Title 448 WAC
STATE TOXICOLOGIST

Chapters
448-14 State toxicologist standards for analysis of blood samples for alcohol.
448-15 Administration of breath alcohol screening test.
448-16 Administration of breath test program.

DISPOSITION OF CHAPTERS FORMERLY CODIFIED IN THIS TITLE

Chapter 448-12

ADMINISTRATION OF BREATHALYZER TEST

448-12-010 Breathalyzer approved.[Order 4, § 448-12-010, filed 7/9/70; Order 2, § 448-12-010, filed 1/31/69.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.

448-12-015 Checking of breathalyzer machines.[Order 4, § 448-12-015, filed 7/9/70.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.

448-12-016 Certifications.[Order 4, § 448-12-016, filed 7/9/70.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.

448-12-020 Administration of breathalyzer test.[Statutory Authority: RCW 46.61.506. 86-20-085 (Order 86-04), § 448-12-020, filed 10/19/72; Order 4, § 448-12-020, filed 7/9/70; Order 2, § 448-12-020, filed 1/31/69.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.


Statutory Authority: RCW 46.61.506.

448-12-030 Instruction.[Order 5, § 448-12-030, filed 10/19/72; Order 4, § 448-12-030, filed 7/9/70; Order 2, § 448-12-030, filed 1/31/69.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.

448-12-035 Instruction.[Order 4, § 448-12-035, filed 11/27/78; Order 5, § 448-12-035, filed 3/27/85.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.

448-12-040 Maintenance operators.[Order 4, § 448-12-040, filed 7/9/70; Order 2, § 448-12-040, filed 1/31/69.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.

448-12-045 Operators.[Order 4, § 448-12-045, filed 7/9/70; Order 2, § 448-12-045, filed 1/31/69.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.


Statutory Authority: RCW 46.61.506.

448-12-055 Minimum course requirements.[Order 4, § 448-12-055, filed 7/9/70; Order 2, § 448-12-055, filed 1/31/69.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.

448-12-060 Permit cards.[Order 4, § 448-12-060, filed 7/9/70; Order 2, § 448-12-060, filed 1/31/69.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.

448-12-070 Course approval.[Order 4, § 448-12-070, filed 7/9/70; Order 2, § 448-12-070, filed 1/31/69.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.

448-12-075 Minimum course requirements.[Order 4, § 448-12-075, filed 7/9/70; Order 2, § 448-12-075, filed 1/31/69.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.

448-12-080 Address for correspondence.[Statutory Authority: RCW 46.61.506. 80-05-112 (Order 80-01), § 448-12-080, filed 5/6/80; Order 2, § 448-12-080, filed 1/31/69.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.

448-12-090 Broadcast.[Order 4, § 448-12-090, filed 10/19/72; Order 4, § 448-12-090, filed 7/9/70; Order 2, § 448-12-090, filed 1/31/69.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.

448-12-100 Name of programs.[Statutory Authority: RCW 46.61.506. 80-05-112 (Order 80-01), § 448-12-100, filed 5/6/80; Order 5, § 448-12-100, filed 10/19/72.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.

448-12-105 Broadcast.[Order 4, § 448-12-105, filed 7/9/70; Order 2, § 448-12-105, filed 1/31/69.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.

448-12-110 Name of programs.[Statutory Authority: RCW 46.61.506. 80-05-112 (Order 80-01), § 448-12-110, filed 5/6/80; Order 5, § 448-12-110, filed 10/19/72.] Repealed by 9/10-06-022, filed 2/26/91, effective 3/29/91.

Statutory Authority: RCW 46.61.506.

Chapter 448-13 ADMINISTRATION OF BREATH TEST PROGRAM


Analysis of Blood Samples for Alcohol

Chapter 448-14 WAC
STATE TOXICOLOGIST STANDARDS FOR ANALYSIS OF BLOOD SAMPLES FOR ALCOHOL

WAC 448-14-010 Criteria for approved methods of quantitative analysis of blood samples for alcohol.
WAC 448-14-020 Operational discipline of blood samples for alcohol.
WAC 448-14-030 Qualifications for a blood alcohol analyst.

WAC 448-14-010 Criteria for approved methods of quantitative analysis of blood samples for alcohol. Any quantitative blood alcohol analysis method which meets the following criteria is approved by the state toxicologist and may be used in the state of Washington. Analysis of urine for estimation of blood alcohol concentrations is not approved by the state toxicologist in the state of Washington.

The blood analysis procedure should have the following capabilities:

1. Precision and accuracy.
   (a) The method shall be capable of replicate analyses by an analyst under identical test conditions so that consecutive test results on the same date agree with a difference which is not more than 3% of the mean value of the tests. This criterion is to be applied to blood alcohol levels of 0.08% and higher.
   (b) Except for gas chromatography, the method should be calibrated with water solutions of ethyl alcohol, the strength of which should be determined by an oximetric method which employs a primary standard, such as United States National Bureau of Standards potassium dichromate.
   (c) The method shall give a test result which is always less than 0.005% when alcohol-free living subjects are tested.

2. Specificity.
   (a) On living subjects, the method should be free from interferences native to the sample, such as therapeutics and preservatives; or the oxidizable material which is being measured by the reaction should be identified by qualitative test.
   (b) Blood alcohol results on post-mortem samples should not be reported unless the oxidizable substance is identified as ethanol by qualitative test.

[Order 4, § 448-14-010, filed 7/9/70; Emergency and Permanent Order 3, § 448-14-010, filed 9/23/69.]

WAC 448-14-020 Operational discipline of blood samples for alcohol. (1) Analytical procedure.
   (a) The analytical procedure should include:
      (i) A control test
      (ii) A blank test
      (iii) Duplicate analyses that should agree to within 0.01% blood alcohol deviation from the mean.

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(b) All sample remaining after analysis should be retained for at least three months under suitable storage conditions for further analysis if required.

(c) Each analyst shall engage in a program in which some blood samples containing alcohol are exchanged with other laboratories and tested on a blind basis so that precision and accuracy can be evaluated no less than one time per year.

(2) Reporting procedure.
   (a) The results should be expressed as grams of alcohol per 100 ml of whole blood sample.
   (b) The analysis results should be reported to two significant figures, using the mathematical rule of rounding.

   (c) Blood alcohol results on living subjects 0.0009% or lower shall be reported as negative. Blood alcohol results on post-mortem samples of 0.019% or less shall be reported as negative. (See WAC 448-14-010 (2)(b))

   (3) Sample container and preservative.
      (a) A chemically clean dry container consistent with the size of the sample with an inert leak-proof stopper shall be used.

   (b) Blood samples for alcohol analysis shall be preserved with an anticoagulant and an enzyme poison sufficient in amount to prevent clotting and stabilize the alcohol concentration. Suitable preservatives and anticoagulants include the combination of sodium fluoride and potassium oxalate.

[Order 4, § 448-14-020, filed 7/9/70; Emergency and Permanent Order 3, § 448-14-020, filed 9/23/69.]

WAC 448-14-030 Qualifications for a blood alcohol analyst. (1) Minimum qualifications for the issuance by the state toxicologist of a blood alcohol analyst permit shall include college level training in fundamental analytical chemistry with a minimum of five quarter hours of quantitative chemistry laboratory or equivalent, with a passing grade.

   (2) The state toxicologist shall issue a blood alcohol analyst permit to each person he finds to be properly qualified, and he shall hold written, oral or practical examinations to aid him in judging qualifications of applicants. Such permits shall bear the signature or facsimile signature of the state toxicologist and be dated.

   (3) The blood alcohol analyst permits are subject to cancellation by the state toxicologist if the permittee refuses or fails to obtain satisfactory results on samples periodically distributed to the permittee by the state toxicologist.

[Order 4, § 448-14-030, filed 7/9/70; Emergency and Permanent Order 3, § 448-14-030, filed 9/23/69.]

Chapter 448-15 WAC
ADMINISTRATION OF BREATH ALCOHOL SCREENING TEST

WAC 448-15-010 Approval of devices.
WAC 448-15-020 Use of test results.
WAC 448-15-030 Test protocol.
WAC 448-15-040 Certification.
WAC 448-15-050 PBT operators.
WAC 448-15-060 PBT technicians.

WAC 448-15-010 Approval of devices. The following preliminary breath test (PBT) instruments are approved for use in the state of Washington as breath alcohol screening
devices, subject to the requirements outlined in the following sections:

Alcosensor III (Intoximeters, St. Louis, MO).

Any other instruments on the National Highway Traffic Safety Administration (NHTSA) approved products list will be considered for approval in Washington state on application to the state toxicologist, providing that a suitable program for maintenance, certification and operator training is also established and approved.


**WAC 448-15-020  Use of test results.** The devices described in WAC 448-15-010 are approved for use in aiding police officers to form probable cause that a subject has committed an offense involving the consumption of alcohol. The test results, when obtained by a trained operator using an approved device which has been maintained and certified according to the rules described below, and carried out according to the approved test protocol, will show to a reasonable degree of scientific certainty, the subject’s breath alcohol concentration. The results are therefore suitable to show whether an officer has probable cause to place a person under arrest for alcohol related offenses. These results may not be used on their own for determining, beyond a reasonable doubt, that a person’s breath alcohol concentration exceeds a prescribed level such as anticipated under the ‘per se’ statutes for intoxication.

This preliminary breath test is voluntary, and participation in it does not constitute compliance with the implied consent statute (RCW 46.20.308).


**WAC 448-15-030  Test protocol.** After advising the subject that this is a voluntary test, and that it is not an alternative to an evidential breath alcohol test as described in chapter 448-13 WAC, the operator shall determine by observation or inquiry, that the subject has not consumed any alcohol in the fifteen minutes prior to administering the test. If the subject has consumed alcohol during that period, the officer should not administer the screening test for probable cause purposes until fifteen minutes have passed. If the subject responds that they have not consumed any alcohol in the last fifteen minutes, the officer may offer the subject the opportunity to provide a breath sample into the PBT. If the subject consents, the operator will check the temperature of the device to ensure that it is within the normal operating range. The operator will then press the "read" button to obtain a sample of ambient air, and ensure that this results in a reading of 0.003 or less. The subject will be asked to exhale into the device. The device will be activated towards the end of the subject’s exhalation, to capture a portion of end expiratory breath for analysis.


**WAC 448-15-040  Certification.** Any PBT used as described in the preceding sections, must be certified at least every six months. In order to certify a PBT as accurate, the testing shall include at a minimum, a blank test of room air which must give a result of less than 0.005g/210L, and a test of a certified dry gas alcohol standard. The instrument must accurately measure the reference value within ± 0.010g/210L. A record of certification must be kept by the person responsible for calibration. Certification of PBTs can be performed by persons certified by the state toxicologist as PBT technicians, or by factory authorized representatives, provided that the protocol for certification approved by the state toxicologist is followed.


**Chapter 448-16 WAC
ADMINISTRATION OF BREATH TEST PROGRAM**

**WAC 448-16-010  Basis for rules governing breath testing.** In RCW 46.61.506(4), the legislature establishes criteria for the admissibility of breath alcohol test evidence. RCW 46.61.506(3) authorizes and directs the state toxicologist to approve satisfactory techniques or methods, to super-
WAC 448-16-020 Approval of breath test equipment. (1) Pursuant to RCW 46.61.506, the following instruments are approved for the quantitative measurement of alcohol in a person's breath:
   (a) The DataMaster.
   (b) The DataMaster CDM.

(2) Pursuant to RCW 46.61.506, the following thermometers are approved:
   (a) Mercury in glass thermometers with a scale graduated in tenths of a degree measuring a range between 33.5 and 34.5 degrees centigrade.
   (b) Digital thermometer system contained within the Guth 2100 wet bath simulator.

WAC 448-16-030 Definitions. (1) "Accuracy" means the proximity of a measured value to a reference value.
(2) "Alcohol" means the unique chemical compound ethyl alcohol.
(3) "Blank test" means the testing of an instrument to ensure that no alcohol from a previous test can interfere with a person's breath test.
(4) "Concentration" means the weight amount of alcohol, expressed in grams, contained in two hundred ten liters of breath or alcohol/water vapor.
(5) "Data entry" means the process of providing information through a keyboard to the instrument for the purposes of (a) identifying a breath test document to an individual and (b) statistical analysis.
(6) "Interference" means a test result whose infrared absorbance properties are not consistent with ethanol.
(7) "End expiratory air" means the last portion of breath to be delivered to the instrument once the appropriate sample acceptance criteria have been met.
(8) "External standard test" means the use of a simulator containing a certified simulator solution, to provide a known alcohol vapor concentration to test the accuracy and proper working order of the instrument. This test of the function of the instrument is performed with every breath test. The external standard test does not calibrate the instrument.
(9) "Internal standard test" means the use of a quartz filter to provide a check that the instrument has maintained calibration since the last time calibration was performed and is in proper working order at the time of the test.
(10) "Precision" means the ability of a technique to perform a measurement in a reproducible manner.
(11) "Simulator" means a device which when filled with a certified simulator solution, maintained at a known temperature, provides a vapor sample of known alcohol concentration.
(12) "Valid breath sample" means a sample of a person's breath provided in such a manner to be accepted for analysis by the instrument.

WAC 448-16-040 Foreign substances, interference, and invalid samples. (1) A determination as to whether a subject has a foreign substance in his or her mouth shall be made by either an examination of the mouth or a denial by the person that he or she has any foreign substances in their mouth. A test mouthpiece is not considered a foreign substance for purposes of RCW 46.61.506.
(2) If a subject is wearing jewelry or ornamentation pierced through their tongue, lips, cheek, or other soft tissues in the oral cavity, they will be required to remove this prior to conducting the breath test. The subject will then be determined to have a physical limitation rendering them incapable of providing a valid breath sample and will be required to provide a blood sample under the implied consent statute, RCW 46.20.308.
(3) If during a breath test, interference is detected, this will invalidate the test. The subject will be required to repeat the test. A subject whose breath registers the presence of interference on two or more successive breaths shall be deemed to have a physical limitation rendering them incapable of providing a valid breath sample and will be required to provide a blood sample under the implied consent statute, RCW 46.20.308.
(4) In the event that the instrument records an "invalid sample" result at any point during the subject's test, that subject's test should be redministered, after again determining that the subject has no foreign substance in their mouth as outlined in WAC 448-16-040(1), and repeating the fifteen minute observation period.

WAC 448-16-050 Test defined. A test of a person's breath for alcohol concentration shall consist of the person insufflating end-expiratory air samples at least twice into the instrument, sufficient to allow two separate measurements. There will be sufficient time between the provision of each sample to permit the instrument to measure each sample individually. Two valid breath samples, provided consecutively, will constitute one test.

The instrument will perform this test according to the following protocol when being employed to quantitatively measure an individual's breath alcohol concentration. Successful compliance with each step of this protocol is determined from an inspection of the printout of results. These steps are necessary to ensure accuracy, precision, and confidence in each test.

Step 1. Data entry.
Step 2. Blank test with a result of .000.
Step 3. Internal standard verified.
Step 4. First breath sample provided by subject.
WAC 448-16-060 Determining agreement of duplicate breath samples. Pursuant to RCW 46.61.506 the following method is approved for determining whether two breath samples agree to within plus or minus ten percent of their mean.

1. The breath test results shall be reported, truncated to three decimal places.
2. The mean of the two breath test results shall be calculated and rounded to four decimal places.
3. The lower acceptable limit shall be determined by multiplying the above mean by 0.9, and truncating to three decimal places.
4. The upper acceptable limit shall be determined by multiplying the mean by 1.1 and truncating to three decimal places.
5. If the results fall within and inclusive of the upper and lower acceptable limits, the two breath samples are valid.

WAC 448-16-070 Review, approval, and authorization of protocols of procedures and methods by the state toxicologist. The state toxicologist shall review, approve, and authorize such protocols of procedures and methods (of the toxicologist's own promulgation or submitted by outside agencies or individuals for consideration) required in the administration of the breath test program. Such review, approval, and authorization will be so signified by a signed statement attached to each protocol, and kept on file by the Washington State Patrol. These protocols will be updated as necessary to maintain the quality of the breath test program.

WAC 448-16-080 Instructors. The state toxicologist shall certify persons found to be competent and qualified, as "instructors." Instructors are authorized to administer breath tests for alcohol concentration using approved instruments and are further authorized to train and certify as operators, according to outlines approved by the state toxicologist, those persons the instructor finds qualified to administer the breath test utilizing approved instruments. Instructors who are also certified as PBT technicians may instruct other individuals as PBT technicians according to the approved outlines. Details of persons certified as instructors shall be maintained by the state toxicologist and available upon request.

If an instructor fails or refuses to demonstrate to the state toxicologist or to a certified instructor, that he or she has the ability to adequately perform his or her responsibilities as an instructor, then the state toxicologist will suspend their permit.

WAC 448-16-090 Operators. The state toxicologist, or certified instructors shall certify as "operators" persons found by them to be competent and qualified to administer breath tests for alcohol concentration using approved breath testing instruments. Persons who have attended courses in the operation of approved breath testing instruments taught by an instructor qualified by the state toxicologist, upon certification of attendance and qualification, shall be designated as "operators." Details of persons so certified shall be maintained by the state toxicologist and available upon request.

If an operator fails or refuses to demonstrate to the state toxicologist or to a certified instructor, that he or she has the ability to adequately perform his or her responsibilities as an operator, then the state toxicologist will suspend their permit.

WAC 448-16-100 Solution changers. The state toxicologist, or certified instructors, shall certify as "solution changers" operators found by them to be competent and qualified. In addition to being qualified as "operators" these persons must receive approved instruction covering the changing of simulator external standard solutions for approved breath test instruments, taught by an instructor qualified by the state toxicologist. Details of persons so certified shall be maintained by the state toxicologist and available upon request.

If a solution changer fails or refuses to demonstrate to the state toxicologist or to a certified instructor, that he or she has the ability to adequately perform his or her responsibilities as a solution changer, then the state toxicologist will suspend their permit.

WAC 448-16-110 Technicians. The state toxicologist shall certify as "technicians" such persons found to be competent and qualified to maintain the proper working order of breath test instruments through adjustment, repair, and regular service. Details of persons so certified shall be maintained by the state toxicologist and available upon request.

Technicians are authorized to perform maintenance, calibration and instruction in the use of the portable breath test devices. Technicians are also authorized to instruct persons otherwise qualified as "technicians," "instructors," "operators," and "solution changers" according to training outlines approved by the state toxicologist. Certified technicians are themselves authorized to perform the duties of "instructors," "operators," and "solution changers."

If a technician fails or refuses to demonstrate to the state toxicologist or his representative, that he or she has the ability to adequately perform his or her responsibilities as a technician, then the state toxicologist will suspend their permit.
WAC 448-16-120 Permit cards. Pursuant to RCW 46.61.506, the state toxicologist shall authorize the issuance to persons deemed qualified as "instructors," "operators," "solution changers" or "technicians," a wallet-sized card bearing his or her name and designation. Permit cards shall bear the signature or facsimile signature of the state toxicologist. Such permit cards shall expire three years after the date on the card, unless renewed for a like three-year period. Operators whose authorization expires may take recertification training within ninety days following expiration of their prior certification, but are not certified to perform any evidential breath tests during that period. Once ninety days have elapsed after the expiration of authorization, the operator must repeat the basic certification training.

[Statutory Authority: RCW 46.61.506. 04-19-144, § 448-16-120, filed 9/22/04, effective 10/23/04.]

WAC 448-16-130 Review, approval, and authorization by the state toxicologist of training courses and outlines. The state toxicologist shall approve and authorize such courses and course outlines (of his own promulgation or submitted for consideration by outside agencies or individuals) required in the training of breath test program personnel. Such review, approval, and authorization will be so signified by a signed statement attached to each course outline. These course outlines may be reviewed and updated as necessary to maintain the quality of the breath test program. Instructors are directed to use only approved outlines in conducting the training of operators. Information concerning currently approved course outlines can be obtained on application to the office of the state toxicologist.

[Statutory Authority: RCW 46.61.506. 04-19-144, § 448-16-130, filed 9/22/04, effective 10/23/04.]

WAC 448-16-140 Information concerning technical aspects of the breath test program. Documents used by the state toxicologist and personnel involved in breath testing for the state of Washington, which are available on request include: The simulator solution preparation protocol, alcohol analysis protocol, certification document for simulator solution, affidavit from analyst of simulator solution, data base, quality assurance protocol, quality assurance procedure report, operator course outline, operator refresher course outline, and operator training record. A fee may be charged to cover the cost of providing these copies. Copies of most of these records are available at no charge on a website maintained by the Washington state patrol at http://breath-test.wsp.wa.gov/welcome.htm.

[Statutory Authority: RCW 46.61.506. 04-19-144, § 448-16-140, filed 9/22/04, effective 10/23/04.]

WAC 448-16-150 Address for correspondence. Information regarding instrument records, or the certification of operators, instructors, solution changers, and technicians should be obtained from the Washington State Patrol, Breath Test Section, 811 E. Roanoke, Seattle, WA 98102.

Persons seeking information regarding other aspects of the breath alcohol testing program shall direct their request initially to the State Toxicologist, Washington State Toxicology Laboratory, Forensic Laboratory Services Bureau, Washington State Patrol, 2203 Airport Way S., Seattle, WA 98134.

[Statutory Authority: RCW 46.61.506. 04-19-144, § 448-16-150, filed 9/22/04, effective 10/23/04.]

WAC 448-16-160 Severability. If any part or provision of these rules or regulations or the application thereof is held invalid, such invalidity shall not affect other provisions or applications of these rules which can be given effect without the invalid provision or application, and to this end any section, paragraph or sentence, is declared to be severable.

[Statutory Authority: RCW 46.61.506. 04-19-144, § 448-16-160, filed 9/22/04, effective 10/23/04.]