

COMMONWEALTH OF PENNSYLVANIA : IN THE COURT OF COMMON PLEAS  
 : DAUPHIN COUNTY, PENNSYLVANIA  
 v. :  
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 JASON RICHARD SCHILDT : NO. 2191 CR 2010

# OPINION

“Facts are stubborn things; and whatever may be our wishes, our inclinations, or the dictates of our passion, they cannot alter the state of facts and evidence.” These famous words were first spoken by John Adams in his *‘Argument in Defense of the Soldiers in the Boston Massacre Trials’* in December 1770.<sup>1</sup> These remarkable words relate to the case *sub judice* because, after hearing testimony from several extremely qualified expert witnesses offered by the Defendant, and after reviewing the pertinent statutes and regulations as promulgated in the Commonwealth of Pennsylvania, we are left with the **FACTS**. And the unvarnished **FACTS** of this case ultimately establish that the array of breath testing devices presently utilized in this Commonwealth, and in particular the Intoxilyzer 5000EN device manufactured by CMI, Inc. (hereinafter “CMI”), as those devices are presently field calibrated and utilized in this Commonwealth, are not capable of providing a legally acceptable Blood Alcohol Content (BAC) reading, which is derived from a Defendant’s breath, outside of the limited linear dynamic range

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<sup>1</sup> John Adams was a straightforward politician in his time, an original diplomat of the United States, one of the original framers of the Declaration of Independence, the first Vice President of the United States, the second President of the United States; and above all, a true patriot of his infant nation to whom we owe eternal gratitude for the very freedoms we often take for granted in these United States of America.

of 0.05% to 0.15%. This is so because those devices' operational calibration and consequent display of a BAC reading cannot be reliably and scientifically verified due to the limited operational field calibration range of 0.05% to 0.15%. Thus, the utilization of any instrument reading above or below that limited dynamic range cannot, as a matter of science and therefore law, satisfy the Commonwealth's burden of proof beyond a reasonable doubt on an essential element of a charged offense for an alleged violation of 75 Pa.C.S.A. §3802(c) of the Pennsylvania Motor Vehicle Code.

## **INTRODUCTION**

The true issue before the Court is the evidentiary reliability of the reading derived from a particular device used in the above-docketed case, as well as in the attached cases, to determine levels of intoxication outside the linear dynamic range of 0.05% to 0.15%. According to past and present practice, the Commonwealth has enjoyed a *per se* satisfaction of its evidentiary burden to establish a BAC of .16% in Highest Rate DUI cases by simply producing a device printout which displays such a test reading or higher. This case challenges that *per se* evidentiary presumption. While the Commonwealth has curiously attempted to recast the Defendant's own contentions on this very issue in the Commonwealth's Memorandum of Law in Opposition to Defense's Motion to Quash and its (Commonwealth's) Response to Defendant's Memorandum of Law and Proposed Findings of Fact by erroneously restating the Defendant's own evidentiary challenge argument to suggest that

the Court construe the issue as a challenge as to the reasonableness of the codified regulations promulgated by the Pennsylvania Departments of Health (hereinafter "DOH") and Transportation (hereinafter "PennDOT") as they relate to this matter, that recasting and shifting of focus is totally misplaced. This Court will nevertheless address the true constitutional evidentiary issue as raised by the Defendant which is at the core of this dispute, and as further elaborated through expert testimony during the Evidentiary Hearing before this Court.

However, it is likewise very important to note what is NOT being challenged by the Defendant in the matter at hand. The Defendant has not asserted that the approved breath testing devices utilized in this Commonwealth are physically incapable of ever producing a scientifically valid reading of BAC below .05% or above .15%. Nor has the Defendant asserted that the codified regulations as promulgated by DOH and PennDOT, pursuant to the procedures and requirements of the Commonwealth Documents Law (CDL)<sup>2</sup>, and as authorized by the specific provisions of the various statutes attendant to the Commonwealth's DUI statutes (75 Pa.C.S. §1547 et seq.), are invalid or otherwise infirm. And most importantly, the Defendant does not assert that any indicated reading of BAC from .05% to .15% is, in any way, deficient or otherwise inadmissible by the Commonwealth in a prosecution of a charge of DUI pursuant to 75 Pa.C.S. §3802(a)(2) or §3802(b).

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<sup>2</sup> See 45 Pa.C.S. Chapters 5, 7 and 9.

Conversely, what the Defendant does challenge is any evidentiary presumption that may arise that just because an approved breath testing device has been verified for field calibration accuracy with data points of .05, .10 and .15, that such device can be reliably and scientifically presumed to be likewise accurate beyond that limited linear dynamic range. And since 75 Pa.C.S. §3802(c) has, as a prime element of that particular offense (Highest Rate BAC), the requirement to establish a BAC of .16% or higher, the present limited methodology of field calibration of only .05% to .15% cannot satisfy the Commonwealth's burden of proof on such Highest Rate element to a scientifically acceptable level of reliability which can be accorded any such *per se* presumption of meeting the Commonwealth's evidentiary burden.

Interestingly, the Defendant has conceded during his argument, that all of the breath testing devices presently approved by the Commonwealth could probably produce a scientifically valid BAC reading above .15%, or even below .05%, but that the present methodology for initial calibration and subsequent field calibration verification would have to be significantly adjusted to accommodate for that extended spectrum of linear dynamic range.

## **FACTUAL HISTORY**

On January 16, 2010, at approximately 2:11 a.m., the Defendant was involved in a single vehicle accident on Beagle Road in Londonderry Township, Dauphin County, Pennsylvania. Pennsylvania State Police Trooper Jeremy Baluh arrived on the

scene and observed the Defendant's vehicle resting on its side in the creek next to Beagle Road. Upon Trooper Baluh's initial contact with the Defendant, he noticed that the Defendant was speaking with slurred speech, had a strong odor of alcohol on his breath, and his eyes were red. The Defendant was wet from being in the creek, was not wearing shoes, was unsure of his footing and staggered as he walked. The Defendant admitted that he had consumed multiple alcoholic beverages prior to operating his vehicle. Based on Trooper Baluh's observations of the Defendant, Trooper Baluh formed the opinion that the Defendant was incapable of safe driving and placed the Defendant under arrest. There is absolutely no dispute by the Defendant that Trooper Baluh possessed the requisite probable cause to arrest the Defendant for DUI.

The Defendant was transported by Trooper Baluh to the nearby Middletown Borough Police Department Headquarters for a legal breath test which was conducted by Officer Ben Lucas of the Middletown Borough Police Department. Officer Lucas is a certified breath test operator in the Commonwealth of Pennsylvania. Officer Lucas performed the breath test on the Defendant after a twenty (20) minute observation period in which the Defendant did not eat, drink, vomit, regurgitate or smoke. The test was performed utilizing an Intoxilyzer 5000EN, a device manufactured by CMI, and is a device certified by the DOH and PennDOT as an "approved device" for breath testing to determine blood alcohol content. The device used by Officer Lucas was field verified for calibration on January 9, 2010 and tested for accuracy on January 9, 2010 as well. The test was done within

two hours of the time the Defendant was operating a motor vehicle. The results of the two breath samples provided by the Defendant were 0.208% and 0.214% BAC.

### **PROCEDURAL HISTORY**

The Defendant was charged on January 16, 2010 with two counts of DUI<sup>3</sup> and Driving on Roadways Laned for Traffic.<sup>4</sup> After a Preliminary Hearing before Magisterial District Judge David H. Judy, Esquire, conducted on May 6, 2010, all charges were bound over for disposition in the Court of Common Pleas of Dauphin County. It is specifically noted that nothing in this writing is intended to apply to a prosecution for DUI being brought under 75 Pa.C.S. §3802(a)(1), inasmuch as the percentage of blood alcohol content of a person driving, operating or being in actual physical control of the movement of a vehicle is NOT an element of that statutory offense.

The Defendant was scheduled to appear for Formal Arraignment on June 3, 2010. However, the Defendant signed a Waiver of Appearance at Formal Arraignment (hereinafter Waiver of Appearance) which was filed on May 21, 2010. Despite Defendant's signed and filed Waiver of Appearance, a Bench Warrant was somehow issued on June 16, 2010 for the Defendant's arrest. The Commonwealth filed a Motion to Lift Bench Warrant on June 24, 2010, which was granted on June 25, 2010. On August 18, 2010, the Defendant appeared before our distinguished colleague, the Honorable Scott Arthur Evans, and requested a

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<sup>3</sup> 75 Pa.C.S.A. §3802(a)(1) and 75 Pa.C.S.A. §3802(c).

<sup>4</sup> 75 Pa.C.S.A. §3309(1).

continuance. His request was granted and the case was scheduled for October 20, 2010. On August 27, 2010, the Defendant, through counsel, filed a “Motion to Quash Criminal Information to Wit: The Charge of 18 PA.C.S.A. §3802(c) Driving Under the Influence-Highest Rate of Alcohol as the Commonwealth is Using Evidentiary Breath Testing Devices That Cannot Scientifically Prove the Quantification for Values Above 0.15 and as such Cannot Prove an Essential Element of the Crime Charged Due to this Inability to Quantify Values Outside of the Demonstrated Linear Dynamic Range”<sup>5</sup> (hereinafter “Motion to Quash”).

When this Court was assigned by Court Administration to determine this evidentiary matter involved in the Motion to Quash, we noted the rather unusual scope and attendant issues embedded in the Motion, and we therefore undertook additional measures to include various Commonwealth agencies in the disposition of this matter at a fairly early stage in the proceedings. The Court clearly sensed from the initial filing of the Motion to Quash by the Defendant’s counsel that the scientific issues, and the direct implication of evidentiary and constitutional law issues attendant to this case could have a profound effect upon similar cases in this Judicial District, and indeed across the Commonwealth. It was also apparent that

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<sup>5</sup> Several criminal cases were originally attached and joined in Defendant’s Motion to Quash. Since the filing of said Motion, more cases have joined Defendant’s Motion to Quash and are awaiting the outcome of the Court’s ruling herein. A listing of those presently known joined cases is attached hereto, and marked as Appendix “A,” but such listing may, in fact, be incomplete due to an indexing and clerical anomaly in the Clerk of Court’s Office. However, this writing and the holdings herein are intended to accrue to all cases which are listed or should have been listed on Appendix “A,” notwithstanding those administrative difficulties.

the instant matter may well be a case of first impression in the Commonwealth. Accordingly, the Court held Pre-Hearing Conferences on February 10, 2011 and again on November 28, 2011<sup>6</sup> to which we specifically extended invitations to several different Commonwealth agencies, including the Attorney General's Office, the Department of Transportation, the Department of Health, and the Pennsylvania State Police to fully participate in such Conferences. Notably, only one agency, the Department of Transportation, had a counsel attend the first of the aforementioned Conferences. No other Commonwealth agency appeared at said Conferences, but some sent correspondence to the Court thanking us for extending such invitations, and clearly indicated that each agency was comfortable with the representation provided on behalf of the Commonwealth by the Dauphin County District Attorney's Office, and that their agency would not be participating in the Pre-Hearing Conferences or the Hearing on the merits of the Motion to Quash. However, as the case progressed, it became rather unsettling to the Court that these Commonwealth agencies did not opt to at least participate in the Conferences which would have certainly illuminated the potential state-wide implications of a possible ruling adverse to their interests emanating from the fundamental issues associated with this case. It is for that very reason of initial non-response that we renewed our initial invitation of January 20, 2011, and re-invited those same agencies to attend

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<sup>6</sup> The Court's Conference Scheduling Orders of January 20, 2011 and November 21, 2011 both list counsels for the Attorney General's Office, the Department of Transportation, the Department of Health, and the Pennsylvania State Police in the distribution legends. Those agencies were encouraged by the Court to become involved in this proceeding, since each of them would likely be a stakeholder in the outcome of the matter.

the subsequent Conference on November 21, 2011. But alas, our invitations went chiefly unheeded.

After discovery was completed by the parties and expert reports were prepared and filed, an Evidentiary Hearing was scheduled for April 16<sup>th</sup>, 19<sup>th</sup>, 23<sup>rd</sup>, and 24<sup>th</sup> of 2012. On April 16, 2012, the Defendant presented testimony from Dr. Lee N. Polite; on April 19, 2012, the Defendant presented testimony from Dr. Jerry Messman; on April 23, 2012, the Defendant presented testimony from Dr. Jimmie Valentine and the Commonwealth presented partial testimony from its prime witness, Mr. Brian T. Faulkner. The Commonwealth concluded the Evidentiary Hearing with its witness, Mr. Faulkner, on April 24, 2012. After testimony concluded, the Court advised that each party would have an opportunity to submit any Proposed Findings of Fact, Conclusions of Law, Memorandums of Law, and subsequent Responses thereto. The Commonwealth filed its Memorandum of Law in Opposition to Defense's Motion to Quash, the Defendant filed his Memorandum of Law and Proposed Findings of Fact and both parties ultimately filed Responses thereto.

## **A HISTORICAL PERSPECTIVE**

In order to properly frame the statutory, regulatory and evidentiary issues attendant to this case, the Court believes that a very brief and quite generalized discussion of some pertinent historical facts and circumstances would assist in such discussion and resolution. That necessary historical perspective begins a bit more than a quarter century ago, in 1984.

In 1984, and again in 1987, the General Assembly enacted DUI legislation which established an enforcement scheme which consisted of a *per se* high limit of presumed impairment (.10% BAC), a *per se* low limit of presumed non-impairment (<.05% BAC) and a “grey zone” in between those high and low thresholds for possible conviction of a DUI offense under certain circumstances. At the times of those enactments, it was generally accepted that *per se* impairment of the ability to safely operate a motor vehicle occurred at a .10% BAC. Thus, most DUI statutes across our nation adhered to that .10% BAC as the presumed threshold of impairment sufficient to criminalize the driving, operation or control of a vehicle with that level of blood alcohol in an operator’s body.

Conversely, those same 1984 and 1987 DUI statutes established that any BAC reading below .05% was conclusively presumed to indicate that no DUI violation had occurred. A BAC reading in the “grey zone” at or above .05% but below .10% could potentially be used to establish a violation, but there could be no presumption of intoxication sufficient to establish *per se* intoxicated operation from that “grey zone” BAC reading, and additional legally sufficient evidence would be needed to secure a DUI conviction under those circumstances which could pass muster for proof beyond a reasonable doubt.

At the time of the original statutory enactment of the DUI statutes in 1984, the General Assembly also authorized DOH and PennDOT to adopt and promulgate comprehensive regulations to implement those newly enacted DUI statutes. Indeed, those Commonwealth agencies did just that and those very same

regulations (with some minor amendments over the years), particularly the ones promulgated by the DOH and PennDOT at 67 Pa. Code §77.24, §77.25 and §77.26, form the bedrock of the regulatory scheme for implementation of the DUI laws of this Commonwealth to this very day. There is no question in this case, nor in the associated cases, that those 1984 DOH and PennDOT regulations were perfectly suitable and legally valid to produce a BAC reading for enforcement of those previously enacted DUI statutes. And therein is the salient root of the legal issues attendant to this case. Likewise, there is no dispute by the Defendant that those regulations are *per se* invalid or otherwise insufficient to the degree that they deal with a BAC reading between the limited linear dynamic range of .05% and .15%; but rather, it is the Defendant's contention that they (regulations) did not keep up with the constitutionally mandated evidentiary requirements of later (current) enacted DUI legislation, and are, for that evidentiary reason, insufficient to apply a *per se* presumption of Highest Rate impairment above a .15% reading derived from an approved breath testing device.

In the early 1990s, the previously accepted presumption of impairment at the .10% level of BAC began to be called into question. Slowly over the course of that decade and into the early 2000s, debate began to coalesce across our country that significant impairment indeed occurred at a lower level of BAC, to wit, .08%. That modified perception of DUI impairment then began to find support in the legislatures of several states, and a significant hue and cry was raised in Congress to pressure the states to adopt a uniform standard of .08% BAC for *per se* DUI

enforcement purposes. Those nationwide remedial efforts and associated Congressional persuasions (which chiefly took the form of economic sanctions associated with highway funding and other forms of Federal largess) took several years to find traction. Indeed, the Commonwealth of Pennsylvania was not an early adopter of that lower (.08%) *per se* DUI level.

However, this Commonwealth eventually saw the light (and needed those Federal funds), and in 2006 the present day, three-tiered, statutory scheme for DUI enforcement and, most importantly, the associated tier-related increasing penalties for violations of those same statutes came into effect. It is that very same 2006 statute, in particular 75 Pa.C.S §3802(c) – Highest Rate of impairment - that is directly involved in this case. However, that is not the end of the historical discussion.

As will be discussed hereinafter at significant length, the concomitant regulations originally promulgated by the DOH and PennDOT in 1984 have not kept up with the latest (and presently effective) three-tiered DUI statutes of this Commonwealth. This regulatory deficiency is particularly acute as it applies to the Commonwealth's burden of proof (beyond a reasonable doubt) associated with a prosecution of an alleged Highest Rate offense pursuant to 75 Pa.C.S. §3802(c). And as likewise fully discussed hereinafter, due to this regulatory deficiency to keep abreast of the most current form of DUI statutory enforcement, the Commonwealth can no longer rely on a *per se* violation in a Highest Rate case by simply producing a BAC reading from an approved breath testing device which indicates any reading above

.15% BAC under the limited field testing and calibration scheme currently in place in our Commonwealth.

### **ESSENCE OF THE DEBATE**

The Motion to Quash filed by the Defendant on August 27, 2010 contained a seven (7) page writing prepared by the Defendant's learned counsel and a one (1) page declaration of Lee N. Polite, MBA, Ph.D. That initial writing set forth both the factual and scientific basis for the Motion to Quash, and gave both the Court and the Commonwealth a virtual roadmap of the extensive issues that were to be forthcoming in this case. On February 14, 2011, upon receipt of the Commonwealth's Motion Requesting Defendant's Experts Prepare and Disclose Reports, the Court Ordered that the Defendant must have any individual he intended to call in support of the pending Motion to Quash prepare a full expert report within sixty (60) days. The expert report was to include a full résumé of the professional credentials of any such witness, together with a full annunciation of the factual and scientific basis for any opinions expressed in such reports, and a comprehensive written discussion of the methodologies utilized by such witness in arriving at any opinion expressed in their writings.

The Defendant then filed a Motion to Extend Timely Filing of Expert Reports on April, 7, 2011, which this Court granted, thereby permitting the Defendant to file his expert reports by April 30, 2011. The Defendant's counsel served the Commonwealth and the Court with three (3) comprehensive expert reports from heavily-credentialed scientists on April 30, 2011.

The Commonwealth then filed its first Motion to Extend Filing of Expert Reports on June 30, 2011, which the Court granted. The Commonwealth then filed its second Motion to Extend Filing of Expert Reports on August 2, 2011, which the Court granted with the explicit directive that no further continuances would be granted. On September 1, 2011, more than half a year after the Commonwealth was aware of the rather complex issues to be presented in this case, it produced a mere one-page letter prepared by an engineer, Mr. Brian T. Faulkner, who was credentialed with a Bachelor's Degree in Electrical Engineering, and who is also employed by CMI, the manufacturer of one of the breath testing devices, the Intoxilyzer 5000EN. Mr. Faulkner's position with CMI was described as the Manager of Engineering. It was quite apparent to the Court at the Hearing that the Commonwealth's proposed expert witness, Mr. Faulkner, possessed minimally significant enough credentials to support the requirements for reasonable pretension<sup>7</sup> on some of the scientific matters under examination in the case, but did not possess sufficient credentials to be able to opine on any advanced scientific matters. However, in the interests of fairness and justice to the Commonwealth's position, the Court allowed the Commonwealth to call Mr. Faulkner as its limited expert witness and accepted his testimony on the record. It is also important to note that as a result of the Commonwealth's rather limited choice of an expert witness(s), any concerns regarding the veracity of the DataMaster breath testing devices manufactured by National Patent Analytical Systems, Inc., which

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<sup>7</sup> See *Miller v. Brass Rail Tavern, Inc.*, 664 A.2d 525, 528 (Pa. 1995).

were used to prosecute a substantial percentage of the conjoined Defendants' cases in this matter, remain completely un-rebutted. In fact, a significant portion of the Defendant's claims associated with the Intoxilyzer 5000EN remain entirely un-rebutted as well.

While the Commonwealth's selection of an expert witness in this case was perplexing to the Court, what was truly astounding to the Court was the Commonwealth's post-Hearing Memorandum of Law in Opposition to Defense's Motion to Quash. Despite four (4) days of Evidentiary Hearing, coupled with possessing and reviewing the Defendant's three (3) extensive expert written reports for several months in advance of the Hearing, the Commonwealth still somehow managed to mischaracterize the core evidentiary issues in this case and attempted to mistakenly characterize the Defendant's challenge as regulatory rather than evidentiary. Nothing could be further from the truth.

Indeed, the Commonwealth, in its Memorandum, stated that, "[i]t is the Defendants' position that the regulations as promulgated by the Pennsylvania Department of Health are inadequate and scientifically unreliable as to testing on a breath test device when the results are above .15%." The Commonwealth then asserts that, "[T]here has been no challenge by the defense that the Commonwealth, in the instant case, or those attached, has not met the current regulations that

Pennsylvania law requires. **The issue, therefore, is with the regulation itself.**<sup>8</sup> (emphasis added).

In the Defendant's Reply to Commonwealth's Memorandum, the Defendant, through counsel, amply clarified and re-asserted that the Commonwealth's perception was entirely misplaced and that the Defendant did not take issue with the Commonwealth's regulations; but, rather, the issue was the Commonwealth's failure to update its internal policies to reflect the increased BAC values contemplated by the new DUI statutes.<sup>9</sup> And thus, in such responsive writing, the Defendant has clearly established the parameters of his constitutional evidentiary challenge to any presumption of *per se* impairment above a .15% BAC reading derived from an approved breath testing device. The Court accepts that re-affirmed contention of the Defendant.

## **DISCUSSION**

As preliminarily mentioned, the Defendant's assertion in his Motion to Quash is that the Commonwealth cannot establish to a legally and scientific acceptable certainty that the alleged quantitation of the BAC above .15% (which is derived from the breath sample obtained from the Defendant) is legally accurate when displayed as a test result reading on an approved breath testing device; and thus, it is contended, that the Commonwealth is unable to prove an essential element of its case beyond a reasonable doubt as it pertains to a charge of DUI brought

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<sup>8</sup> Commonwealth's Memorandum of Law in Opposition to Defense's Motion to Quash, page 5.

<sup>9</sup> Defendant's Reply to Commonwealth's Memorandum, page 1.

pursuant to 75 Pa.C.S. §3802(c). This Court is constrained to agree with the Defendant's contention.

The law in Pennsylvania for driving under the influence of alcohol or a controlled substance is as follows:

(a) General Impairment

(1) An individual may not drive, operate or be in actual physical control of the movement of a vehicle after imbibing a sufficient amount of alcohol such that the individual is rendered incapable of safely driving, operating or being in actual physical control of the movement of the vehicle.

(2) An individual may not drive, operate or be in actual physical control of the movement of a vehicle after imbibing a sufficient amount of alcohol such that the alcohol concentration in the individual's blood or breath is at least 0.08% but less than 0.10% within two hours after the individual has driven, operated or been in actual physical control of the movement of the vehicle.

(b) High rate of alcohol – An individual may not drive, operate or be in actual physical control of the movement of a vehicle after imbibing a sufficient amount of alcohol such that the alcohol concentration in the individual's blood or breath is at least 0.10% but less than 0.16% within two hours after the individual has driven, operated or been in actual physical control of the movement of the vehicle.

(c) Highest rate of alcohol – An individual may not drive, operate or be in actual physical control of the movement of a vehicle after imbibing a sufficient amount of alcohol such that the alcohol concentration in the individual's blood or breath is 0.16% or higher within two hours after the individual has driven,

operated or been in actual physical control of the movement of the vehicle.

75 Pa.C.S.A. §3802.

The General Assembly's structure of this statute clearly illustrates that the commensurate penalties for driving under the influence of alcohol or a controlled substance in Pennsylvania are also intended to be graduated.<sup>10</sup> For an individual to be found under the influence of alcohol or a controlled substance while in operation or control of a motor vehicle in Pennsylvania, certain regulations must be followed. As mentioned earlier, the DOH and PennDOT, pursuant to the statutory authority of the Pennsylvania Legislature, have clearly promulgated the pertinent regulations in 67 Pa. Code §77.24, §77.25, and §77.26, which are titled as the following:

**§77.24 Breath test procedures**

**§77.25 Accuracy inspection tests for Type A equipment**

**§77.26 Periodic calibration of Type A breath test equipment**

The lengthy verbatim recitation of the regulatory provisions in each of these main categories has been omitted for ease of review of this writing, save one, § 77.24(d), which provides:

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<sup>10</sup> While there are further distinctions for lower levels of alcohol concentration in an individual's blood or breath, i.e. 0.02% or higher for minors is an offense, 0.04% or higher is an offense for a commercial vehicle driver, and 0.02% or greater is an offense for drivers of a school bus or school vehicle, this Court will not address these lower levels as the Defendant in the matter *sub judice* is specifically challenging the highest rate of alcohol. However, the scope of this writing, by direct implication, certainly accrues to those lower level DUI limits as well.

(d) *Simulator solution certification.* The manufacturer of simulator solution shall certify to the test user that its simulator solution is of the proper concentration to produce the intended results when used for accuracy inspection tests or for calibrating breath test devices. This certification shall be based on gas chromatographic analysis by a laboratory independent of the manufacturer. (emphasis added).

Assuming the foregoing regulations have been followed and an individual is charged with driving under the influence of alcohol, the admissibility of that individual's chemical testing results are governed by 75 Pa.C.S.A. §1547(c) which states:

(c) *Test results admissible in evidence.* --In any summary proceeding or criminal proceeding in which the defendant is charged with a violation of section 3802 or any other violation of this title arising out of the same action, the amount of alcohol or controlled substance in the defendant's blood, as shown by chemical testing of the person's breath, blood or urine, which tests were conducted by qualified persons using approved equipment, shall be admissible in evidence.

(1) Chemical tests of breath shall be performed on devices approved by the Department of Health using procedures prescribed jointly by regulations of the Departments of Health and Transportation. Devices shall have been calibrated and tested for accuracy within a period of time and in a manner specified by regulations of the Departments of Health and Transportation. For purposes of breath testing, a qualified person means a person who has fulfilled the training requirement in the use of the equipment in a training program approved by the Departments of Health and Transportation. A certificate or log showing that a device was calibrated and tested for accuracy and that the device was accurate shall be presumptive

evidence of those facts in every proceeding in which a violation of this title is charged.

As a result of the evidence produced at the Hearing, it is now extremely questionable as to whether or not any DUI prosecution which utilizes a reading from an Intoxilyzer 5000EN breath testing device could presently withstand scrutiny based upon the startling testimony of the Commonwealth's own witness, Mr. Faulkner, at the Hearing. What has now come into play as a result of Mr. Faulkner's testimony is a serious question as to procedures and simulator solutions utilized by the manufacturer, CMI, to initially "teach" the Intoxilyzer 5000EN breath testing device to accurately and reliably respond to an ethanol sample during the original calibration of the device, post physical production, but while undergoing such initial calibration at the CMI facilities. As previously mentioned, the Commonwealth's sole expert witness was Mr. Faulkner, who testified that once the physical manufacturing process for the Intoxilyzer 5000EN is complete, the device then goes through the manufacturer's (CMI's) in-house initial calibration lab where it has its calibration and consequent displayed reading adjusted for the first time. The lab introduces allegedly known concentrations of ethanol solutions to determine the device's response to ethanol. N.T. 4/23/12 at 170.

However, a quite thorny issue developed during Mr. Faulkner's testimony concerning that initial calibration by CMI which appears to collide with Pennsylvania's regulations requiring that "the manufacturer of simulator solution shall certify to the test user that its simulator solution is of the

proper concentration to produce the intended results when used for accuracy inspection tests or for calibrating breath test devices. This certification shall be based on gas chromatographic analysis by a laboratory independent of the manufacturer.” 67 Pa. Code. §77.24(d) (emphasis added). Astoundingly, Mr. Faulkner testified that CMI does not follow the preceding Pennsylvania regulation. At the Evidentiary Hearing, the Commonwealth inquired of its own witness, Mr. Faulkner, as follows:

**Commonwealth:** “And can you talk about the solutions that are used to do the initial calibration?”

**Defense Counsel:** “All right. Now I have to object for fair scope of this.”

**Commonwealth:** “I’m asking him where they get those solutions, if they’re certified through NIST traceable standards.”

**Mr. Faulkner:** “We make our own solutions in-house. Solutions are checked and verified with a gas chromatograph. The gas chromatograph is verified with NIST traceable reference materials.” N.T. 4/23/12 at 172-173.

Mr. Faulkner’s own testimony stunningly supports the Defendant’s claim that the Intoxilyzer 5000EN could not have produced a legally acceptable reading of his (the Defendant’s) blood alcohol content derived from the breath alcohol content as tested by the Intoxilyzer 5000EN because the device was never properly calibrated according to Pennsylvania regulatory standards in the first place. Under those Pennsylvania

standards, the simulator solution used in the calibration of the breath testing device by the manufacturer of the device must be certified based on gas chromatographic analysis by a laboratory **independent of the manufacturer**. Unfortunately, CMI calibrates the Intoxilyzer 5000EN with a simulator solution made in-house, with no reference to any certification based on gas chromatographic analysis completed by an independent laboratory.

It is perfectly clear to this Court that at least one of the purposes of this specific regulatory provision (§77.24(d)) promulgated by the DOH and PennDOT is that it is intended to act as an initial, and indeed critical, check and balance against the possible introduction of a faulty simulator solution being used by the manufacturer in the very first instance of calibration of the breath testing device. Although Mr. Faulkner's testimony indicates that the manufacturer, CMI, owns a gas chromatograph instrument, there was absolutely no testimony brought forth by the Commonwealth which could even remotely establish how that instrument itself was scientifically tested for accuracy, or who might be the person(s) who performs any such scientific testing, or the professional credentials of any such person(s).

Although Mr. Faulkner stated that NIST traceable materials are used to "verify" the gas chromatograph instrument, we are left without any evidence of the attendant circumstances and procedures that might be utilized in any such verifying endeavor, such that the Court could possibly evaluate the efficacy of any such procedure. However, notwithstanding any such "verifying" undertakings performed by the manufacturer

(CMI) on its own gas chromatograph, the bare **FACT** remains that the entity (CMI) that is performing the initial calibration of the breath testing device is using a simulator solution which was prepared (and allegedly subjected to some sort of a gas chromatographic analysis) by the same manufacturer and calibrator of that device. The regulatory requirement of a “gas chromatographic analysis by a laboratory independent of the manufacturer” has been blatantly ignored and obviously violated. (emphasis added).

Defense expert Dr. Jerry D. Messman, an internationally recognized expert in the disciplines of chemistry, organic chemistry, analytical chemistry, metrology, spectrometry or spectroscopy, physical chemistry, good laboratory methods, thermodynamics and statistical thermodynamics, testified that a simulator solution prepared in-house does not generate the same level of confidence as that of a higher order certified reference material. Dr. Messman explained that if the concentration of the standard is wrong, then the calibration curve will be wrong, and the measured result will be wrong. N.T. 4/19/12 at 64-65. Hence, the simulator solution produced and utilized by CMI is problematic at best, as confirmed by the DOH and PennDOT regulatory requirement that a manufacturer of a breath test device cannot rely on its own uncertified simulator solution but instead must utilize a simulator solution with a certification based on gas chromatographic analysis by a laboratory independent of the manufacturer.

Additionally, amidst Mr. Faulkner’s testimony, he explained that during the initial calibration adjustment at the factory,

CMI uses a zero as the first solution that is introduced or first value that's introduced to the Intoxilyzer 5000EN device. N.T. 4/23/12 at 171. Likewise, in his one page expert report<sup>11</sup>, Mr. Faulkner described the factory calibration adjustment for the Intoxilyzer 5000EN. As described above, the adjustment is done with in-house prepared ethanol concentrations of 0.000, 0.020, 0.040, 0.100, and 0.300 g/210L. This adjustment is then confirmed with ethanol concentrations of 0.020, 0.040, 0.100, and 0.300 g/210L. Conversely, Defendant's expert witness, Dr. Lee N. Polite, who was tendered as an internationally recognized expert in the disciplines of organic chemistry, analytical chemistry, physical chemistry, spectrometry or spectroscopy, good laboratory practice, EPA regulations, metrology, thermodynamics, and statistical thermodynamics, opined that zero is not a data point because one cannot measure zero. Dr. Polite explained his opinion through the following analysis:

"So remember the calibration curve is what will relate the concentration in this case of ethanol versus the response... The origin is 00 mark, zero concentration and zero response. And one -- the conventional wisdom which is incorrect would say, well, I assume that if we introduce a zero amount of ethanol we will get a response of zero so let's include this as a data point. In other words, let's force the line through zero. And we caution very heavily against that because that's not an actual data point. The way I always put it is if you force the line through zero, you're actually ignoring your real data points, things that you actually measured, and you are anchoring your curve at the one place that you did not measure which is the zero point. So not only do we not measure it, we cannot measure zero because we can't measure zero. It's an undefined term... So that means when nothing is going through it, we'll

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<sup>11</sup> Defense Exhibit 15, N.T. 4/19/12 at 79.

arbitrarily call that zero, but we never include that as a data point because it's not a data point, it's not something we've measured.

N.T. 4/16/12 at 96-97.

Comparably, Defendant's other expert witness, Dr. Messman, concurred with Dr. Polite's assessment that zero is not a valid data point for calibration of the Intoxilyzer 5000EN. When Dr. Messman was asked whether he had any notion as to whether or not infrared breath test machines are capable of truly measuring zero, he stated that the machines cannot measure zero. Dr. Messman's rationale behind this assertion is that measuring zero would essentially require the device to measure a single atom, which is not very practical in any laboratory. N.T. 4/19/12 at 72-73.

Moreover, 67 Pa. Code §77.26(b)(1) imposes the requirement that calibration testing of a breath test device shall consist of conducting three separate series of five simulator tests to give readings of 0.05%, 0.10%, and a reading above 0.10% which is a multiple of 0.05%. (Pennsylvania uses 0.15% for its calibration verification). Defense expert, Dr. Polite, addressed the significance of this limited linear range when he declared, "If you're calibrating from 0.05 to 0.15 and did these three points, you have the correlation coefficient, you've proven to me that your instrument works -- definitely works between 0.05% and 0.15%. There's no data to say that it works at 0.16%. There's no data to say it works at 0.04%." N.T. 4/16/12 at 127. Dr. Polite further enunciated that, "Anything outside of the range of 0.05% to 0.15% is not a valid number.

We just don't have any data to say anything above 0.15% has any validity because they haven't proven that." N.T. 4/16/12 at 139. That statement captures the essence of the evidentiary deficiency with the calibration of the Intoxilyzer 5000EN and its consequent displayed reading. The Defendant's blood alcohol content was recorded as 0.208% based on the breath test administered on the Intoxilyzer 5000EN. Yet, if the Intoxilyzer 5000EN only undergoes calibration verifications at 0.05, 0.10, and 0.15 data points, how can any reading outside of that linear range be accepted on its face as *per se* valid? All of the expert witnesses, including Mr. Faulkner, acknowledged that at some point, the linear accuracy of a breath testing device will "fall off" and be inaccurate, and that the only way to know where that "fall off" point occurs is to scientifically test for it with valid data points spread across the entire dynamic range of the intended (or possible) measurement spectrum.

Despite CMI's initial calibration and testing of the Intoxilyzer 5000EN up to a 0.30% ethanol concentration (using an in-house prepared solution that is unverified by a laboratory independent of the manufacturer (CMI), in violation of 67 Pa. Code §76.24(d)), the Intoxilyzer 5000EN is not on-site operationally tested and verified above a .15% ethanol concentration once it leaves the manufacturer. Inasmuch as the monthly calibration verifications in Pennsylvania range from 0.05% to 0.15%, it is this Court's estimation that the Intoxilyzer 5000EN could not produce a legally acceptable blood alcohol content reading above 0.15% for the Defendant which can, *per se* and as a matter of acceptable evidentiary law, satisfy

the Commonwealth's burden of proving each and every element of a charged offense beyond a reasonable doubt, without engaging in some form of speculation, conjecture or guess. It is bedrock law in this Commonwealth that the finder of fact may not engage in any such specious activity of speculation, conjecture or guess when determining whether or not the Commonwealth has met its burden of proof beyond a reasonable doubt as to each and every element of a charged offense.

This is not a matter of reasonable inference derived from legally acceptable and scientifically established **FACTS**. Rather, opining from such an uncorroborated and unworthy basis for establishing constitutionally acceptable and required evidence to determine a critical element of a charged DUI offense is an anathema to the concept of fundamental justice and is repugnant to our Constitution.

### **CONCLUSION**

The Court finds that the Commonwealth's contention that the Defendant's position is a challenge to the regulations as promulgated by the DOH and PennDOT is desperately misplaced. The Defendant has not attacked those Pennsylvania regulations or statutes. Rather, he has launched a direct frontal assault on an embedded *per se* presumption that the lineal accuracy of a breath testing device above 0.15% extends infinitely and, likewise, extends to nothing below 0.05%. Both presumptions, without valid testing of that premise on any such approved breath testing device, are fatally infirm as a matter of established science and consequently the law. Indeed, the DOH and PennDOT appear to have acknowledged that there could well be

a variance of result as evidenced by the procedures for calibration testing enumerated in 67 Pa. Code §77.26(b)(1).

The regulatory scheme established in those regulations which requires graduated testing of .05, .10 and .15 data points establishes the very essence of the core issue in the matter. For if a single data point were scientifically sufficient to establish acceptable linear accuracy across the entire dynamic range of the breath testing device, then there would be no need for testing and field calibration of two other data points. That is clearly not the scientific **FACTS** of the matter, as recognized by those very same regulations.

**WHEREFORE**, based upon the **FACTS** adduced at the Hearing, and as discussed in the foregoing writing, **IT IS HEREBY ORDERED** that the Defendant's Motion to Quash is **GRANTED**. This grant of relief shall also accrue to all cases which have been joined for disposition on the same or similar issues. Separate Orders shall be prepared for each known joined case, and this Opinion is hereby incorporated into those other proceedings as well.

**ISSUED AT HARRISBURG**, this 31<sup>st</sup> day of December, 2012.

**BY THE COURT:**

*/s/ Lawrence F. Clark, Jr.*

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Lawrence F. Clark, Jr., Judge

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**Court Administration – Criminal**  
**Nativa P. Wood, Chief Court Reporter**  
**FILE**

## APPENDIX A

| <u>Commonweath vs.</u>          | <u>Docket #</u> |
|---------------------------------|-----------------|
| Taylor Scot Zercher             | 2139 CR 2008    |
| Laquana Sakima Myrick           | 709 CR 2010     |
| Marion Daniel Nicklow           | 846 CR 2010     |
| Joshua Wayne McClearn           | 975 CR 2010     |
| Joshua Wayne McClearn           | 4500 CR 2010    |
| Trinidad Jose-Manuel Lopez, III | 1065 CR 2010    |
| Steven Edward Shank             | 1652 CR 2010    |
| David W. Styer                  | 2200 CR 2010    |
| David W. Styer                  | 4998 CR 2010    |
| Richard Edward Shade            | 2599 CR 2010    |
| Charles Robert Jamison          | 2601 CR 2010    |
| Guy Wilber Weikert              | 3856 CR 2010    |
| Charles Ford, III               | 4259 CR 2010    |
| Charles Ford                    | 2410 CR 2010    |
| Adam Lee Williamson             | 4531 CR 2010    |
| Larry Lee Grove                 | 5511 CR 2010    |
| William Gatling, Jr.            | 1940 CR 2011    |
| Michael Ivan Muretic            | 3335 CR 2011    |
| Ryan M. May                     | 4535 CR 2011    |