

## EXECUTIVE SUMMARY<sup>1</sup>

After nearly five years of litigation in Minnesota State and Federal Courts, the question of whether the Source Code for the Intoxilyzer 5000EN affects the reliability of test results produced by that instrument has been decided. For nearly every test result, the Source Code does not affect or diminish reliability. Test results for breath alcohol measurements obtained from the instrument should therefore be admissible in evidence, subject to defenses permitted by law.

The area in which the reliability of an Intoxilyzer 5000EN result can be challenged based on its Source Code is when the instrument reports a “Deficient” sample, while operating software version 240. Changes made to certain aspects of the Code in version 240 render some breath samples that were allowed in the past to be no longer accepted. The 240 software has been in statewide use since mid 2005. It is estimated that this will impact less than 1% of tests.

The Court’s decision does not dismiss these cases. “Deficient Sample” results can be used as long as some other evidence is provided for the deficiency. Standing alone, however, the Intoxilyzer report of a “deficient sample” can be the consequence of many causes – including a Source Code change in the 240 software for an unrelated purpose, which has the unintended consequence of tightening sample acceptance.

This decision applies to the Source Code issue which was raised in more than 4,000 cases assigned to this Court by the former Chief Justice. These consolidated cases, both civil and criminal, have been litigated over the past 13 months before the undersigned. Numerous hearings have been held, culminating with a lengthy

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<sup>1</sup> This is an Executive Summary of the Court’s decision. This summary is provided as a convenience and should not be construed to modify in any respect the Order and Memorandum.

evidentiary hearing which has effectively resolved an issue that could have been raised in separate hearings, in each case. The procedures adopted by this Court – to which no party has objected – have resulted in an economy for the parties and the Courts.

The attached decision allows these 4,000 plus cases pending in 69 counties throughout Minnesota to be returned to their home county for further proceedings. While this Court remains assigned to all pending and future cases statewide which involve the Source Code for the Intoxilyzer device, it is anticipated that in light of what has been decided herein, sufficient guidance exists for resolution of the Source Code issue in pending and future cases as well.

#### INTRODUCTION

The issue which is addressed in this decision was framed by former Chief Justice Eric Magnuson in, In re Minnesota Intoxilyzer 5000EN Source Code Litigation, (A09-2109, January 11, 2010). Substantively, Justice Magnuson ordered that “all pretrial matters concerning challenges to the reliability of the Intoxilyzer 5000EN results based on the source code of the instrument” be determined by the undersigned. Procedurally, all such cases, whether criminal or civil in origin, where the challenge to the Source Code which operates the Intoxilyzer 5000EN (“Source Code”) was validly asserted, through October 1, 2010, have been consolidated and the Source Code issue is resolved by this decision. For reasons explained below, cases which have been brought since October 1, 2010, where the same issue is asserted are likely indistinguishable from those decided herein. Consequently, unless there is new evidence or new supportable arguments for questioning the impact of the Source Code which operates the Intoxilyzer 5000EN, the issue should be resolved as a final matter in Minnesota.

Not surprisingly, the simple statement of the issue which serves as the guiding principle of this litigation was instantly construed by both sides – those challenging the Source Code and those defending the Intoxilyzer 5000EN's results – differently. Challengers have advanced a fusillade of criticism concerning the Intoxilyzer 5000EN, creatively assigning each shortcoming in the machine a Source Code connection. The State, which is responsible for the operation and maintenance of the instrument, defensively and at times almost cavalierly dismisses every criticism as completely unfounded.

These polarized viewpoints have never diminished. Each side, when given an opportunity to present testimony which resulted in an evidentiary hearing lasting over ten days, could not see any position, abandon any argument, or miss an opportunity at contentious rejoinder. Thus, the Court faces herein the daunting task of stripping from the rhetoric, argument, and contentiousness essential facts which respond to the issue as framed by Chief Justice Magnuson just over a year ago.

Despite the appeal of a decision guided by an economy of words, the vast implications and the tenor of the litigation require in-depth analysis of the claims and evidence, as well as some discussion of the history of this litigation. This decision is presented in three parts: 1) The subject matter requires at the outset some definitions for an understanding of the issue, the history of the cases, and the Court's analysis; 2) The procedural history and genesis of the Source Code issue throughout the state and federal courts in Minnesota; and 3) A summary and overview of the evidence presented at the evidentiary hearing.

## DEFINITION OF TERMS

- ABA:** An acronym for "Air Blank," "Breath Sample," "Air Blank," which is a shortened test performed on the 5000EN, run without diagnostics or controls, to determine a subject's breath alcohol. It is not evidentiary. It is commonly used by corrections officers to determine the measurement of breath alcohol of individuals out on work release.
- ACA:** An acronym for "Air Blank," "Control," "Air Blank." This is principally a diagnostic sequence run to check values for the control solution.
- ACCURACY:** The ability of the Intoxilyzer 5000EN to provide breath alcohol concentration results for a single sample which are close together.
- ASSEMBLER:** Assembles active instructions in the Source Code for execution by the instrument's "Master" microprocessor.
- ASSEMBLY LANGUAGE OR ASSEMBLY CODE:** A very detailed computer language which is utilized in the Source Code of the "Master" microprocessor. It is considered very basic or a low-level language used for code; it requires very detailed instructions. Of the

approximately 1,100 printed pages of Source Code for the Intoxilyzer 5000EN, about 960 pages are in the "Assembly" language.

C LANGUAGE OR

C CODE:

A high-level code language used for computer programming. "C" language can determine calculations and is used for data transfer. The "Slave" microprocessor uses "C" language. Of the approximately 1,100 printed pages of Source Code for the Intoxilyzer 5000EN, about 150 pages are in the "C" language.

COBRA:

Acronym for "Computer Online Breath Archiving." All Intoxilyzer 5000ENs are connected to the Minnesota BCA by modem. The BCA maintains a database for recording results.

COMPILER:

Compiles active instructions in the Source Code for execution by the instrument's "Slave" microprocessor.

DABACABA:

The Minnesota test sequence for the Intoxilyzer 5000EN. An acronym for the full test sequence required by Minn. Stat. 169A.51, Subd. 5(a). "Diagnostic," "Air Blank," "Breath Sample," "Air Blank," "Control," "Air Blank,"

“Breath Sample,” “Air Blank.”

**DEFICIENT SAMPLE:** A reported test result for a breath sample which does not meet minimum breath volume of 1.1 liters and/or level slope requirements within 4-minute time limit.

The sample may also be deficient because it does not meet minimum flow rate of 0.17 liters; or sustained flow rate of 0.15 liters; provided over 2 seconds.

**DEFICIENT TEST -  
AGREEMENT NOT MET:** Two breath samples which are acceptable but exceed maximum differential of 0.020 from highest to lowest sample readings.

**DEFICIENT TEST -  
REFUSAL:** Testing subject provides a second deficient test – which constitutes a refusal.

**EMBEDDED SYSTEM:** A computer or microprocessor which functions inside another device and controls or generates instructions to all or a portion of that device. The microprocessors in the Intoxilyzer 5000EN are an embedded system.

**EPROM:** Acronym for “Erasable Programmable Read Only Memory.” It is this device in which software changes are

updated and uploaded to the instrument.

**FIRMWARE:** The in-between of hardware and software; it is the modifiable program that is embedded in the instrument which can be updated.

**GRANULARITY:** The precise explanation of problems encountered in the software and/or device.

**HEX FILE:** The file designation for a change in code prepared by CMI, Inc., and forwarded to the BCA for evaluation and/or installation.

**INTERFERENT:** Detected substance, other than breath alcohol or acetone, which produces vapors that can interfere with test results.

**INVALID SAMPLE:** Alcohol concentration dropping greater than 0.006 during the process of supplying a breath sample. Possible causes include burping or sucking back.

**IR FILTERS:** "IR" is short for infrared. There are five IR Filters in the Intoxilyzer 5000EN: two to detect alcohols and acetone;

two to detect interferents; one for reference. The alcohol filters provide data read by a 12-bit sensor, which performs computations to 24 bits. The alcohol data is reported to the “master” as a value with a decimal to four places (0.0000).

**PRESSURE TRANSDUCER:** An inline measurement device which handles a maximum pressure of 1.45 psi. It turns the subject’s air flow into a linear electrical signal. This signal is subject to conversion from analog to digital and then subject to a mathematical formula, which produces a volume reading based on time and pressure.

**RELIABILITY:** The ability of the Intoxilyzer 5000EN to repeatedly produce highly accurate and valid breath alcohol concentration results across a wide variety of sample subjects.

**RFI:** Acronym for “Radio Frequency Interference.”

**SIMULATOR SOLUTION:** An ethyl alcohol solution of known concentration which is heated to a specific temperature range to vaporize the ethyl alcohol. The vaporized ethyl alcohol provides a

known reference measurement at or near an alcohol concentration of 0.08.

**SOFTWARE:** The non-physical – instructions. It is nearly synonymous with code.

**SOURCE CODE:** Human-readable representation of instructions to be performed by a computer. The Source Code for the Intoxilyzer 5000EN when printed contains over 1,100 pages.

**SOURCE CODE MODULE:** Discrete sections of instruction within the broader Source Code which are grouped together because they deal with a specific function or operation of the instrument.

**VALIDITY:** The ability of the Intoxilyzer 5000EN to produce breath alcohol concentration results which are reflective of the actual breath alcohol concentration of the subject sample being measured.

**Z80 PROCESSOR**  
**“MASTER”:** A 64K, 16-bit microprocessor. A derivation of the TRS-80 home computer microprocessor sold by Radio Shack in the 1980s. The “Master” receives Source Code

revisions.

8050 PROCESSOR

A 64K microprocessor which uses 56K and 8K

“SLAVE”:

of RAM. The “Slave” receives Source Code revisions.

## HISTORY OF SOURCE CODE PROCEEDINGS

Petitioners in implied consent proceedings and defendants in criminal alcohol-related driving prosecutions initially sought access to the computer code which directs the operations of the Intoxilyzer 5000EN instruments in use in Minnesota in 2006. This computer code is virtually unreadable by humans but originates from human-readable "source code."

Petitioners and Defendants originally pointed to language in the Request for Proposal used by the State of Minnesota to purchase its fleet of Intoxilyzer 5000EN instruments and argued that the State of Minnesota legally owned this Source Code, which was unique to Minnesota's version of the Intoxilyzer 5000EN. What followed was a more than three-year-long battle among prosecutors and the Attorney General's Office (acting on behalf of the State of Minnesota), implied consent petitioners and criminal defendants, and CMI, Inc., the manufacturer of the Intoxilyzer 5000EN. Following over three years of litigating discovery and access issues, the cases herein were assigned to this Court for resolution of the underlying claim that the Source Code of the Intoxilyzer 5000EN impaired the reliability of the reported results.

The details underlying the nearly five-year saga and the story behind the discovery, access, and review of the Source Code in use in Minnesota's Intoxilyzer 5000EN fleet are discussed below.

### **First Request for Discovery of Source Code**

The genesis of the challenge to the Source Code of the Intoxilyzer 5000EN in Minnesota can be traced back to 2006 when the first request for discovery of the Source Code for the Intoxilyzer 5000EN was granted. In Underdahl v. Commissioner of Public

Safety, Dakota County Court File 19-C1-06-6710, the Petitioner requested the opportunity to purchase an Intoxilyzer 5000EN instrument and obtain access to the Source Code. The Petitioner's request was premised in part upon "the battle in Florida and elsewhere" over "an unmodified Intoxilyzer 5000EN." (Memorandum and Order for Additional Discovery issued by the Honorable Richard G. Spicer, May 2, 2006, p. 4.) Specifically, the Petitioner contended that Minnesota had a version of source code which was unique and sought to determine whether the specific code in use in Minnesota affected the reliability of the reported results. (See id.) The Petitioner's requests were granted, and the Commissioner of Public Safety was directed to provide Petitioner's counsel with "the complete computer source code for the operation of the Minnesota model of the Intoxilyzer 5000 currently in use in the State of Minnesota." (Id. at 2.)

#### **Underdahl I – Minnesota Attorney General's Request for Writ of Prohibition**

In response to the decision granting Underdahl's request for an Order directing discovery be had, the State of Minnesota sought a writ of prohibition from the Minnesota Court of Appeals. Specifically, the State sought relief from the portion of the District Court's Order which required the Commissioner of Public Safety to "obtain and provide to Petitioner's counsel the complete computer source code for the operation of the Minnesota model of the Intoxilyzer 5000 currently in use in the State of Minnesota." In re Commissioner of Public Safety, 735 N.W.2d 706, 709 (Minn. 2007) (Underdahl I). See also, In re Commissioner of Public Safety, A06-1000, p.1 (Minn. App. July 18, 2006) (unpublished opinion of Minnesota Court of Appeals denying requested writ of prohibition). The Minnesota Supreme Court denied the Commissioner of Public Safety

his requested writ of prohibition. Underdahl I, 735 N.W.2d at 713.

In denying the writ of prohibition, the Supreme Court held the District Court had jurisdiction to determine whether individual test results obtained from an Intoxilyzer 5000EN were reliable and accurate. Id. at 710-11. Minnesota Statute § 634.16 provides a presumption that “[i]n any civil or criminal hearing or trial, the results of a breath test . . . are admissible in evidence without antecedent expert testimony that an infrared or other approved breath-testing instrument provides a trustworthy and reliable measure of the alcohol in the breath.” See also Kramer v. Commissioner of Public Safety, 706 N.W.2d 231, 235-36 (Minn. App. 2005); State v. Rader, 597 N.W.2d 321, 323-24 (Minn. App. 1999). In reliance upon this statute, the Commissioner argued the only way to challenge the reliability of Intoxilyzer 5000EN tests is to challenge the rule adopting it for statewide use. Underdahl I, 735 N.W.2d at 710. Underdahl, however, was only challenging the specific breath test result being used as evidence against him and then solely upon the basis of the Source Code of the instrument, not the science underlying the approved testing device. See id. at 710-11 (citing Minn. Stat. § 169A.53 which specifically provides jurisdiction to determine whether “the testing method used [was] valid and reliable and [whether] the test results [were] accurately evaluated”). On this basis, the Supreme Court upheld the District Court’s jurisdiction to address the Source Code issue. Id. at 712.

The Supreme Court also held the State of Minnesota had adequate remedies under the law to comply with Judge Spicer’s discovery order. Id. at 712-13. Without providing an exhaustive list of these remedies, the Supreme Court suggested one possible adequate remedy was for the State to enforce its contract with CMI. Id. at 713.

The Request for Proposal to which CMI submitted a bid and led to a contract for the purchase of Minnesota's Intoxilyzer 5000EN fleet required a "[p]rovision for information . . . to be used by attorneys representing individuals charged with crimes in which a test with the proposed instrument is part of the evidence" and "to be activated with an order from the court with jurisdiction of the case . . . ." (Exhibit 1, Bates p. 000024, Minnesota's Request for Proposal). (See Exhibit 45, Bates p. 000036, CMI, Inc.'s Response to RFP). See also Underdahl I, 735 N.W.2d at 713. The Supreme Court reasoned that by enforcing its contract with CMI, the State could obtain access to the Source Code in question and thereby comply with Judge Spicer's discovery order. Id. at 713. On these bases, the request for a writ of prohibition was denied. Id. at 713.

#### **Minnesota Sues CMI, Inc., in United States District Court**

On March 3, 2008, the State of Minnesota commenced litigation against CMI, Inc., by filing a complaint in United States District Court for the District of Minnesota. (Complaint dated March 3, 2008, filed in State of Minnesota v. CMI of Kentucky, Inc., 2008-CV-00603.)<sup>2</sup> The matter was assigned to the Honorable Donovan W. Frank and referred to the Honorable Arthur J. Boylan. Through the hard work and diligence of Judge Frank and Magistrate Judge Boylan, resolution of the access issue was reached which provided "reasonable access to the Source Code for Minnesota litigants in a manner that protects the State's interest in security features and passcode-protected functions, and CMI's interest in its intellectual property." (Order Approving Consent

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<sup>2</sup> The Court's knowledge of all of the documents and orders filed in the proceedings before the Honorable Donovan W. Frank in State of Minnesota v. CMI of Kentucky, Inc., 2008-CV-00603 (D. Minn. 2008) were derived from reviewing reproductions of the documents filed with the United States District Court for the District of Minnesota as published at the following website: <http://dockets.justia.com/docket/minnesota/mndce/0:2008cv00603/96668/>. Review of this website was undertaken at various times throughout these proceedings.

Judgment and Permanent Injunction and Memorandum, July 16, 2009, issued by Judge Frank in State of Minnesota v. CMI of Kentucky, Inc., 2008-CV-00603, pp. 6-7).

("Consent Judgment and Permanent Injunction"). Although not binding upon Minnesota state courts, the Consent Judgment and Permanent Injunction provided state courts, petitioners in implied consent cases, and criminal defendants with a means of access through which review of the Source Code for the Intoxilyzer 5000EN could occur. (See id. at 3, 19-20) (acknowledging not binding upon state courts).

### ***Intervention by Criminal Defendants and Implied Consent Petitioners***

During the course of this litigation, four individuals<sup>3</sup> who were either petitioners challenging the Commissioner's revocation of their driver's license or criminal defendants sought to intervene in the proceedings. (Motion to Intervene as Plaintiffs, filed in State of Minnesota v. CMI of Kentucky, Inc., June 6, 2008, 2008-CV-00603.) These individuals sought to intervene in the federal court proceedings because they believed the State of Minnesota would not adequately represent their interests in obtaining access to the Source Code. (Id. at 2.) This request for intervention, as well as requests by various amicus curiae<sup>4</sup> to be involved in the proceedings, was granted. (November 6, 2008 Order issued by Judge Frank in State of Minnesota v. CMI of Kentucky, Inc., 2008-CV-00603, p. 5. (granting motion of intervenors); November 26, 2008 Order issued by Judge Frank in State of Minnesota v. CMI of Kentucky, Inc.,

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<sup>3</sup> These individuals were Craig A. Zenobian, Shane M. Steffensen, Robert J. Bergstrom, and Christopher D. Jacobsen. Zenobian (Court File Number 10-CV-07-1076), Steffensen (Court File Number 10-CV-06-1036), and Bergstrom (Court File Number 27-CV-07-8280) have their challenge to Intoxilyzer 5000EN result on the grounds of Source Code assigned to this Court in this proceeding for resolution. Jacobsen (Court File Number 02-CR-07-370) apparently entered into a plea agreement on July 3, 2008, resolving the matter.

<sup>4</sup> The amicus curiae who elected to participate included the Minnesota Society for Criminal Justice, the DWI Taskforce, the Minnesota County Attorney's Association, and the Suburban Hennepin County Prosecutors Association.

2008-CV-00603 (allowing amicus curiae briefing); June 3, 2009 Order issued by Judge Frank in State of Minnesota v. CMI of Kentucky, Inc., 2008-CV-00603, p. 5 (allowing amicus curiae briefing and argument).) The intervenors and the amicus curiae Minnesota Society for Criminal Justice (“MSCJ”) were able to have their objections heard regarding the Consent Judgment and Permanent Injunction. (See June 3, 2009 Order issued by Judge Frank in State of Minnesota v. CMI of Kentucky, Inc., 2008-CV-00603, p. 5.) Despite their objections, the intervenors, MSCJ, and all of the litigants appearing before this Court followed and urged this Court to follow the process approved in the Consent Judgment and Permanent Injunction.

The access provided by the Consent Judgment and Permanent Injunction was apparently the only process through which access to the Source Code was obtained on a broad scale. There has been a reference to one instance when CMI provided access to some version of the Source Code to one litigant. (See July 16, 2009 Memorandum Opinion and Order issued by Judge Frank in State of Minnesota v. CMI of Kentucky, Inc., 2008-CV-00603, p. 12 n. 9.) With this exception, this Court is unaware of any other instance wherein a litigant currently before this Court obtained access to the Source Code by some method other than that put forth in the Consent Judgment and Permanent Injunction. Despite repeated invitations by this Court and other Minnesota state court judges for criminal defendants or implied consent petitioners to directly involve CMI in their case, the process set forth by the Consent Judgment and Permanent Injunction was the one adopted by the litigants herein. To the extent courts across Minnesota attempted to hold CMI in contempt or issued sanctions against the State or local prosecutors, including dismissal of cases, suppression of breath test

results, and other measures for non-compliance with discovery orders, these processes did not result in any other form of access to the Source Code.

### ***Details of Consent Judgment and Permanent Injunction***

The process set forth in the Consent Judgment and Permanent Injunction required implied consent petitioners and criminal defendants to follow three steps in order to obtain access to the Source Code. (Consent Judgment and Permanent Injunction, pp. 11-12.) First, a Minnesota state court judge had to order production of the Source Code or make express findings that the Source Code was relevant to a breath alcohol concentration test result at issue in the case. (Id. at 11.) Second, a protective order designating the Source Code as confidential had to be issued by the Minnesota state court judge. (Id. at 12.) A proposed protective order was included as an attachment to the Consent Judgment and Permanent Injunction. (Id. at Exhibit 1.) Third, any person obtaining access to the Source Code had to execute the non-disclosure agreement included as a second attachment to the Consent Judgment and Permanent Injunction. (Id. at 11-12, Exhibit 2.) By complying with these three steps, a petitioner in an implied consent case, a criminal defendant, a prosecuting authority, the State of Minnesota, their counsel, or an expert retained to assist in litigating their case could obtain access to the Source Code. (Id. at 7-14.)

The Consent Judgment and Permanent Injunction provided access to a printed, hardbound copy of the Source Code and a native electronic version of the Source Code currently installed in Minnesota's Intoxilyzer 5000EN fleet.<sup>5</sup> (See Consent Judgment

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<sup>5</sup> On August 11, 2010 this Court issued Order 13 which addressed an access and discovery issue the plaintiffs and criminal defendants encountered relating to "additional text" (AT) or "additional text code" (ATC) on the slave erasable programmable read only memory (EPROM) they obtained from an instrument they are leasing from the State of Minnesota. This AT or ATC was not present on the slave

and Permanent Injunction, pp. 7-10.) Access to the printed, hardbound version of the Source Code was available in Minnesota for a fee of \$250; or \$125 if requested as part of a publicly funded defense.<sup>6</sup> (Id. at 10.) Access to the native electronic version of the Source Code was available without charge at CMI's corporate headquarters in Kentucky.<sup>7</sup> (Id. at 7-9.) Also available in Kentucky for review were the compiler, assembler, linkers, and associated peripherals used by CMI to convert the Source Code into the HEX files ultimately burned onto the EPROMs placed into Minnesota's Intoxilyzer 5000EN instruments. (Id. at 7.) Additional peripherals, such as an Intoxilyzer 5000EN instrument, printer, and simulator solution, were also made available. (Id.)

After hearing the positions of the State of Minnesota, CMI, the intervenors, and amicus curiae, Judge Frank concluded this level of access was "reasonable and, in fact, [provided] unprecedented access to the Source Code for the Intoxilyzer." (Id. at 14.)

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EPROM the petitioners' and defendants' experts had received from CMI, Inc. during their Source Code review in Kentucky. The petitioners and defendants believed the AT or ATC may have an operational interaction with the other code on the slave EPROM through the "buffer overflow" which could cause unexpected results in the operation of an Intoxilyzer 5000EN. The Court amended its scheduling order to grant the petitioners and defendants additional time to further investigate this issue. Ultimately, all of the experts who reviewed the matter concluded that even though the AT or ATC present on some of the EPROMs was active code which could have been operational, it was not accessed by any of the code which operated the instrument. Therefore, the AT or ATC has no functional interplay with the Source Code installed in Minnesota's instruments and does not impact operation or results.

<sup>6</sup> The "Source Code language controlling or constituting the instrument's network security features and menu passcodes" was redacted from this version to protect "the security of the State's networked system of Intoxilyzer 5000EN breath-alcohol testing instruments." (Consent Judgment and Permanent Injunction, pp. 4, 6, 10.)

<sup>7</sup> The intervenors in State of Minnesota v. CMI of Kentucky, Inc. (Court File Number 2008-CV-00603, (D. Minn.) and amicus curiae MSCJ objected to the requirement that they or their experts travel to Kentucky to review the Source Code. (Consent Judgment and Permanent Injunction, p. 16; Plaintiffs-Intervenors' Objection and Memorandum in Opposition to Proposed consent Judgment, filed June 12, 2009 in State of Minnesota v. CMI of Kentucky, Inc., 2008-CV-00603 (D. Minn.), pp. 9-11; Brief of Amicus Curiae – Minnesota Society for Criminal Justice, filed June 12, 2009 in State of Minnesota v. CMI of Kentucky, Inc., 2008-CV-00603 (D. Minn.), pp. 4-5.) This objection was based, at least in part, upon the cost of travel to Kentucky for experts or counsel. The assignment of these cases to a single judge allowed the implied consent petitioners and criminal defendants to pool their resources and thereby reduce the burden of travel expenses.

Judge Frank further concluded the access ordered was “in the public interest, as well as in the interests of justice” and properly balanced CMI’s “intellectual property rights” with implied consent petitioners’ and criminal defendants’ need for access. (Id. at 14-15.) After hearing testimony during the evidentiary hearing from three of the experts who reviewed the Source Code that they had sufficient access to what was needed to perform their analysis, this Court shares Judge Frank’s conclusion that the access provided was reasonable, in the public interest, and served the interests of justice.<sup>8</sup>

### **Underdahl II – Source Code Discoverable if Minimal Showing Made**

As the federal court case regarding access to the Source Code was pending, the Minnesota Court of Appeals and Minnesota Supreme Court were deciding when a request for discovery of the Source Code should be granted or denied. See State v. Underdahl, 767 N.W.2d 677, 684-86 (Minn. April 30, 2009), rehearing denied July 22, 2009 (Underdahl II); State v. Crane, 766 N.W.2d 68, 71-2 (Minn. App. June 2, 2009), review denied Aug. 26, 2009; Abbott v. Commissioner of Public Safety, 760 N.W.2d 920 (Minn. App. Feb. 17, 2009); State v. Underdahl, 749 N.W.2d 117, 120-23 (Minn. App.

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<sup>8</sup> The Court is aware of four individuals identified as expert witnesses in these proceedings who obtained access in Kentucky to the native electronic version of the Source Code: Dr. Karl Schubert and Mr. Matthew Willis with Computer Forensic Services (“CFS”) who were retained by the Source Code Committee of MSCJ ; Dr. Steven Nuspl with Mitrin, Inc., who was retained by the State of Minnesota; and Mr. Timothy Black with Quantalink, LLC, who was separately retained by Derek Patrin, counsel for approximately 26 implied consent petitioners and approximately 22 criminal defendants with their cases assigned to this Court. Schubert and Nuspl both testified they had adequate access to perform their review of the Source Code and reach the opinions they offered before this Court. Black testified that his access issues were resolved with the exception of that imposed by the funding available for his review and analysis. Regardless of this restriction, Black testified he had an adequate opportunity to perform his Source Code review within the purview of the analysis he conducted. Although Willis testified, his testimony was limited to providing evidence to undermine the credibility of Schubert. The expert report he helped draft, however, indicated he and Schubert “performed a comprehensive review of the source code for all Intoxilyzer 5000EN [] instruments in use in Minnesota [and] encompassed a detailed analysis of the source code [and] the software and methods used to turn the source code into machine code . . . .” (Tr. Ex. 166, p. 4.) Based upon this evidence of the experts’ satisfaction with the access they were afforded and the fact that no other attempts at alternate access were undertaken, this Court concludes the access provided by the Consent Judgment and Permanent Injunction was sufficient.

May 20, 2008), affirmed in part and reversed in part by Underdahl II, 767 N.W.2d 677.

These Courts held that so long as the defendant or petitioner made a minimum showing in support of their request for discovery of the Source Code, then the discovery could be granted. Underdahl II, 767 N.W.2d at 685-86; Abbott, 760 N.W.2d at 925-26. If this minimum showing was not made, then the discovery of the Source Code could be denied. Id.; Abbott, 760 N.W.2d at 925-26. The minimum showing required of parties requesting discovery was that the Source Code was relevant to determining the validity of breath alcohol concentration results. Id.; Abbott, 761 N.W.2d at 925-926.

#### **Adoption of Discovery Request by Criminal Defense and Implied Consent Petitioner Bar**

Following the Supreme Court's decision in Underdahl I, much of the criminal defense and implied consent petitioner bar began making a request for discovery of the Source Code part of their standard litigation strategy. With the decisions in Underdahl II and Abbott, these requests also began including a standardized submission of affidavits which purported to make the minimum required showing. The requested discovery was granted in cases venued in at least 69 counties in the State; at least 66 counties had a request granted in an implied consent proceeding and at least 65 counties had a request granted in a criminal proceeding. (See Exhibit A, list of Implied Consent Cases, and Exhibit B, list of Criminal Cases, assigned to this Court as of October 1, 2010.) Furthermore, the request for discovery of the Source Code was granted, as of October 1, 2010, in more than 4,200 cases across the state.<sup>9</sup> (See id.)

As the number of cases in which discovery was granted increased, so too did the

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<sup>9</sup> Requests for discovery were made in many more cases which were either denied or granted and resolved in some manner other than assignment to this Court. The specific data available to this Court, however, was limited to those cases which were assigned pursuant to the Minnesota Supreme Court's January 11, 2010 Order, A09-2109 (entitled In re Minnesota Intoxilyzer 5000EN Source Code Litigation).

variety of dispositions. Prior to the approval of the Consent Judgment and Permanent Injunction on July 16, 2009, some cases were dismissed outright as a sanction against the State for failing to provide the Source Code pursuant to a discovery order. (See June 3, 2009 Order of the Honorable Donovan W. Frank filed in State of Minnesota v. CMI of Kentucky, Inc., pp. 2-3, 2008-CV-00603 (D. Minn.). Other cases were resolved through plea agreements. The vast majority of the cases, however, either went into limbo or a circuitous rescheduling process. In some situations, cases remained open but no further hearings, action, or resolution were scheduled until the issue of access to the Source Code was resolved. In other situations, cases were continuously rescheduled for hearings at which nothing occurred. Counsel would appear, advise the court the case was one in which a request for discovery of the Source Code had been granted, and either request dismissal as a sanction or request a further continuance because the issues regarding access to the Source Code remained unresolved. In either instance, the cases stagnated and justice was denied to the litigants.

A means of providing actual access to the Source Code was not available to the courts until after the Consent Judgment and Permanent Injunction was approved by Judge Frank on July 16, 2009. CMI was resisting attempts to obtain access to the Source Code for the Intoxilyzer 5000EN through indirect means, and no criminal defendants or implied consent litigants sought to subject CMI to the personal jurisdiction of Minnesota's state courts. Even though access to the Source Code was eventually possible through the process described in the Consent Judgment and Permanent Injunction, there was no process in place for resolving the backlog of criminal and implied consent cases.

In addition to identifying other problems in accessing the Source Code pursuant to the Consent Judgment and Permanent Injunction, criminal defendants and implied consent petitioners complained about it being too costly for any single litigant or counsel to analyze the Source Code. Local prosecutors and the Minnesota Attorney General's Office complained about trying the exact same Source Code issue in thousands of pending cases. In response to these concerns and with the hope of providing fair and efficient administration of justice, a process was initially developed by the undersigned in the First Judicial District which allowed the available resources to be combined, and thereby enabling a thorough review of the Source Code.<sup>10</sup>

### **First Judicial District Assignment**

On August 6, 2009, First Judicial District Chief Judge Edward Lynch assigned all “civil implied consent and criminal driving while impaired matters involve[ing] challenges to the accuracy and reliability of the test results obtained from tests conducted with the Intoxilyzer 5000EN breath testing instrument based upon alleged defects in the source code” which arose in the First Judicial District to this Court. (August 6, 2010, Order of Chief Judge Edward Lynch, p. 1 (entitled In re: Source Code Evidentiary Hearings in Implied Consent and Criminal Matters) (“First Judicial District Assignment Order”). This First Judicial District Assignment Order (hereinafter “Assignment Order”) specifically directed this Court “to hear and decide only challenges to the accuracy and reliability of the test results obtained from breath tests administered with the Intoxilyzer based upon alleged defects to the source code.” (Id. at 2.) Upon resolution of this sole issue, the

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<sup>10</sup> Despite invitations by Judge Frank and this Court to select a bellwether case or cases to try as a basis for providing resolution for all of the cases, the litigants declined to pursue this course. (See April 16, 2009 Letter from The Honorable Donovan W. Frank to counsel for the parties in State of Minnesota v. CMI of Kentucky, Inc., 2008-CV-00603.

cases were to be returned to their original jurisdictions for final resolution by either trial in the criminal matters, or by the hearing required under Minnesota Statute § 169A.53, Subd. 3, in the implied consent matters. (*Id.*) The Assignment Order also specifically notified litigants that “[o]rders, notices, hearing dates and a list of cases assigned to” this Court would be posted on the First Judicial District’s web page for their reference. (*Id.*) Counsel and the parties in each case assigned pursuant to this Order received a copy of the Order at the time of assignment.

### ***Master Files***

In conjunction with the First Judicial District assignment, this Court directed Scott County Court Administration, which initially and primarily undertook the administrative responsibilities for the assignment, to open two master files for the First District assignment proceedings. One file was for the implied consent proceedings (70-CV-09-19459), and the second was for the criminal proceedings (70-CR-09-19749). On October 21, 2009, this Court issued an Order in these two master files setting an initial hearing date for November 4, 2009, in the matters assigned pursuant to the Assignment Order. (Order Setting Agenda for Hearing, filed October 21, 2009, in Court Files 70-CV-09-19459 and 70-CR-09-19749.) The purpose of this hearing was to inform counsel of the Court’s plan for resolving these cases and to obtain whatever input counsel or the parties had regarding the process.

### ***Decision to Proceed under Assigned Case Method***

One of the initial matters addressed by the Court was what form the Source Code challenge to the accuracy and reliability of breath alcohol testing results should take. Specifically, counsel and the Court discussed whether counsel and the parties

wanted to select a test case or test cases or if they wanted to proceed with all of the cases under the Assignment Order. Counsel informed the Court they would prefer to have all of the cases proceed simultaneously pursuant to the assignment. The Court was also informed that a request for a statewide assignment by the Chief Justice of the Minnesota Supreme Court was in the works but had not yet been filed. This Court encouraged such a request because it provided a process for expedient and just resolution of this issue on a statewide basis rather than just in the First Judicial District.<sup>11</sup>

The Court also discussed with counsel the progress made towards obtaining experts who would review the Source Code. All counsel agreed that expert testimony and expert review of the Source Code were necessary to mount a challenge to the reliability of breath alcohol concentration testing results obtained in each case from Intoxilyzer 5000EN instruments across the State. The Source Code itself and the process of implementing it into Intoxilyzer 5000EN instruments in use in the State of Minnesota are not matters of common experience within the purview of laypersons. The challengers indicated early in the process that they would likely be pooling or sharing experts given the complexity and likely significant cost.

### ***Method of Access to Source Code***

The only effective means available to this Court to allow for access to the Source Code was through the process set forth by the Consent Judgment and Permanent Injunction. After reviewing the Consent Judgment and Permanent Injunction, listening to counsel's concerns, considering the need to obtain access to the Source Code, and

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<sup>11</sup> Other judicial districts, including the Second and the Fourth, had also adopted specialized procedures for dealing with cases in which a Source Code challenge was present.

confirming no other effective process was available, this Court adopted the process set forth in the Consent Judgment and Permanent Injunction. The Consent Judgment and Permanent Injunction required a judicial order finding discovery of the Source Code was necessary or relevant, issuance of a protective order, and execution of a non-disclosure agreement by the person or persons obtaining access to the Source Code. In adopting the process specified by the Consent Judgment and Permanent Injunction, this Court required litigants who sought to have their matter assigned pursuant to the Assignment Order to obtain a protective order and file a non-disclosure agreement from at least one expert retained to perform an analysis of the Source Code. The filing of these two documents was tracked and used to determine what cases were subject to the Assignment Order.<sup>12</sup> Once a protective order and non-disclosure agreement had been filed in a particular case, the matter was identified as one subject to the Assignment Order and was entered into a database created exclusively for that purpose.

### ***Inquiry Pursuant to Rule 104 of the Minnesota Rules of Evidence***

Finally, the Court informed counsel it considered the proceedings before it as one under Rule 104 of the Minnesota Rules of Evidence addressing whether the results provided by Intoxilyzer 5000EN instruments used in the individual cases were rendered unreliable or inaccurate as a consequence of the Source Code in use. Rule 104 provides that “[p]reliminary questions concerning . . . the admissibility of evidence shall be determined by the court . . . .” The charge posed to this Court by the Assignment Order was to resolve challenges to the accuracy and reliability of the test results

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<sup>12</sup> This Court did not monitor the issuance of orders granting the request for discovery of the Source Code because: (1) to do so would have been redundant when, to the extent a request for discovery was granted, a protective order would also have been issued and a non-disclosure agreement filed, and (2) any error in granting or denying a request for discovery of the Source Code would properly have been addressed to the Minnesota Court of Appeals, not this Court.

obtained from Intoxilyzer 5000EN instruments based upon alleged defects in the Source Code. These results would otherwise be deemed accurate, reliable, and admissible as a matter of law subject to criminal defendants' and implied consent petitioners' right to challenge the validity and reliability of the test. Minn. Stat. §§ 169A.53, subd. 3(10) (allowing implied consent petitioners to challenge whether the testing method was valid and reliable) and Minn. Stat. 634.16 (providing presumption that "breath-testing instrument provides a trustworthy and reliable measure of the alcohol in the breath"), cited by Underdahl II, 767 N.W.2d at 685 n. 4. See also State v. Birk, 687 N.W.2d 634, 637-39 (Minn. App. 2004) (discussing Minn. Stat. § 634.16 in perspective of criminal prosecution). In other words, the criminal defendants' and implied consent petitioners' challenge was whether the Source Code rendered the test results inadmissible because it somehow impacted the validity, accuracy, and reliability of the test results and thereby deprived them of evidentiary value. Determining questions of admissibility or suppression of the test results on such grounds is a question which is properly addressed under Rule 104. See State v. Martin, 293 Minn. 116, 123-26, 197 N.W.2d 219, 224-25 (1972) (approving of use of "special hearings" equivalent to Rule 104 hearing to determine application of marital presumption prior to claim of marital privilege). See also State ex rel. Rasmussen v. Tahash, 272 Minn. 539, 556, 141 N.W.2d 3, 14-15 (1966) (encouraging use of pretrial proceedings when practical to resolve evidentiary problems and assure the integrity of trial).

### ***Case Management Orders***

The initial hearing held in the matters assigned to the Court pursuant to the Assignment Order resulted in two Case Management Orders. Although substantially

similar, one Case Management Order applied specifically to all implied consent cases assigned, while the other applied specifically to all criminal cases assigned. These Orders provided counsel and the parties rules in addition to the Rules of Civil and Criminal Procedure, guidance regarding things such as discovery, motion practice, method of service, notice, and manner in which materials were filed with Court Administration. The Case Management Orders also addressed scheduling, including the Court's regular involvement in the proceedings by providing an opportunity for regular bi-weekly status conferences, deadlines for the completion of discovery, and scheduling of the final hearing dates.

To assist the Court and the litigants in organizing the multitude of parties and counsel into a manageable group for hearings and regular contact, the Court appointed Liaison Counsel. These lawyers were volunteers selected from the four major and identifiable groups of litigants appearing before the Court in these matters: prosecutors, the Attorney General's Office, criminal defendants, and implied consent petitioners. In some instances, Liaison Counsel were selected based upon further identifiable sub-groups, such as municipal and county prosecutors, groups of criminal defendants or implied consent petitioners who had retained or planned to retain separate experts, or defendants represented by a public defender. With their consent, Liaison Counsel were given the following responsibilities: (1) act as a communication point for counsel within their group, other Liaison Counsel, and the Court; (2) forward all communication from the Court or Court Administration to counsel within their group; (3) organize and schedule joint actions of counsel; (4) coordinate common discovery; and (5) initiate action before the Court to address disputes.

The designation of Liaison Counsel in no way prevented any party or counsel from being involved in any conference, hearing, or other communication with other counsel or the Court. The Case Management Orders specifically provided that "Liaison counsel shall not be deemed to speak for, act for, or bind any particular party absent express authority provided by such party." (Case Management Order issued December 1, 2009, in District Court File Number 70-CV-09-19459, p. 20; Case Management Order issued December 1, 2009, in District Court File Number 70-CR-09-19749, p. 20.) The Case Management Orders further provided that "[a]ll counsel of record shall have an opportunity to present to this Court their respective views and opinions as to matters before this Court." (*Id.*) Generally speaking, however, counsel and the parties relied upon Liaison Counsel to express their positions, viewpoints, and opinions with respect to the issues before the Court.

#### **Statewide Assignment by Chief Justice of Minnesota Supreme Court**

The process undertaken in the First Judicial District was interrupted in January 2010 when the request was granted to have a single judicial officer assigned to hear and determine matters statewide raising the challenge to the validity, accuracy, and reliability of Intoxilyzer 5000EN results based upon the instrument's Source Code. The Minnesota Attorney General's Office, along with eighteen municipal prosecuting authorities, requested that Chief Justice Eric J. Magnuson appoint a single judge or panel of judges to resolve this issue. After considering this request and an objection filed by the Chief Public Defender of the Seventh Judicial District, Chief Justice Magnuson determined assignment to a single judge was in the interests of the parties and the judiciary. (In re Minnesota Intoxilyzer 5000EN Source Code Litigation, A09-

2109, p. 2-3 (Minn. Jan. 11, 2010) (“Supreme Court Assignment Order”). Chief Justice Magnuson assigned these matters to this Court.

### ***Nature of Statewide Assignment***

The scope of the assignment to this Court involved a single issue common to several groups of cases. This single issue involved resolving challenges to the reliability of Intoxilyzer 5000EN results based upon the Source Code of the instrument. Specifically, this Court was assigned “to administer, hear, and decide all pretrial matters concerning challenges to the reliability of Intoxilyzer 5000EN results based on the source code of the instrument, including scheduling, discovery, and an evidentiary hearing . . . in which a party challenges the reliability of Intoxilyzer 5000EN results based on the source code of the instrument.”<sup>13</sup> (*Id.* at 3 (assignment language for implied consent cases). (See also *id.* at 4 (nearly identical assignment language for criminal cases).) This Court’s authority was therefore limited to pretrial matters and cases in which the Source Code of the Intoxilyzer 5000EN was challenged as impacting the reliability of the instrument’s results.

The statewide assignment to this Court consisted of three groups of identifiable cases. The first group was all pending and future implied consent matters in which the Source Code challenge was raised. (*Id.* at 3.) The second group was all pending and future criminal cases in which the Source Code issue was raised and “both the prosecuting authority and the defendant provide[d] written notice to [this Court] of their consent to th[e] assignment.” (*Id.* at 4.) The third group was in some ways an already identified subset of the second group and included all of the criminal cases listed in an

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<sup>13</sup> There were some implied consent and criminal matters arising in the First Judicial District from which this Court had been removed. The Honorable Karen J. Asphaug was appointed to hear those matters.

addendum to the Supreme Court Assignment Order so long as the defendant was not represented by a public defender. (Id. at 4.)

At no time since the Statewide Assignment Order of Justice Magnuson has any party objected to it or to the Orders promulgated by this Court to provide processes for its implementation.

***Joint United States District Court and Minnesota State District Court Hearing***

After receiving the Supreme Court assignment, this Court scheduled an initial hearing similar to the one held in the First Judicial District Assignment Cases. Issues had also arisen in the First Judicial District Cases regarding the implied consent petitioners' and defendants' access to the Source Code at CMI's facilities in Kentucky. These issues primarily involved interpretation of the scope of the Consent Judgment and Permanent Injunction issued by Judge Frank in the Federal Lawsuit. Resolution of issues related to access was necessary for the cases assigned in this statewide proceeding to progress. The interdependence of the matters assigned to this Court and the case before Judge Frank and Magistrate Judge Boylan led to a joint United States District Court and Minnesota State District Court hearing. Judge Frank and Magistrate Judge Boylan dealt with the issues surrounding access to the Source Code, and this Court discussed the statewide assignment of the Source Code Issue; specifically, the issuance of case management orders, the designation of Liaison Counsel, the process to be followed for inclusion within the scope of the statewide assignment, and the inquiry being undertaken pursuant to Rule 104 of the Minnesota Rules of Evidence. (See Order 2 – Order Setting Agenda for Hearing, filed February 24, 2010; February 26, 2010 Order for Joint Federal-State Status Conference issued by Judge Frank in State of