ARKANSAS REGULATIONS FOR ALCOHOL TESTING

Fifth Revision

ARKANSAS DEPARTMENT OF HEALTH
OFFICE OF ALCOHOL TESTING
201 S. MONROE
LITTLE ROCK, ARKANSAS 72205

BOX 8509
LITTLE ROCK, ARKANSAS 72215-8509

Effective January 24, 2013

(this page intentionally left blank)

AUTHORITY

The following regulations for alcohol testing are duly adopted and promulgated by the Arkansas Department of Health as approved by the Arkansas State Board of Health pursuant to the authority expressly conferred by the laws of the State of Arkansas, Act 106 of 1969 as amended and Act 346 of 1957 as amended, the same being Arkansas Code, Title 5, Chapter 65 and Act 518 of 1995 as amended.

ADDENDUMS

Revisions necessary after the printing of these Regulations may be attached inside the front cover. They will bear the signature of the Secretary of the Arkansas State Board of Health.

(this page intentionally left blank)

TABLE OF CONTENTS

	Page
AUTHORITY	iii
ADDENDUMS	iii
DEFINITIONS	1
SECTION I. CERTIFICATION	5
PART A - GENERAL	
1.10 - Requirement for Certification	5
1.11 - Certification Implications	5
1.12 - Installation Certification	5
1.13 - Senior Operator Certification	6
1.14 - Operator Certification	6
1.15 - Instrument Certification	7
PART B - EXEMPTIONS AND EXCLUSIONS	
1.20 - Exclusions from Certification	7
PART C - PROCEDURES FOR CERTIFICATION	
1.30 - Initial Certification	7
1.31 - Renewal of Certification	7
1.32 - Report of Change or Discontinuance	8
1.33 - Transfer of Certification	8
1.34 - Certification Records	8
PART D - INSPECTIONS AND ADDITIONAL REQUIREMENTS FOR CERTIFICATION	
1.40 - Access to Premises	8
1.41 - Tests and Evaluations	8
1.42 - Responsibilities of Installation	9
1.43 - Suspension or Revocation	9
1.44 - Reinstatement of Certification	9

SECTION II. TRAINING

PART A - GENERAL

2.10 - Approval of Training Course 10
2.11 - Changes in Training Requirements 10
2.12 - Senior Operators 10
2.13 – Operators 11
2.14 - Special Training Courses 11

SECTION III. SAMPLE COLLECTION AND HANDLING

PART A - GENERAL

3.10 - Sampling Requirements 11
3.11 - Collection of Samples 11
3.12 - How to Collect and Handle Samples 11
3.13 - Who May Analyze Samples 11
3.14 - Samples to be Analyzed by the Department 11

PART B - BLOOD SAMPLING

3.20 - Sample Collection 12
3.21 - Postmortem Sample Collection 12
3.22 - Sample Size 12
3.23 - Sample Container 12
3.24 - Sample Preservation 12
3.25 - Sample Witness 13

PART C - URINE SAMPLING

3.30 - Sample Collection 13
3.31 - Sample Size 13
3.32 - Sample Container 13
3.33 - Sample Preservation 13
3.34 - Sample Witness 13

PART D - BREATH SAMPLING

3.40 - Sample Collection 14
3.41 - Sample Size 14

PART E - SAMPLING OF OTHER BODILY SUBSTANCES

3.50 - Sample Collection 14

SECTION IV. METHODS OF ANALYSIS

PART A - GENERAL

4.10 - Methodology and Instrumentation Requirements 14
4.11 - Approval of Methods 14
4.12 - Approval of Type A and Type C Testing Devices and Accessories 14
4.13 - Modified Versions of Approved Instruments and Accessories 16
4.14 - Approval of Ampoules or other Prepackaged Chemical 16
4.15 - Approval of Chemical Test Procedures 16

PART B - METHODS OF ALCOHOL ANALYSIS

4.20 - Approved Methods 16

PART C - TESTING DEVICES AND CALIBRATION DEVICES

4.30 - Approved Breath-Testing Devices - Type A 16
4.31 - Approved Calibration Devices 17

PART D - EXPRESSION OF RESULTS

4.40 - Blood Alcohol Concentration 17
4.41 - Urine Analysis 18
4.42 - Serum or Plasma Analysis 18
4.43 - Breath Alcohol Concentration 18

PART E - CALIBRATION AND CALCULATION OF RESULTS

4.50 - Procedures on Approved Instruments - Type A1 and Type A2 18
4.51 - Instruments Subsequently Approved 18

SECTION V. RECORDS AND REPORTING

PART A - GENERAL

5.10 - Records and Reporting Requirements 19
5.11 - Installation Records Required 19
5.12 - Installation Reporting to the Department 19

SEVERABILITY 20

REPEAL 20

CERTIFICATION 20

DEFINITIONS

Alcohol - ethyl alcohol except where reference is made to alcoholic skin antiseptics where it means any hydroxyl derivative of a hydrocarbon.

Alcohol Analyses or Chemical Tests - (also, Breath Testing, Method of Analysis, Test) the total of all manipulations required to achieve a result which shows the alcohol concentration of an individual's blood or breath. Urine or other bodily substances may be used for determining the concentration of alcohol in the blood.

Alveolar Air - air in the smallest air sacs of the lungs; the air which is in equilibrium, with respect to alcohol, with the immediately adjacent pulmonary arterial blood.

Ampoule - a bulbous glass vessel hermetically sealed and containing a liquid. Ampoules contain the stock solution for certified breath simulator standards, except when a premixed solution is used.

Approved - recognized, endorsed, authorized, sanctioned, or provided by the Department.

Blood - whole blood which consists of the cellular components and the serum or plasma of blood, preferably peripheral venous blood.

Blood Alcohol Concentration - the percentage of alcohol in the blood. % w/v (percent weight per volume), that is, grams of alcohol per 100 milliliters of blood expressed as a percent. May also be shown as % BA or % BAC.

Breath - that portion of exhaled air that is considered to be substantially alveolar unless otherwise specified.

Breath Alcohol Concentration - the amount of alcohol in the breath, that is, grams of alcohol per 210 liters of breath. May be shown or expressed as g/210L.

Breath Simulator - see Simulator.

Breath-Testing Instrument - see Testing Device.

Calibration Device - see Simulator or Dry-gas Cylinder.

Calibration Test - a test, using a simulator, dry-gas cylinder, or other calibration device containing a known concentration of ethyl alcohol to check or verify the accuracy of an alcohol-testing instrument.

Certificate - a document issued by the Department certifying that an installation, individual, or instrument (testing device) has met the requirements and may practice/be used in the determination of alcohol content, subject to the restrictions and requirements contained in these Regulations. Certificates are not issued for calibration devices.

Department - the Office of Alcohol Testing.

Dry-gas Cylinder – a cylinder containing a known concentration of ethyl alcohol mixed with nitrogen gas used to calibrate and check the calibration of a testing device.

Employ - paying the salary of, as authorized by that organization, agency, institution, or political subdivision and in a position to hold the employed individual responsible for the specified performance of duties.

Field-Test Device - any testing device which is designed specifically for the purpose of testing subjects on the spot; a portable unit designed for field testing (see Testing Device).

Individual - any human being.

Installation - any agency, partnership, association, public or private institution, or political subdivision that analyzes breath or other bodily substances for alcohol content for the purpose of supporting or defending legal actions which may arise out of Arkansas Code, Title 5, Chapter 65 as amended, or Act 518 of 1995 as amended.

Instrument - see Testing Device.

Intoxicating Liquor - a distilled or fermented alcoholic beverage or any substance that contains alcohol in any concentration that may render a person under the influence.

Law-Enforcement Agency - any police force or organization of a city, county, or this state or other government agency within this state whose primary duty as prescribed by law or ordinance is enforcing the criminal, traffic or highway laws of this state.

Operator - an individual who has met the requirements outlined in 1.14, thus qualifying to test subjects on a specified type of breath-testing instrument or instruments and to perform related tasks in accordance with Department procedures and these Regulations.

Other Bodily Substances - any bodily substance other than blood, breath, or urine which can be used to determine alcohol content of the blood.

Refrigerate (d) - to make or keep cold or cool.

Regulations, (these) - all sections of Arkansas Regulations for Alcohol Testing, unless otherwise specified.

Revocation - an act of calling back or rescinding; discontinuation.

Sample - blood, breath, urine, or other bodily substances as specified to be analyzed for alcohol content.

Sampling Device - any instrument or mechanism used to capture or collect a sample (see Testing Device).

Senior Operator - an individual who has met the requirements outlined in 1.13 thus qualifying to (1) test subjects on a specified type of breath-testing instrument or instruments, (2) perform calibration tests and proficiency tests as required by the Department, (3) perform other required tasks related to alcohol testing; all in accordance with Department procedures and these Regulations.

Simulator - a device that enables the operator to reproduce, under test conditions, phenomena likely to occur in actual performance; a device used to simulate or imitate a breath sample at a specific alcohol concentration; an accessory to a testing device.

Simulator Standard Solution - a solution that may be prepared from an ampoule of stock solution or purchased in a premixed form, when used in a simulator, produces a vapor sample that simulates a breath sample of a specified alcohol concentration.

Standard - anything set up and established by authority as a rule for the measure of quantity, weight, or value.

Standard of Accuracy - a standard for the performance of alcohol analyses as specified in these Regulations; that standard being ±0.01% w/v for blood analyses and ±0.01g/210L for breath analyses.

Subject - any individual.

Suspension - an act to make temporarily inoperative.

Testing Device - any instrument or mechanism used in determining or estimating the alcohol content of breath, blood, urine or other bodily substance pursuant to these Regulations (see Section IV). A testing device may include a sampling device. Testing devices are categorized as follows:

Type A - Evidentiary Device

A1 - An evidentiary device which is designed to collect and analyze a sample within the limits of accuracy prescribed in 4.12. All certification requirements apply to Type A1 devices except when used by a facility which qualifies under 1.20.

A2 - An evidentiary device which is used in a mobile unit which collects and analyses a sample within the limits of accuracy prescribed in 4.12. All certification requirements apply to Type A2 devices as well as any additional requirements the Department may find necessary to assure compliance with the intent of the applicable Arkansas Code and these Regulations.

Type B - Nonevidentiary Device - a device which by design is for screening only and the accuracy thereof is not required to be within ±0.01 of actual value, or any device which is, by application, a screening device only. Both the device and the operating personnel are excluded from certification requirements. Test results obtained on a Type B device are not to be used as evidence in a court of law for the purpose of establishing that the subject was under the influence of alcohol but may be used to establish probable cause for further testing on a Type A or Type C device.

Type C - Other Laboratory Instruments - devices or instruments which may be used in a facility which qualifies for exclusion (1.20). That exclusion extends to the equipment and the operating personnel.

I. CERTIFICATION

PART A. GENERAL

1.10 Requirement for Certification. Every individual, installation, or instrument not exempted or excluded by these Regulations and involved in performing alcohol analysis in accordance with these Regulations is to have a valid certificate as prescribed herein. For exemptions and exclusions, see Section I, Part B.

1.11 Certification Implications. Certification shall not imply approval of anything carried out by an installation or individual other than what is specified on the certificate. Certification of an individual to operate a particular approved testing device authorizes that individual to perform tests on any unit of that type as long as the owner of the unit has no objection.

1.12 Installation Certification. To qualify for certification, an installation must meet the set of conditions in a. or b. of this section.

a. Local Installation.

(1) Employ at least one Senior Operator for each different model of instrument to be certified. However, one person may serve as Senior Operator on more than one instrument at any one installation.

(2) Own, lease or otherwise be in full control of an approved alcohol-testing device and the required related accessories.

If an instrument is shared by two or more agencies for the purpose of qualifying for certification as a joint installation, an agreement form (BA: 208) signed by all parties involved must be filed with the Department. This form is to be renewed every two years or upon the change of office of any official party involved, whichever comes first. No agreement form is required in the case of an agency that qualifies independently for installation certification but grants individuals from other agencies permission to utilize its certified equipment.

(3) Pass on-site inspections by the Department (Part D of this Section).

(4) Show the ability and willingness to meet the requirements set forth in these Regulations.

b. State Level Installation.

(1) Be a state level or other major subdivision of government that has an inadequate number of facilities, or no facilities of its own, appropriate for the installation of breath testing equipment.

(2) Have access to a large number of certified instruments at various agencies.

(3) Have an established internal line of communication and records control which distributes the Department issued documents and other communications to all certified employees of that agency in a timely and accurate manner.

(4) Local installations within the organizational structure of a state level installation must comply with 1.12a.

1.13 Senior Operator Certification. To qualify as a Senior Operator of a specific testing device and maintain that certification, an individual must meet the following requirements.

a. Successfully complete training approved by the Department as described in 2.12 on the operation of the testing device to be used.

b. Be employed by a law-enforcement agency, and through said agency, submit an application for certification to the Department. When the individual changes places of employment, a new application must be submitted through the new agency.

c. Be able to exhibit, through examination and demonstration to the Department, sufficient skill in the operation of the testing device and related accessories used.

d. Demonstrate the ability and willingness to adhere to the provisions of these Regulations which may include running a reasonable number of tests on the testing device.

e. Successfully complete any additional training or evaluation as required by the Department.

1.14 Operator Certification. To qualify as an Operator of a specific testing device and maintain that certification, an individual must meet the following requirements.

a. Successfully complete the training approved by the Department as described in 2.13.

b. Be employed by a law-enforcement agency, or be an auxiliary officer appointed as a reserve officer by a law enforcement agency, and through said agency submit an application for certification to the Department. When the individual changes places of employment, a new application must be submitted through the new agency.

c. Be evaluated by the Department as required and demonstrate sufficient skills in the operation of the testing device used.

d. Demonstrate the ability and willingness to adhere to the provisions of these Regulations which may include running a reasonable number of tests on the testing device.

e. Successfully complete any additional training or evaluation as required by the Department.

1.15 Instrument Certification. Each Type A1 and A2 testing device is to be tested by the Department for the purpose of certifying its accuracy.

Any test on such device for which a valid, current certificate cannot be produced will be considered invalid. Certificates are subject to recall by the Department since they are issued for a period of three (3) months in advance.

PART B. EXCLUSIONS

1.20 Exclusions from Certification.

a. It is not required that the Department be certified. The Department shall not be limited by these Regulations.

b. It is not required that the state medical examiner, his staff, or the State Crime Laboratory be certified, nor shall they be limited by these Regulations.

c. It is not required that Type B testing devices or the operators thereof be certified.

d. It is not required that accessories to testing devices be certified.

PART C. PROCEDURES FOR CERTIFICATION

1.30 Initial Certification. Any individual or installation not currently certified by the Department and requiring certification may apply for certification at any time by contacting the Department for application forms. The applicant shall factually provide all pertinent information as required on each form.

1.31 Renewal of Certification.

a. Installations. An Installation Certificate is valid if and when the conditions stated on the face of the Certificate are met. Therefore, an expiration date is not required on the Installation Certificate, nor is it necessary to reissue an Installation Certificate except when the identity changes or to replace one destroyed or lost.

b. Senior Operators and Operators. Every individual certified in accordance with these regulations shall renew such certification with the Department every two (2) years and at such other times as the Department deems necessary. The validity of such certificates may be verified by contacting the Department.

c. Instruments. Instrument certificates will be renewed quarterly unless otherwise defined by Arkansas law. Certification is to be based upon accuracy in the continued analysis of proficiency test samples and upon compliance with related policies and procedures specified by the Department. For details of procedures, contact the Department.

1.32 Report of Change or Discontinuance. The certified installation shall report within thirty (30) days any change of address or discontinuance of an installation, change of employment, or loss of certified personnel.

1.33 Transfer of Certification. Procedures for transferring certification are not detailed here. Information may be obtained by contacting the Department.

1.34 Certification Records. Certificates shall become part of the records available to the courts for legal proceedings, open to public inspection, and reclaimable by the Department.

PART D. INSPECTIONS AND ADDITIONAL REQUIREMENTS FOR CERTIFICATION

1.40 Access to Premises. The Department or its authorized representative shall have, for reasonable cause, the authority to enter, at all reasonable times, upon any private or public property for the purpose of determining whether or not there is compliance with the provisions of these Regulations, except that entry into areas under the jurisdiction of the federal government shall be effected only with the concurrence of the federal government or its authorized representative.

1.41 Tests and Evaluations. Each applicant for certification or certified individual shall perform such reasonable tests as the Department deems necessary in administration of these Regulations; these may include, but are not limited to, tests to evaluate the following.

a. Instruments and related devices used in accordance with these Regulations.

b. Facilities where testing devices are used.

c. Personnel training levels and competence.

1.42 Responsibilities of Installations. Installations certified under 1.12a. shall assign a Senior Operator to be responsible for record keeping and insuring that the installation adheres to these Regulations. This "Senior Operator-in-Charge" shall not bear the same responsibility at any other installation.

Installations certified under 1.12b. shall provide a contact person at the state level for receiving and distributing Department documents and communications and forwarding or distributing them appropriately. This person shall maintain accurate records of personnel of that agency certified by the Department and shall communicate with the Department as necessary concerning them.

1.43 Suspension or Revocation. The Department may at its discretion revoke, suspend, or modify the certificate of any individual, instrument, or installation if any one or more of the following conditions exist.

a. Certification was obtained falsely or deceitfully.

b. Conditions are revealed through any report, record or other means which would cause the Department to refuse certification on an original application.

c. There is found to be violation of or failure to observe any of the terms and conditions of the certificate, or any applicable rules and regulations, policies and procedures, or order of the Department.

d. There is a failure to meet the standard of accuracy.

e. A request for termination of certification is submitted by the certificate holder to the Department.

1.44 Reinstatement of Certification. In the event a certified individual changes their place of employment, the individual's certification is no longer valid until application for certification at the new place of employment is received by the Department.

In the event certification is revoked, it may be reinstated by the submission of a new application and compliance with the original requirements for certification.

II. TRAINING

PART A. GENERAL

2.10 Approval of Training Course. In the event of major limitations in training course availability, special temporary approvals of training programs may be issued by the Department for a period of up to nine months provided the Department maintains close oversight of the training and continues to provide the evaluations.

2.11 Changes in Training Requirements. At the discretion of the Department, any phase or portion of the training program is subject to alteration.

2.12 Senior Operators. To qualify for certification as a Senior Operator of a Type A1 or A2 testing device, an individual shall show evidence of successful completion of a course of instruction which includes, as a minimum, the following.

a. Three (3) hours of instruction on the effects of alcohol on the human body.

b. Three (3) hours of instruction on the operational principles of the selected breath-testing instrument which is to include:

(1) a functional description of the testing method, and

(2) a detailed operational description of the method with the appropriate demonstrations.

c. Five (5) hours of instruction on the legal aspects of chemical tests and of the particular method to be employed.

d. Three (3) hours of instruction on supplemental information which is to include nomenclature appropriate to the field of chemical tests for alcohol.

e. Six (6) hours of laboratory participation using the appropriate equipment. Laboratory practice will include the use of reference alcohol samples and each student shall run a minimum of twenty (20) tests.

f. One (1) hour of instruction on forms, records, and reporting.

g. One (1) hour of formal examination and performance evaluation for purposes of determining competency and qualifications.

2.13 Operators. To qualify for certification as an Operator on any Type A-1 or A-2 testing device, an individual shall complete a training course as approved by the Department. It shall, at a minimum, include the procedures for properly conducting a breath test, operation of the breath test instrument, and completion of appropriate records associated with the breath test. Upon completion of this training, a formal evaluation by the Department will be given as a prerequisite to certification.

2.14 Special Training Courses. As the need may arise for approved training on special devices (Type B) such as preliminary breath-test devices, the necessary training may be approved or provided by the Department for purposes of establishing a standard operational procedure in the use of such devices.

III. SAMPLE COLLECTION AND HANDLING

PART A. GENERAL

3.10 Sampling Requirements. This section outlines the criteria for the collection of samples in accordance with these Regulations.

3.11 Collection of Samples. Refer to current Arkansas Code, 5-65-202, 203. Samples shall be collected as soon as feasible after an alleged offense.

3.12 How to Collect and Handle Samples. (See details under appropriate type of sample in this section.)

a. Careful sampling, preservation, and handling are fundamental to accuracy. The identity and integrity of the sample shall be maintained from the time of collection until analysis.

b. The Blood Alcohol Report Form shall accompany each sample of blood, urine, or other bodily fluid collected in accordance with these regulations until analysis is completed. Copies of the report will then be distributed as required and as provided by law.

3.13 Who May Analyze Samples. Samples of bodily fluid may be analyzed for alcohol content by the following.

a. Office of Alcohol Testing, Arkansas Department of Health.

b. Any agency excluded from certification (see Section I, Part B.).

3.14 Samples to be Analyzed by the Department. Samples to be analyzed by the Department should be delivered or mailed to the address shown on the inside front cover of this booklet.

PART B. BLOOD SAMPLING

3.20 Sample Collection. Blood samples may be collected from living individuals only by persons authorized by law and by means of a sterile, dry syringe and hypodermic needle or other sterile equipment. The skin at the area of puncture shall be thoroughly cleansed and disinfected with an aqueous solution of nonvolatile antiseptic. Alcohol or other volatile organic disinfectant solutions shall not be used as a skin antiseptic or to clean hypodermic needles, syringes, or containers.

3.21 Postmortem Sample Collection. Postmortem samples may be collected by anyone authorized by law to collect such samples from living subjects or by any county coroner or his appointed deputy who meets the requirements specified in Arkansas Code Annotated 16-83-112. The following precautions must be employed to insure a representative, uncontaminated sample.

a. Samples must be taken prior to the start of embalming procedures. Blood shall not be obtained by forcing blood from vessels by use of embalming fluids.

b. Blood is to be withdrawn by syringe from peripheral vessels.

c. If necessary, heart blood may be used. Great care must be exercised to prevent dilution of the blood sample by fluids outside the heart (pleural or pericardial). Heart blood should be used only if the heart is intact.

3.22 Sample Size. A good sample is five milliliters (cc). Smaller samples may be analyzed if necessary.

3.23 Sample Container. The blood sample shall be deposited into a tightly stoppered, clean, dry container containing a solid anticoagulant and sodium fluoride or an approved equal as a preservative (see 3.24). Alcohol or other volatile organic solvents shall not be used to clean the container. The container shall be clearly identified with the following.

a. Name of the subject.

b. Date, and time of collection.

c. Name or initials of person collecting and/or sealing sample.

3.24 Sample Preservation. While not in transit or under examination, all blood samples shall be refrigerated. If the sample is to be analyzed at the Department, sodium fluoride (between 2.0 and 3.0 milligrams per milliliter of blood) or its solid form equivalent shall be used as a preservative, and sodium citrate or potassium oxalate or equivalent, in final concentration of 0.3% to 0.5%, is recommended as an anticoagulant.

Postmortem blood samples to be analyzed by the Department shall be deposited into a tightly stoppered, clean dry container containing sodium fluoride as a preservative, in a concentration of 1% or more, (10.0 milligrams per milliliter of blood) or an approved equal. A solid anticoagulant such as sodium citrate or potassium oxalate, or equivalent, is also recommended.

3.25 Sample Witness. The officer requesting the blood sample should observe the collection of the sample so that he may attest to the authenticity of the sample. He should then initial or mark the sample for future identification. The sample should then be secured in a tamperproof manner.

PART C. URINE SAMPLING

3.30 Sample Collection. Urine sampling shall be considered only when other methods to determine equivalent alcohol concentrations in blood are not practicable, or under strictly controlled conditions, i.e., hospitalized subject, or for the limited purpose of demonstrating recent ingestion of alcohol. To collect a urine sample, the subject must first be instructed to void the bladder. Approximately one-half hour later (time not critical), the subject should again be requested to void the bladder and that specimen should be collected for analysis.

3.31 Sample Size. Ten to thirty milliliters (cc) of urine shall be considered sufficient quantity for analysis.

3.32 Sample Container. When urine collection is necessary, the specimen shall be deposited into a clean, dry, non-porous container and capped or stoppered. Alcohol or other volatile organic solvents shall not be used to clean the container. The container shall be clearly identified with the following information.

a. Name of subject.

b. Date and time of first voiding and of the collection.

c. Name of person witnessing collection and handling of sample.

3.33 Sample Preservation. While not in transit or under examination, urine samples shall be refrigerated. If preservatives are used, a comment stating the type and amount should accompany the sample.

3.34 Sample Witness. The collection of the sample must be witnessed in order that its authenticity may be proven. It is to be properly marked for future identification and secured in a tamperproof manner.

PART D. BREATH SAMPLING

3.40 Sample Collection. A breath sample to be analyzed at a certified installation shall be collected only by certified personnel. The sample shall be collected only after the subject has been under observation for an uninterrupted period of no less than 20 minutes immediately prior to collection. The type of device and the procedures or techniques shall be Department approved and only certified personnel may operate the device.

3.41 Sample Size. The quantity of breath shall be established by direct volumetric measurement or by collection of a fixed breath volume at a constant temperature.

PART E. SAMPLING OF OTHER BODILY SUBSTANCES

3.50 Sample Collection. Sampling of bodily substances other than blood, breath, or urine shall be considered valid only in postmortem cases. All postmortem bodily materials shall be obtained prior to the start of any embalming procedure and the sample must be taken by or under the direction of the state medical examiner or a physician. The sample is to be analyzed by any laboratory excluded from certification in 1.20. The results of such analyses must be interpreted by qualified personnel with respect to the alcohol content of the blood.

IV. METHODS OF ANALYSIS

PART A. GENERAL

4.10 Methodology and Instrumentation Requirements. Analysis of blood, breath, urine, or other bodily substances to determine alcohol content in accordance with these Regulations shall be by a method approved by the Department (see 4.11 and Part B of this Section). All breath-testing instruments and accessories utilized in accordance with these Regulations shall have the approval of the Department (see 4.12 and Part C of this Section). The operation of approved breath-testing instruments will be according to manufacturer's recommendations unless otherwise approved in writing by the Department (see 4.15).

4.11 Approval of Methods. Any method not listed in Part B of this Section will be considered for approval upon receipt of a detailed description of the method.

4.12 Approval of Type A and C Testing Devices and Accessories.

a. If application is made by the manufacturer for approval of a Type A device not on the approved list (4.30), the Department will examine and evaluate the device as soon as practicable to determine if it meets the following criteria.

(1) Breath specimens collected and presented for analysis shall be essentially alveolar in composition.

(2) The device shall be capable of alcohol analysis which results in a concentration less than 0.01g/210L breath on an alcohol-free sample. It shall be capable of analyzing a suitable reference sample such as air equilibrated with a solution of known alcohol content at a constant temperature with accuracy of ±0.01g/210L applied in accordance with the Department's current evaluation procedure.

(3) The specificity of the procedure shall be adequate and appropriate for the analysis of breath specimens for the determination of alcohol concentration in traffic law enforcement.

(4) The instrument shall be constructed and designed to be operated in a manner appropriate to the environment in which it will be used.

(5) Any breath-testing device submitted to the Department for approval shall be accompanied by an application form supplied by the Department and by all accessories and supplies necessary for the evaluation of the device and a detailed set of instructions which shall include information pertinent to operation, calibration, maintenance, and interpretation of results.

b. If application is made by a manufacturer for approval of a calibration device not on the approved list (4.31), the Department shall examine and evaluate the device to determine its suitability, accuracy, and reliability.

c. The Department shall report the results of any evaluation to the manufacturer and shall have rights of publication of the results.

d. The Department shall not accept for evaluation any instrument or accessory for which the information, data, and documents submitted fail to support a judgment by the Department that the instrument or accessory is in apparent compliance with the requirements of these Regulations when operated according to the manufacturer's directions.

e. The Department may at any time reevaluate an approved device or accessory to determine that compliance with the criteria in 4.12 is being maintained. Failure to continue to meet the criteria may result in interdiction of usage of such equipment, or suspension, or cancellation of approval. Upon formal request from the manufacturer, further evaluation or investigation may be conducted and the interdiction or suspension lifted. A cancellation of approval will require an evaluation of the device or accessory.

f. This Department may remove from the approved list any testing device for which adequate maintenance and repair are no longer available, or for which the manufacturer's specifications no longer comply with the original specification.

4.13 Modified Versions of Approved Instruments and Accessories. The Department may authorize modified versions of approved instruments and accessories when, in the judgment of the Department, the modifications do not alter the abilities of such instruments or accessories to meet the standards of performance set forth in 4.12 in as much as the modified versions are equivalent in performance to the approved version.

4.14 Approval of Ampoules, Dry-gas Cylinders, or Other Prepackaged Chemical. Any prepackaged chemical to be used in conjunction with an approved testing device shall be approved by the Department. The Department shall examine and evaluate each lot or batch. Additional quantities may be required at the Department's discretion.

4.15 Approval of Chemical Test Procedures. Approved test procedures are supplied by the Department on all approved instruments and may be updated periodically. In order for a test to be considered valid under the provisions of these Regulations, the prescribed test procedure must be adhered to. The approved method may be characterized via computer programming which is provided and monitored by the Department.

PART B. METHODS OF ALCOHOL ANALYSIS

4.20 Approved Methods. At the time of this printing, the methods listed in this Part are approved for the determination of alcohol concentration in blood, urine, breath, or other bodily substances in accordance with these Regulations. Methods approved hereafter may be obtained upon request from the Department. Only brief descriptions are printed here.

a. Gas Chromatography. This method consists of separating volatile components of a sample by passing the sample through a column within the gas chromatograph, then passing the components through a detector system. The detector sends signals to a recording device which provides the results or sufficient information for the analyst to compute the quantity of the component of interest.

b. Infrared Absorption. This method consists of measuring the absorption of infrared energy by molecules of alcohol in a sample.

c. Fuel Cell. This method consists of measuring the current produced during the oxidation of alcohol in a sample.

PART C. TESTING DEVICES AND CALIBRATION DEVICES

4.30 Approved Breath Testing Devices - Type A. At the time of this writing, the instruments listed in this paragraph are approved for the determination of alcohol in accordance with these Regulations. Instruments approved hereafter will be placed on an updated list available on request from the Department.

Intoximeter EC/IR II

Manufacturer – Intoximeters, Inc.
2081 Craig Road
St. Louis, MO 63146

4.31 Approved Calibration Devices. The following devices are approved for the purpose of calibrating and/or checking the calibration of the approved breath-testing instruments. Calibration devices approved hereafter will be placed on an updated list available on request from the Department.

a. Guth Simulator Models: 34C, 10-4D, and 2100

Manufacturer - Guth Laboratories
590 No. 67th Street
Harrisburg, PA 17111

b. RepCo Simulator Model 3402C

Manufacturer – RepCo Marketing, Inc.
3101-188 Stonybrook Drive
Raleigh, NC 27604

c. Ethanol Breath Standard, Dry-gas Cylinder

Manufacturers – Intoximeters, Inc.
2081 Craig Road
St. Louis, MO 63146

Airgas Mid America Laboratory
3500 Bernard Street
St. Louis, MO 63103

PART D. EXPRESSION OF RESULTS

4.40 Blood Alcohol Concentration. The results of an analysis of blood, urine, or other bodily fluid shall be expressed in terms of percent weight/volume (% w/v) defined as grams of alcohol per 100 milliliters of blood and reported to the second decimal place only. For example, 0.239% w/v shall be reported as 0.23% w/v. Test results are not to be rounded off; the third decimal place is to be dropped. Percent weight/volume is obtained by dividing the weight of alcohol in a sample expressed in grams by the volume of the sample expressed in milliliters and multiplying by 100. This result represents the concentration of alcohol in the blood (% BA, % BAC, % w/v).

4.41 Urine Analysis. For the purpose of these Regulations, the alcohol in a urine sample shall be treated as equivalent to 1.3 times the concentration in whole blood. Given a urine test result of 0.15% w/v:

$1.3x = 0.15\%$ where x = % blood alcohol

$$x = \frac{0.15\%}{1.3}$$

$x = 0.115\%$ (report as 0.11% blood alcohol)

4.42 Serum or Plasma Analysis. For the purpose of these Regulations, the alcohol in a serum or plasma sample shall be treated as 1.15 times the concentration in whole blood.

Given a serum or plasma test result of 0.12% w/v:

$1.15x = 0.12\%$ where x = % blood alcohol

$$x = \frac{0.12\%}{1.15}$$

$x = 0.104\%$ (report as 0.10% blood alcohol)

4.43 Breath Alcohol Concentration. Breath test results are to be reported as grams of alcohol per 210 liters of breath. Breath test instruments approved and certified for use by the Department, report results in those units.

PART E. CALIBRATION AND CALCULATION OF RESULTS

4.50 Procedures on Approved Instruments - Type A1 and Type A2. A calibration test shall be performed to determine if an instrument produces results within the standard of accuracy (±.01).

Intoximeter EC/IR II. A calibration test is automatically performed with each subject test and is recorded by the instrument as part of the test record. There is no requirement to record the calibration test as a special entry in the log book.

4.51 Instruments Subsequently Approved. Instruments which may be subsequently approved are to be calibrated in a manner approved by the Department as appropriate to the instrument and to meet the standard of accuracy of ±0.01% w/v for blood or ±0.01g/210L for breath.

V. RECORDS AND REPORTING

PART A. GENERAL

5.10 Records and Reporting Requirements. Records which reflect the facts pertinent to all tests performed on the certified equipment shall be kept and maintained by each installation certified under 1.12a. The records shall be open to inspection by the Department and shall be periodically submitted to the Department as outlined in this section. Records are to be kept for a period of two (2) years or until all possibility of court action is past, whichever is longer.

Installations certified under 1.12b. are not required to maintain records of tests or records related to equipment used in testing.

5.11 Installation Records Required. The following records (as applicable) are to be kept by a certified installation.

a. Records of certification of the instrument, the installation, and persons using the instrument. Persons using the instrument who are certified through a State Level installation, as defined in Section 1.12b., are required to have their original certificate on file at the State Level installation's headquarters.

b. Records of tests performed on each instrument shall be kept in chronological order in a log book and individual test records, as produced by the instrument shall be kept in a retrievable manner.

c. Records reflecting training levels of certified personnel.

d. A copy of these Regulations.

e. A manual covering the operation of the certified instrument or a detailed description of the techniques or methodology used.

5.12 Installation Reporting to the Department. Records of tests performed on a certified breath testing instrument shall be made accessible via telephone modem or as otherwise required by the Department. All other paperwork shall be submitted as required by the Department.

SEVERABILITY

If any provision of these Regulations or the application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of the Regulations which can be given effect without the invalid provision or application and to this end the provisions of these Regulations are declared to be severable.

REPEAL

All Regulations and parts of Regulations in conflict herewith are hereby repealed.

CERTIFICATION

This will certify that the Rules and Regulations for Alcohol Testing were adopted by the State Board of Health of Arkansas at a regular session of said Board held at Little Rock, Arkansas, on the 24th day of January, 2013.

Paul Halverson, DrPH, FACHE
Secretary of Arkansas State Board of Health
Director, Arkansas Department of Health