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Georgia's Breath Test Program, Why It Does Not Assure Scientific Reliability »

Intoxilyzer® 8000: Flow Sensor Problems in Florida

Malfunctioning "flow sensors" found in some of Florida's breath testing instruments may have affected the scientific reliability of your client's breath test result. In recent weeks, an analysis of breath testing data has uncovered that defective flow sensors may have produced unreliable breath tests results. This issue is not limited to just one instrument and may include breath test instruments throughout the State of Florida. This flow sensor issue has been emerging throughout the state for the past few years. One example, in October 2009, the Florida Department of Law Enforcement instructed Hamilton County, Florida to remove their instrument from evidential use, after problems with the instrument's flow sensor were discovered.

Having been a Department Inspector for FDLE's Alcohol Testing Program for many years, provides me complete knowledge and understanding of the flow sensor issues being litigated in the Florida courts today. In 2009, while still working for FDLE, equipment was purchased to initiate testing for flow sensor accuracy. Although the equipment was acquired, the testing procedure was never implemented by the FDLE Alcohol Testing Program. Despite the lack of FDLE written procedures mandating the inspection of flow sensors, I was the only FDLE Department Inspector who implemented the validation process on flow sensors. Since the equipment had been purchased by FDLE and was available for use, inspecting flow sensors should have been routinely included, as part of ALL department inspections. Given the importance of flow sensor performance, it is unfortunate that the procedure for inspecting flow sensors was not implemented by other Department Inspectors until August 2010.

The flow sensor on the Intoxilyzer® 8000 is described by CMI Inc. as a "pressure transducer". The intended function of this pressure transducer is to measure both flow and breath volume, during breath testing. Accurately measuring the flow and breath volume ensures the collection of a proper sample of breath for analysis. Without routine inspections of the instrument's flow sensors, the performance of the flow sensor cannot be validated.

The Intoxilyzer® 8000 used in Florida is based on obtaining a "minimum"

sample volume of 1.1 Liters of breath. CMI Inc. established this minimum threshold based on an attempt to ensure a deep lung breath sample is collected for analysis. Obtaining a deep lung breath sample is the most accurate representation of alcohol concentration in the bloodstream. A breath sample collected of less than 1.1 Liters should produce a message "Volume Not Met" on the breath test instrument. A Volume Not Met message would indicate that an adequate breath sample was NOT provided or a possible problem with the flow sensor. Obtaining a breath sample of 1.1 Liters of breath, in addition to meeting the other minimum sample requirements should produce a breath test result on the instrument. However, this result may NOT be valid, if the flow sensor was not functioning as it was designed.

Since the function of the flow sensor is to help determine whether a breath sample has been collected, it is essential that the flow sensor is operating properly to ensure a reliable breath test result. If the flow sensor is NOT functioning properly; the minimum sample requirements of flow and breath volume CANNOT be validated. Although an instrument may provide a breath alcohol result, which is shown on the breath test affidavit as a valid breath test result, does NOT necessarily mean it is a reliable result.

Prior to August 2010, FDLE did not routinely check or calibrate the accuracy of the flow sensor as part of the departmental inspections. The flow sensor was ONLY checked or calibrated, if and when an instrument was sent to an authorized service center for repair. Breath tests administered, prior to the routine flow sensor inspections being conducted by FDLE Department Inspectors, may not have produced scientifically, reliable results.

A closer review of the flow sensor's performance (which is not found on the Breath Test Affidavit) could indicate if a breath sample was invalid. The breath test result printed on the Breath Test Affidavit may be an accurate analysis of the actual breath sample provided. However, if the sample provided did NOT meet the minimum sample requirements, the result on the affidavit may NOT be valid for evidential use.

If you suspect there is a problem with the breath test instrument used in your client's case, Forensic Alcohol Consulting & Training, LLC can provide you with a complete and thorough audit of the Intoxilyzer® 8000 used. Our detailed instrument audits will identify any and all problems with the instrument, including flow sensor issues. A review of the breath instrument used in your case will help determine if your client's breath test result may be suppressed.

Matthew E. Malhiot

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Flow Sensor Calibrations: Why the Intoxilyzer 8000 Used for Florida DUI Breath Tests is Unreliable « Tampa DUI Attorney Blog Says:

October 30, 2011 at 11:13 pm

[...] Malhiot recently published an informative blog article discussing the Intoxilyzer® 8000: Flow Sensor Problems in Florida. The article describes how Florida never bothered to develop any procedure for testing whether the [...]

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