

SOUTH CAROLINA LAW ENFORCEMENT DIVISION

4400 BROAD RIVER ROAD
COLUMBIA, SOUTH CAROLINA 29210



8.12.2 IMPLIED CONSENT – WET BATH SIMULATOR

POLICY: 8.12.2	DATE: SEPTEMBER 1, 1993	REVISION DATE: FEBRUARY 10, 2009
TITLE: LABORATORY FACILITY – WET BATH SIMULATOR		PAGE 1 OF 3

RESPONSIBLE AUTHORITY: DIRECTOR OF THE FORENSIC SERVICES LABORATORY

RELATED STANDARDS/STATUTES/REFERENCES: S.C. CODE OF LAWS, SECTIONS 23-31-410, 50-21-114, 55-1-100, 56-1-10, 56-1-286, 56-1-2130, 56-5-2950, 56-5-2953; S.C. CODE OF REGULATIONS, CHAPTER 73, ARTICLE I

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GENERAL PURPOSE: To set forth policies for the administration of implied consent breath alcohol tests.

POLICY: The Division will approve and certify wet bath simulator devices to be used during every breath test in the calibration check process.

SPECIFIC PROCEDURES:

A. APPROVAL/CERTIFICATION

1. The Model 3402C-2K is the only simulator approved by the Division for use with the DataMaster DMT. The current manufacturer is REPCO Marketing Inc. The 3402C-2K will remain approved even if the manufacturer were to change. The 3402C-2K has been tested and approved by the National Highway Traffic Safety Administration. Simulators may be changed as needed among DataMasters.
2. The alcoholic breath simulator is a specifically designed, constant temperature water and alcohol solution wet bath device. An electronic probe checks the solution temperature during the breath test process.

3. The simulator solution temperature will be 34 degrees Celsius (C), 33.5 through 34.5, inclusive, to pass each test. If the simulator solution temperature is in this range, the test passes and the actual temperature will be printed on the Breath Alcohol Analysis Test Report/Evidence Ticket. If the temperature is not within this range, the test is aborted.

B. SOLUTION ANALYSIS/CERTIFICATION

1. An independent laboratory will analyze each lot of simulator solution. Additionally, each lot will be analyzed by SLED. The specific methods used by the independent laboratory and SLED may vary depending on instrumentation, etc.
2. The basic elements of the SLED analysis are:
 - a. Analysis is performed on an automated head-space gas chromatography system.
 - b. An internal standard quantitation method is utilized.
 - c. The headspace gas chromatography system is calibrated using alcohol standards.
 - d. A minimum of 2 bottles of simulator solution of a particular lot is sampled. A minimum of 6 samples per bottle is used for analysis.
 - e. The average of the simulator solution readings from all bottles should be 0.0968% alcohol concentration +/- 5% of the reading (0.0919% through 0.1016%, inclusive). NOTE: This range of solution concentration when used in a calibrated simulator, operating at 34 degrees Celsius (C), 33.5 through 34.5, inclusive, will give a reading of 0.08% alcohol concentration (0.076% through 0.084%, inclusive).
3. Only SLED certified simulator solution may be used in the breath alcohol testing process. SLED will issue a certification record for each lot of approved solution. The certification is valid from 12:01 A.M. of the date listed on the certification sheet.
4. The analytical data of the solution samples, independent lab report, and SLED certification record will be maintained electronically for a minimum of five years from the date of certification.
5. Each bottle will have a lot number, bottle number, an integrity seal, and an expiration date. A bottle of simulator solution may not be used after its expiration date.

C. SOLUTION CHANGE PROTOCOL

1. The DataMaster DMT requires a solution change after 100 simulator tests or 31 days, whichever comes first. The solution may be changed at any time before the mandatory change. When a mandatory change is indicated, the instrument will not leave the "Change Soln Now" status until an acceptable solution change has been completed. It is acceptable for the period between solution changes to exceed 31 days, since the instrument will not allow breath tests to occur until the solution is changed.

2. After 90 simulator tests or 26 days, whichever comes first, the instrument will display, "Change Soln Soon". This message will be displayed on the instrument until a solution change is performed or a mandatory change is required.
3. Only certified operators will change the solution. Operators will enter the new lot/bottle number and expiration date of the solution used in a change. This information will be saved electronically by the instrument and will be populated on the "Solution Information" screen and printed on every Breath Alcohol Analysis Test Report/Evidence Ticket until the next solution change.
4. Specific questions are prompted to document the solution change. After the simulator solution (external standard) reaches proper temperature, 34 degrees Celsius (C), 33.5 through 34.5, inclusive, the instrument performs five simulator tests. All readings from the five tests will be 0.076% through 0.084%, inclusive, which constitutes a 0.08% alcohol concentration reading according to policy. The standard deviation will be 0.003% or less.
5. If a failure to meet these standards occurs, a mandatory solution change is required. The entire procedure will be repeated with a different bottle of solution. A failed solution change does not indicate the certified solution lot and/or bottle was improper, only that the readings obtained were outside acceptable limits. The bottle is changed only so that the solution counter may be reset. The solutions are verified by an independent laboratory and SLED.

BY ORDER OF:



REGINALD I. LLOYD
DIRECTOR OF SLED