

# Video Training Course Student Workbook

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## Unit I - Introduction and Overview

This handbook is designed as a resource to use as a reference when conducting a Q.E.D.® Saliva Alcohol Test. This unit provides you with the goal and objectives of the training as well as background information on the alcohol misuse prevention rules.

### TRAINING GOAL

The goal of this training is to prepare Screening Test Technicians (STT) to conduct Q.E.D.® Saliva Alcohol Tests in accordance with the U.S. Department of Transportation's (DOT) Alcohol Testing Rules (Rules).

### TRAINING OBJECTIVES

Upon completion of STT training, you will be able to:

- Explain the Q.E.D.® saliva test methodology, operation, and Quality Assurance Protocol,
- Describe saliva analysis for alcohol content,
- Explain the transportation workplace alcohol testing program,
- Demonstrate the procedures for obtaining a saliva sample, interpreting the Q.E.D.® test, and recording test results, and
- Demonstrate proficiency in testing with the Q.E.D.® for alcohol testing.

### BACKGROUND ON DOT'S OPERATING ADMINISTRATION ALCOHOL RULES

#### What are they and who is affected?

The Rules require alcohol misuse prevention programs, including breath testing and education, for more than seven million transportation workers with safety-related duties. The modes of transportation that issued alcohol rules for their regulated industries are:

- the Federal Aviation Administration (FAA) - aviation,
- the Federal Highway Administration (FHWA) - commercial motor carriers,
- the Federal Railroad Administration (FRA) - railroad,
- the Federal Transit Administration (FTA) - transit, and
- Research and Special Programs Administration (RSPA) - pipeline.

- If they refuse to submit to a required alcohol test.
  - If they use alcohol within 8 hours after an accident when their involvement has not been discounted as a contributing factor or before they are tested, or
  - Within four (4) hours after using alcohol (8 hours for flight crew members and air traffic controllers),
  - While using alcohol on the job,
  - When a Q.E.D.® Saliva Alcohol Test result indicates an alcohol concentration of 0.02% or greater,
- The Rules prohibit covered employees from performing safety-sensitive functions:

#### Prohibitions of Rules

- Return-to-duty and follow-up return-to-duty tests: conducted before an individual who has violated the prohibited alcohol conduct standards completes any recommended treatment and returns to performing safety-sensitive duties. Follow-up tests are unannounced, and at least six tests must be conducted in the first 12 months after an employee returns to duty. Follow-up testing may be extended for up to 60 months following return to duty.
  - Post-accident: conducted after accidents on surviving employees whose performance could have contributed to the accident.
  - Reasonable Suspicion: conducted when a trained person observes behavior or appearance that is characteristic of alcohol misuse.
  - Random: conducted on a random basis just before, during, or just after performance of safety-sensitive functions.
- The following alcohol tests are required by the Rules:

#### Saliva Alcohol Tests Required

The purpose of the Rules is to deter alcohol misuse in the transportation industry.

#### Purpose of Rules

Examples of safety-sensitive employees include pilots, flight attendants, airline mechanics, truck drivers, school bus drivers, railroad engineers and dispatchers, mass transit operators, dispatchers and mechanics, as well as pipeline maintenance personnel.

## Consequences of Violation

If found in violation, safety-sensitive employees are subject to the following:

- Employees must be immediately removed from safety-sensitive functions. This does not mean they have been fired, only that they cannot perform their safety-sensitive duties.
- Employees cannot return to safety-sensitive duties until they have been evaluated by a substance abuse professional (SAP), successfully completed any recommended treatment, and passed a return-to-duty test.

- Employees who have a confirmed alcohol concentration in the range of 0.020-0.039% when tested, must be removed from performing safety-sensitive duties for eight (8) hours or until a Q.E.D.® Alcohol Test result is below 0.02%. This is not a Rule violation but a temporary removal necessary to ensure safety. An SAP evaluation is not required. It should be noted that the Federal Railroad Administration does not allow retesting if alcohol is found in any concentration.

- Commercial motor vehicle drivers having a confirmed alcohol concentration in the range of 0.020-0.039% must be removed from driving for at least 24 hours. Covered railroad employees also do not have a retest option.

- Saliva alcohol testing may be administered by a Breath Alcohol Technician (BAT) or a Screening Test Technician (STT) who has successfully completed a DOT-approved training course on the Q.E.D.® Saliva Alcohol Test. As an STT, you are responsible for conducting saliva alcohol tests in accordance with DOT guidelines. An STT may only conduct a screening test. However, a BAT, who is trained to use the Q.E.D.® device, may conduct screening and confirmation tests.

## Unit II - Q.E.D.® Saliva Methodology

This unit explains what the Q.E.D.® Saliva Alcohol Test device is, how it measures alcohol concentration, and how results are interpreted (and recorded).

### THE Q.E.D.® A150 SALIVA ALCOHOL TEST

The Q.E.D.® A150 Saliva Alcohol Test device from Orasure Technologies, Inc., Bethlehem, PA, is to be used for saliva alcohol testing.

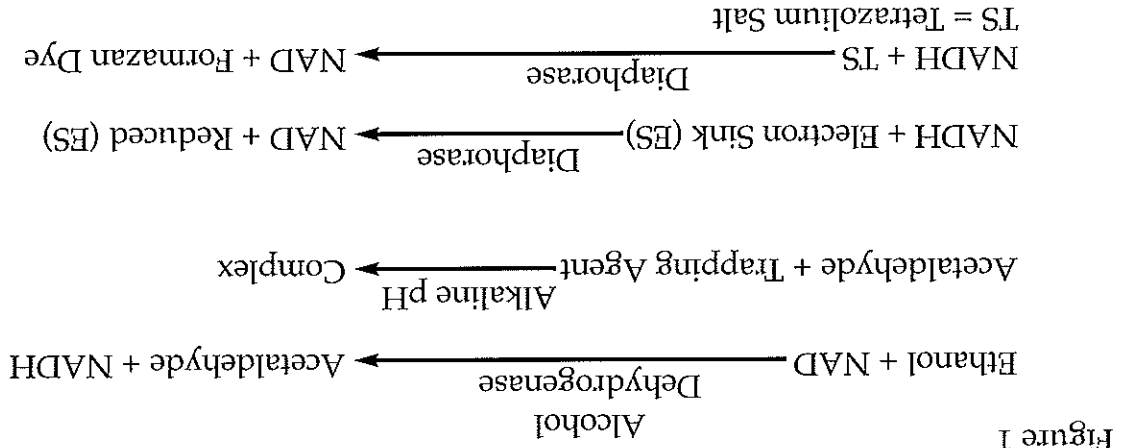
### What is the Q.E.D.®?

The Orasure Technologies Q.E.D.® Saliva Alcohol Test is intended for the rapid, accurate, quantitative determination of alcohol in saliva.

The Q.E.D.® Saliva Alcohol Test uses alcohol dehydrogenase to catalyze the oxidation of ethanol to acetaldehyde, with the simultaneous reduction of nicotinamide-adenine dinucleotide (NAD). An alkaline pH and an acetaldehyde trapping agent force the reaction to generate one mole of NADH for each mole of alcohol present.

In the presence of diaphorase, FeCN [an electron acceptor (EA)], and MTT dye [also an electron acceptor (EA)], all of which are incorporated onto the film strip, the NADH causes a purple-colored end product to be formed. The length of the resulting purple-colored bar on the Q.E.D.® device is directly proportional to the concentration of ethanol in the specimen.

### Chemical Reaction Sequence



### REAGENTS

Each Q.E.D.® Saliva Alcohol Test contains alcohol dehydrogenase, diaphorase, NAD<sup>+</sup>, FeCN, and MTT dye, all of which are immobilized on a solid substrate.

**REAGENT PREPARATION AND STORAGE**

Q.E.D.® Saliva Alcohol Tests are ready-to-use. No additional preparation is required.

Store and use Q.E.D.® at room temperature 15-30°C (59-86°F).

Open the foil pouch immediately prior to use. Discard any test in which the desiccant pack has turned pink. Discard the desiccant pack.

The central strip of the device and QA Spot™ at the closed end of Q.E.D.® should not be purple. If there is purple color in these areas, discard the device.

An unopened Q.E.D.® test is stable until the date printed on the product container when stored at 15-30°C (59-86°F). Once the pouch has been opened, Q.E.D.® must be used immediately.

**WHEN IS THE Q.E.D.® USED?**

The Q.E.D.®, listed on the NHTSA Conforming Products List (CPL), may only be used as a screening test for alcohol.

**SCREENING TEST**

All transportation safety-sensitive employees are subject to a screening test in various circumstances (e.g., random, reasonable suspicion, post-accident, return-to-duty, and follow-up).

**CONFIRMATION TEST**

Employees are subject to a confirmation test using an evidential breath tester (EBT) when the result of a Q.E.D.® screening test is 0.02% or greater.

## Unit III - Preparing for a Screening Test

This unit will make you aware of the functional requirements for the Q.E.D.® and the purpose of Orasure Technologies' Quality Assurance Plan (QAP). You will also learn about the requirements for testing locations, the DOT Alcohol Testing Form, and when they must be used.

### Q.E.D.® FUNCTIONAL REQUIREMENTS

Safety-sensitive employees are subject to screening tests and may be subject to a confirmation test. The Q.E.D.® may be used as a screening test while an EBT **MUST** be used for confirmations. A confirmation device (EBT) can be used for a screening test, but a screening device, such as the Q.E.D.® and some breath testing devices may **not** be used as a confirmation test. See the DOT's Conforming Products List (CPL).

### QUALITY ASSURANCE PLANS (QAP) FOR THE Q.E.D.®

**What is a QAP?**  
A QAP is a set of criteria used to confirm that steps have been taken, by the manufacturer to provide standards for ensuring the accuracy of each device used for testing.

Each screening device used for alcohol testing must have a QAP developed by the manufacturer and approved by the DOT.

### **Contents of the QAP...**

The QAP must:

- Designate the method or methods to be used to perform external calibration checks of the device;

- Specify the minimum intervals for performing external calibration checks of the device (i.e., how often external calibration checks must be performed to ensure the accuracy of the Q.E.D.® devices);

- Specify the tolerances on an external calibration check within which the device is regarded to be in proper calibration; and

- Specify inspection, maintenance, and calibration requirements and intervals for the device.

### **Who is Responsible for the QAP?**

The manufacturer is responsible for developing a QAP for each device used for alcohol screening or confirmation testing. DOT is responsible for approving a manufacturer's QAP. The employer is responsible for complying with the DOT-approved QAP for the device used for testing.

# Orasure Technologies, Inc.

150 Webster Street, Bethlehem, PA 18015-1389  
Phone: (610) 882-1820 • Fax: (610) 882-1830

## QUALITY ASSURANCE PLAN for Q.E.D.® A150

The following Quality Assurance Plan (QAP) is provided by Orasure Technologies, Inc., for use with the Q.E.D.® A150 Saliva Alcohol Test. The procedures below are designed to assure the proper working order for the Q.E.D.® A150 test.

Store Q.E.D.® tests at room temperature (15-30°C, 59-86°F). The shelf life for the Q.E.D.® A150 is a minimum of 15 months from the date of manufacture. The shelf life for a Q.E.D.® A150 Ethanol Control is a minimum of 18 months from the date of manufacture.

The functionality and stability of the Q.E.D.® test can be determined by examination of the QA Spot™ located at the closed end of the device. The QA Spot™ will turn dark purple within 5 minutes after the device has been completely filled with saliva or control solution. The purple color indicates that the device has been properly filled and that the chemical reagents contained in the device are fully functional.

In the unlikely event that the QA Spot™ does not turn dark purple within 5 minutes, the test results should be considered invalid. Repeat the test using a new Q.E.D.® device; be sure to completely fill the device with sample or saliva.

### MATERIALS REQUIRED

- 1 Q.E.D.® A150 Saliva Alcohol Test (from Product #31150)
- 1 Q.E.D.® Ethanol Control - (For DOT - Product #31050; others - Product #31150S)
- 1 Quality Control Record Form (Included)

### FREQUENCY OF QUALITY CONTROL CHECKS

The following Quality Control procedure shall be performed prior to using a new lot of Q.E.D.® devices.

### PROCEDURE FOR QUALITY CONTROL CHECKS

Quality Control materials are useful in determining assay reliability and performance. Orasure Technologies recommends the use of a positive control prior to using a new lot of Q.E.D.® devices. Because ethanol is not normally present in the body in measurable quantities, normal saliva contains essentially no ethanol. Use the Orasure Technologies Q.E.D.® Ethanol Control as the positive control.



## INSPECTION REQUIREMENTS

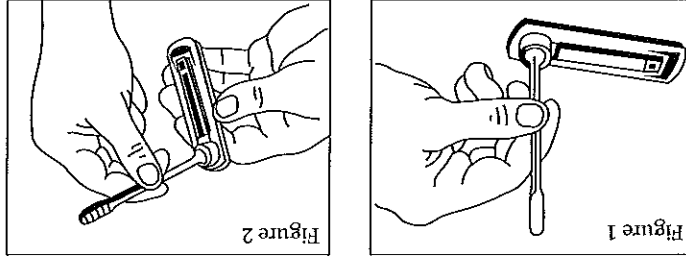
A visual inspection should be made of each test device and control sample.

1. Inspect the foil pouch for perforations or punctures. Check the expiration date. Do not use any device beyond its expiration date.
2. Open the pouch. Inspect the desiccant and discard the device if the desiccant is pink.
3. Inspect the Q.E.D.® device. Discard any test device if there is a dark color in the capillary or area of the QA Spot™.
4. Inspect the control sample label. Do not use a control sample beyond its expiration date.

## QAP TESTING PROCEDURE

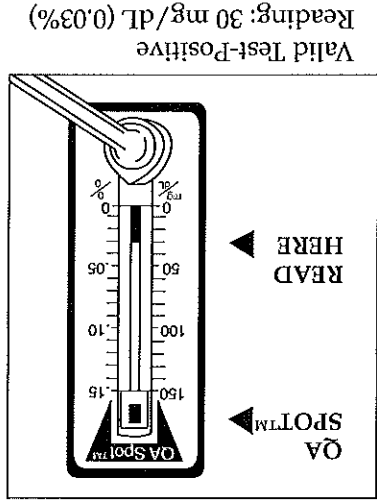
1. Remove the Q.E.D.® to be used from the foil pouch immediately prior to use. Discard any test in which the desiccant pouch has turned pink, or in which the central strip of the device or QA Spot™ is dark purple. Do not use any test beyond its expiration date.
2. Using the Q.E.D.® Ethanol Control as the sample, "collect" a positive sample by dipping the collector into the container until saturated. (Immediately replace the cap on the control container.) Do not use any control sample beyond its expiration date.
3. There are two (2) acceptable methods for filling the Q.E.D.® device:
  - A. Place the Q.E.D.® on a flat surface (Figure 1). Insert the collector into the entry port; then apply gentle but steady pressure until the orange-pink fluid reaches the QA Spot™ at the opposite end of the device.
  - B. Or, hold Q.E.D.® at an angle, as shown (Figure 2). Insert the collector and apply gentle but steady pressure until the orange-pink fluid passes the QA Spot™. Place the device on a flat surface while the test develops.

## Filling the Capillary



With either filling method, the key is to apply gentle but steady pressure and watch the capillary fill. The background color should appear orange-pink after the capillary is filled.

Note: Do not pick up the Q.E.D.® until the test is complete. Do not remove the swab after it has been inserted. Removal and reinsertion of the swab may cause bubbles to form in the device and may make the test result difficult to read.



## Interpreting Test Results

QA Spot™: The QA Spot™ on the Q.E.D.® device test must turn dark purple.

Ethanol	0.02-0.05%
CONSTITUENT	EXPECTED RANGE

EXPECTED RANGE (D0T)

Ethanol	0.075-0.130%
CONSTITUENT	EXPECTED RANGE

EXPECTED RANGE (A150)

All results should be recorded on the Quality Control Record form (included).  
 The package insert provided with the Orasure Technologies Q.E.D.® Ethanol Control will contain information on the expected range. The expected range will be stated on the package insert as follows:

**EXPECTED RESULTS**

Alcohol levels of less than 0.01% (10 mg/dL) should be reported as negative for alcohol.

There is no need to correct the Q.E.D.® result to account for the 1.075:1 distribution between alcohol levels in saliva and blood.  
 The bar is directly proportional to the concentration of ethanol in the sample. The Q.E.D.® test device has concentration scales in both mg/dL and %BAC.

**READING TEST RESULTS**

Test results are read directly from the Q.E.D.® test device at the end of the colored bar. The length of the bar is directly proportional to the concentration of ethanol in the sample. The Q.E.D.® test device has concentration scales in both mg/dL and %BAC.  
 5. Compare the Q.E.D.® test result to the expected range published in the ethanol control package insert. Record the Q.E.D.® results on the Quality Control Record Form provided. (A sample form is included.) The result should be within the expected range. If not, conduct a second test. If two tests fail, contact the manufacturer.

Discard tests in which the QA Spot™ is not dark purple after five (5) minutes.  
 Bubbles in the device may make the test result somewhat difficult to interpret but do not affect the accuracy of the test result. Even if bubbles appear in the device, read the alcohol concentration from the point on the scale where the purple bar stops. In rare circumstances, however, an air bubble will appear at the top of the purple bar of a positive alcohol test. This prevents the accurate measurement of the true alcohol level in the space occupied by the air bubble. This should be interpreted as an invalid test and be discarded. Repeat the testing process using a new device.

4. After two (2) minutes, examine the QA Spot™ located at the closed end of the device. The QA Spot™ should be dark purple. Read the alcohol concentration from the scale on the right side of the device (%) at the point where the purple bar stops at 2 minutes. In the unlikely event that the QA Spot™ does not turn dark purple within 5 minutes, the test results should be considered invalid.



When do you use a log book?  
Under the current DOT Rules, there are no requirements for a log book.

### LOG BOOK

There are no exceptions.

When do you use a DOT Alcohol Testing Form?  
A DOT-approved Alcohol Testing Form must be used for each test conducted for employees in regulated industries. The use of a DOT Alcohol Testing Form for alcohol testing programs by non-regulated or "company-administered" policies is not permitted.

- Copy 1 is for the employer,
- Copy 2 is given to the employee, and
- Copy 3 is for the STT.

There are three copies to the DOT Alcohol Testing Form:  
DOT ALCOHOL TESTING FORM

4. Only one employee is to be tested at a time. The STT may not leave the alcohol testing location while the testing procedure for a given employee is in progress.
  3. No unauthorized persons are permitted access to the testing location when Q.E.D.®s remain unsecured or, in order to prevent such persons from seeing or hearing a testing result, at any time when testing is being conducted. An unauthorized person would be a person who is not being tested or directly involved in administering the test.
  2. All necessary equipment, personnel, and materials for Q.E.D.® saliva testing must be provided at the location where testing is conducted.
  1. In unusual circumstances, for example, when it is essential to conduct a test outdoors at the scene of an accident, a test may be conducted at a location that does not fully meet the requirements for aural and visual privacy. In such a case, the employer or STT must provide privacy to the employee to the greatest extent possible.
- An example of a location could be a private office, or even a mobile collection facility, such as a van equipped for alcohol testing, that provides aural and visual privacy.
- In unusual circumstances, for example, when it is essential to conduct a test outdoors at the scene of an accident, a test may be conducted at a location that does not fully meet the requirements for aural and visual privacy. In such a case, the employer or STT must provide privacy to the employee to the greatest extent possible.
1. A Q.E.D.® screening/testing location must provide sufficient aural and visual privacy for the person being tested to prevent unauthorized persons from seeing or hearing test results.

### SALIVA ALCOHOL TESTING LOCATIONS Location Requirements:

## Unit IV - Conducting a Q.E.D.® Screening Test

This unit will provide detailed instructions on how to properly conduct a screening test using the Q.E.D.® device.

### MATERIALS/CONDITIONS REQUIRED FOR EACH TEST

Q.E.D.® A150 Saliva Alcohol Test

1 Q.E.D.® A150 Product Instructions

1 DOT Alcohol Testing Form

Room Temperature should be 15-30°C (59-86°F)

Gloves (optional)

### THE FIRST STEPS FOR Q.E.D.® SALIVA TESTING

#### Step 1

- Check donor identification.

- Complete Step 1 on Alcohol Testing Form.

#### Step 2

- Explain test procedure.

*"I will conduct an alcohol screening test today. After you sign this form, you will provide a saliva sample. I will record your results on the form; if they are 0.02% or greater, you will be required to take a confirmation test."*

- Donor signs Step 2 on the Testing Form.

#### Important Reminders:

▪ Donor should not have anything in his or her mouth for 10 minutes prior to swabbing.

▪ Inspect device pouch for punctures and expiration date.

▪ Open package with the Q.E.D.® label facing you.

▪ Do NOT let the cotton swab come in contact with your hand or any surface.

▪ Desiccant crystals should be blue, not pink.

#### Step 3

- Check "ST" and "Saliva" boxes.

- Assign a unique test number.

- Write "Q.E.D.® A150" for the device name.

- Record the lot number and expiration date.

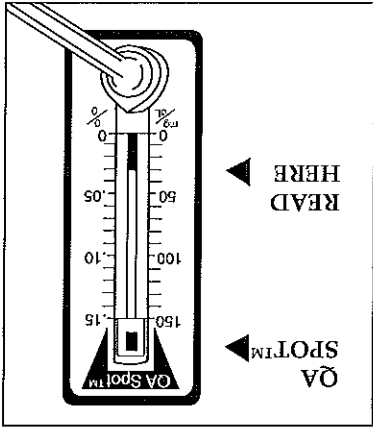
Donor collects his or her own saliva by:

- Swabbing between the cheek and gums.

- Starting with the upper gums (parotid gland).

- Swabbing for a minute to fully saturate the cotton.

Valid Test-Positive  
Reading: 30 mg/dL (0.03%)



Interpreting Test Results

With either filling method, the key is to apply gentle but steady pressure and to watch the capillary fill. The background color should appear orange-pink after the capillary is filled.

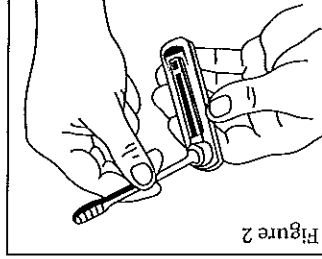


Figure 2

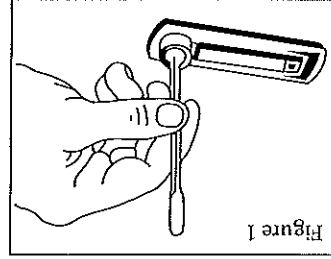


Figure 1

Filling the Capillary

- No special disposal is required. The Q.E.D.® test is not biohazard (OSHA).
- Wrap the test and swab in the pouch or gloves, if worn.

Disposal:

*If the donor has taken the test but does not want to sign Step 4, it is not considered a refusal since testing has been completed. The STT must, however, make a note in the "Remarks" section in Step 3.*

- Show the results to the donor.
- The donor signs Step 4 (required for all positives).

Step 4

- Record "Reading Time" and "Results".
- Sign Step 3 of Alcohol Testing Form.

Step 3 (completion)

- Read 2 minutes after the "Activation Time".
- The QA Spot must be dark purple.
- Read highest point of the purple color bar.
- Use the % scale on the right; each mark represents 0.01%.
- Record results between marks as "greater than" the lower hash mark value.
- Bubbles do not affect the performance of the test.

Reading the Q.E.D.® test:

- Record the test "Activation Time".
- Gently twist the cotton into the entry port and apply easy pressure.
- The sample should fill to the QA Spot.
- Receive collection wand from the donor.

Filling the Q.E.D.® test device

- Distribution of the forms:
- Employer gets Copy 1
- Donor gets Copy 2
- STT keeps Copy 3

Disposition:

- Below 0.02%: testing is completed, donor is released.
- At or above 0.02%, donor must go on for confirmation.

Confirmation tests:

- Inform the donor that a confirmation test is required.
- Donor may not put anything into his or her mouth.
- STT or designee escorts the donor to the confirmation site.
- Breath Alcohol Technician (BAT) does the confirmation.
- A 15 minute wait is required before conducting the confirmation test.
- The donor must be observed by the STT or a designee.

**REVIEW - RECORD THE Q.E.D.® RESULTS ON STEP 3 OF THE DOT ALCOHOL TESTING FORM AS FOLLOWS:**

- Test No.: Enter the sequential number of the tests. For example, the first test administered on April 20, 1995 could be recorded as 5042001. The fifth test would be 5042005.

Testing Device Name: Q.E.D.® Saliva Alcohol Test — A150

- Testing Device Serial No.: Record the Q.E.D.® Lot Number and Expiration Date. Both are found on the back of the foil pouch.

Time: Record the time the Q.E.D.® test result is read. Circle AM or PM.

- Result: Record the result (example, 0.00%, 0.02%, 0.04%, etc.) It is important to enter the test result as indicated on the right side of the Q.E.D.® device. If the result is between "hash marks," the result should be recorded as "greater than" the lower hash mark. For example, a result between the 0.01% and 0.02% hash marks would be recorded as "greater than 0.01%."

- Remarks: The following information must be recorded:
  1. "Test conducted with saliva screening device."
  2. "Test activation time: \_\_\_\_\_." This is the time when the sample reaches and activates the Q.A Spot™ - which begins the 2 minute countdown to reading the result.

If the result of the Q.E.D.® screening test is an alcohol concentration of 0.02% or greater, a confirmation test must be performed using an evidential breath testing device (EBT). The EBT confirmation test should be performed within 30 minutes, and the STT or a company representative must accompany the employee to the location of the EBT.

6. Keep Copy 3.

5. Forward Copy 1 to the employer.

4. Provide Copy 2 of the Form to the employee.

3. No further testing is authorized.

• When the employee has already taken the Q.E.D.® test but does not want to sign the Form, it is not considered a refusal, but you must make note of the failure to sign or initial in the "Remarks" section of the Form.

2. Have the employee sign the certification and fill in the date in Step 4 of the Form.

1. Date and sign the certification in Step 3 of the Form.

When the result of the Q.E.D.® screening test is an alcohol concentration of less than 0.02%:

**COMPLETING THE SCREENING TEST**

1. Obstacles to completing the test;
2. Individuals (i.e., lawyer) other than employee present at time of test;
3. Source of Q.E.D.® device if provided by individual other than STT, such as, a post-accident kit;
4. Proper employee identification issues;
5. Refusal to sign the DOT Form in Step 2 and/or Step 4.

• Remarks: Record any unexpected events that occurred during testing including but not limited to the following examples:

**REVIEW - RECORD THE Q.E.D.® RESULTS ON STEP 3 OF THE DOT ALCOHOL TESTING FORM AS FOLLOWS: (Continued)**



## Sample Situations:

1. Five employees show up randomly, and the first one tested has a Q.E.D.® test result of 0.02% or greater. What do you do with the remaining four?  
Complete the confirmation of the first test on an BBT before testing the second employee. Each test must be completely finished before going on to the next test.
2. If you conduct Q.E.D.® alcohol tests and urine drug tests and several employees show up for their "tests," how do you know who gets what test?  
You should request a list from the employer which lists the names of the employees to be tested and the type of test (alcohol and/or drugs) they are to receive.
3. The employee does not have a photo i.d. and there is no employer representative available to positively identify the employee?  
If the employee cannot be positively identified by a photo i.d. or by an employer representative, the test cannot be conducted. Exception: if the employee is an independent, self-employed individual and has no photo i.d., notify the collection-site supervisor and record in the "Remarks" section of the Form that positive identification is not available. Request that the employee provide two items of identification bearing his/her signature with the identification provided earlier. If the signatures appear consistent, continue the testing procedures. If the signature does not match signatures on the identification presented, make an additional note in the "Remarks" section of the Form stating that "signature identification is unconfirmed."
4. The employee requests to have a union or legal representative present during the testing?  
If the employer's policy permits such practice, it is permissible as long as the union or other representative does not disrupt or interfere with the collection process. Having to delay testing to wait for the representative would be disruptive and should not be done.
5. Once testing procedures have begun, the employee says that he/she is leaving and then leaves. What do you do?  
If the employee leaves once the testing procedure has begun, it is considered a refusal to test. Make a note in the "Remarks" section of the Form saying that the employee left, and then immediately inform the employer.

## Unit V - Obstacles to Completing a Test

This unit provides the procedures to use when encountering any of the following situations:

- Test refusal
- Uncompleted tests
- Invalid tests

### Test Refusal

Test refusals include when an employee refuses to:

1. Complete and sign Step 2 of the DOT Alcohol Testing Form.
2. Provide saliva.
3. Provide an adequate amount of saliva (e.g., taking the collector out of the mouth too soon).
4. Cooperate with the testing process in a way that prevents the completion of the test.

What do you do when confronted with a refusal?

1. Note refusal in the "Remarks" section of the Form.
2. Terminate the testing process.
3. Immediately notify the employer.

### Uncompleted Tests

Examples of uncompleted tests include:

1. A screening or confirmation test that cannot be completed (e.g., fire alarm, etc.).
2. Employee unable to provide a sufficient amount of saliva.
3. STT unable to fill device all the way to the QA Spot™.

What do you do when you have an uncompleted test?

1. If the **employee** fails to collect enough saliva, note in the "Remarks" section of the DOT Alcohol Testing Form and have the employee sign the certification in Step 4 of the Form. Open a new Q.E.D.® device and the STT attempts to collect the sample. Use a new DOT test form.

2. If the STT is unable to collect enough sample, note the attempt in the "Remarks" section, and have the employee sign the certification in Step 4. The employee should be escorted to the confirmation location by the STT or a company representative. A Breath Alcohol Technician (BAT) must then administer a breath test using an evidential breath test device (EBT).

**What if...**  
A device is malfunctioning and there are no backup Q.E.D.®s on hand.

Cancel the test. Make note in the "Remarks" section of the Form that the test has been canceled due to the malfunctioning of the device. Call your supervisor and/or notify the employer.

**Invalid Tests**

When is a test invalid?

An alcohol test is invalid under the following circumstances:

1. Test results are read before two (2) minutes.
2. The QA Spot™ is not purple or when the test results are not clear after five (5) minutes.
3. A Q.E.D.® device is used after the expiration date.

**What do you do?**

1. If practicable, begin a new screening test. You will have to use a new Q.E.D.®
2. Use a new Dot Alcohol Testing Form with a new sequential test number.

A screening test may also be considered invalid if:

1. The Form is not signed by the STT, as required.
2. If the STT fails to note in the "Remarks" section of the Form that the employee has failed to sign the Form following the recording of a positive result on the Form.

The goal is to complete the saliva alcohol tests. Do everything possible to ensure a proper test is conducted and completed properly.

STTs are not required to maintain their copies of the employees' alcohol test results for any specified amount of time. If the STT does maintain these records, they must be maintained in a secure manner so that disclosure to unauthorized persons does not occur.

**Maintenance of STTs copies of the DOT Alcohol Testing Form:**

- Records relating to the education and training of BATs, STTs, supervisors and drivers shall be maintained while the individual performs the functions which require the training and two years ceasing to perform those functions.

If the STT is the "agent" of the employer, he/she must maintain the following records indefinitely:

**Records to be kept indefinitely:**

1. Calibration documentation, i.e.: Records of the QA testing for each Q.E.D.® lot used in employee testing (Quality Control Record).
2. Records of alcohol tests resulting in an alcohol concentration of 0.02% or greater.
3. Records documenting refusals to submit to take required alcohol tests.
4. Employee evaluations and referrals.
5. Records related to the administration of the alcohol testing program.
6. A copy of each annual calendar year summary.

If the STT is the "agent" of the employer, he/she must maintain the following records for five (5) years:

**Records to be kept for five (5) years:**

- Records related to the alcohol collection process (except calibration of EBTs).

If the STT is the "agent" of the employer, he/she must maintain the following records for two (2) years:

**Records to be kept for two (2) years:**

- Alcohol test results with a concentration of less than 0.02%.

If the STT is the "agent" of the employer, he/she must maintain the following records for one (1) year:

**Records to be kept for one (1) year:**

**MAINTENANCE AND DISCLOSURE OF RECORDS CONCERNING Q.E.D.® SCREENING, STT TRAINING, AND EMPLOYEE TEST RESULTS**

This unit will examine what records must be maintained and for how long they must be kept. The unit will also provide the procedures for maintaining and disclosing records on Q.E.D.® screening, STT training, and employee test results.

**Unit VI - Disclosure of Information and Record Keeping**

Disclosure of records concerning Q.E.D.® results, STT training, and employee test results:  
Disclosure of testing information to unauthorized persons is not permitted. Upon written request to obtain copies of any records pertaining to his/her alcohol test, the employee is entitled to such records.

Why is it important to keep and maintain records?

It is important to keep and maintain records because the STT will have to refer back to them if ever called to testify. By keeping a well-organized system of documentation, the STT will be able to recount a particular employee test on a particular day.

If called to testify, the STT may be responsible for describing the DOT alcohol testing procedures and verifying the specific actions taken when conducting a test. The STT may also be responsible for verifying training and signatures on documents that have been prepared.

## Unit VII - Proficiency in the Use of the Q.E.D.®

The STT is also responsible for demonstrating proficiency in operating and possessing knowledge in the operation of the Q.E.D.® used for saliva alcohol testing.

At a minimum, STT proficiency must include:

1. Successful performance of a minimum of (5) Q.E.D.® tests on a live subject.
2. Demonstrated knowledge of the manufacturer's instruction manual for the Q.E.D.® including the following operating procedures:
  - Demonstrated ability to interpret and record the device's results.
  - Demonstrated ability to respond when an error or malfunction occurs with the Q.E.D.® device.
3. Demonstrated knowledge of the manufacturer's QAP for the Q.E.D.® for alcohol testing including:
  - Knowledge of how to conduct a quality assurance test on the Q.E.D.® Saliva Alcohol Test.
  - Knowledge of inspection requirements for the Q.E.D.® being used.

**U.S. DEPARTMENT OF TRANSPORTATION  
ALCOHOL TESTING PROCEDURES RULE  
49 CFR PART 40**

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