

HANDBOOK/ADMINISTRATIVE MANUAL

Introduction

This [handbook](#) will aid anyone seeking qualification in Nevada and provides the procedures as well as a listing of test methods covered under the NAQTC program. The Program currently consists of qualification in field materials testing procedures that are agreed to by NAQTC members in a number of technical areas related to transportation construction.

Purpose

The purpose of the qualification program is to improve the quality of the transportation products that the NAQTC provides. To accomplish this, participants have to demonstrate an ability to engage in quality control or quality assurance activities in transportation construction work under the jurisdiction of contracting agency members of the NAQTC.

Unless otherwise specified in the construction contract documents all NAQTC members that are contracting agencies will require that technicians who perform agency contract work have successfully completed the NAQTC qualification Program.

Objectives

To provide highly skilled, knowledgeable materials sampling and testing technicians.

To promote uniformity and consistency in testing.

To create a harmonious working atmosphere between public and private employees based upon trust, open communication, and equality of qualification.

DEFINITION OF QUALIFICATION (QUALIFIED)

Within the context of this guide and program the term **Qualification** is defined as the end product for someone who has successfully met the requirements, as defined elsewhere in this guide, in one of the technical areas in which NAQTC offers qualifications. These credentials are defined by NAQTC and require that the recipient demonstrates a level of knowledge and is eligible to perform work on certain transportation projects under the jurisdiction of the member contracting agencies or others that utilize this program. This definition does not in any way suggest an affiliation with any national or other organization that provides for similar credentials, or accredits organizations to provide for similar credentials in any like areas to those that are included in the NAQTC program.

NAQTC Apprenticeship Program

Quality Assurance: The Individual must pass the written exam in order to become an apprentice. The ratio will be one NAQTC qualified mentor to one apprentice. The apprentice must become NAQTC qualified (pass the performance test) within one year of the written exam.

Quality Control: The apprentice must be approved in writing by a licensed professional engineer. The ratio will be one NAQTC qualified mentor to five apprentices. The apprentice must become NAQTC qualified (pass both the written and performance tests) within one year of the being approved.

Who Must Be Qualified?

Persons responsible for sampling of materials, performing and reporting on tests, in any of the technical areas in which *Qualification* is offered (as defined elsewhere) on any project under the jurisdiction of one of the NAQTC contracting agencies must be qualified, unless otherwise designated in the contract document for that project.

Disclaimers

Qualification of an individual by the NAQTC indicates only that the individual demonstrated a certain level of competence on a written and/or performance examination in a selected field of activity. Members of the NAQTC that also are contracting agencies may require this *Qualification* of individuals performing activities specified in work contracts or other activities. Each individual or organization utilizing qualified individuals must make its own independent judgment of the overall competence of qualified individuals. The NAQTC specifically disclaims any responsibility for the actions, or the failure to act, of individuals who have been qualified through its program.

Candidates with Disabilities

Persons with disabilities and those who have special needs should notify the NAQTC representative at the time of registration so that appropriate accommodations can be made.

NAQTC Committee and Responsibilities

The Executive Committee is comprised of representative of each of the member agencies of the NAQTC. This committee is responsible for the mission, objectives, structure and policy decisions of the NAQTC and all final decisions concerning the operation of the qualification program. Operational guidance for this committee can be found in the NAQTC Bylaws.

Materials Testing Qualification Modules

Sampling and Density Module (SD): AASHTO R47, AASHTO R76, AASHTO T2, AASHTO T168, AASHTO T310, Nev. T335.

Aggregate Module (AG): AASHTO R58, AASHTO T2, AASHTO T11, AASHTO T27, AASHTO T89, AASHTO T90, AASHTO T255, AASHTO T84, AASHTO T85, AASHTO T176, AASHTO T180 / Nev. T108B, ASTM D5821, CT 227.

Asphalt Module (AS): AASHTO R47, AASHTO T30, AASHTO T166 OR T275, AASHTO T209, AASHTO T269, AASHTO T308, AASHTO T245, AASHTO R68.

Asphalt Extended Module (AE): AASHTO T164.

Specialized Test Module (ST): AASHTO R66, AASHTO T104, AASHTO T190, AASHTO T246, AASHTO T283, ASTM C837.

Concrete Module (C): NAQTC requires the American Concrete Institute (ACI) certification in the "ACI Concrete Field Testing Technician - Grade I."

Qualification Process

A written exam must be taken before an applicant can register to take the performance exam. Applicants who pass the written exam should take the performance exam **within one year** from the date of the written exam.

The following process should be followed:

- 1- Register to take the desired written exam.
- 2- If applicant passes the written exam for the NAQTC Module(s), he/she can apply for Performance test by mailing the application form for the desired performance exam with the applicable fee, state the location and attendance date ([see schedule](#)).
- 3- Fill out the "[Rights and Responsibilities Agreement](#)."
- 4- Attend the performance exam in its entirety.
- 5- Pass the performance exam.
- 6- Technicians must qualify in their area of expertise every five years.

ID Cards

Qualified individuals will be issued ID cards with personal information in the front and qualification information on the back indicating modules and dates.

Examination Administration

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

-1- Written Examination

- 1.a Effective August 2005, the NAQTC Written Exams will be OPEN BOOK.
- 1.b Five (5) questions minimum per test method including multiple choices, true or false, and calculations. Exams will be either Metric or English.
- 1.c Written exam must be completed within a prescribed time limit.
- 1.d Cell phones are prohibited during examination period.
- 1.e Test methods handed out during exams shall not be altered in any way or form.

-2- Performance Examination

- 2.a Each participant has to demonstrate proficiency in the designated test methods.
- 2.b Open procedure, but the examinee will not have access to the [performance exam checklist](#).
- 2.c Each procedure must be performed within a prescribed time limit.
- 2.d The examinee may be asked to explain various steps to the procedure to reduce the full test time. All test method time limits will take into account the reduction of time due to accelerated steps.
- 2.e Each test method will have a performance exam checklist with a "yes" or "no" by the examiner. f. Cell phones are prohibited during examination period. g. Test methods handed out during exams shall not be altered in any way or form.

-3- Passing Policy

- **Written Exam:** An overall exam score of 70% with a minimum of 60% on any one-test method is required. A passing grade in the written exam is valid for one year from the date of the exam. If the performance is not passed within the year, a new written exam must be taken and passed to qualify for taking the performance exam.
- **Performance Exam:** All performance checklists must have 100% “yes” checked in all boxes and each test method must be performed within the designated time limit

-4- Re-examination Policy

- **Written Exam:** Anyone failing the written examination on the first attempt is required to retake it and pass it. Individuals are allowed to retake the written examination as many times as needed. When you retake the exam you need to pay again the written examination fee.
- **Performance Exam:** Anyone failing a test method on the performance exam may repeat that test method during the day of the performance exam. Repeat trials will be allowed in not more than 50% of the total test methods in that module exam. Failure of any one of the prescribed test methods after two trials will constitute failure of the whole module exam. Anyone failing the performance examination on the first attempt is required to retake the performance examination and pass it.

Additional examination guidance can be found in the Program Management section of this *Handbook*.

Program Management

Qualification Registry

To be eligible for *Qualification*, each technician must complete a registration form and mail it to the address shown on the form with a check for the applicable fee, a signed and dated [Rights and Responsibilities Agreement](#), and applicable documentation of prerequisites. These materials must be received at least two weeks prior to the beginning of the written exam, or performance exam.

Rights and Responsibilities Agreement

All qualifications will be contingent upon the technician signing a [Rights and Responsibilities Agreement](#). This agreement will inform the technicians of the rights and responsibilities along with the consequences of the violation of these responsibilities. The technician will submit a signed agreement with their registration form.

Cancellation Policy

To hold a written exam or performance exam, 10 participants must register. If not enough participants registered, the written exam or performance exam may be cancelled. Applicants will be notified at least one-week prior to exam date if there is a cancellation. Applicants may request the fee to be refunded or to be enrolled in the next available written exam or performance exam.

Refund Policy

1. Written cancellation by the candidate within seven days will result in 50% of the fees being refunded.
2. Unforeseen documented emergency during the written or performance exams will result in no refund of fees but the candidate will be allowed to retake the written exam or performance exam, whichever is applicable, at a later date with an additional fee of 30% of the module cost.
3. No refund of fees will be made for failure to successfully complete the examination portions of the qualification process.

Examination

As part of the *Qualification* process, each technician will be required to pass both written and performance examinations which are designed to demonstrate knowledge and understanding of the test procedures. Written exam administrators and performance exam examiners will thoroughly explain to the participants what the exams will entail and the examination rules prior to the beginning of the exams.

It is envisioned 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 module will require re-examination and a passing grade in the exam(s) failed, if *Qualification* is still desired, subject to the criteria described herein.

Written Examination

The written examination will consist of multiple-choice questions, some requiring calculations and some requiring true/false answers. All questions require basic reading comprehension and detailed knowledge of the test method procedures. Effective August 2005, the NAQTC Written Exams will be OPEN BOOK. Every participant will be given a packet of all the test methods at the beginning of the written exam to be used during the exam. The packet will be collected with the exam answers sheet at the end of the exam. No technical materials or notes are allowed in the room during the examination. A battery-powered pocket calculator may be brought to the examination. Calculators may not be shared. The individual must bring No. 2 pencils and erasers.

All written exams will be administered within a specified time frame. At the end of the designated period all exams and used scratch papers will be collected by the exam administrator. Scratch papers will be destroyed. Exam scores will remain confidential. The written exam material is not to be discussed with, or provided to, any unauthorized individual. The exam will be scored upon exam completion and only at that time the participants can check their mistakes. Only the names of technicians who successfully pass a module will be posted on the web at [Exams Calendar/Results](#) no later than the end of the third business day

Performance Examination

The performance examination may be taken with the test procedure open for reference. However, referral to the [exam checklist](#), or any notes or other material reflecting the content of the checklist, by the examinee will not be permitted during the exam. Each procedure will be completed within the time limit designated for that method. The participant will be required to successfully perform all steps of the designated test procedures for the particular qualification module, with the exception that an examinee may be asked to explain various steps to a procedure in order to reduce the total test time. All test method time limits will take into account the reduction of time due to accelerated steps. An individual may be required to verbally describe the procedures for sampling of a material if performance of the method is not practical or feasible.

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 examinee 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% of the total test methods in that performance exam (*The examinee 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. All steps of the method must be performed, except that certain steps may be accelerated when properly explained by the examiner. The examiner may not respond to questions or assist in the performance of the method.

Immediately after completion of the test method, the examiner will tell the individual if he/she passed or failed that trial. If a failure 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 occurred, nor will he/she 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 third 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.

Examination Materials Security

This policy applies to:

- All written examination materials, including blank exams, completed exams, and answer keys, and
- Examiner's scoring checklist for performance exams.

Examination materials will be kept secure and confidential at all times. Violation of examination security can compromise the exam, and destroy its integrity and validity as a qualification instrument. The definition of secure in this document implies that materials will be kept under lock and key, except when being utilized in an official manner, and only those individuals having authority as described elsewhere in this document have access to the documents. At such times as these documents are removed from a locked location, they will remain in the immediate possession and view of the authorized person only, and will not be made available for possession or viewing by others.

Exam security must be maintained throughout all aspects of life of exam materials, including:

- Development and validation of new exams or questions.
- Reproduction of exam materials.
- Storage of blank exam materials and answer keys.
- Administering and scoring exams.
- Storage of completed exams for a period of 6 months.
- Destruction of old exam materials.

Access to exam materials and answer keys is limited to the following personnel, when and as needed in carrying out their responsibilities in the qualification program:

- Program administrative personnel in the inventory, storage, and reproduction of the exam materials.
- Examination administrators, scorers, or performance exam examiners in the administration and scoring of exams.
- Program administrative personnel in the recording of exam results, storing completed exams, and destroying old exams.
- Individuals or subject-matter experts who are assigned and authorized by the NAQTC to review, assess, update, revise, and validate exam materials.

The consequences for those individuals found violating the security of qualification examination materials will be:

- Written reprimand if the violation is by negligence and the requirement to attend an orientation session.
- Banning from any future association with the program, if the violation is willful or intentional.

Any disciplinary action or dismissal associated with serious violations will be determined according to the policies and procedures of the employer of the offending party.

Retention of Written Examination

All used exam materials, both passing and failing, will be retained in conformance to guidelines contained in the section entitled "Examination Materials Security," by the agency providing the qualification examination.

Participant Notification

Participants will be notified in writing as to whether or not they obtained the *Qualification*. If the participant did not obtain the *Qualification*, instructions will be included with information about re-taking the tests. If the participant is not notified within two-weeks, he /she may call 775-784-1433.

Qualified Technician Registry

Within 10 working days after completion of any qualification module, the agency conducting the *Qualification* exams will log each participant who successfully completed the *Qualification* requirements on the **Qualified Technician Registry**, which is linked, to the NAQTC Website. The required information to be logged in the appropriate field is:

1. A unique qualification number.
2. The participant's full name.
3. The area in which the *Qualification* was received designated by: Sampling & Density (SD), Aggregate (AG), Asphalt (AS), Asphalt Extended (AE), Specialized Tests (ST)
4. The month and year of the *Qualification* expiration - (the last day of the month in which the *Qualification* was received in the fifth year after received).

Instructor Qualification

Instructors must meet the following guidelines:

1. Extensive experience in the test methods contained in the *Qualification*.
2. Experience and demonstrated ability in proctoring and communicating with participants.
3. Exhibition of a positive attitude while interacting with others.
4. Willingness to uphold the high standards set by the program and to follow the policy guidelines.

Instructors should complete an orientation session presented by a NAQTC representative. Future instructors should also complete the qualification module in which they will be instructing. The agency should maintain a list of those individuals that meet the requirements to act as instructors in each qualification module.

Course or Exam Administrator, Scorer, and Examiner Qualifications

Only those individuals that have attended a program policies and procedures orientation session, conducted by a representative of the NAQTC should administer or score written exams. It is not required that the same party that administers the written exam also scores it. Performance exam examiners should possess considerable experience in performing general materials testing and methods that they will be proctoring. In addition, they should demonstrate the same willingness to uphold the standards of the NAQTC. Furthermore, examiners should not be in the chain of command of those being qualified, nor should they be related. Future examiners also should have successfully completed the qualification module that they will be proctoring. NAQTC should also hold instructional sessions to ensure that each performance exam examiner proctors the exams in exactly the same manner. The NAQTC should maintain a registry of all administrators, scorers, and examiners that have met the requirements to perform such functions.

Orientation

All persons participating in any capacity in the administration of the NAQTC should be required to attend a NAQTC orientation session presented by a member of the NAQTC. The session should cover the appropriate sections of the *Administrative Manual*, the intent and scope of the NAQTC, the responsibilities of the party(s) attending the orientation, and how they fit into the scope of the program. The content and thoroughness of the orientation may be tailored to the responsibilities of the person within the program. NAQTC should maintain a registry of all persons that have completed this orientation.

Agency Qualification Committee (AQC)

1. Each member of the NAQTC Executive Board will serve as members in a “pool” for the AQC.
2. Each complaint received by the AQC, will have a different 3 member “seated panel” which provides for the least bias possible. It is assumed that any given complaint will involve, one agency and one consultant or contractor, therefore those factions of the Board will not be represented in that particular “seated panel.”

When the Complaint Involves			The Panel Will Include
RTC - Southern Nevada	AND	Contractor	ACEC - North
			NDOT
			RTC - Washoe County
RTC - Southern Nevada	AND	Consultant	AGC - North
			NDOT
			RTC - Washoe County
RTC - Washoe County	AND	Contractor	ACEC - North
			NDOT
			RTC - Southern Nevada
RTC - Washoe County	AND	Consultant	AGC - North
			NDOT
			RTC - Southern Nevada
NDOT	AND	Contractor	ACEC - North
			RTC - Washoe County
			RTC - Southern Nevada
NDOT	AND	Consultant	AGC - North
			RTC - Washoe County
			RTC - Southern Nevada

Updates to the Registration, Policies and Information Handbook

As changes to the program occurs, or other updates are required, the new information will be posted on the NAQTC Website or you may call the NAQTC office. Every effort will be made to make current information available to everyone. However, it is the responsibility of the *Qualification* holder to keep current on new issues and to provide the appropriate representative with address and employer changes if required.