

STATE OF MINNESOTA
COUNTY OF HENNEPIN

DISTRICT COURT
FOURTH JUDICIAL DISTRICT

Darrin Lloyd Eilertson

Petitioner,
vs.

AFFIDAVIT OF DR. HARLEY MYLER

Commissioner of Public Safety
Respondent

Court Case No.: 27-CV-0831562

STATE OF TEXAS }
 }
COUNTY OF JEFFERSON }

Dr. Harley Myler, being first duly sworn upon oath hereby states and alleges as follows:

1. I am an expert retained by the law firm of Koch and Garvis L.L.C.
2. I have previously provided an Affidavit and letter regarding the issue of the access of the Source Code for defendant/petitioners on behalf of Koch and Garvis L.L.C.
3. In my previous submissions, I have provided the court with my professional qualifications, my teaching credentials and my Curriculum Vitae and previous experience with the Intoxilyzer 5000 series breath analysis machines produced and marketed by CMI, Inc. of Owensboro, KY.
4. I have over twenty five years in teaching electrical and computer engineering and have previously discussed my interaction with the Intoxilyzer 5000 in the 1980's as well as my expert testimony relating to the Intoxilyzer 5000 in Florida.

5. I have been asked to provide a supplemental affidavit as it relates to the above named petitioner.
6. In forming my opinion, I have reviewed the following:
 - a. The test records for Mr. Eilerstson SN#68-010234;
 - b. The Maintenance and calibration records for SN#68-010234;
 - c. Trial transcripts of Karen Kierzek and BCA emails relating to deficient samples and potential patch fixes;
 - d. I re-reviewed the Intoxilyzer Manual.
7. I have also been provided with an update as to the litigation ongoing in federal court and the Minnesota Supreme Court.
8. As previously stated the Intoxilyzer is a complex computer driven device and, as such, is exclusively dependent on the software installed for effective operation. (See Expert Affidavit of Dr. Myler September 2006).
9. To better understand, the machine has separate modes, or operations, that require different portions of the software code for their respective running. Three of these modes include the air blank, subject test and calibration (or simulator) check. Each one of these modes requires different software and code to accomplish the task. Although the software has certain portions that may be shared, the fact that the machine reconfigures itself through the activation of computer controlled electromechanical valves and a pump suggests that the modes are distinctively identifiable.

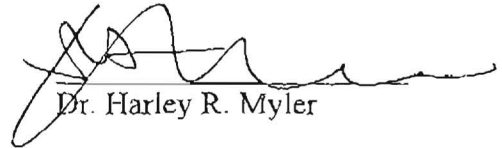
10. In essence, there are three critical modes that this machine runs and most, if not all, the problems exist in the subject sample mode when a live subject is blowing into the machine
11. In particular, when the machine is testing a simulator solution, it is my opinion that it is not engaged in running the slope detector and interfering substance analysis in the software. This assertion is predicated on the fact that testing with a simulator clearly requires a reconfiguration of the vapor paths in the machine, as described above and in the documentation for the machine, which necessitates computer control. Verification of this assertion demands that the source code of the software be analyzed.
12. As to the trial transcripts and the emails from the BCA to CMI, it is obvious that there are problems that the BCA and CMI have known about regarding the issues with the machine not accepting samples that a person blows into the machine, calling it deficient when the sample may not be deficient at all. To quote the Intoxilyzer 5000EN sales brochure as posted to the CMI website: *Every aspect of operation, from displaying and printing of information to the basic electrical and mechanical functions, is micro-computer (sic) controlled.* As such, any operational behavior deviant must be software related and determination of what is specifically wrong will require an examination of the source code of that software.
13. Whether the sample is accepted or not is driven solely by the microcomputer, a Zilog Z80, and any reasonable conclusion of what is going on must be made from an examination of the software source code.

14. Whether the sample is deemed deficient, invalid or accepted is controlled solely by the microcomputer program and this program may only be analyzed from an examination of the source code used to produce it.
15. I have noted that there are known problems with the so-called *interferent* detector not working, when mouth alcohol has not been flagged.
16. This raises an important aspect of this case because if there is an interfering substance, defined as a volatile organic compound with an IR spectrum similar to ethanol—at least in the regions of the spectrum where the Intoxilyzer 5000 analyses it, or mouth alcohol is present but this machine is not accepting the sample because of an error in the methodology of the calculation, then calling the sample as deficient, when it may not be deficient but may actually involve mouth alcohol or an interfering substance.
17. I also note this because the machine shows a counter on it as it relates to the breath volume.
18. The BCA has called this a “puff count”, but there is no such thing in science as a “puff”, or at least any repeatable definition across human populations that is definable in terms of volume and flow rate. I am unsure what this counter is doing or how it relates to samples outside of the admission of the BCA. That the number is being duplicated on the test record under “Remarks:” substantiates the premise that this is a subjective measure with no scientific validity.
19. An examination of the source code would reveal the answer to the problems associated with the deficient sample, whether if both a deficient sample and an invalid sample exist, which one is defaulted and printed on the document if both

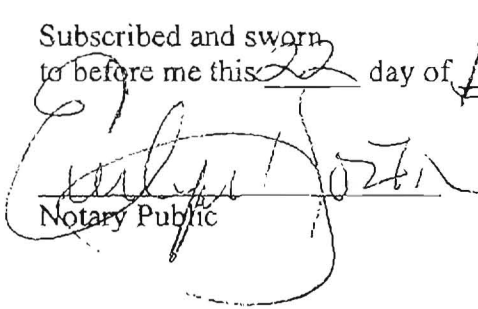
exist, and what is occurring with the sample counter and what role it plays in the sample acceptance.

20. This opinion is based on a reasonable degree of scientific and engineering certainty.

FURTHER YOU AFFIANT SAYETH NOT.


Dr. Harley R. Myler

Subscribed and sworn
to before me this 22 day of April, 2009.


Notary Public

