approved procedures which may or may not cause erroneous results or the TTQP Program.

The following penalties are guidelines for findings of *negligence*: The first finding of *negligence* will result in a letter of reprimand being sent to both the technician and their employer; the second will result in a thirty (30) day suspension of certification, third in a one hundred eighty (180) day suspension of Certification and the fourth in permanent revocation of the Certification. The AQC may deviate from these penalty guidelines if warranted.

Abuse is defined as intentional deviations from approved procedures or the TTQP Program. The following penalties are guidelines for findings of abuse: The first finding of abuse will result in a one (1) year suspension to permanent revocation of a technician's certification. Any subsequent finding of abuse will result in the technician being ineligible for any future type of TTQP Certification. The AQC may deviate from these penalty guidelines if warranted.

Revocations or suspensions for *abuse* or *negligence* in one Qualification area will be considered revocations or suspensions in all certifications held by the technician. Such revocations or suspensions will be in effect in all member agencies of the WAQTC.

It should be noted that should a technician fail to successfully complete certification renewal in a specialty area, that technician will be considered disqualified in that area, only, until the requirements for certification renewal have been successfully met, subject to the limitations set forth in this document.

Allegations of *negligence* or *abuse* will be made to the AQC in writing. The allegations will contain the name, address, and signature of the individual(s) making the allegation. The allegations will be investigated by the AQC. The accused and the individual(s) making the allegation will be given the opportunity to appear before the AQC. All parties involved will be notified in writing of the findings by the AQC. Any warranted penalties will be imposed in accordance with the guidance contained herein. Decisions regarding allegations of *negligence* or *abuse* may be appealed in writing to the AQC Chair who will independently consider such written appeals but may rely on the advice and counsel of the AQC and take such action as they consider appropriate.

NOTIFICATION OF CERTIFICATION REVOCATION OR SUSPENSION

Each agency may notify the other members of the WAQTC, or other participants in the TTQP, of anyone having a certification revoked or suspended. The responsible agency will remove the certification expiration date, for all applicable certifications, from the Qualified Technician Registry immediately upon the revocation or suspension of the certification(s) as verification to other agencies of such action.

ANNEX A QUALIFICATION PROCESSES AND MANDATORY TEST METHODS

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EXAMINATION PROCESS

The following criteria are common to the examination for each module.

Written Examination

- a. Closed Book
- b. Five (5) questions minimum per test method including multiple choice, true or false, and calculations.
- c. The written exam must be completed within the time limit designated by the Agency.

• Performance Examination

- a. Each technician will demonstrate proficiency in the designated test methods.
- b. Open procedure, but the technician **will not** have access to the performance exam checklist.
- c. Each procedure must be performed within the time limit set by the Agency for that test method.
- d. The technician may be asked to explain various steps to the procedure to reduce the full test time. All test method time limits set by the Agency will consider the reduction of time due to accelerated steps.
- e. Each test method will have a performance exam checklist with a "P" or "F" checked by the Examiner.

• Scoring - Written/Performance

Written:

a. Initial exam (first attempt): An overall score of 70 percent with a minimum of 60 percent on each test method is a passing score.

An initial exam overall score below 70 percent will require a re-examination on all test methods.

An initial exam score above 70 percent overall, but below 60 percent on one or more test methods, will require a re-examination.

b. Re-exam (second attempt):

A re-exam overall score below 70 percent is a failure.

A re-exam score above 70 percent overall, but below 60 percent on one or more test methods, is a failure.

An agency may allow a partial re-examination:

In the case of one test method comprising the re-examination, the technician must receive a score of 70 percent.

In the case of more than one test method comprising the re-examination, the technician must receive an overall score of 70 percent with a minimum of 60 percent on any one test method.

Performance:

All performance checklists must have 100 percent of the blanks checked "P" and each test method must be performed within the designated time limit.

- Re-examination Policy Written/Performance
 - a. Anyone failing the written examination on the first attempt is required to retake the written examination at the scheduling convenience of the Agency, and pass, if Certification by the TTQP is still desired.
 - b. Anyone failing a test method on the performance exam may repeat that trial during the day of the performance exam. Repeat trials will be allowed in not more than 50 percent of the total test methods in that performance exam. Failure of any one of the prescribed test methods after two trials will constitute failure of the whole performance exam. Anyone failing the performance examination on the first attempt is required to retake the performance examination at the scheduling convenience of the Agency, and pass, if Certification by the TTQP is still desired.
 - c. Guidelines for technicians failing either examination the second time will be set by the qualifying agency. *It is recommended that technicians attend the training course for that Certification if Certification is still desired.*

Additional examination information can be found in the Program Management section.

AGGREGATE (AgTT) QUALIFICATION PROCESS FOR MATERIALS TESTING TECHNICIANS

Aggregate Qualification is designed for those technicians responsible for field sampling and testing of aggregate for bases, asphalt mixtures, or Portland cement concrete. Technicians include contractor and supplier quality control personnel, consulting engineering and materials testing firm personnel, quality assurance technicians, and public agency personnel.

The process for obtaining certification in Aggregate:

• Pass the written and performance examinations.

Course Length: approximately 5 days

Course Size: 12-15 recommended

Recommendation:

• The technician should exhibit basic mathematics and reading comprehension skills.

TEST METHODS FOR AGGREGATE QUALIFICATION

AASHTO/ WAQTC	PROCEDURE	TRAINING Classroom (C) Laboratory (L)	EXAM Written (W) Performance (P)
R 90	Sampling Aggregate Products	С	W, P*
R 76	Reducing Samples of Aggregate to Testing Size	C, L	W, P
T 255	Total Evaporable Moisture Content of Aggregate by Drying	C, L	W, P
T 27/T 11	Sieve Analysis of Fine and Coarse Aggregate Materials Finer Than 75 µm (No. 200) Sieve in Aggregates by Washing (This is a combined field operating procedure)	C, L	W, P**
Т 335	Determining the Percentage of Fracture in Coarse Aggregate	C, L	W, P
Т 176	Plastic Fines in Graded Aggregates and Soils by Use of the Sand Equivalent Test	C, L	W, P

^{*} The technician may either be asked to physically sample materials or only to explain the sampling process during this portion of the performance examination.

^{**} Participating WAQTC members will require a written and performance examination on one of these three methods (A, B, or C), which may require that a technician seeking employment in another Agency will have to demonstrate proficiency in a different method also.

ASPHALT I (ASTT) QUALIFICATION PROCESS FOR MATERIALS TESTING TECHNICIANS

Asphalt I Qualification is designed for those technicians responsible for field sampling and testing of asphalt mixtures. Technicians include contractor and supplier quality control personnel, consulting engineering and materials testing firm personnel, quality assurance technicians, and public agency personnel.

The process for obtaining certification in Asphalt I:

• Pass the written and performance examinations.

Course Length: approximately 5 days

Course Size: 12-15 recommended

Recommendation:

• The technician should exhibit basic mathematics and reading comprehension skills.

TEST METHODS FOR ASPHALT I QUALIFICATION

AASHTO/ WAQTC	PROCEDURE	TRAINING Classroom (C) Laboratory (L)	EXAM Written (W) Performance (P)
R 97	Sampling Asphalt Mixtures	С	W, P*
R 47	Reducing Samples of Asphalt Mixtures to Testing Size	C, L	W, P
Т 329	Moisture Content of Asphalt Mixtures by Oven Method	C, L	W, P
Т 308	Determining the Asphalt Binder Content of Asphalt Mixtures by the Ignition Method	C, L	W, P
Т 209	Theoretical Maximum Specific Gravity (G _{mm}) and Density of Asphalt Mixtures	C, L	W, P
Т 166	Bulk Specific Gravity (G _{mb}) of Compacted Asphalt Mixtures Using Saturated Surface-Dry Specimens	C, L	W, P
R 66	Sampling Asphalt Materials	С	W
Т 30	Mechanical Analysis of Extracted Aggregate	C, L	W, P

^{*} The technician may either be asked to physically sample materials or may only be asked to explain the sampling process during this portion of the performance examination.

ASPHALT II (ASTT II) QUALIFICATION PROCESS FOR MATERIALS TESTING TECHNICIANS

Asphalt II Qualification is designed for those technicians responsible for field sampling and testing of Asphalt II. Technicians include contractor and supplier quality control personnel, consulting engineering and materials testing firm personnel, quality assurance technicians, and public agency personnel.

The process for obtaining certification in Asphalt II:

• Pass the written and performance examinations.

Course Length: approximately 5 days

Course Size: 12-15 recommended

Recommendation:

• The technician should exhibit basic mathematics and reading comprehension skills.

TEST METHODS FOR ASPHALT II QUALIFICATION

AASHTO/ WAQTC	PROCEDURE	TRAINING Classroom (C) Laboratory (L)	EXAM Written (W) Performance (P)
R 97	Sampling Asphalt Mixtures	С	W, P*
R 47	Reducing Samples of Asphalt Mixtures to Testing Size	C, L	W, P
Т 329	Moisture Content of Asphalt Mixtures by Oven Method	C, L	W, P
T 308	Determining the Asphalt Binder Content of Asphalt Mixtures by the Ignition Method	C, L	W, P
T 209	Theoretical Maximum Specific Gravity (G _{mm}) and Density of Asphalt Mixtures	C, L	W, P
Т 166	Bulk Specific Gravity (G _{mb}) of Compacted Asphalt Mixtures Using Saturated Surface-Dry Specimens	C, L	W, P
R 66	Sampling Asphalt Materials	С	W
Т 30	Mechanical Analysis of Extracted Aggregate	C, L	W, P
Т 312	Preparing and Determining the Density of Asphalt Mixture Specimens by Means of the Superpave Gyratory Compactor	C, L	W, P
TM 13	Volumetric Properties of Asphalt Mixtures	С	W, P**

^{*} The technician may either be asked to physically sample materials or may only be asked to explain the sampling process during this portion of the performance examination.

^{**} Performance examination consists of performing appropriate calculations

CONCRETE (CTT) QUALIFICATION PROCESS FOR MATERIALS TESTING TECHNICIANS

Concrete Qualification is designed for those technicians responsible for field sampling and testing of Portland cement concrete. Technicians include contractor and supplier quality control personnel, consulting engineering and materials testing firm personnel, quality assurance technicians, and public agency personnel.

The process for obtaining certification in Concrete:

• Pass the written and performance examinations

Course Length: approximately 3 days

Course Size: 20-30 recommended

Recommendation:

• The technician should exhibit basic mathematics and reading comprehension skills.

Reciprocity

ACI (American Concrete Institute) Certification Concrete Field-Testing Technician Grade 1

- WAQTC recognizes ACI Concrete Field-Testing Technician-Grade 1 as an equivalent to WAQTC Concrete (CTT). Reciprocity may be granted by submitting evidence of a valid ACI certification and a completed Rights and Responsibilities form. However, each WAQTC member agency may have further requirements.
- For technicians requesting to receive a WAQTC certification in ACI Concrete Field Testing Technician-Grade 1 through the ACI reciprocity clause it is recommended that a review of the testing standards listed on the following page occurs. The ACI certification process requires performing ASTM standard test methods. ASTM standards may or may not be the same as the AASHTO and WAQTC standard test methods required by this qualification area.
 - By signing the WAQTC Rights and Responsibilities Agreement form, a technician pledges to follow the applicable AASHTO and WAQTC test methods when sampling or testing on jobsites requiring WAQTC certifications.

TEST METHODS FOR CONCRETE QUALIFICATION

AASHTO/ WAQTC	PROCEDURE	TRAINING Classroom (C) Laboratory (L)	EXAM Written (W) Performance (P)
TM 2	Sampling Freshly Mixed Concrete	С	W, P*
Т 309	Temperature of Freshly Mixed Portland Cement Concrete	C, L	W, P
T 119	Slump of Hydraulic Cement Concrete	C, L	W, P
T 121	Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete	C, L	W, P
T 152	Air Content of Freshly Mixed Concrete by the Pressure Method	C, L	W, P
R 100	Casting and Curing Concrete Strength Test Specimens in the Field	C, L	W, P**

^{*} The technician may either be asked to physically sample materials or may only be asked to explain the sampling process during this portion of the performance examination.

^{**} Participating WAQTC members will require a performance examination on one of the two sizes of cylinders, 150 mm (6 in.) x 300 mm (12 in.) or 100 mm (4 in.) x 200 mm (8 in.), which may require that a technician seeking employment in another Agency will have to demonstrate proficiency in the other size cylinder also.

SELF-CONSOLIDATING CONCRETE (SCCTT) QUALIFICATION PROCESS FOR MATERIALS TESTING TECHNICIANS

Self-Consolidating Concrete Qualification is designed for those technicians responsible for field sampling and testing of self-consolidating concrete. Technicians include contractor and supplier quality control personnel, consulting engineering and materials testing firm personnel, quality assurance technicians, and public agency personnel.

The process for obtaining certification in Self-Consolidating Concrete:

- Meet the prerequisites. (see below)
- Pass the written and performance examinations

Course Length: approximately 3 days

Course Size: 20-30 recommended

Prerequisites for being qualified in Self-Consolidating Concrete: Current qualification in CTT or ACI Concrete Field-Testing Technician-Grade 1 Reciprocity.

Recommendation:

• The technician should exhibit basic mathematics and reading comprehension skills.

TEST METHODS FOR SELF-CONSOLIDATING CONCRETE QUALIFICATION

AASHTO/ WAQTC	PROCEDURE	TRAINING Classroom (C) Laboratory (L)	EXAM Written (W) Performance (P)
T 347/T 351	Slump Flow of Self-Consolidating Concrete and Visual Stability Index / (VSI) of Self-Consolidating Concrete (SCC) (This is a combined field operating procedure)	C, L	W, P
T 345	Passing Ability of Self-Consolidating Concrete (SCC) by the J-Ring	C, L	W, P
TM 18	Penetration Test for Static Segregation Resistance of Self-Consolidating Concrete (SCC)	C, L	W, P
TM 19	Static Segregation of Self-Consolidating Concrete (SCC) Using the Column Method	C, L	W, P

EMBANKMENT AND BASE (EBTT) QUALIFICATION PROCESS FOR MATERIALS TESTING TECHNICIANS

Embankment and Base Qualification is designed for those technicians responsible for field sampling and testing of soil and soil-aggregate mixtures. Technicians include contractor and supplier quality control personnel, consulting engineering and materials testing firm personnel, quality assurance technicians, and public agency personnel.

The process for obtaining certification in Embankment and Base:

• Pass the written and performance examinations.

Course Length: approximately 5 days

Course Size: 12-15 recommended

Recommendation:

TEST METHODS FOR EMBANKMENT AND BASE QUALIFICATION

AASHTO/ WAQTC	PROCEDURE	TRAINING Classroom (C) Laboratory (L)	EXAM Written (W) Performance (P)
T 255/T 265	Total Moisture Evaporable Content of Aggregate by Drying / Laboratory Determination of Moisture Content of Soils (This is a combined field operating procedure)	C, L	W, P
T 99/T 180	Moisture-Density Relations of Soils Using a 2.5-kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop / Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop (This is a combined field operating procedure)	C, L	W, P*/ **
R 75	Developing Soil Moisture-Density Relations (Family of Curves)	С	W, P**
T 85	Specific Gravity and Absorption of Coarse Aggregate	C, L	W, P

^{*} Participating WAQTC members will require a written and performance examination on one of these two methods, which may require that a technician seeking employment in another Agency will have to demonstrate proficiency in the other method also.

^{**} Performance exam consists of graphing Soil Moisture-Density Relations curves and calculations.

IN-PLACE DENSITY (DTT) QUALIFICATION PROCESS FOR MATERIALS TESTING TECHNICIANS

In-Place Density Qualification is designed for those technicians responsible for field testing for In-Place Density on soils, soil aggregate mixtures, aggregate products, and asphalt mixtures. Technicians include contractor and supplier quality control personnel, consulting engineering and materials testing firm personnel, quality assurance technicians, and public agency personnel.

The process for obtaining certification in In-Place Density:

• Pass the written and performance examinations.

Course Length: approximately 5 days

Course Size: 12-15 recommended

In-Place Density testing:

• Technicians and their employers are responsible to independently meet all safety, training, and certification requirements for the transportation and use of a nuclear density gauge.

Recommendation:

TEST METHODS FOR IN-PLACE DENSITY QUALIFICATION

AASHTO/ WAQTC	PROCEDURE	TRAINING Classroom (C) Laboratory (L)	EXAM Written (W) Performance (P)
T 255/T 265	Total Evaporable Moisture Content of Aggregate by Drying /Laboratory Determination of Moisture Content of Soils (This is a combined field operating procedure)	C, L	W, P
T 99/T 180	Moisture-Density Relations Using a 2.5 -kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop / Moisture-Density Relations Using a 4.5 4-kg (10-lb) Rammer and a 457-mm (18-in.) Drop Soils	С	W
	(This is a combined field operating procedure)		
R 75	Developing Soil Moisture-Density Relations (Family of Curves)	C	
Т 272	One Point Method for Determining Maximum Dry Density and Optimum Moisture	C, L	W, P*
T 85	Specific Gravity and Absorption of Coarse Aggregate	С	
Т 310	In-Place Density and Moisture Content of Soil and Soil Aggregate by Nuclear Methods	C, L	W, P
T 209	Theoretical Maximum Specific Gravity (G _{mm}) of Asphalt Mixtures	С	
Т 166	Bulk Specific Gravity (G _{sb}) of Compacted Asphalt Mixtures Using Saturated Surface- Dry Specimens	С	
Т 355	In-Place Density of Asphalt Mixtures by Nuclear Methods	C, L	W, P

^{*} Participating WAQTC members will require a performance examination on one of the two methods, AASHTO T 99 or AAASHTO T 180, which may require that a technician seeking employment in another Agency will have to demonstrate proficiency in the other method.

EMBANKMENT AND BASE/IN-PLACE DENSITY (EBTT/DTT) QUALIFICATION PROCESS FOR MATERIALS TESTING TECHNICIANS

Embankment and Base / In-Place Density Qualification is designed for those technicians responsible for field sampling and testing of soils and soil-aggregate mixtures and field testing in-place density on soils, soil aggregate mixtures, aggregate products, and asphalt mixtures. Technicians include contractor and supplier quality control personnel, consulting engineering and materials testing firm personnel, quality assurance technicians, and public agency personnel.

The process for obtaining certification in Embankment and Base / In-Place Density:

• Pass the written and performance examinations.

Course Length: approximately 5 days

Course Size: 12-15 recommended

In-Place Density testing:

• Technicians and their employers are responsible to independently meet all safety, training, and certification requirements for the transportation and use of a nuclear density gauge.

Recommendation:

TEST METHODS FOR EMBANKMENT AND BASE / IN-PLACE DENSITY QUALIFICATION

AASHTO/ WAQTC	PROCEDURE	TRAINING Classroom (C) Laboratory (L)	EXAM Written (W) Performance (P)
T 255/T 265	Total Evaporable Moisture Content of Aggregate by Drying /Laboratory Determination of Moisture Content of Soils (This is a combined field operating procedure)	C, L	W, P
T 99/T 180	Moisture-Density Relations Using a 2.5 -kg (5.5-lb) Rammer and a 305-mm (12-in.) Drop / Moisture-Density Relations Using a 4.5 4-kg (10-lb) Rammer and a 457-mm (18-in.) Drop	C, L	W, P*/ **
	(This is a combined field operating procedure)		
R 75	Developing Soil Moisture-Density Relations (Family of Curves)	C	W, P**
Т 272	One Point Method for Determining Maximum Dry Density and Optimum Moisture	C, L	W, P*
T 85	Specific Gravity and Absorption of Coarse Aggregate	C, L	W, P
Т 310	In-Place Density and Moisture Content of Soil and Soil Aggregate by Nuclear Methods	C, L	W, P
T 209	Theoretical Maximum Specific Gravity (G _{mm}) of Asphalt Mixtures	С	
Т 166	Bulk Specific Gravity (G _{sb}) of Compacted Asphalt Mixtures Using Saturated Surface- Dry Specimens	С	
T 355	In-Place Density of Asphalt Mixtures by Nuclear Methods	C, L	W, P

Participating WAQTC members will require a performance examination on one of the two methods, AASHTO T 99 or AAASHTO T 180, which may require that a technician seeking employment in another Agency will have to demonstrate proficiency in the other method.

^{**} Performance exam consists of graphing Soil Moisture-Density Relations curves and calculations.

SAMPLING AND REDUCTION (SRTT) QUALIFICATION PROCESS FOR MATERIALS TESTING TECHNICIANS

Sampling and Reduction Qualification is designed for those technicians responsible for field sampling of aggregate, asphalt mixtures, and asphalt binder; and reduction of aggregate and asphalt mixture samples. Technicians include contractor and supplier quality control personnel, consulting engineering and materials testing firm personnel, quality assurance technicians, and public agency personnel.

The process for obtaining certification in Sampling and Reduction:

• Pass the written and performance examinations.

Course Length: approximately 2 days

Course Size: 12-15 recommended

Recommendation:

TEST METHODS FOR SAMPLING AND REDUCTION QUALIFICATION

AASHTO/ WAQTC	PROCEDURE	TRAINING Classroom (C) Laboratory (L)	EXAM Written (W) Performance (P)
R 90	Sampling Aggregate Products	С	W, P*
R 76	Reducing Samples of Aggregate to Testing Size	C, L	W, P
R 97	Sampling Asphalt Mixtures	С	W, P*
R 47	Reducing Samples of Asphalt Mixtures to Testing Size	C, L	W, P
R 66	Sampling Asphalt Materials	С	W

^{*} The technician may either be asked to physically sample materials or only to explain the sampling process during this portion of the performance examination.

ANNEX B EXAMPLE REGISTRATION FORM AND RIGHTS AND RESPONSIBILITIES AGREEMENT

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WAQTC TRANSPORTATION TECHNICIAN QUALIFICATION PROGRAM (TTQP) REGISTRATION FORM

Name:		Employer:			
Phone #:	_ · · · ·	Employer's Phone #:			
Email Address		Current WAQ	Current WAQTC Certification #:		
Check one:Original Certificat Do you possess a WAQTC Certific	cation from another agency?	ification No Yes, i	applicable) f Yes, from which	n agency?	
Desired certifications (select only	one certification area per reg	gistration form)	a		
			Cost		Cost
Aggregate Testing Technicia	n (AgTT)	Course & Exam	\$(Agency Fee) _	Exam Only	(Agency Fee)
Asphalt Testing Technician (AsTT)	Course & Exam	\$	Exam Only	\$
Asphalt Testing Technician I	I (AsTT II)	Course & Exam	\$	Exam Only	\$
Concrete Testing Technician	(CTT)	Course & Exam	\$	Exam Only	5
Self-consolidating Concrete Testing Technician (SCCTT)		Course & Exam	\$ _	Exam Only	\$
Sampling and Reduction Testing Technician SRTTI		Course & Exam	-	Exam Only	\$
In-Place Density Testing Tech	nnician (DTT)	Course & Exam		Exam Only	\$
Embankment and Base / In-Place Density		\$			
Embankment and Base / In-P	lace Density Testing Technicia	n (EBTT/DSD)			
		Course & Exam	-	Exam Only	5
Choose a course date and le		tion (only) date	× //		
First Cl	noice		Second (Choice	
Date	Location	T I	Date	Loca	tion
Technicians seeking Certification and Information Handbook (RP&I information. The registration for received at least two (2) weeks be number, and Certification informations upon successful commendations.	H) for Certification criteria, on should be submitted the efore the start of the course nation will be listed on the	prerequisites, other rough the Agency e or exam. The te WAQTC Web pa	r policies and reque contact shown be chnician's full na	nirements, and ge elow and must b ame, Certification	eneral e
Agency contact information.		Passed Certification Failed Certification			
		WAQTC CERT	TIFICATION NU	UMBER	
		Signature, AQC	Chair or Designed		

TRANSPORTATION TECHNICIAN QUALIFICATION PROGRAM RIGHTS AND RESPONSIBILITIES AGREEMENT

This document affirms that	(technician's name) ,
	res to be Qualified by the Transportation Technician Qualification (name of Qualification desired)
sanctioned along with others so test results for quality control are performing and reporting tests waccordance with the required test abide by all the terms of the TTO and as set forth by the contraction. Findings of negligence or abuse recommendation by the Agency Penalties, as prescribed herein, a defined as unintentional deviative erroneous results, or deviations letter of reprimand being sent to thirty (30) day suspension of Ce certification, and the fourth in pointentional deviations from apprending of abuse will result in a certification. Any subsequent fix Revocation or suspension of one Certifications held by the Techn person being ineligible for any many impose harsher penalties if warrings.	of these rights and responsibilities will be penalized upon Qualification Compute (AQC) and any appeal to the AQC Chair. may be assessed for Technician abuse or negligence. Negligence is one from approved procedures which may or may not cause to the TOP Brogram. The first finding of negligence will result in a both the employee and the employer, the second will result in a retification, the third in a one hundred eighty (180) day suspension of ermanent suspension of certification. Abuse is defined as oved procedures, or deviations to the TTQP Program. The first one (1) year suspension to permanent revocation of a Technician's ending of abuse will result in permanent revocation of certification. The certification will be considered a revocation or suspension of all ician. Permanent revocation of Certification will result in that TTQP Certification. The penalties are guidelines and the AQC may anted for findings of abuse or negligence.
	ware that both State and Federal laws may govern construction ted States Code, Section 1020, that in brief states that anyone -aid projects,
"Shall be fined not more than	\$10,000 or imprisoned not more than five years, or both."
Ι,	, have read, understand, and agree to abide by the rights,
(print name)	
responsibilities, and penalties as	sociated with receipt of this Certification.
Signature	
Date	