



DEPARTMENT OF PUBLIC SAFETY  
(West Virginia State Police)

CHARLESTON 25305

March 8, 1974

R. L. BONAR  
SUPERINTENDENT

ARCH A. MOORE, JR.  
GOVERNOR

Edgar F. Heiskell, III  
Secretary of State  
Capitol Building  
Charleston, West Virginia

Dear Mr. Heiskell:

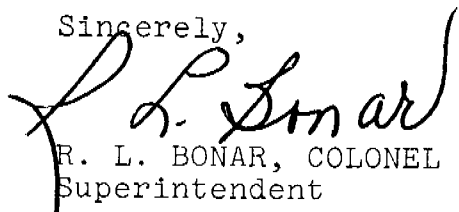
Enclosed is an updated copy of the "Methods and Standards Relating to Chemical Tests for Blood Alcohol Concentration" in connection with the West Virginia Implied Consent Law.

These updated standards were approved by the West Virginia Department of Health as required in Chapter 17C, Article 5A, Section 5 of the Code of West Virginia and supersedes those standards which were filed in your office on June 26, 1973.

I request that a copy of these updated standards be filed in your office to forestall the possibility of any challenge or court action on the part of any court or attorney in the State of West Virginia.

Any assistance you can give us in this matter will be greatly appreciated.

Sincerely,

  
R. L. BONAR, COLONEL  
Superintendent

RLB:jm

Enclosure

FOR THE OFFICE  
EDGAR F. HEISKELL III  
SECRETARY OF STATE  
THIS DATE 3-12-74

NOTICE

RECEIVED  
MAR 1 1974  
INVESTIGATIVE OFFICE D.P.S.

The enclosed copy of "Methods and Standards Relating to Chemical Tests for Blood Alcohol Concentration" has been updated and supercedes the copy dated May 21, 1973.

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See filing in the Department of Health book,  
for the rules and regulations filed in 1968  
and 1975.

February, 1974

METHODS AND STANDARDS RELATING TO CHEMICAL TESTS  
FOR BLOOD ALCOHOL CONCENTRATION

FILED IN 17-10-133  
EDGAR H. SNYDER, JR., III  
SECRETARY OF STATE  
THIS DATE 3-12-74

I. BREATH ANALYSIS

A. Standards:

Instruments for breath alcohol analysis shall meet the following standards:

1. The instrument and any related accessories shall be capable of the collection and analysis of breath specimens which are essentially alveolar in composition.
2. The instrument shall be capable of analyzing a blank sample and of analyzing a suitable reference sample, such as air equilibrated with a reference solution of known alcohol content at a known temperature.
3. The instrument shall be capable of the analysis of a reference sample of known alcohol concentration within accuracy and precision limits of plus or minus 0.01 grams per cent of the true value. These limits shall be applied to alcohol concentrations which are 0.01 grams per cent or higher.
4. The instrument shall be capable, in a controlled experiment, of breath alcohol analysis which results in a determination of a subject's blood alcohol concentration which has correlation with his actual blood alcohol concentration as measured on a blood sample taken at the same time as the breath sample.
5. The instrument shall be capable of breath alcohol analysis which results in a concentration less than 0.01 grams of alcohol per 100 milliliters of blood when alcohol free subjects are tested.
6. The "Breathalyzer" distributed by Smith & Wesson Electronics<sup>(1)</sup> (Stephenson), Eatontown, New Jersey, meets the above standards.

B. Methods:

A general method for extracting breath for alcohol analysis shall include the following:

1. Observe the subject for twenty (20) minutes before taking the test to insure that the subject had nothing in his mouth at the time of the test and that he had taken no food or drink.

(1) Reference to trade-named equipment does not constitute an endorsement by the Department of Health.

2. Check the machine to see that it is in proper working order at the time the test is being conducted.
3. A check of the chemicals employed to assure they are the correct kind and compounded in the proper proportions.
4. That the test is given by a qualified operator and in the proper manner.

## II. BLOOD ANALYSIS

### A. Standards:

Methods for analyzing blood specimens for ethyl alcohol shall meet the following standards:

1. The method shall be capable of separating and quantitating ethyl alcohol from the blood specimen.
2. The method shall be capable of the analysis of a reference sample of known alcohol concentration within accuracy and precision limits of plus or minus 0.01 grams per cent of the true value. These limits shall be applied to alcohol concentrations which are 0.01 grams per cent or higher.
3. The method shall be capable of blood alcohol analysis which results in a concentration less than 0.01 grams of alcohol per 100 milliliters of blood when alcohol free subjects are tested.
4. The gas-chromatographic method used by the Department of Public Safety Chemistry Laboratory meets the above standards.

### B. Methods:

The methods for extracting blood for alcohol analysis shall be as follows:

1. The blood shall be drawn by a Doctor of Medicine or Osteopathy or a Registered Nurse or trained medical technicians at the place of his employment.
2. Sterile hypodermic needles and syringes capable of extracting 10 ml of blood shall be used. Sterile disposable units are recommended.
3. The skin shall not be disinfected with alcohol. The use of 1-1000 aqueous solution of mercuric chloride, aqueous benzalkonium chloride (zephiran), aqueous merthiolate, or other suitable aqueous disinfectants are acceptable.

4. The container (tube or vial) must be clean and dry, have an inert airtight stopper and hold at least 10 ml.
5. An anti-coagulant, such as sodium fluoride, citrate, or oxalate, shall be used. The tubes prepared and furnished by the Department of Public Safety contain sodium fluoride powder and also are prepared in compliance with Method 4.

### III. URINE ANALYSIS

#### A. Standards:

Methods for analyzing urine specimens for ethyl alcohol shall meet the standards required for blood analysis. The quantity of alcohol found in the urine shall be divided by the factor 1.3 to determine the quantity of alcohol in the blood.

#### B. Methods:

The methods for extracting urine for alcohol analysis shall be as follows:

1. The container must be clean and dry and have an inert airtight stopper and hold at least 10 ml.
2. The bladder shall first be voided and discarded. A specimen shall be taken after a wait of twenty (20) minutes. This second specimen shall be submitted for alcohol analysis.

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Prepared by:

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