

FLORIDA DEPARTMENT OF LAW ENFORCEMENT
CRIMINAL JUSTICE STANDARDS AND TRAINING COMMISSION

BREATH TEST OPERATOR COURSE
A 24-Hour Course

TRAINING SCHOOL	851 CLASS NUMBER	SESSION DATES
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TOPICS OF INSTRUCTION	HOURS RECOMMENDED
Administration	1
Lesson 1: Introduction	1
Lesson 2: The Instrumentation	4
Lesson 3: The Breath Sample	2
Lesson 4: The Breath Test and Laboratory Practical	8
Lesson 5: Courtroom Testimony	4
Written Examination and Proficiency	4

Breath Test Operator Course Lesson Plan

Lesson One Introduction

Purpose

The student will learn the role of a breath test operator as it relates to obtaining and analyzing breath samples during the breath test and how to obtain and maintain a Breath Test Operator permit.

Resources

Chapter 11D-8, Florida Administrative Code (FAC)
Chapters 316, 322 and 327, Florida Statutes

Objectives

- 1.1 **Define breath test operator.**
 - A person who has been issued a Breath Test Operator permit by the Department as defined in Chapter 11D-8, FAC
- 1.2 **State the role of a breath test operator.**
 - To collect and analyze evidence in the form of breath samples in accordance with Chapter 11D-8, FAC.
 - A breath test operator collects evidence by obtaining valid breath samples.
 - A breath test operator uses an instrument to analyze the breath samples and determine the breath alcohol level.
 - Alcohol – ethyl alcohol, also known as ethanol. Ethanol is the alcohol contained in alcoholic beverages.
 - Breath Alcohol Level – the alcohol concentration by weight in a person's breath based upon grams of alcohol per 210 liters of breath (g/210L).

OBTAINING A BREATH TEST OPERATOR PERMIT

- 1.3 **List the requirements outlining the qualifications an applicant for a breath test operator permit must meet.**
 - Eighteen [18] years of age or older;
 - High school diploma or its equivalent;
 - Present employment by an agency, or the Department;
 - Successful completion of the basic Breath Test Operator Course approved by the Criminal Justice Standards and Training Commission; and
 - Submit to the Department a complete written application.
- 1.4 **State an evidentiary breath test cannot be conducted until a breath test operator permit is issued by the Department.**
 - In order to administer breath tests pursuant to Chapters 316, 322 and 327, Florida Statutes, a person must have been issued a breath test operator permit by the Department.
 - Successful completion of the Breath Test Operator Course alone does not necessarily mean that the applicant will be issued a permit by the Department. The course completion certificate given by the Training Center is not a permit.

PERMIT

- 1.5 **Define Permit.**
 - Permit – when issued by the Department, certifies that the holder has met all necessary qualifications, remains in full compliance with these rules and is authorized to perform all related duties. A permit is issued only to a qualified applicant and remains valid and in full effect until determined otherwise by the Department.
 - Information concerning a person's permit can be obtained in ATMS (Automated Training Management System) or by calling the Department.

MAINTAINING A BREATH TEST OPERATOR PERMIT

- 1.6 State a breath test operator permit is maintained through successful completion of continuing education.**
- Breath Test Operators must satisfy continuing education requirements in order to maintain valid permits; and
 - Continuing education requires successful completion of the applicable Commission-approved Renewal Course by June 30 following the fourth permit anniversary date, and during each subsequent four-year cycle.
- 1.7 List the requirements that must be met if continuing education is not satisfied.**
- If a breath test operator does not attend the Breath Test Operator Renewal Course within their continuing education cycle, once the cycle is up, they must not administer breath tests until they attend and successfully complete a Breath Test Operator Renewal Course.
- 1.8 List the requirements that must be followed if a breath test operator does not successfully complete a renewal course.**
- If a breath test operator fails a Breath Test Operator Renewal Course, he/she shall not perform the duties associated with the permit and must attend and successfully complete a Breath Test Operator Course.

Breath Test Operator Course
Lesson Plan

Lesson One
Introduction

Review Questions

1. What is the role of a breath test operator?
2. What are the qualifications that must be met in order to apply for a Breath Test Operator permit?
3. True or False. A breath test operator can conduct a breath test after completing the Breath Test Operator Course.
4. To maintain a Breath Test Operator permit, when must continuing education be met?
5. What course must be taken if continuing education is not met?
6. What course must be taken if a person fails the Breath Test Operator Renewal Course?

**Breath Test Operator Course
Lesson Plan**

**Lesson One
Introduction**

Review Answers

1. What is the role of a breath test operator?

To collect and analyze evidence relevant to a DUI case in accordance with Chapter 11D-8, FAC.

- a. A breath test operator collects evidence by obtaining valid breath samples.
- b. A breath test operator uses an instrument to analyze the breath samples and determine the breath alcohol level.

2. What are the qualifications that must be met in order to apply for a Breath Test Operator permit?

1. Eighteen [18] years of age or older;
2. High school diploma or its equivalent;
3. Present employment by an agency, or the Department;
4. Successful completion of the basic Breath Test Operator Course approved by the Criminal Justice Standards and Training Commission; and
5. Submit to the Department a complete written application.

3. True or False. A breath test operator can conduct a breath test after completing the Breath Test Operator Course.

False. In order to conduct a breath test, a person must have been issued a Breath Test Operator permit.

4. To maintain a Breath Test Operator permit, when must continuing education be met?

Continuing education requires successful completion of the applicable Commission-approved Renewal Course by June 30 following the fourth permit anniversary date, and during each subsequent four-year cycle.

5. What course must be taken if continuing education is not met?

If a breath test operator does not attend the Breath Test Operator Renewal Course within their continuing education cycle, once the cycle is up, they must not administer breath tests until they attend and successfully complete a Breath Test Operator Renewal Course.

6. What course must be taken if a person fails the Breath Test Operator Renewal Course?

If a breath test operator fails a Breath Test Operator Renewal Course, he/she shall not perform the duties associated with the permit and must attend and successfully complete a Breath Test Operator Course.

Breath Test Operator Course
Lesson Plan

Lesson Two
The Instrumentation

Introduction

The student will learn about the instrumentation used to analyze breath samples in accordance with Chapter 11D-8, FAC.

Objectives

METHOD OF ANALYSIS

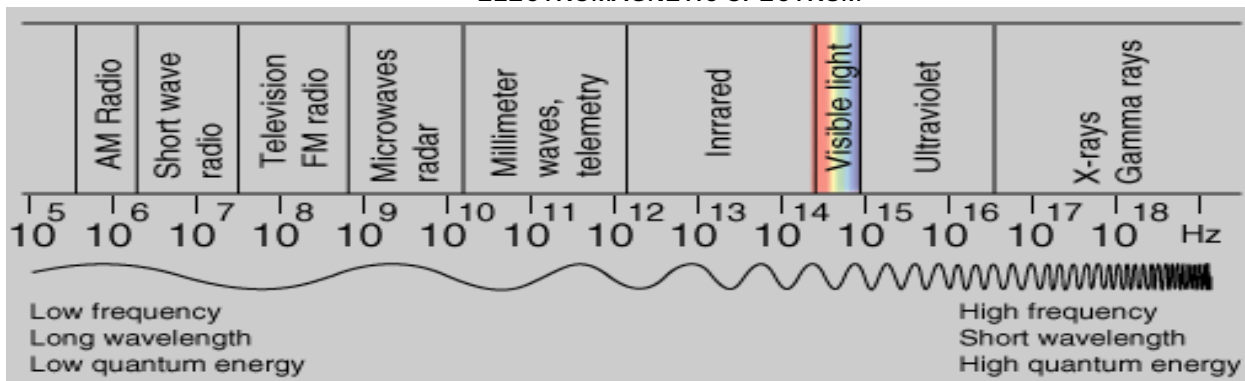
2.1 State the approved method for evidentiary breath testing is infrared light absorption.

- A method is a type of alcohol analyses approved by the Department to conduct chemical or physical tests of blood or breath.
- The Intoxilyzer 8000 use infrared light absorption.

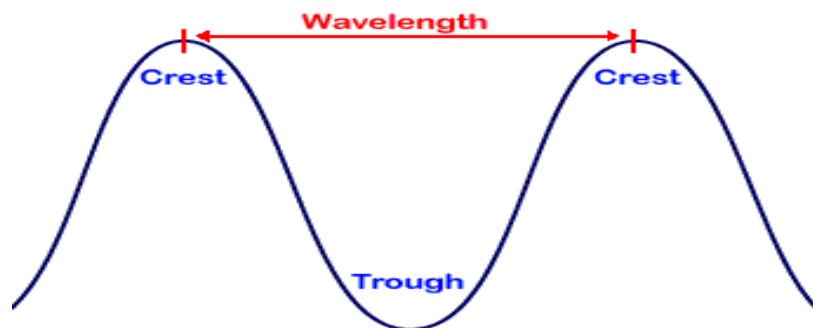
2.2 Define infrared light.

- Electromagnetic radiation or energy in the form of waves, relating to the range of invisible radiation wavelengths from about 0.75 micrometers, just longer than red in the visible spectrum, to 1 millimeter, on the border of the microwave region.

ELECTROMAGNETIC SPECTRUM



- A wavelength is the distance between one peak or crest of a wave of light and the next corresponding peak or crest.



2.3 Explain the method Infrared Light Absorption as it relates to breath alcohol analysis.

- Type of absorption methodology that uses the infrared light to identify and quantify alcohol.
- Alcohol molecules absorb infrared light in a unique and consistent manner.

- The wavelengths of infrared light that are absorbed depend on the different structural groups present on the molecule.
- When an alcohol molecule is exposed to infrared light, it will absorb specific wavelengths of the infrared light.
- The amount of infrared light absorbed is directly proportional to the concentration of the alcohol present in the breath.
- The more alcohol molecules there are in the sample, the more light will be absorbed by these molecules, the less light will reach the detector and the higher the alcohol result will be.

INSTRUMENTATION

2.4 List the approved breath test instrumentation that is currently being used for evidentiary breath testing.

- CMI, Inc. Intoxilyzer 8000

2.5 List and describe the major components of the Intoxilyzer 8000 that are used in obtaining and analyzing a breath sample.

Component/ Purpose	Intoxilyzer 8000
Breath Tube Delivers breath sample into the instrument	Thermostatically controlled at a nominal temperature of 45C to prevent condensation of the breath sample
Sample Chamber Where a sample is analyzed	Thermostatically controlled at a nominal temperature of 47C to prevent condensation of the breath sample
Light Source Produces light	Spiral filament. Emits only infrared light. Directly connected to one end of the sample chamber. Pulses light into sample chamber
Filters Filter infrared light at specific wavelengths. Used to identify alcohol	Two filters are directly connected to the sample chamber opposite the light source. Filters: 3 uM and 9 uM. 3 uM filter: used to detect the presence of interferents 9 uM filter: used to detect the presence of alcohol.
Detector Detects the light not absorbed by the alcohol in the sample	Two pyroelectric detectors. Each detector is directly connected to a filter. Determines the amount of light not absorbed by the alcohol in the sample and converts this response into an electrical response.
Microprocessor Calculates the amount of alcohol in a sample based on the electrical response received from the detector	Calculates the result in g/210L based on the electrical response from the 3 uM filter and the 9 uM filter. These results are compared to each other to ensure interferents are not present. The result from the 9 uM filter is displayed and printed as the breath sample alcohol result.

2.6 Define the hardware of the Intoxilyzer 8000.

Component	Intoxilyzer 8000
Mouthpiece	The disposable, plastic trap that fits on the end of the breath tube through which the subject provides the breath sample.
Display	The screen on the front of the instrument which contains a two line (twenty characters per line) florescent display that is used to visually communicate messages and instructions to the user.
Start Test Button	The green push pad on the front of the instrument that is used to initiate a breath test sequence and to bring the instrument from STANDBY MODE to READY MODE.
Power Switch	The black rocker switch on the back of the instrument used to turn the instrument on and off when plugged into a wall outlet.
Keyboard	Used to provide a direct user interface with the instrument.
Printer Paper Door	The removable door on top of the instrument which covers the thermal printer and paper.
External Printer Port	The printer port on the back of the instrument where the external printer is attached.
Calibration Inlet	The female connection fitting on the right side of the instrument where the external dry gas standard cylinder tubing is connected.
Gas Power/ Interface Connector	The female connector on the lower back of the instrument where the dry gas standard cylinder regulator wiring connects.
Paper Feed Button	The black push pad on the front of the instrument used to advance the paper in the internal printer.

Dry Gas Standard Cylinder Carrier	The metal and plastic bracket that attaches to the bottom of the instrument that secures the cylinder and protects the regulator.
Regulator Valve	The valve that attaches to the top of the dry gas cylinder and indicates the pressure in the cylinder.
Internal Printer	Thermal printer located inside the top of the instrument. The instrument will automatically sense the absence of an external printer and default printing to the internal printer.
DC Power-In Socket	The round threaded connector located on the upper left rear of the instrument used to connect the DC power plug.

2.7 State the Intoxilyzer 8000 visually communicate by displaying messages and by sounding three distinct tones.

- When a message is displayed, the breath test operator is expected to perform the action being requested or take action based on the particular message displayed.
- The three distinct tones are:
 - Beep – a beep sounds after the completion of each operation.
 - Continuous Tone – a continuous tone sounds while a subject blows into the instrument with sufficient pressure.
 - Low/High Tone – a low/high tone sounds in the event of a malfunction, incorrect operational procedure, or unfulfilled test requirement.

2.8 Describe the different ways to power, initialize warm up and access READY MODE for the Intoxilyzer 8000.

Intoxilyzer 8000	
Power	110 volt AC (a wall outlet) and 12 volt DC (a car or boat cigarette lighter)
Initialize Warm Up	Push the power button on the back of the instrument if the instrument is plugged into a wall outlet. If the instrument is being powered by 12 volt DC it will automatically turn on. Push the green start test button to initialize warm up. It will take approximately twenty (20) minutes for the instrument to warm up. The instrument will display NOT READY. During the last five (5) minutes of the warm up phase, the instrument will begin a countdown of the time remaining for warm up to complete. The instrument will conduct diagnostic checks after warming up and before going into READY MODE.
READY MODE	The instrument is ready for use when "READY MODE" and the message to push the start test button displays on the instrument. Push the green start test button to begin a breath test.
STANDY BY MODE	If the start test button is not pushed within approximately thirty (30) minutes after coming into READY MODE, the instrument will go into STANDBY MODE. To bring the instrument to READY MODE, push the start test button. After approximately one (1) minute, the instrument will perform diagnostic checks before to returning to READY MODE.

2.9 State a diagnostic check will occur on an Intoxilyzer 8000 before the instrument comes out of NOT READY MODE. Explain DIAGNOSTIC OK and the actions the operator must take when a failure occurs during a diagnostic check.

Intoxilyzer 8000	
When DIAGNOSTIC OK is displayed, the instrument's analytical components and operational standards are working properly. The instrument will enter READY MODE.	
If any diagnostic check fails, the instrument will display DIAGNOSTIC FAIL. The operator should try to conduct the test again by pressing the Start Test Button and the instrument will conduct a Diagnostic Check again.	
<ul style="list-style-type: none"> • If DIAGNOSTIC OK is obtained, the instrument will enter READY MODE and the operator may continue with the test. • If DIAGNOSTIC FAIL for the same failure is obtained again, the operator should try to remedy the failure and/or contact their Agency Inspector. 	

2.10 Describe the breath test operator menu of the Intoxilyzer 8000.

- The three level menu is used to allow features and functions to be updated or initiated. Only the first level, for breath test operators, is not password protected. Unique passwords are required for the other two levels.

- Press ESC, ESC to access the Breath Test Operator menu. Enter User last name, first name and middle initial when prompted.
- The breath test operator menu consists of the following:
 - ✓ R – Recall Test
 - To recall a breath test, the breath test operator must press the PAGE UP or PAGE DOWN keys and scroll to the record date. Once the correct date is displayed, press ENTER. The instrument will show the number of records for that date. The operator must then scroll through the list by subject last name and retrieve the record they would like to print by pressing the enter key. The RIGHT ARROW will show the subject's first name. An external printer must be attached. The Breath Alcohol Test Affidavit will automatically print to the external printer.
 - ✓ S – Gas Cylinder Change
 - After changing the dry gas standard cylinder, the operator must enter the Cylinder Lot # and press enter; and then must enter the Expiration Date and press enter.

INTOXILYZER 8000 MAINTENANCE

2.11 Describe the procedure to replace internal printer paper or clear internal printer jams.

- Replacing or clearing the paper from the internal printer does not require menu access.
 - Remove printer paper door by lifting from the top of the instrument.
 - Pull green lever forward until it locks. Remove remaining paper.
 - Holding the new roll of paper with the paper spooling from the bottom, slip the leading edge of the paper underneath the rear of the black rubber roller downwards until the leading edge slides under the black roller and out the front. Place the paper roll into the paper roll holder.
 - Push the green lever up and backwards until it points straight up.
 - Feed the paper through the slot on the printer paper door.
 - Place the printer cover on the instrument and depress the black knob until it locks into place.

2.12 Describe how and when to replace the dry gas standard cylinder.

- The reasons for changing or removing the dry gas standard cylinder include: (1) the cylinder is below minimum pressure; (2) the cylinder is beyond its expiration date; and (3) shipment of the instrument to an authorized repair facility.
- Breath Test Operators may change the dry gas standard cylinder.
- The instrument will alert the operator to a low pressure/volume dry gas standard cylinder condition. This alert will occur when the dry gas standard cylinder pressure volume reaches approximately 50 psi (pounds per square inch). This pressure volume is sufficient to allow five (5) more complete breath tests to be conducted. The cylinder must be replaced as soon as possible. No tests can be conducted if the cylinder tank pressure is below 25 psi.
- The cylinder disconnects from the valve assembly by being turned counterclockwise, and reconnects by being turned clockwise.
- When seating the cylinder, it must be manually tightened to prevent leaks.
- Once the cylinder is changed, the lot number and expiration date must immediately be entered by accessing the breath test operator menu.

Breath Test Operator Course
Lesson Plan

Lesson Two
The Instrumentation

Review Questions

1. What is the approved method for breath alcohol analysis in Florida?
2. Explain infrared light absorption?
3. What is the approved instrument currently being used for evidentiary purposes in Florida?
4. What is the function of the breath tube, sample chamber, light source, filters, detector and microprocessor?
5. Name and describe the three tones used by the Intoxilyzer 8000.
6. Push the _____ (three words) button to begin a breath test on an Intoxilyzer 8000.

Breath Test Operator Course
Lesson Plan

Lesson Two
The Instrumentation

Review Answers

1. **What is the approved method for breath alcohol analysis in Florida?**
Infrared Light Absorption
2. **Explain infrared light absorption?**
 - Alcohol molecules absorb infrared light in a unique and consistent manner.
 - The wavelengths of infrared light that are absorbed depend on the different structural groups present on the molecule.
 - When an alcohol molecule is exposed to infrared light, it will absorb specific wavelengths of the infrared light.
 - The amount of infrared light absorbed is directly proportional to the concentration of the alcohol present in the breath.
 - The more alcohol molecules there are in the sample, the more light will be absorbed by these molecules, the less light will reach the detector and the higher the alcohol result will be.
3. **What is the approved instrument currently being used for evidentiary purposes in Florida?**
Intoxilyzer 8000
4. **What is the function of the breath tube, sample chamber, light source, filters, detector and microprocessor?**

Breath Tube - Delivers breath sample into the instrument
Sample Chamber - Where a sample is analyzed
Light Source - Produces light
Filters - Filter infrared light at specific wavelengths. Used to identify alcohol
Detector - Detects the light not absorbed by the alcohol in the sample
Microprocessor - Calculates the amount of alcohol in a sample based on the electrical response received from the detector
5. **Name and describe the three tones used by the Intoxilyzer 8000.**

Beep – a beep sounds after the completion of each operation.
Continuous Tone – a continuous tone sounds while a subject blows into the instrument with sufficient pressure.
Low/High Tone – a low/high tone sounds in the event of a malfunction, incorrect operational procedure, or unfulfilled test requirement.
6. **Push the green start test (three words) button to begin a breath test on an Intoxilyzer 8000.**

Breath Test Operator Course Lesson Plan

Lesson Three The Breath Sample

Introduction

During this lesson, the student will learn how to properly obtain a reliable breath sample.

Objectives

- 3.1 Describe how alcohol circulating in the body is eliminated by the lungs.
- The transfer of alcohol and other volatile substances from the blood to the breath occurs in the alveoli of the lungs.
 - Alveoli are the thin-walled sacs that fill the lungs and allow for gas and volatile substances to pass from the blood into the lungs and from the lungs into the blood.
 - Alcohol readily passes from the blood into the alveoli by a process called diffusion (automatic movement of a substance from an area of high concentration (blood) to an area of low concentration (lungs)) because alcohol is a low weight molecule and is volatile.
- 3.2 State deep lung air is the type of breath sample which will render the most accurate breath alcohol level representing the alcohol concentration circulating in the subject's body. Define deep lung air.
- Deep lung air is the breath that is coming from the deepest part of the lungs (near the alveoli) that can be obtained without collapsing the lungs. It can be best obtained by having the subject normally inhale and provide a continuous, sustained breath sample for as long as they possibly can.
 - A breath sample obtained from the upper portions of the respiratory tract (mouth, trachea, bronchi) is diluted with room air and will not provide an accurate representation of the alcohol concentration circulating in the subject's body.
- 3.3 State how to obtain deep lung air from a subject providing a breath sample.
- Instruct the subject to inhale normally and provide a continuous, sustained breath sample until they are told to stop.
 - The breath test operator shall tell the subject to stop blowing when the subject appears to have expelled all of the air out of his/her lungs during a single breath.

PROVIDING A BREATH SAMPLE AS LONG AS POSSIBLE = DEEP LUNG AIR = BEST BREATH SAMPLE

TWENTY MINUTE OBSERVATION PERIOD

- 3.4 State a twenty (20) minute observation period is required to ensure that the breath sample provided by the subject does not contain residual mouth alcohol.
- An observation period of at least 20 minutes reasonably ensures that any alcohol present in a subject's mouth has dissipated.
 - Residual mouth alcohol is alcohol remaining in the mouth after a person has consumed an alcoholic beverage.
 - Alcohol in the oral cavity is rapidly eliminated and is no longer present after twenty minutes.
- 3.5 State the breath test operator, agency inspector, arresting officer, or person designated by the permit holder shall reasonably ensure that the subject has not taken anything by mouth or has not regurgitated for at least twenty (20) minutes before administering the test. This provision shall not be construed to otherwise require an additional twenty (20) minute observation period before the administering of a subsequent sample.
- The twenty (20) minute observation period must be a continuous twenty (20) minutes. (It does not need to necessarily be face to face contact. Check with your state attorney's office to find out what the case law is in your area)

- A permit holder can designate another person to perform the observation period. The breath test operator should record the additional observer's name on the print card.
- As defined in Webster's Dictionary, regurgitation is the bringing the contents of the stomach back into the mouth.
- Regurgitation can bring the alcohol that may be present in the stomach up into the mouth and can possibly affect the administration of the breath test.
- Burping and belching are not signs of regurgitation and do not warrant an additional twenty-minute observation period if they occur.
 - Burping and belching usually do not affect a breath test due to the rapid removal of the small quantity of alcohol from the mouth. It may affect the breath test if it occurs immediately before or during the breath test.

3.6 State the subject shall not have any foreign objects in their mouth during the twenty minute observation period and the breath test. Define foreign object.

- Ask the subject if they have anything in their mouth.
- A foreign object is any item that is not a fixed part of the mouth. Examples of foreign objects include, but are not limited to: coins, tobacco, candy, chewing gum, fingers, hair, food, rubber bands, razor blades and paper clips. Exceptions to foreign objects would include, but not be limited to: braces, dentures, partials, dental plates, fillings, crowns and tongue piercing.

What If...?	Response
What if the subject regurgitates?	Have the subject rinse their mouth with water and begin another twenty (20) minute observation period. Document all times associated with the repeat observation.
What if the subject comes in with a foreign object in their mouth?	<p>If the foreign object is found before the twenty (20) minute observation period, have the subject remove the foreign object from their mouth. The breath test operator may have the subject rinse their mouth with water. Begin the twenty (20) minute observation period after removal of the foreign object. Document all occurrences and times.</p> <p>If the foreign object is found after the twenty (20) minute observation period has begun, the breath test operator must have the subject remove the foreign object from their mouth. The breath test operator may have the subject rinse their mouth with water and the operator must then begin another twenty (20) minute observation period. Document all occurrences and times.</p>
What if the breath test operator is presented with a subject that insists on using the restroom?	The breath test operator or a person designated by the breath test operator may take the subject to the restroom, continuing the observation to ensure the subject does not put anything in their mouth or regurgitate while using the restroom. Document the occurrence and/or person who was designated to perform this task.

3.7 Define and discuss a minimum acceptable breath sample for the Intoxilyzer 8000.

- A minimum acceptable breath sample is defined as a breath sample that has met the minimum criteria of the instrument's analysis to ensure the **BREATH SAMPLE** is reliable.

Intoxilyzer 8000	
Time	The subject must provide a continuous breath sample of sufficient flow for at least one (1) second.
Volume	The subject must provide a continuous breath sample of at least 1.1 liters of breath.
Slope	The subject must provide a breath sample in which the concentration of the sample consistently rises and then levels off.

- State when PROVIDE SAMPLE NOW is displayed, the subject will have three (3) minutes to provide a minimum acceptable breath sample.
- Failure to provide a breath sample into the instrument or to provide a breath sample for less than one (1) second will result in a "NO SAMPLE PROVIDED" message.
- Failure to provide a breath sample of at least 1.1 liters into the instrument will result in a "VOLUME NOT MET" message.
- Failure to satisfy Slope will result in either a "SLOPE NOT LEVEL" or a "SLOPE NOT MET" message
- If PROVIDE SAMPLE NOW is again displayed, the subject is not providing a proper sample to be analyzed. The subject must continue to provide a breath sample until a proper sample is obtained.

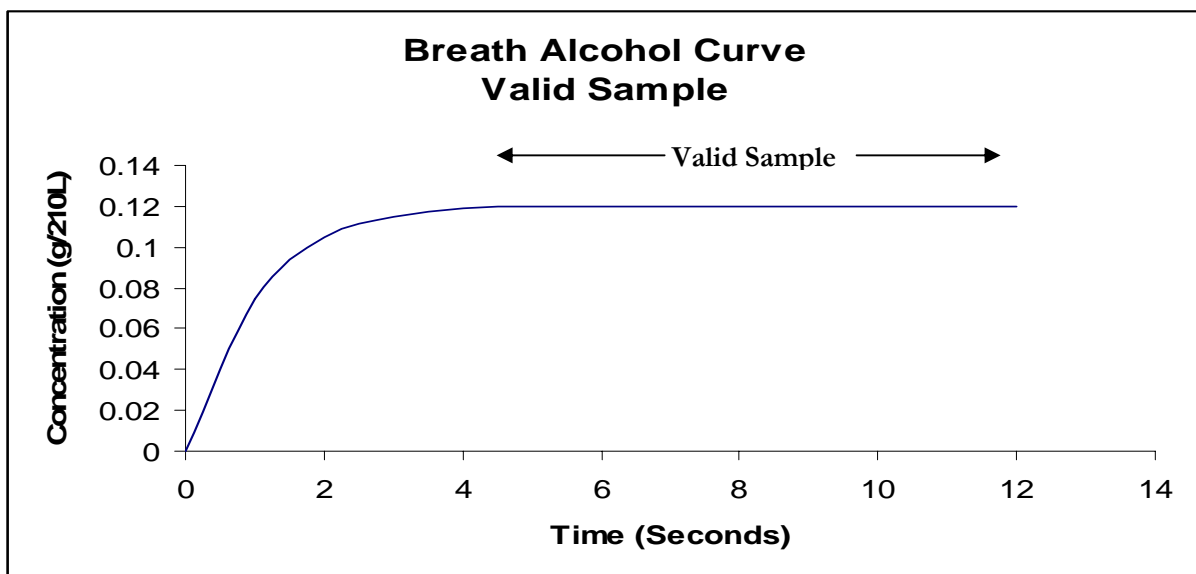
3.8 State the purpose for obtaining a minimum of two samples of breath within fifteen minutes of each other producing results within 0.020 g/210L.

- The result of the second sample confirms the result of the first sample.
- It shows that the two breath samples are as similar as possible to each other.
- It shows that there are no interferences, mouth alcohol, and radio frequency interference affecting the results obtained from the breath samples.

3.9 Define Interferent, Mouth Alcohol and Radio Frequency Interference.

- Interferent – A substance that appears in sufficient non-lethal quantities in the human breath and is capable of being detected by the instrument at these non-lethal quantities.
 - Acetone is an example of an interferent. It could possibly appear on the breath of a person who is in diabetic shock or fasting (ketogenesis).
- Mouth Alcohol – residual alcohol that remains in the mouth. It could be present if a person consumes an alcoholic beverage just prior to taking a breath test.
- Radio Frequency Interference (RFI) – Radio waves transmitted in proximity to a breath testing instrument that can possibly affect the analysis of breath samples if they are in sufficient strength and wavelength. The Intoxilyzer 8000 contains an RFI detector to indicate that RFI is in sufficient strength to affect the instrumentation.

3.10 Define and understand the breath alcohol curve.



The breath alcohol curve is a graph of the alcohol concentration of a breath sample that occurs over time.

In order for a breath sample to be reliable, the concentration of the alcohol in the breath sample must rapidly rise and level off in the breath alcohol curve.

Breath Test Operator Course
Lesson Plan

Lesson Three
The Breath Sample

Review Questions

1. Describe how alcohol circulating in the body is eliminated by the lungs.
2. What is deep lung air and how is it obtained from a subject during a breath test?
3. What is the purpose of the twenty minutes observation period?
4. What are the minimum acceptable breath sample requirements for the Intoxilyzer 8000?
5. What is the breath alcohol curve? Draw and label the breath alcohol curve.

Breath Test Operator Course
Lesson Plan

Lesson Three
The Breath Sample

Review Answers

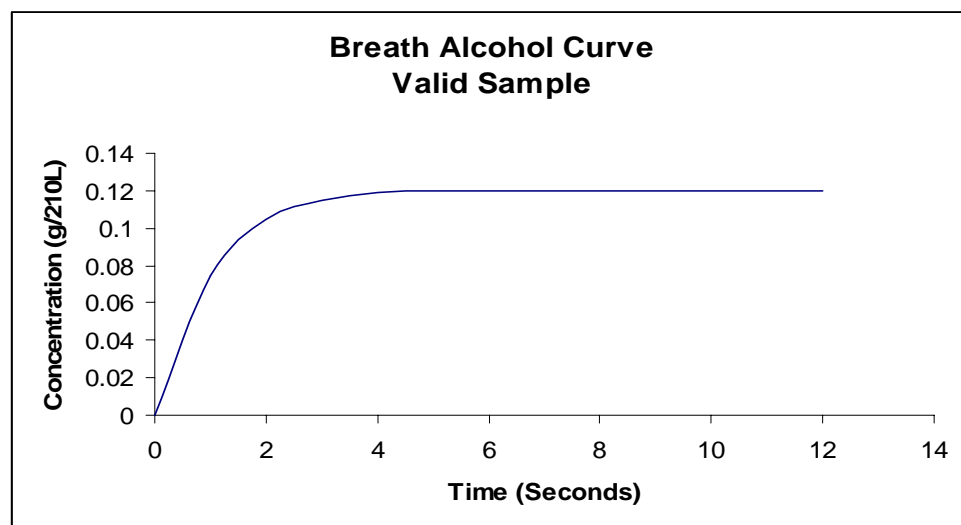
1. Describe how alcohol circulating in the body is eliminated by the lungs.
 - The transfer of alcohol and other volatile substances from the blood to the breath occurs in the alveoli of the lungs.
 - Alveoli are the thin-walled sacs that fill the lungs and allow for gas and volatile substances to pass from the blood into the lungs and from the lungs into the blood.
 - Alcohol readily passes from the blood into the alveoli by a process called diffusion (automatic movement of a substance from an area of high concentration (blood) to an area of low concentration (lungs)) because alcohol is a low weight molecule and is volatile.
2. What is deep lung air and how is it obtained from a subject during a breath test?

Deep lung air is the breath that is coming from the deepest part of the lungs (near the alveoli) that can be obtained without collapsing the lungs. It can be best obtained by having the subject normally inhale and provide a continuous, sustained breath sample for as long as they possibly can.
3. What is the purpose of the twenty minutes observation period?

To reasonably ensure that the subject has not taken anything by mouth or has not regurgitated for at least twenty (20) minutes before administering the test and to ensure that there is no residual mouth alcohol.
4. What are the minimum acceptable breath sample requirements for the Intoxilyzer 8000?

Time - The subject must provide a continuous breath sample of sufficient flow for at least one (1) second.
Volume - The subject must provide a continuous breath sample of at least 1.1 liters of breath.
Slope - The subject must provide a breath sample in which the concentration of the sample consistently rises and then levels off.
5. What is the breath alcohol curve? Draw and label the breath alcohol curve.

The breath alcohol curve is a graph of the alcohol concentration of a breath sample that occurs over time.



Breath Test Operator Course Lesson Plan

Lesson Four The Breath Test and the Laboratory Practical

Introduction

During this lesson the student will learn the proper way to administer a breath test using the Intoxilyzer 8000 in accordance with Chapter 11D-8, Florida Administrative Code.

Resources

Chapter 11D-8, Florida Administrative Code
FDLE/ATP Form 37 Operational Procedures – Intoxilyzer 8000
FDLE/ATP Form 38 Breath Alcohol Test Affidavit

Objectives

APPROVED BREATH ALCOHOL TEST

4.1 Define Approved Breath Alcohol Test.

- Approved Breath Alcohol Test – a minimum of two samples of breath collected within fifteen minutes of each other, analyzed using an approved breath test instrument, producing two results within 0.020 g/210L, and reported as the breath alcohol level. If the results of the first and second samples are more than 0.020 g/210L apart, a third sample shall be analyzed. Refusal or failure to provide the required number of valid breath samples constitutes a refusal to submit to the breath test. Notwithstanding the foregoing sentence, the result(s) obtained, if proved to be reliable, shall be acceptable as a valid breath alcohol level.
 - Two breath test samples collected within 15 minutes of each other producing two results within 0.020 g/210L ensures that the results are accurate and reliable. A breath test operator who obtains two breath samples that are within 0.020 g/210L shows that mouth alcohol, interferences and radio frequency interference are not a factor.
 - Why two samples of breath? The second breath sample result confirms the accuracy and reliability of the first breath sample result.

4.2 State the breath test operator must verify that an agency inspection of the evidentiary breath test instrument has been conducted.

- An Agency Inspection is the periodic testing of the calibration and operation of a breath test instrument, including all required preventive maintenance, in accordance with Rule 11D-8.006, F.A.C., and performed by a person authorized by the Department. It must be conducted at least once each calendar month.
 - An agency inspection ensures the instrument is working properly and is providing accurate and reliable results.

Intoxilyzer 8000

Automatically stored in the instrument. The instrument will go into DISABLED MODE if an agency inspection has not been conducted within a calendar month. The instrument cannot be used when in DISABLED MODE. Notify the agency inspector if the instrument displays DISABLED MODE.

ACCESS

- ##### 4.3 State that Rule 11D-8.007(1), Florida Administrative Code requires that evidentiary breath test instruments shall only be accessible to a person issued a valid permit by the Department and to persons authorized by a permit holder.
- The purpose of this rule is to ensure that an evidentiary breath test instrument is not misused or damaged.

THE BREATH TEST - INTOXILYZER 8000

- ##### 4.4 State when using an Intoxilyzer 8000, the breath test shall be administered in accordance with FDLE/ATP Form 37 – Operational Procedures – Intoxilyzer 8000.

FDLE/ATP Form 37 Operational Procedures – Intoxilyzer 8000

Step	Procedure	Explanation
1	All results are reported to three decimal places in g/210L.	
1	The instrument must display READY MODE prior to beginning the breath test.	<p>The instrument may be in STANDBY BY MODE. Push the Start Test Button to initiate an approximate one (1) minute countdown which will be followed by a diagnostics check. Upon successful completion of the diagnostics check, the instrument will enter READY MODE.</p> <p>The instrument may display the days remaining for the upload of the agency inspection. The agency inspector or department inspector can perform this upload. Breath tests can still be conducted as long as the number of days has not expired. If the upload of the agency inspection has not occurred by the time the number of days has expired, the instrument will display DISABLED MODE and will not allow breath tests to be conducted on it.</p>
1	Push the START TEST button to begin the breath test.	
1	Enter Breath Test Operator last name, first name and middle initial at USER prompts.	<p>Type the Last Name of the USER. Press Enter. Type the First Name of the USER. Press Enter. Type the Middle Initial of the USER (if applicable). Press Enter.</p> <p>At the Operator Agency prompt, enter the unique four (4) digit code for the Operator Agency or press the up or down arrows to scroll through the agency list. Press Enter. The Operator Agency will display. Press Enter. If the agency is not correct, enter the four digit code or scroll through the agency list again.</p>
1	DATE/TIME. Verify the displayed date and time. Change if necessary, Press ENTER.	<p>The breath test operator must verify the correct time and date on the display. If the time and/or date are incorrect, the operator should change it.</p> <ul style="list-style-type: none"> • During this step, the screen will show the time and date for approximately ten seconds and will ask if the time and date need to be changed with the prompt "N" for No. If the displayed date and time are correct press ENTER. To change the time and date: Enter "Y" and press enter. <ul style="list-style-type: none"> ▪ The instrument will automatically display the date. ▪ Adjust the date by entering the correct numbers (MM/DD/YYYY) and press enter. ▪ The instrument will automatically display the time. ▪ Adjust the time by entering the correct numbers (HH:MM) and press enter. ▪ The instrument will display "Please wait, Saving Settings". ▪ The instrument will automatically continue on to the next question.
1	LAST AGENCY INSPECTION DATE. Verify the agency inspection date displayed. Press ENTER.	The most recent agency inspection date is automatically saved in the instrument when the agency inspector completes the agency inspection.

1	CYLINDER LOT #. Verify the dry gas standard cylinder lot number. Change if necessary. Press ENTER.	If the dry gas standard cylinder lot number is correct, press enter. If the dry gas standard cylinder lot number needs to be corrected, type in the correct lot number and press enter.
1	EXPIRATION DATE. Verify the dry gas standard cylinder expiration date. Change if necessary. Press ENTER.	If the dry gas standard cylinder expiration date is correct, press enter. If the dry gas standard cylinder expiration date needs to be corrected, type in the correct lot number and press enter.
1	OBSERVATION PERIOD BEGAN. Enter the time the observation period began (at least 20 minutes).	Enter in military time. The operator or their designee shall perform an additional twenty minute observation period if the subject takes anything by mouth or regurgitates during the twenty minute observation period or during the breath test.
1	SWIPE DL OR PRESS ENTER. Either swipe the subject's driver license or identification card or press ENTER. Enter applicable information as prompted.	When the driver's license is swiped and the data is accepted by the magnetic card reader, three beeps will be heard indicating the data was accepted. SUBJECT LAST NAME. Type the subject's last name. If the driver license or ID card was swiped, this will automatically be entered. Press enter. SUBJECT FIRST NAME. Type the subject's first name. If the driver license or ID card was swiped, this will automatically be entered. Press enter. SUBJECT MIDDLE INITIAL. Type the subject's middle initial. If the driver license or ID card was swiped, this will automatically be entered. Press enter. If the subject does not have a middle initial, press the space bar and then ENTER. DRIVER LICENSE NUMBER. Type the subject's driver license number. If the driver license was swiped, this will automatically be entered. Press enter. STATE. Type the state that issued the driver license. If the driver license or ID card was swiped, this will automatically be entered. Press enter. DATE OF BIRTH. Type the subject's date of birth. If the driver license or ID card was swiped, this will automatically be entered. Press enter. SEX (M/F): Type the sex of the subject. If the driver license or ID card was swiped, this will automatically be entered. Press enter. ARREST OFFICER LAST. Type the arresting officer's last name. Press enter. ARREST OFFICER FIRST. Type the arresting officer's first name. Press enter. ARREST TIME. Type the time of arrest (in military time). Press enter. ARREST AGENCY. Enter the employing agency of the arresting officer. The operator will need to enter the unique four (4) digit code of the arrest agency or use the up and down arrows to scroll through the agency list. Press enter. VIOLATION CODE. Enter the violation code. Press enter. The operator must scroll through the codes using the up and down arrow keys. The codes are as follows: DUI – Driving Under the Influence; BUI – Boating Under the Influence; ZERO TOL – 0.02 Enforcement; COMM VEH – Commercial Motor Vehicle; PROB/PAROLE – Probation or

		<p>Parole ordered test; COURT – Court Ordered; ADMINISTRATIVE – Internal agency test; OTHER – Any type of test other than the ones listed above or a system check; SYS CHECK – Agency Inspector test or check of the breath test sequence and/or instrument operation. REVIEW DATA (Y/N). Press Y to review all of the above information or press N to continue.</p> <p>After data entry, the instrument will indicate that the twenty minute observation is OK or it will countdown the remaining time left to complete the twenty minute observation. The instrument will also display the number of breath tests that have been conducted. For example, the instrument will display test 047 of 150. Note that the instrument must have tests uploaded when there are 150 tests stored in the instrument. The agency inspector or department inspector must perform this upload.</p>
	DIAGNOSTICS CHECK. The result must be OK.	The diagnostics check is a functionality check of the internal components to ensure the instrument is working properly.
	AIR BLANK. The result must be 0.000.	<p>During the air blank, the instrument is circulating ambient air, or room air, through the instrument to clear the sample chamber of alcohol and any other substances that might be present.</p> <ul style="list-style-type: none"> • The instrument is analyzing the room air in the sample chamber by filtering the light and detecting the response when only room air is present in the sample chamber. • This electrical response indicates the result when only ambient, or room air, is present in the sample chamber. <p>The air blank will occur for up to 60 seconds.</p> <ul style="list-style-type: none"> • If the instrument cannot clear the sample chamber during an air blank <u>before a breath or control sample is analyzed</u>, the instrument will display AMBIENT FAIL. The instrument will abort the test and print AMBIENT FAIL. • If the instrument cannot clear the sample chamber during an air blank <u>after a breath or control sample is analyzed</u>, the instrument will display PURGE FAIL. The instrument will abort the test and print PURGE FAIL. <p>After the air blank and before requesting the breath sample, the instrument will establish a zero reference by determining the electrical response from filtered light when only ambient air is in the sample chamber.</p> <ul style="list-style-type: none"> • The instrument uses the electrical response from light filtered at both 3 uM and 9 uM when only ambient air is present in the sample chamber. When the row of boxes is displayed, the instrument is establishing a zero reference. The boxes displayed also verify the display segments are working properly.
	CONTROL TEST. The result must be between 0.075 and 0.085, inclusive.	<p>A control test is the analysis of dry gas standard to verify the calibration of the instrument to show that it is providing accurate and reliable results at the time of the breath test.</p> <p>Dry Gas Standard – a standard consisting of a mixture of alcohol and gas which produces a known alcohol vapor</p>

		concentration used to verify the calibration of a breath test instrument.
1	AIR BLANK. The result must be 0.000.	
1	PROVIDE SAMPLE NOW. Have the subject provide a breath sample into the instrument.	<ul style="list-style-type: none"> • When "Provide Sample Now" is displayed, the operator will have approximately three (3) minutes to have the subject provide a minimum acceptable breath sample. • When a continuous tone sounds during the breath test, the subject is providing proper breath flow. • The operator shall tell the subject to stop blowing when the subject has provided a deep lung breath sample and has expelled all of the air out of their lungs during a single breath. • If "Provide Sample Now" is displayed while the subject is providing a sample, the subject is not providing a <u>proper</u> sample to be analyzed. The subject must continue to provide a breath sample until a result is obtained. • To record a refusal and to have the refusal information print on the affidavit, the breath test operator must push the "R" key on the keyboard when the instrument displays "Provide Sample Now". • Once a sample is introduced into the sample chamber, the instrument compares the value of the electrical response received from both filters to each other and to the zero reference value. <ul style="list-style-type: none"> ○ If the electrical responses from the two filters are in the correct ratio and are the same as the response for the zero reference value, a 0.000 g/210L result is reported, indicating no alcohol was found in the sample. ○ If the electrical responses from the two filters are in the correct ratio but are a different response than the zero reference value, then the difference between the electrical responses from the filter that measures alcohol and the zero reference value is calculated and an alcohol result is reported. ○ If the electrical responses from the two filters are not in the correct ratio, the instrument will signal the operator that an interferent has been detected. The instrument will display INTERFERENT DETECT, abort the test and print INTERFERENT DETECT.
1	AIR BLANK. The result must be 0.000.	
1	PLEASE WAIT. The instrument will countdown the time remaining for the wait period.	
1	AIR BLANK. The result must be 0.000.	
1	PROVIDE SAMPLE NOW. Have the subject provide a breath sample into the instrument.	
1	AIR BLANK. The result must be 0.000.	
1	Note: If there is no 0.020 g/210L agreement between first and second breath samples, the instrument will	

	automatically request a third breath sample as follows:	
1	PLEASE WAIT. The instrument will countdown the time remaining for the wait period.	
1	AIR BLANK. The result must be 0.000.	
1	PROVIDE SAMPLE NOW. Have the subject provide a breath sample into the instrument.	
1	AIR BLANK. The result must be 0.000.	
1	CONTROL TEST. The result must be between 0.075 and 0.085, inclusive.	
1	AIR BLANK. The result must be 0.000.	
1	DIAGNOSTICS CHECK. The result must be OK.	
2	If an external printer is used, FDLE/ATP Form 38 – Breath Alcohol Test Affidavit – Intoxilyzer 8000 will be automatically printed containing all the results. If no external printer is used, a printout slip containing all the results will be automatically printed.	If a printout slip is obtained, attach it to the affidavit once the affidavit is printed.
3	Complete FDLE/ATP Form 38 – Breath Alcohol Test Affidavit – Intoxilyzer 8000	The operator must affirm the information recorded on FDLE/ATP Form 38 in the presence of a notary public. The operator and the notary must complete the information on the bottom of FDLE/ATP Form 38. The operator must sign their name on the appropriate space provided in the presence of the notary public. The notary public must complete the county of the affirmation, the date, sign their name, print or provide their stamp and document the identification (personally known or produced identification) used to notarize the affidavit.

4.5 State when conducting a breath test using an Intoxilyzer 8000, an incorrect operational procedure or condition will cause the instrument to display and print a message associated with the incorrect operational procedure or condition. Define the messages and understand the action breath test operator must take when each message is displayed and printed.

Message	Description	Action
INTERFERENT DETECT	An interfering substance was detected in the breath or control sample OR the calculated result obtained from the detection of light from each filter did not agree. The instrument will display INTERFERENT DETECT, abort the test, print INT* in the results section of the report, and print *INTERFERENT DETECT at the bottom of the results section of the report.	The operator must restart the breath test. If INTERFERENT DETECT is again obtained, the subject may need medical attention.
IMPROPER SAMPLE	The sample was introduced at the wrong time. The instrument will display IMPROPER SAMPLE, abort the test, print IPS* in the results section of the report, and print *IMPROPER SAMPLE at the bottom of the results section of the report.	The operator must restart the breath test and ensure that the subject provides the breath sample when the instrument displays PROVIDE SAMPLE NOW.
AMBIENT FAIL	The instrument was not able to clear the sample chamber during the air blank prior to a diagnostic check, breath sample or control sample. The instrument will display AMBIENT FAIL, abort the test, print AMB* in the results section of the report, and print *AMBIENT FAIL at the bottom of the results section of the report.	The operator must clear the immediate area of possible contaminants and restart the breath test. If AMBIENT FAIL is again obtained, the operator should contact their agency inspector for further instructions.
PURGE FAIL	During the air blank after a breath or control sample, the instrument was not able to successfully clear the sample	The operator must restart the breath test.

	chamber of a breath or control test sample. The instrument will display PURGE FAIL, abort the test, print PUR* in the results section of the report, and print *PURGE FAIL at the bottom of the results section of the report.	If PURGE FAIL is again obtained, the operator should contact their agency inspector for further instructions.
SUBJECT TEST REFUSED	The operator pressed the "R" key on the keyboard when the instrument displayed PROVIDE SAMPLE NOW. The instrument will display SUBJECT TEST REFUSED, abort the test, print REF* in the results section of the report, and print *SUBJECT TEST REFUSED at the bottom of the results section of the report.	A law enforcement officer or correctional officer must complete the applicable refusal affidavit.
NO SAMPLE PROVIDED	The subject did not provide a breath sample into the instrument within the three (3) minute time period allowed for each breath sampling process OR the subject did not provide a breath sample for at least one (1) second. The instrument will display NO SAMPLE PROVIDED, print NSP* in the results section of the report, and print *NO SAMPLE PROVIDED at the bottom of the results section of the report.	<ul style="list-style-type: none"> • If NO SAMPLE PROVIDED is obtained on the first breath sample, the instrument will continue to request two more samples. If the subsequent samples are valid, the breath test is complete. • If NO SAMPLE PROVIDED is obtained on the second breath sample, the instrument will continue to request a third breath sample. If the first and third breath samples are valid, the breath test is complete. • If NO SAMPLE PROVIDED is obtained on the first and second breath samples, the instrument will discontinue the breath test. The operator must restart the breath test if the subject is going to provide samples.
SLOPE NOT MET	The sample provided did not meet the slope requirements of a minimum acceptable breath sample and there was a negative slope (the alcohol concentration from the subject sample decreased). The instrument will display SLOPE NOT MET, abort the test, print SNM* in the results section of the report, and print *SLOPE NOT MET at the bottom of the results section of the report.	The operator must perform another twenty-minute observation period and restart the test.
RFI DETECT	The instrument detected radio frequency interference of a sufficient strength and frequency to interfere with the breath test or control test. The instrument will display RFI DETECT, abort the test, print RFI* in the results section of the report, and print *RFI DETECT at the bottom of the results section of the report.	The operator must clear the room and immediate area of any radios or cell phones and restart the breath test.
SEQUENCE ABORTED	The "Start Test" button was pressed during an operational function. The instrument will display SEQUENCE ABORTED, abort the test, print ABT* in the results section of the report, and print *SEQUENCE ABORTED at the bottom of the results section of the report.	The operator must restart the breath test (only if this action was accidental).
RANGE EXCEEDED	The value of the breath sample provided exceeded the reporting range of the instrument (0.600 g/210L). The instrument will display RANGE EXCEEDED, abort the test, print RGE* in the results section of the report, and print RANGE EXCEEDED at the bottom of the results section of	The operator must restart the breath test. If RANGE EXCEEDED is again obtained, the subject may need medical attention.

	the report.	
CONTROL OUTSIDE TOLERANCE	The dry gas standard control test value was out of range. The correct range for the control test is 0.075 to 0.085 g/210L. The instrument will display CONTROL OUTSIDE TOLERANCE, abort the test, print an * by the control test result in the results section of the report, and print *CONTROL OUTSIDE TOLERANCE at the bottom of the results section of the report.	The Breath Test Operator must restart the test. Recommendations: Remove the subject from the testing area and allow the area to "air out" before beginning another test. Keep the subject away from the breath tube when samples are not being obtained. If CONTROL OUTSIDE TOLERANCE is again obtained, the operator should contact their agency inspector for further instructions.
DIAGNOSTIC FAIL	One or more of the diagnostic tests failed. The instrument will display DIAGNOSTIC FAIL, abort the test, print FAIL* in the results section of the report and print *DIAGNOSTIC FAIL at the bottom of the results section of the report.	The Breath Test Operator must restart the test. If DIAGNOSTIC FAIL for the same failure is again obtained, the operator should contact their agency inspector for further instructions.
VOLUME NOT MET	The breath sample provided did not meet the minimum breath sample requirement of 1.1Liter. The instrument will display VOLUME NOT MET, print VNM* in the results section of the report, and print *VOLUME NOT MET (0.XXX Breath Sample Not Reliable for Quantitative Breath Alcohol Level) at the bottom of the results section of the report.	<ul style="list-style-type: none"> • If VOLUME NOT MET is obtained on the first breath sample, the instrument will continue to request two more samples. If the subsequent samples are valid, the breath test is complete. • If VOLUME NOT MET is obtained on the second breath sample, the instrument will continue to request a third breath sample. If the first and third breath samples are valid, the breath test is complete. • If VOLUME NOT MET is obtained on the first and second breath samples, the instrument will discontinue the breath test. The operator must restart the breath test (if the subject is going to provide breath samples).
NO .020 AGREEMENT	There was not 0.020 g/210L agreement between the three samples of breath obtained. The instrument will display NO .020 AGREEMENT, print a * by the breath sample results, and print *NO .020 AGREEMENT at the bottom of the results section of the report.	The operator must restart the breath test.
SLOPE NOT LEVEL	The sample provided did not meet the slope requirements of a minimum acceptable breath sample and the slope of the breath sample being provided is still rising and did not level off. The instrument will display SLOPE NOT LEVEL, print SNL* in the results section of the report, and print *SLOPE NOT LEVEL (0.XXX Breath Sample Not Reliable for Quantitative Breath Alcohol Level) at the bottom of the results section of the report.	<ul style="list-style-type: none"> • If SLOPE NOT LEVEL is obtained on the first breath sample, the instrument will continue to request two more samples. If the subsequent samples are valid, the breath test is complete. • If SLOPE NOT LEVEL is obtained on the second breath sample, the instrument will continue to request a third breath sample. If the first and

		<p>third breath samples are valid, the breath test is complete.</p> <ul style="list-style-type: none"> If SLOPE NOT LEVEL is obtained on the first and second breath samples, the instrument will discontinue the breath test. The operator must restart the breath test.
TANK BELOW MIN	The gas pressure of the dry gas standard cylinder is under 25 psi. The instrument cannot be used until the dry gas standard cylinder is changed.	The operator or Agency Inspector will need to change the dry gas standard cylinder and record the new lot number and expiration date. A breath test can then be conducted.
DISABLED MODE	The agency inspector did not upload the agency inspection, OR there are 150 breath tests that need to be uploaded, OR an agency inspection needs to be completed.	The agency inspector or department inspector must upload the stored agency inspection and/or breath tests OR an agency inspection needs to be conducted before the instrument may be used to conduct breath tests.

REFUSAL TO SUBMIT TO A BREATH TEST

4.6 State "Refusal or failure to provide the required number of valid breath samples constitutes a refusal to submit to the breath test." (Chapter 11D-8, FAC)

- A refusal may be the subject verbally refuses to submit to the breath test or when the subject is not providing valid breath sample(s) when requested to do so.
- A person placed under lawful arrest for driving or boating under the influence and who refuses the requested test must be read the appropriate Implied Consent Warnings to inform the person of the administrative consequences of such refusal.
- A law enforcement officer or correctional officer must complete the appropriate refusal affidavit (the DHSMV Refusal Affidavit for driving under the influence and the FWC refusal affidavit for boating under the influence).

What If...?	Potential Response
What if the subject initially refuses to submit to the breath test, but then recants the refusal (for example, changes their mind)?	The breath test operator will administer the breath test and complete the proper forms for the breath test.
What if the subject provides one breath sample, but then refuses or declines to continue with the process of providing a second breath sample?	The subject must be read the Implied Consent Warnings. If the subject still refuses, the breath test operator should finish completing the required breath test paperwork, and a law enforcement/correctional officer must complete the paperwork on the refusal (DHSMV Refusal Affidavit or FWC Refusal Affidavit).
What if a subject fails to give an adequate sample (volume not met) or the proper number of samples or two samples within 0.020 g/210L agreement? What action should the breath test operator take?	If a subject fails to provide a valid breath test Chapter 11D-8, FAC deems such action as a refusal to submit to a breath test and the breath test operator should fill out the appropriate forms related to the breath test and a law enforcement/correctional officer must complete the refusal documents (DHSMV Refusal Affidavit or FWC Refusal Affidavit).

Breath Test Operator Course
Lesson Plan

Lesson Four
The Breath Test

Review Questions

1. What is the definition of approved breath alcohol test?
2. What procedures must be followed when conducting a breath test on an Intoxilyzer 8000?
3. Who, by rule, can have access to an evidentiary breath test instrument?
4. What does VOLUME NOT MET mean on an Intoxilyzer 8000?
5. What does SLOPE NOT MET mean on an Intoxilyzer 8000?

**Breath Test Operator Course
Lesson Plan**

**Lesson Four
The Breath Test**

Review Answers

1. **What is the definition of approved breath alcohol test?**
Approved Breath Alcohol Test – a minimum of two samples of breath collected within fifteen minutes of each other, analyzed using an approved breath test instrument, producing two results within 0.020 g/210L, and reported as the breath alcohol level. If the results of the first and second samples are more than 0.020 g/210L apart, a third sample shall be analyzed. Refusal or failure to provide the required number of valid breath samples constitutes a refusal to submit to the breath test. Notwithstanding the foregoing sentence, the result(s) obtained, if proved to be reliable, shall be acceptable as a valid breath alcohol level.
2. **What procedures must be followed when conducting a breath test on an Intoxilyzer 8000?**
FDLE/ATP Form 37 Operational Procedures – Intoxilyzer 8000
3. **Who, by rule, can have access to an evidentiary breath test instrument?**
Evidentiary breath test instruments shall only be accessible to a person issued a valid permit by the Department and to persons authorized by a permit holder.
4. **What does VOLUME NOT MET mean on an Intoxilyzer 8000?**
The breath sample provided did not meet the minimum breath sample requirement of 1.1Liter.

The instrument will display VOLUME NOT MET, print VNM* in the results section of the report, and print *VOLUME NOT MET (0.XXX Breath Sample Not Reliable for Quantitative Breath Alcohol Level) at the bottom of the results section of the report.
5. **What does SLOPE NOT MET mean on an Intoxilyzer 8000?**
The sample provided did not meet the slope requirements of a minimum acceptable breath sample and there was a negative slope (the alcohol concentration from the subject sample decreased).

The instrument will display SLOPE NOT MET, abort the test, print SNM* in the results section of the report, and print *SLOPE NOT MET at the bottom of the results section of the report.

Breath Test Operator Course Lesson Plan

Laboratory Practical: Operating the Instruments

Requirements for Laboratory Practical

- For purposes of the Laboratory Practical, a breath test means obtaining a minimum of two (2) breath samples per test.

INTOXILYZER 8000

- The following is the Laboratory Practical for the Intoxilyzer 8000:
 - The following number of breath tests will be performed by the student using an Intoxilyzer 8000 in accordance with FDLE/ATP Form 37 Operational Procedures – Intoxilyzer 8000:
 - Five (5) tests on drinking and/or non-drinking subjects
 - Using the Intoxilyzer 8000, the student must complete a minimum of five (5) complete sets of breath test paper work. This paperwork may be completed in conjunction with the five (5) tests on drinking and/or non-drinking subjects listed above. The breath test paper work consists of the following:
 - FLDE/ATP Form 38 Breath Alcohol Test Affidavit – Intoxilyzer 8000

Breath Test Operator Course Lesson Plan

Lesson Five Courtroom Testimony

Introduction

During this lesson the student will learn how to testify regarding the breath test that was conducted and, through answering questions sometimes asked in court, will review all information learned in this course.

Objectives

- 5.1 **When testifying in court the operator should be well prepared and ready to answer questions regarding the breath test.**
- Before going to Court:**
- Review course material in conducting breath test (for example, instrument theory, instrument operation and the rules of conducting a breath test).
 - Review the Affidavit (and if applicable, the print card) to re-familiarize yourself with the occurrences of the breath test.
- Testifying in Court:**
- Dress professionally – uniform or business attire.
 - Speak loudly and clearly.
 - Emphasize your training, education and experience.
 - Speak in simple language when possible. Breath testing contains complex scientific language but try to keep it simple and use analogies when possible.
 - Do not be afraid to say “I don’t know” when you do not know the answer.
 - Do not argue with either the prosecutor or the defense counsel.
 - Listen carefully to the question and answer only the question asked.
 - Take your time when answering a question. If necessary, think about your answer before giving it.
 - If possible, use visual aids or demonstrations when testifying.
- 5.2 **The operator should be familiar with answering questions asked in court regarding the breath test.**
- The class will be broken down into small groups. Using an Affidavit from the practical conducted earlier, students will take turns asking and answering the following questions below:
 - Getting “qualified” as a Breath Test Operator:**
 - Please state your name.
 - Where are you employed?
 - How long have you been employed with that agency?
 - What are your duties and responsibilities?
 - Do you have any education or experience in conducting breath tests?
 - Did you learn how to conduct breath tests in accordance with Chapter 11D-8, FAC?
 - Do you hold a permit to conduct breath tests?
 - When did you obtain it?
 - How many breath tests have you administered?
 - What are your duties as a breath test operator?
 - The Breath Test:**
 - Did you conduct a breath test on this defendant?
 - What instrument did you use to conduct the breath test?
 - Does this instrument use infrared light absorption?
 - What is infrared light absorption?
 - Did you conduct a twenty minute observation prior to conducting the breath test?
 - When did it begin?
 - When did it end?

- Did you reasonably ensure that the defendant did not take anything by mouth or regurgitate during the twenty minute observation period?
- What time was the breath test conducted?
- What procedures did you follow when conducting the breath test?
- Are these the procedures required by Chapter 11D-8, FAC when conducting a breath test?
- Did you follow all the required procedures when conducting this breath test?
- Did the defendant provide at least two valid breath samples?
- Were they deep lung air samples?
- How do you know they were deep lung air samples?
- Do the results agree within 0.020 g/210L as required by Chapter 11D-8, FAC?

Admission of the Affidavit:

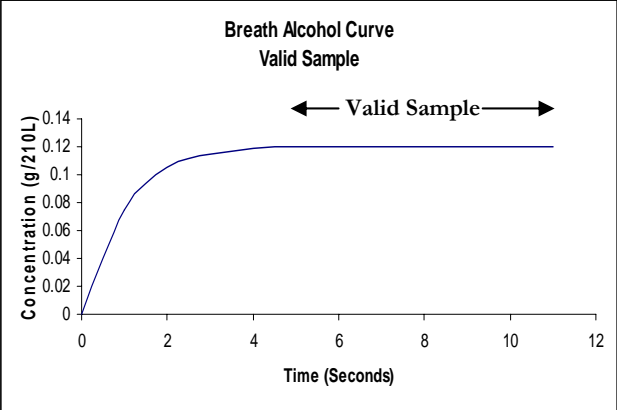
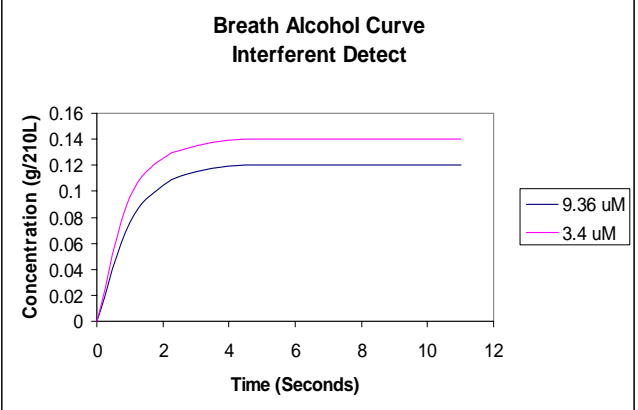
- Do you recognize this document?
- How do you recognize it?
- What is this document?
- Did you complete the document at or near the time of the breath test?

(Affidavit must be admitted into evidence)

- What were the results of the breath test?

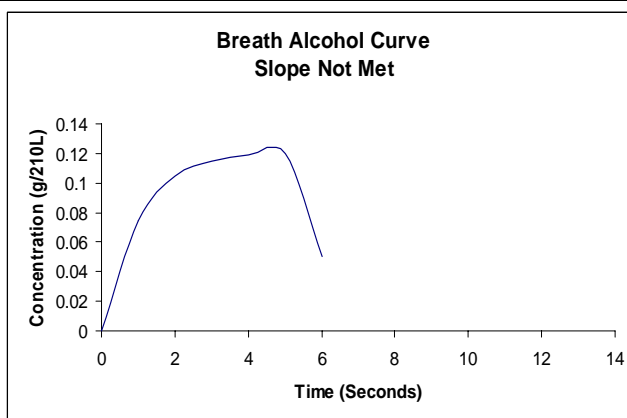
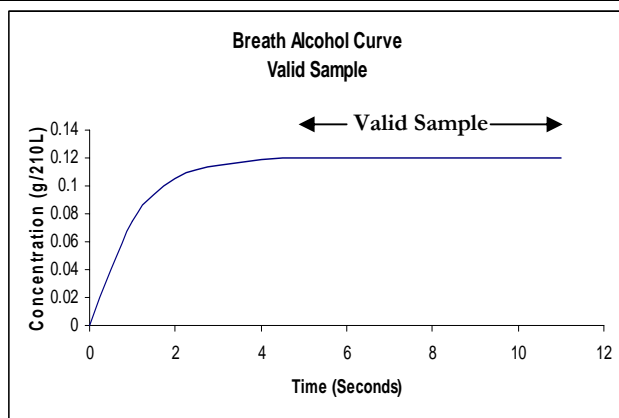
5.3 The student must be able to answer questions regarding a test with messages that occurred during the breath test - INTERFERENT DETECT, SLOPE NOT MET, SLOPE NOT LEVEL, VOLUME NOT MET, and NO SAMPLE PROVIDED.

- The students will be brought back into one group again. The following scenarios will be discussed as a class:

Scenario One: A breath test with INTERFERENT DETECT as a result.	
QUESTION	SAMPLE ANSWER
<p>When conducting a breath test, you obtain a result of INTERFERENT DETECT on the first breath sample. The instrument aborted the test. You then restarted the breath test and obtained two valid breath samples.</p> <p>QUESTION: Why did you obtain INTERFERENT DETECT on the first sample?</p> <p>QUESTION: Are the two breath samples you subsequently obtained reliable?</p>	<p>ANSWER: An interfering substance was detected in the breath or control sample OR the calculated result obtained from the detection of light from each filter did not agree.</p> <p>ANSWER: The two subsequent breath samples are reliable because the instrument did not detect an interfering substance in the breath or control sample OR the instrument did not calculate results from the detection of light from each filter that were different from each other. There was no interferent detected in either subsequent breath sample. The two subsequent breath samples agree within 0.020 g/210L of each other which further shows that there was no interferent or problems with the subsequent samples obtained independently of each other.</p>
 <p>Breath Alcohol Curve Valid Sample</p> <p>← Valid Sample →</p>	 <p>Breath Alcohol Curve Interferent Detect</p> <p>— 9.36 uM — 3.4 uM</p>

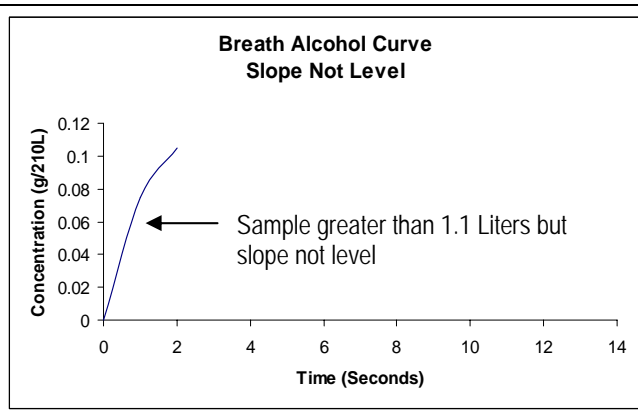
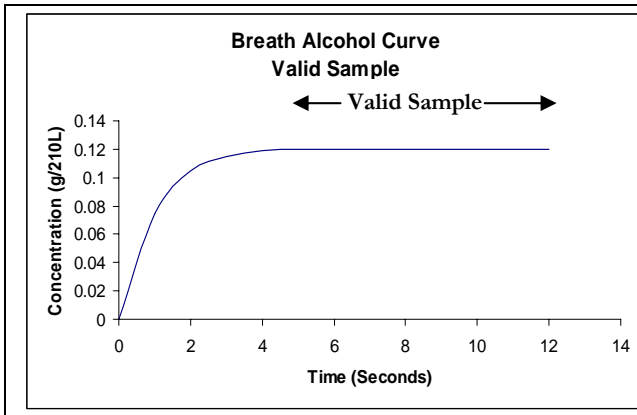
Scenario Two: A breath test with SLOPE NOT MET as a result.

QUESTION	SAMPLE ANSWER
<p>When conducting a breath test, you obtain a result of SLOPE NOT MET on the first breath sample. The instrument aborted the test. You then conducted another twenty minute observation period, restarted the breath test and obtained two valid breath samples.</p> <p>QUESTION: Why did you obtain SLOPE NOT MET on the first sample?</p> <p>QUESTION: Are the two breath samples you subsequently obtained reliable?</p>	<p>ANSWER: The sample provided did not meet the slope requirements of a minimum acceptable breath sample and there was a negative slope (the alcohol concentration from the subject sample decreased).</p> <p>ANSWER: The two subsequent breath samples are reliable because all minimum acceptable breath sample requirements including slope were met and there was no negative slope associated with either subsequent breath sample. The two subsequent breath samples agree within 0.020 g/210L of each other which further shows that there was no problem with the slope of the subsequent samples obtained independently of each other.</p>



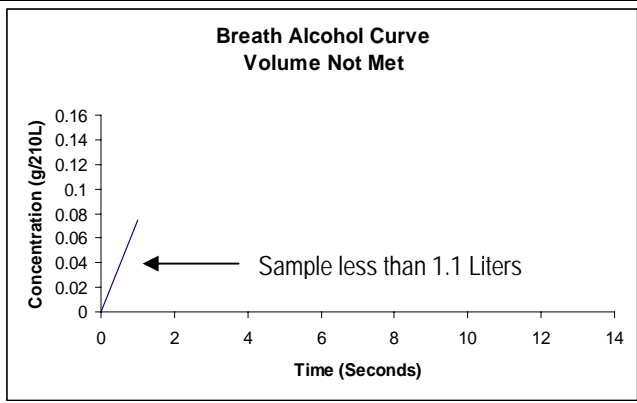
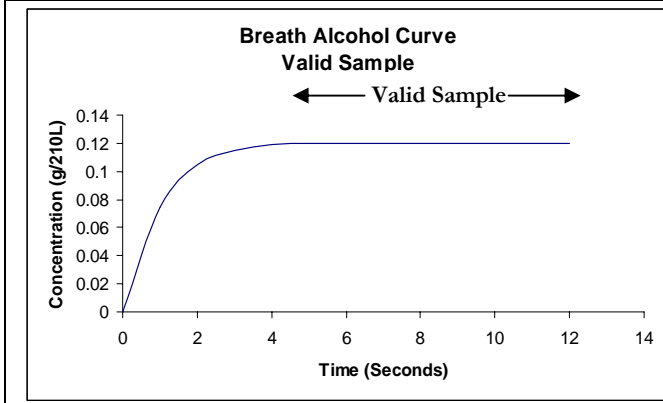
Scenario Three: A breath test with SLOPE NOT LEVEL as a result.

QUESTION	SAMPLE ANSWER
<p>When conducting a breath test, you obtain a result of SLOPE NOT LEVEL on the first breath sample. The instrument requested the second and third samples. The second and third samples were valid breath samples. The results on the Affidavit were:</p> <p>Sample #1 – SNL*</p> <p>Sample #2 – 0.112</p> <p>Sample #3 – 0.115</p> <p>*Slope Not Level – (0.065 – Breath sample not reliable for quantitative breath alcohol level)</p> <p>QUESTION: Why did you obtain SLOPE NOT LEVEL on the first sample?</p> <p>QUESTION: Are the two breath samples you subsequently obtained reliable?</p> <p>QUESTION: Why is the SLOPE NOT LEVEL result lower and not reliable?</p>	<p>ANSWER: The sample provided did not meet the slope requirements of a minimum acceptable breath sample and the slope of the breath sample being provided is still rising and did not level off.</p> <p>ANSWER: The two subsequent breath samples are reliable because all minimum acceptable breath sample requirements including slope were met and the slope was no longer rising and had leveled off for both subsequent breath samples. The two subsequent breath samples agree within 0.020 g/210L of each other which further shows that there was no problem with the slope of the subsequent samples obtained independently of each other.</p> <p>ANSWER: The SLOPE NOT LEVEL result is lower because the subject had not provided a deep lung air breath sample when he/she stopped providing their sample. The result is not reliable because the instrument has not determined that there are no interferences or mouth alcohol in the sample provided.</p>



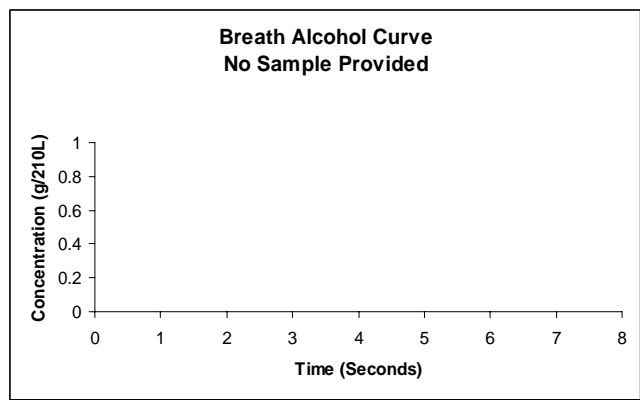
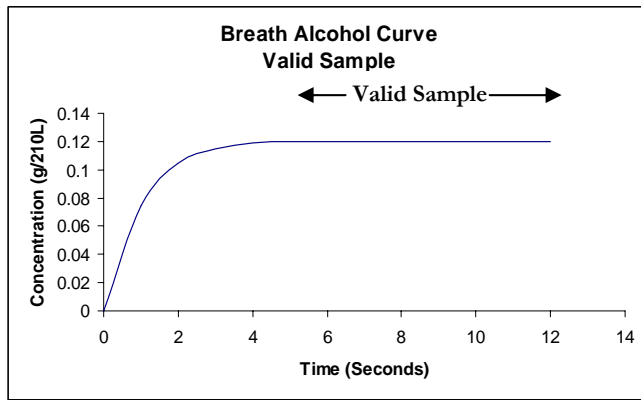
Scenario Four: A breath test with VOLUME NOT MET as a result.

QUESTION	SAMPLE ANSWER
<p>When conducting a breath test, you obtain a result of VOLUME NOT MET on the first breath sample. The instrument requested the second and third samples. The second and third samples were valid breath samples. The results on the Affidavit were: Sample #1 – VNM* Sample #2 – 0.112 Sample #3 – 0.115 *Volume Not Met – (0.065 – Breath sample not reliable for quantitative breath alcohol level)</p> <p>QUESTION: Why did you obtain VOLUME NOT MET on the first sample? QUESTION: Are the two breath samples you subsequently obtained reliable? QUESTION: Why is the VOLUME NOT MET result lower and not reliable?</p>	<p>ANSWER: The breath sample provided did not meet the minimum breath sample requirement of 1.1Liter.</p> <p>ANSWER: The two subsequent breath samples are reliable because all minimum acceptable breath sample requirements including volume were met. The two subsequent breath samples agree within 0.020 g/210L of each other which further shows that there was no problem with the slope of the subsequent samples obtained independently of each other.</p> <p>ANSWER: The VOLUME NOT MET result is lower because the subject had not provided a deep lung air breath sample when he/she stopped providing their sample. The result is not reliable because the instrument has not determined that there are no interferents or mouth alcohol in the sample provided.</p>



Scenario Five: A breath test with NO SAMPLE PROVIDED as a result.

QUESTION	SAMPLE ANSWER
<p>When conducting a breath test, you obtain a result of NO SAMPLE PROVIDED on the first breath sample. The instrument requested the second and third samples. The second and third samples were valid breath samples. The results on the Affidavit were: Sample #1 – NSP* Sample #2 – 0.112 Sample #3 – 0.115 *No Sample Provided</p> <p>QUESTION: Why did you obtain NO SAMPLE PROVIDED on the first sample? QUESTION: Are the two breath samples you subsequently obtained reliable?</p>	<p>ANSWER: The subject did not provide a breath sample into the instrument within the three (3) minute time period allowed for each breath sampling process OR the subject did not provide a breath sample for at least one (1) second. It takes the instrument at least one (1) second to calculate a result therefore a result cannot be obtained if the subject provides a sample for less than one minute</p> <p>ANSWER: The two subsequent breath samples are reliable because the subject provided samples into the instrument and all minimum acceptable breath sample requirements including time were met. The two subsequent breath samples agree within 0.020 g/210L of each other which further shows that there was no problem with the slope of the subsequent samples obtained independently of each other.</p>



Breath Test Operator Course Lesson Plan

Written Examination and Proficiency

Requirements for Proficiency

- As outlined in Chapter 11D-8, Florida Administrative Code, each student must successfully demonstrate proficiency in administering a breath test and completing the forms associated with the breath test.
- These requirements include:
 - Properly performing a breath test using the Intoxilyzer 8000 in accordance with FDLE/ATP Form 37 Operational Procedures - Intoxilyzer 8000
 - Properly completing FDLE/ATP Form 38 Breath Alcohol Test Affidavit – Intoxilyzer 8000 obtained during the proficiency breath test.
- The proficiency test must meet the requirements of an approved breath alcohol test as defined in Rule 11D-8.002, F.A.C. It may not be a refusal.

Written Examination

- Each student must take a written examination.
- Successful completion of the written examination requires a passing grade of 80% or better.