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Garden State CLE presents:

"Son of Chun"
The Short Life and Sudden Death of the Alcotest 7110 in New Jersey.



Lesson Plan

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Part I. The Chun order of March 17, 2008

State v. Chun, 194 NJ 54, 149-154 (2008)

The Report and Recommendations and the Supplemental Report and Recommendations of the Special Master are adopted as modified. The stay effected by our January 10, 2006 Order shall be lifted in accordance with the Order that accompanies this decision and that sets forth the precise manner in which our directives shall be applied. The matters involved in these consolidated proceedings are remanded to the Law Division for further proceedings consistent with this opinion and the accompanying Order.

[Question: What has the State Been Able to Accomplish in the past 5 years?]

The Court having previously certified the within matter directly pursuant to *Rule* 2:12-1, and having contemporaneously appointed retired Appellate Division Presiding Judge Michael Patrick King to serve as the Court's Special Master,

And the Court having remanded the matter to the Special Master to develop a record, conduct hearings, and report his findings and conclusions regarding the scientific reliability of the Alcotest 7110 MKIII-C (the Alcotest),

And the Court having received the Special Master's Report dated February 13, 2007, and Supplemental Report dated November 8, 2007,

And the Court having considered the briefs and arguments of counsel for the parties, the intervenor, Draeger Safety Diagnostics, Inc. (Draeger) and the amici curiae, New Jersey State Bar Association and Association of Criminal Defense Lawyers,

And the Court having on January 10, 2006, issued an Order governing prosecution, appeals, and imposition of sentences pursuant to *N.J.S.A.* 39:4-50 pending the decision in this matter,

And the Court having issued this day its decision in the matter,

And good cause appearing,

1. **IT IS ORDERED that the previously imposed stay is vacated and prosecutions, appeals, and imposition of sentences in all matters arising pursuant to *N.J.S.A.* 39:4-50, shall proceed in accordance with the following directives:**
A. For all pending prosecutions, including all prosecutions in which imposition of sentence has been stayed by our January 10, 2006 Order, and in all future prosecutions based on tests conducted prior to the implementation of our directives through creation of and implementation of revised firmware, Alcotest 7110 MKIII-C with New Jersey Firmware version 3.11 is sufficiently scientifically reliable, and the Alcohol Influence Report (AIR) which sets forth the results of breath tests is admissible as evidence of blood alcohol content (BAC), *except* that:

>>>>>>>>> (1) in each prosecution in which an AIR is offered as evidence and in which there are only two reported test samples:

(a) the State shall prepare and produce a calculation, in a form consistent with Worksheet A attached hereto, that ensures that the two samples meet the acceptable range of tolerance as follows:

(i) add the sum of the IR and EC results given for the first breath sample to the sum of the IR and EC results for the second breath sample;

(ii) divide the sum calculated in (a) by 4 to derive the arithmetic mean;

(iii) compute the upper limit of the tolerance range by taking the higher of the mean multiplied by 1.05 or the mean plus 0.005;

(iv) compute the lower limit of the tolerance range by taking the lower of the mean multiplied by 0.95 or the mean minus 0.005;

>>>>>>>>> (v) if ***all*** of the IR and EC results of the two samples fall within the upper and lower limits of the tolerance range, the two tests are in tolerance and the AIR is valid; if any of the results fall outside of the tolerance range, the AIR is not valid;

>>>>>>>> (b) the court shall verify the accuracy of the State's calculation and, in any event, shall make the calculation a part of the record to facilitate further review;

(>>>>>>>>>c) if the two samples meet the test for tolerance as we have defined it, the AIR shall be deemed admissible (unless challenged on an alternate ground as set forth herein) into evidence in the prosecution of the matter;

>>>>>>>>> (d) if the two samples do not meet the test for acceptable tolerance as we have defined it, the AIR shall not be admissible into evidence;

(2) in each prosecution in which an AIR is offered as evidence and in which there are three reported test samples,

(a) the State shall prepare and produce a calculation, in a form consistent with Worksheet B attached hereto, that, in accordance with the formula on the attached worksheet, analyzes the reported results to determine which, if any, meet the test for tolerance as we have defined it, and

(i) if, after completing the worksheet there are at least two breath samples for which IR and EC results are within the acceptable range of tolerance, the AIR will be admissible and the BAC shall be the lowest of those results; but

(ii) if, after completing the worksheet, there are no two test samples that meet the test for tolerance as we have defined it, then the AIR shall not be admissible into evidence;

(b) the court shall verify the accuracy of the State's calculations and shall ensure that there has been no buffer overflow error or that the calculation of the BAC, accounting for a buffer overflow error, has been corrected;

>>>>>>>>> **(c) the calculations relating to the possibility of a buffer overflow error and its correction, if appropriate, shall be made a part of the record to facilitate further review; [Worksheets A & B]**

>>>>>>>>> (3) in each prosecution involving any woman who, at the time of the alleged offense, was over the age of sixty and for whom an AIR was generated with an error message evidencing a breath sample of inadequate volume, the AIR shall not be admissible as evidence in a prosecution for refusal, *see* N.J.S.A. 39:4-50.4a, unless the woman also provided another breath sample of at least 1.5 liters; and it is further

2. **ORDERED that the State shall arrange forthwith** with Draeger for revisions to the New Jersey Firmware utilized in Alcotest 7110 MKIII-C, as needed to accomplish the directives set forth in the Court's opinion regarding the admissibility into evidence of results of Alcotest breath testing, currently New Jersey Firmware version 3.11, as follows:

>>>>>>>>>A. The firmware shall be locked so that only the manufacturer of the device is able to change the firmware, with changes to be downloaded by State Police Coordinators as needed;

>>>>>>>>>B. The firmware shall utilize minimum breath sample criteria as follows: (1) minimum volume of 1.5 liters for all test subjects except for women over sixty years of age, for whom the minimum volume shall be fixed at 1.2 liters; (2) for all subjects, regardless of age or gender, the minimum criteria shall also include (a) a minimum 4.5 second blowing time; (b) a minimum flow rate of 2.5 liters per minute; and (c) a plateau as established by the infrared (IR) measure which does not differ by more than one percent in 0.25 seconds;

>>>>>>>>>C. The firmware shall be corrected to set the acceptable tolerance range for breath sample readings at the greater of plus or minus five percent of the mean, or plus or minus 0.005 percent BAC from the mean;

>>>>>>>>>D. The firmware shall be corrected to eliminate the buffer overflow programming error;

>>>>>>>>>E. The firmware shall be corrected to re-enable catastrophic error detection;

>>>>>>>>>F. The firmware shall be corrected so that the AIR will report control test results for IR and EC readings prior to the application of the fuel cell drift algorithm;

>>>>>>>>>G. The firmware shall be programmed to include the serial number of the Ertco-Hart digital temperature measuring system utilized as a part of each calibration, certification and linearity report;

>>>>>>>>>H. The firmware shall be corrected to identify, on any AIR which reveals that the test subject has no reportable results, why there has been no reportable result derived or generated;

>>>>>>>>>I. The firmware shall be reprogrammed to include, on all future AIR printouts, solution change reports, calibration documents, and a listing of the temperature probe serial number and value; and

>>>>>>>>>J. The firmware shall be reprogrammed to include, on all future AIR printouts, a designation of the firmware version utilized by the device reporting breath results; and it is further

3. **ORDERED that the State shall forthwith:**

>>>>>>>>>A. Commence inspection and recalibration of all Alcotest devices every six months in place of the current annual inspection and recalibration program;

>>>>>>>>>B. Create and maintain a centralized statewide database, comprised of downloaded Alcotest results, and shall make the data, following appropriate redactions of personal identification as needed, available to defendants and counsel; and

>>>>>>>>>C. Produce in discovery the twelve foundation documents identified by the Special Master as follows:

(1) New Standard Solution Report of the most recent control test solution change, and the credentials of the operator who performed that change;

(2) Certificate of Analysis for the 0.10 percent solution used in that New Solution Report;

(3) Draeger Safety Certificate of Accuracy for the Alcotest CU34 Simulator;

(4) Draeger Safety Certificate of Accuracy for the Alcotest 7110 Temperature Probe;

(5) Draeger Safety Certificate of Accuracy for the Alcotest 7110 Instrument;

(6) Calibration Records, including control tests, linearity tests, and the credentials of the coordinator who performed the calibration;

(7) Certificate of Analysis for the 0.10 percent solution used in the calibration control test;

(8) Certificate of Analysis for the 0.04, 0.08, and 0.16 percent solutions used in the calibration linearity test;

(9) New Standard Solution Report, following the most recent calibration;

(10) Draeger Safety Certificates of Accuracy for the Simulators used in calibration;

(11) Draeger Safety Certificate of Accuracy for the Alcotest 7110 Temperature Probe used in calibration; and

(12) Draeger Safety Ertco-Hart Calibration Report; and it is further

>>>>>>>>>4. **ORDERED that the State shall provide notice**, both to the parties and by means calculated to be generally accessible to the public and shall specifically provide notice to the New Jersey State Bar Association, of any and all proposed future revisions to the Alcotest New Jersey Firmware, which notice shall not be generic, but **174 shall be sufficiently specific to identify the proposed software changes so as to afford notice in compliance with due process; and it is further

>>>>>>>>>5. ORDERED that Draeger shall make training on the Alcotest device, substantially similar to that provided to Alcotest operators and coordinators, available to licensed New Jersey attorneys and their designated experts, at regular intervals and at locations within the State of New Jersey, at a reasonable cost to those who attend; and it is further

>>>>>>>>>6. ORDERED that in all pending prosecutions based on or including Alcotest New Jersey Firmware version 3.11 and all future firmware versions, and consistent with past practices in prosecutions based on breathalyzer analysis,

>>>>>>>>>A. The operator who conducted the tests shall be made available to testify and shall produce the documents evidencing his or her training, and

>>>>>>>>>B. The following foundational documents shall be offered into evidence to demonstrate the proper working order of the device:

(1) the most recent Calibration Report prior to a defendant's test, including control tests, linearity tests, and the credentials of the coordinator who performed the calibration;

(2) the most recent New Standard Solution Report prior to a defendant's test; and

(3) the Certificate of Analysis of the 0.10 Simulator Solution used in a defendant's control tests.

Part II.

Notice of Motion in Aid of Litigants Rights

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STATE OF NEW JERSEY,	:	SUPREME COURT OF NEW JERSEY
	:	September Term 2005
Plaintiff-Respondent,	:	
	:	*Docket No.* 58,879
v.	:	
	:	*QUASI-CRIMINAL ACTION*
JANE H. CHUN, et al.	:	
	:	NOTICE OF MOTION
Defendants-Petitioners.	:	IN AID OF LITIGANTS' RIGHTS
	:	R. 1:10-3

To: Robyn Millman Mitchell, Deputy Attorney General
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PLEASE TAKE NOTICE that, as soon as possible on a date to be set by this Court, Evan M. Levow, Esq. and Matthew W. Reisig, Esq., request that this Court Order the State to:

1. Reformat the Online Alcotest Repository, Ensuring and Certifying Data Integrity;

2. Post all calibration, control and linearity digital data logs online in a proper electronic format;

3. Void the fee currently being charged for Alcotest documents on the Online Repository; and,

4. Comply with all of the dictates from State v. Chun, 194 N.J. 54 (2008), forthwith.

Counsel rely upon the Affidavit and Memorandum submitted to this Court on March 12, 2013 under the caption "Order to Show Cause Why the State Should Not be Compelled to Reformat the On-Line Alcotest Repository, Ensuring and Certifying Data Integrity, And Other Relief".

EVAN M. LEVOW, Esq.

MATTHEW W. REISIG, Esq.

Dated: March 15, 2013

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STATE OF NEW JERSEY,	:	**SUPREME COURT OF NEW JERSEY**
	:	**September Term 2005**
Plaintiff-Respondent,	:	
	:	***Docket No.* 58,879**
v.	:	
	:	***QUASI-CRIMINAL ACTION***
JANE H. CHUN, et al.	:	
	:	**CERTIFICATION IN SUPPORT OF**
Defendants-Petitioners.	:	**MOTION IN AID OF LITIGANTS' RIGHTS**
	:	**R. 1:10-3**

Evan M. Levow, Esq., and Matthew W. Reisig, Esq., upon their oaths as attorneys in the State of New Jersey, do hereby certify:

1. On March 12, 2013, we delivered to this Court an Order to Show Cause Why the State Should Not be Compelled to Reformat the On-Line Alcotest Repository, Ensuring and Certifying, Data Integrity, And Other Relief, a Memorandum in Support of the Order to Show Cause, and an Affidavit of Samuel L. Sachs in Support of the Order to Show Cause.

2. Pursuant to the direction of Mark Neary, Clerk of the New Jersey Supreme Court, we ask the Court to accept the documents delivered on that date, under the newly captioned "Motion in Aid of Litigant's Rights", R. 1:10-3.

3. The Defense bar and defendants alike have exercised considerable patience over the past five years since this Court's decision in State v. Chun, 194 N.J. 54 (2008), wherein the State has made none of the changes ordered in the Court's opinion.

4. The State has not provided any explanation concerning its failure to make any of the required nine software changes.

5. The State's creation of the online Repository website, some four years and seven months after the Chun Order was issued, provides the requisite standing to file this Motion in Aid of Litigants' Rights. The Repository's deficiencies as set forth in the papers delivered to this Court on March 12, 2013, will negatively impact the rights of defendants statewide in every DWI matter involving the Alcotest machine.

6. Posting incomplete and inaccurate data on the website constitutes a blatant violation of substantive Due Process. This directly impacts the rights of all defendants charged with DWI predicated upon alleged Alcotest breath test results and such defendants charged with DWI and Refusal.

7. This implicates matters of statewide significance and public importance.

8. We rely on the Memorandum and Affidavit submitted on March 12, 2013 in support of this application.

9. We ask that this Court order the State to:

   a. Reformat the Online Alcotest Repository, Ensuring and Certifying Data Integrity;

   b. Post all calibration, control and linearity digital data logs online in a proper electronic format;

   c. Void the fee currently being charged for Alcotest documents on the Online

Repository; and,

d. Comply with all of the dictates from State v. Chun, 194 N.J. 54 (2008), forthwith.

We certify that the foregoing statements made by us are true and correct to the best of our knowledge and belief. We are aware that if the statements are wilfully false, we may be subject to punishment.

EVAN M. LEVOW, Esq.

MATTHEW W. REISIG, Esq.

Dated: March 15, 2013

Part III.

Memorandum in Support of Order to Show Cause

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STATE OF NEW JERSEY,	**SUPREME COURT OF NEW JERSEY** **September Term 2005**
Plaintiff-Petitioner,	**Docket No. 58,879**
v.	**QUASI-CRIMINAL ACTION**
JANE H. CHUN, et al.,	**MEMORANDUM IN SUPPORT OF ORDER TO SHOW CAUSE WHY THE STATE SHOULD NOT BE COMPELLED TO REFORMAT THE ON-LINE ALCOTEST REPOSITORY, ENSURING AND CERTIFYING DATA INTEGRITY, AND OTHER RELIEF**
Defendants-Respondents.	

The State has still not complied with the remaining dictates of State v. Chun, 194 N.J. 54 (2008), despite the requirement that it do so "forthwith". The fifth year anniversary of this Court's landmark opinion is March 17, 2013.

Nine software changes were Ordered. None have been made.

In addition, this Court ordered the creation of an online centralized database for the digital data logs from the state-wide Alcotest machines. On November 1, 2012, the State posted online the "New Jersey Office of Forensic Science Alcotest Inquiry System". The State refers to this website as a 'Repository'.

This website is neither centralized, nor a database.

It does not contain the same data that exists on CDRom's that have been provided to defendants, defense counsel, and experts, alike, since Chun was decided through November 1, 2012.

The Special Master's Report, dated February 13, 2007, at page 234, stated:

> *As to discovery data, the collected centralized historical data described in V(7) shall be provided for any Alcotest 7110 relevant to a particular defendant's case in a digital format readable in Microsoft Access or similar program generally available to consumers in the open market.*

This Court agreed, adopting that part of the *Special Master's Report*, stating:

> *Similarly, the Special Master recommended, and the parties by and large agree, that the State should create and maintain a centralized database of information regularly uploaded through modem (Special Master's Finding 7), and that defendants should have access to centrally collected and maintained data on their own cases, as well as to the compiled scientific data on matters involving others that has been redacted to shield the personal information related to those other individuals as appropriate (Special Master's Finding 2(h)).FN20 Our review of the record satisfies us that there is substantial, credible evidence that supports the Special Master's recommendation concerning the creation and maintenance of a regularly-updated database, as well as his recommendation relating to providing access to that data to defendants.*

State v. Chun, 194 N.J. 54, 90 (2008).

The database must, however, contain reliable, valid data. As set forth below, the Data Repository created by the State is not trustworthy.

The Repository was introduced by the State on November 1, 2012. Prior to that, when State Police Coordinators would go to each police department to do the six month calibration as required in Chun, the Coordinator would download the information from the machine and leave a copy of the download on CD-ROM in the local department. These CD-ROMs were redacted by the local department to exclude identifying information of the testing subjects to comply with the privacy requirements set forth in Chun. These discs were then copied and provided to defendants or defense counsel who requested them in discovery. However, after the

establishment of the Repository in November 2012, the Coordinator is no longer leaving copies of the downloaded discs with the local department. As a result, there is no record for the local department to provide to defendants or defense counsel in discovery. The only evidence of the download available is now in the online Repository.

The State's Data Repository does not meet the criteria set forth by this Court in Chun. It is not readable in "Microsoft Access or a similar program". The database does not permit access to multiple related files simultaneously, so that data queries can be performed across multiple files, such as all the Alcotest machines at once. Rather, it requires queries to be performed one machine at a time to retrieve the data contained in the Data Repository, but not for comparative analysis. See Sachs Affidavit, para. 27, attached hereto.

The files are not in sequential or chronological order for a large number of machines in the Repository, which is different from how the CD-ROMs are organized. See Sachs Certification. This makes it difficult and untenable to parse through. It would be like providing a thousand pages of discovery, and then shuffling the paper, causing the defendant or counsel to reorganize and reorder the documents just to start the analyzing process.

Most importantly, the repository does not contain trustworthy data. Corrupted files from at least fifteen different Alcotest machines that are shown in CD-ROMs provided prior to the creation of the data base, are missing from the new State Data Repository. *Id.* Files with errors that are shown on the CD-ROMs previously provided in discovery are now missing on the Repository. *Id.* Duplicated files from the CD-ROMs are now missing on the Repository. *Id.* File record types are missing. *Id.* Complete Calibration Cycles are missing from the State's new Data Repository. *Id.*

The attached Affidavit (and its related Exhibits) only deals with fifteen of the more than 500 machines statewide. It is expected that this corruption of data will extend to every machine that would have shown errors on CD-ROMs.

The data provided on the Repository lacks integrity, based on the deleted files and deleted errors. When presenting forensic data for scientific analysis, the first step in the scientific process is to ensure that the files are what they are represented to be. The files in the State's Repository have not been checked for such integrity. The database has been sanitized from errors that are present in the machines.

Significant discovery is now not being provided by the State. The Alcotest creates digital data logs for every Breath Test performed, every Calibration Test performed, every Control Test performed, and every Linearity Test performed. Sachs, para. 17. These files were provided on the CD-ROMs in discovery, however, the Calibration, Control and Linearity files are not present in any form on the new Data Repository. *Id.*

Further, access to the Repository is fee-based, and violates the Court Rules, as amended effective January 1, 2013. The State continues to charge $5.00 for every 30 subject tests requested, up to a maximum of $60.00, to obtain downloaded data on the State Police web site, https://www.njportal.com/NJSP/AlcoTest/Search/SubjectSearch.aspx,. As of January 1, 2013, this violates court rule 7:7-7(i)(1), which states, "Electronic records and non-printed materials shall be free of charge, but the prosecutor may charge for the actual costs of any needed supplies such as computer discs." The State must provide these electronic records from the Alcotest machines free of charge.

Specific Errors Found in the Repository:

Errors and omissions in the Repository range from confusion of data to sanitization of demonstrable error.

Most files in the Repository are not in sequential order. Sachs, para. 28. Specifically, as shown in the State Police machine at the Cranbury Barracks, ARUL-0055, file numbers are not shown in chronological order. They start at 755, then recede to number 8. They start again with 751 and recede to 10. Retrieval dates are not gathered together, nor are the calibration cycles or calibration dates. This is different from the CD-ROM data, which shows file number ascending from the lowest number to the highest file number. Sachs, para. 57. As a result, analysis of the data is made more difficult. This is similar with the Woodbridge machine, ARRL-0019, on the Repository, where the files are not in sequential order. The file number sequence repeats itself, and retrieval dates are not chronological. Sachs, para. 69. This can also be seen in the Repository with the Milltown machine, ARRL-0042, where data is not organized by the retrieval date, sequential file number or calibration date, making the data difficult to analyze. The data is not presented in the form in which it was downloaded from the machine, thereby obscuring its usefulness. Sachs, para. 72.

The Calibration Tests, Control Tests, and Linearity Tests that had previously been provided on the CD-ROMs for all machines, no longer exist in the Repository. See examples in Sachs para 38, 44, 47, 48, 57, 61, 66, & 68.

The Brick Township machine, ARWA-0157, has errors at file 526 on the CD-ROM, yet these errors are not duplicated in the Repository. Sachs, para. 38, 39 & 41.

The Raritan Township machine, ARWE-0028, has errors shown in file 582, however these errors are not shown in the Repository. Sachs, para. 43 & 44.

The State Police machine at the Bellmawr Barracks, ARWC-0014, at file 568 has error information, yet file 568 is deleted in its entirety in the Repository. Sachs, para 45 & 46.

The Delaware River Port Authority, Ben Franklin Bridge Station machine, ARRL-0048, at file 132 shows a "Simulator Temp. Error", however that same file is missing in the State Online Repository. Sachs, para. 50.

The East Brunswick machine, ARTL-0008, has several error shown on the CD-ROMs that are not present in the Online Repository. File 539 shows ten different errors, but this file was deleted in its entirety in the Repository. Sachs, para 51. File 836 shows errors in three columns on the CD-ROM, but the file has been deleted in the Repository. Sachs, para 52. File 1136 has multiple errors on the CD-ROM, but, it too was deleted entirely from the Repository. Sachs, para 53.

The State Police machine at the Cranbury Barracks, ARUL-0055, shows errors on the CD-ROM at file number 5. That file has been deleted in the Repository. Sachs, para. 55. File 359 appears twice on the CD-ROM, when it should only appear once, signifying an error, and it also shows a "Simulator Temp. Error" on the CD-ROM. However, in the Repository, file 539 appears only once and the "Simulator Temp. Error" has been removed. Sachs, para. 56.

The Florham Park machine, ARUM-0077, has three files numbered 497 on the CD-ROM. There should only be one file number 497. The second and third files with that number both show "Simulator Temp. Error". Only one file number 497 is present in the Repository, and the "Error" has been omitted. Sachs, para 59.

The Atlantic City machine, ARXB-0064, file 300 is corrupted and has failed diagnostics on the CD-ROM. The CD shows nonsensical programming code on the lines after the file number 300. File 300 is missing from the Repository. Sachs, para 62. There are also two files

numbered 886 on the CD, with the second file showing a "Simulator Temp. Error". The Repository only has one file numbered 886, and it shows no "Error". Sachs, para. 63.

The Cranford machine, ARWA-0187, has two files numbered 43 on the CD-ROM. The first does not show an error, but the second shows "Simulator Temp. Error". The Repository only has one file numbered 43, and it does not shows any "Error". Sachs, para. 64.

The CD-ROM for the Woodbridge machine, ARRL-0019, contains a calibration from July 21, 2010, and included file numbers 893 through 959. The Repository is missing this calibration entirely, as well as the file numbers 893 through 959. Sachs, para. 67 & 68.

For the Old Bridge machine, ARTL-0028, there are two files numbered 687 on the CD-ROM. The first one is "Subject Refusal" and the second one has a final error recorded as "Blowing Not Allowed". The Repository shows two files numbered 687, but the errors are not reproduced. Sachs, para 70.

The State Police machine at Bloomfield, ARUM-0050, show on CD the second calibration cycle, consisting of files 80 through 189. The Repository is devoid of this full calibration cycle. Further, the files are not in sequential order, or in chronological order by retrieval date or by calibration date. Sachs, para 74 & 75.

The East Greenwich machine, ARUL-0059, on CD-ROM, has four files numbered 9 and two files numbered 60. In the Repository, there is only one file 9 and one file 60. Sachs, para. 76 & 77. A second CD-ROM shows two files numbered 270, with both showing "Simulator Temp. Error". File 270 is not included at all in the Repository. Sachs, para. 78.

The Middlesex Boro machine, ARNK-0037, shows file 403 on CD-ROM with a "Simulator Temp. Error", and file 428 with another "Simulator Temp. Error". Neither of these files are present in the Repository. Sachs, para. 79 & 80.

Conclusion:

Errors that exist in the machines data logs are not being faithfully transmitted or transferred to the Repository. Because of the demonstrated errors, above, the Repository does not have data integrity. The information in the Repository cannot be trusted as containing information faithfully obtained from the machines, as it existed in the machines at the time of testing and calibration.

The State must disclose why these differences exist between the data on the CD-ROMs and that which is present in the Repository, and must be compelled to redesign the data base to ensure data integrity. The State must make available to defendants and defense counsel all discs from downloads from all machines until data integrity is substantiated. Further, the discs must always be available to defense experts as a cross-check to make sure that the Repository contains accurate information.

The changes to the Repository must be effectuated immediately to insure data integrity going forward. Since the breath test coordinators are no longer providing a copy of the downloaded digital data logs to the local police department or State Police barracks after performing a check of calibration on the particular Alcotest machine, there will be no ability for a defendant, defense attorney, or defense expert to compare the data contained on the CD-ROMs to that on the Repository. There will be no further ability to compare data from the same machine, from the same time period, to assure that it is identical in nature. There will be no ability to compare 'an apple to an apple,' since the Repository will be the only entity that contains the digital data logs from a given Alcotest machine. This is untenable.

The State must post complete data as it exists in the machines.

The State cannot charge a fee for access to the Repository.

The five year anniversary of this Court's opinion in Chun is later this month. By any objective account, the State has failed to implement this Court's express dictates. The State's failure to comply with Chun cannot be compounded with the flaws inherent in its creation of the Repository. Indeed, it only adds to the perception that it is manipulating and obfuscating the digital data logs contained within the Alcotest machines utilized for prosecution of DWI in New Jersey.

Respectfully submitted,

EVAN M. LEVOW, Esq.

MATTHEW W. REISIG, Esq.

Dated: March 12, 2013

Part IV.

State's Responsive Brief and Petition for Relief

Supreme Court of New Jersey

DOCKET NO. 72,341

STATE OF NEW JERSEY,	:	QUASI-CRIMINAL ACTION
Plaintiff-Respondent,	:	
v.	:	
JANE H. CHUN, et al.,	:	
Defendant-Appellant.	:	

STATE'S OPPOSITION TO THE MOTION IN AID OF LITIGANT'S RIGHTS AND STATE'S MOTION IN AID OF LITIGANT'S RIGHTS

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LEGAL ARGUMENT

POINT I

THE ALCOTEST INQUIRY SYSTEM IS A CENTRALIZED STATEWIDE DATABASE AND CONFORMS WITH THE REQUIREMENTS OF STATE V. CHUN. 18

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PRELIMINARY STATEMENT

In a written opinion dated March 17, 2008, this Court found the Alcotest 7110 MKIII-C ("Alcotest") with New Jersey firmware version 3.11("the firmware") to be sufficiently scientifically reliable for use as an evidential breath testing device. See State v. Chun, 194 N.J. 54 (2008). Although this Court found the Alcotest to be scientifically reliable, this Court ordered the State to forthwith: (1) create and maintain a centralized statewide database comprised of downloaded Alcotest results, and make the data, following redactions of personal identification as needed, available to defendants and counsel; and (2) arrange with Draeger for revisions to be made to the firmware utilized in the Alcotest in accordance with the directives set forth in this Court's opinion.

Shortly after the Chun decision, the State began to create the centralized statewide database. The New Jersey State Police-Information Technology Bureau ("ITB"), the New Jersey State Police-Alcohol Drug Testing Unit ("ADTU"), and the Office of Forensic Sciences ("OFS"), in conjunction with Draeger, developed the requirements for the database. Draeger contracted with a third-party software developer, Ayoka Systems, to develop the software to upload onto the servers, and handle the data from New Jersey's Alcotest firmware version 3.11. The New Jersey State Police ("NJSP") entered into a contract with an approved state E-Government vendor, NIC USA, to develop and maintain the end-user application for the centralized statewide database. This database, known as the Alcotest Inquiry System, was developed by

NIC USA, utilizing firmware version 3.11, the firmware currently used by the Alcotest instruments in New Jersey. On November 1, 2012, the database was made available to the public, and the first requirement of this Court's order was satisfied.

While working to create and develop the centralized statewide database, the OFS also worked with Draeger to make the firmware changes ordered by this Court. The revisions to the firmware are complete and the new firmware is ready to be installed on the instruments. However, the State has recently learned that the software data transfer application for the database will require modifications to allow the data from the new firmware onto the database, and that Draeger will not contract with Ayoka to develop the modified software. The State also recently learned of the 2016 sunset of the Alcotest 7110 instrument. These two critical pieces of information have changed the State's ability to roll out the new firmware. The State therefore moves before this Court to modify its Order as set forth in Chun, to allow the State to maintain the current firmware version utilized in New Jersey's Alcotest 7110 instruments, and to allow the State to use its resources toward finding a new chemical breath test instrument to be used in New Jersey to replace the Alcotest 7110 instruments currently being used.

the institution of this protocol, have not been transferred to and are not present in the Alcotest Inquiry System.

POINT IV

THE FEE CHARGED BY NIC USA TO RETRIEVE THE RECORDS FROM THE DATABASE IS ALLOWABLE UNDER RULE 7:7-7 AND SHOULD BE SUSTAINED BY THIS COURT.

Neither the Court Rules nor Chun require the State to "provide" the data downloads to defendants and defense counsel free of charge. Moreover, the fee charged by NIC USA to retrieve records from the database is permissible pursuant to Rule 7:7-7(i)(3). Thus, this Court should affirm the fee and find it does not violate the Rules of Court.

In State v. Chun, this Court ordered the State to "[c]reate and maintain a centralized database, comprised of downloaded Alcotest results, and . . . make the data . . . available to defendants and counsel." 194 N.J. at 153. Although this Court this Order, the State was provided with no funding in which to create this database, to maintain this database, or to make the data available. Moreover, the State did not have the resources or personnel available to "make" the data from a database "available to defendants and counsel." Thus, the State entered into a contract with NIC USA, Inc., whereby NIC USA agreed to develop the end-user application free of charge to the State, with the development, maintenance, management of the website access, and customer support of this service supported through fees collected from the end-users. See Baum Aff. paras. 36-37.

The fees assessed to retrieve records from the database are entirely collected by and directed to NIC USA; the State does not collect or keep any of the fees paid by the end-users to retrieve records from the Alcotest Inquiry System. See Baum Aff. para. 38. Because the fees imposed to retrieve records from the Alcotest Inquiry System are entirely charged and collected by a private vendor, and none of the fees paid are collected or kept by the State, the Court Rules applicable to the discovery fees that may be charged by the municipal prosecutor do not apply. However, even if this Court finds that the discovery fees allowable pursuant to Rule 7:7-7(i) do apply, the fees imposed to retrieve records from the database are both permissible and reasonable.

Rule 7:7-7(i) addresses discovery fees in general, but also contemplates a Special Service Charge for services to retrieve electronic records such as those in the centralized database. The Rule identifies (1) Standard Fees; (2) Special Service Charge for Printed Copies; and (3) Special Service Charge for Electronic Records. The provision related to the Special Service Charge for Electronic Records provides, in relevant part:

> If the defendant requests an electronic record: (1) in a medium or format not routinely used by the prosecutor; (2) not routinely developed or maintained by the prosecutor; or (3) requiring a substantial amount of manipulation or programming of information technology, the prosecutor may charge, in addition to the actual cost of duplication, a special charge that shall be reasonable and shall be based on (1) the cost for any extensive use of information

> technology, or (2) the labor cost of personnel providing the service that is actually incurred by the prosecutor or attributable to the prosecutor for the programming, clerical, and supervisory assistance required, or (3) both. [Rule 7:7-7(i)(3)].

Rule 7:7-7(i)(3) is applicable to the fee assessed for retrieval of records from the database. First, the data contained in the centralized database is not in a medium or format routinely used by the prosecutor. Indeed, the data downloads contained in the database are not part of the foundational documents, are not required by the State to prove its case beyond a reasonable doubt, and are not routinely used by prosecutors. Notably, this fee is applicable to everyone, including municipal and assistant prosecutors, who also do not have free access to the database.

Moreover, the centralized database was not routinely developed or maintained by the prosecutor. To the contrary, prior to the creation of the database, the data downloads were provided to defendants and defense attorneys in an unstructured format on CD-ROMs. Indeed, unlike the unstructured data found in the data download disks that were maintained at the local police departments and provided to defendants in discovery, the data is now structured, and organized in searchable options. And, the creation of the centralized database required a substantial amount of "manipulation or programming of information technology."

Accordingly, Rule 7:7-7(i)(3) applies to the fee imposed to

retrieve records from the database. The State is not required, and should not be compelled, to provide access to the database free of charge.

POINT V

THE STATE IS UNABLE TO PROVIDE CD-ROMs IN ADDITION TO MAKING THE DATA DOWNLOADS AVAILABLE IN A CENTRALIZED DATABASE.

After the data is downloaded onto the database, the data is cleared from the instrument's memory. Accordingly, the State is unable to create a CD-ROM in addition to making the data available on the database.

Based on the recommendation of the Special Master, this Court ordered the State to create and maintain a centralized statewide database. In making this recommendation, the Special Master noted that a centralized database would provide "easy access to State-wide digital data" that would help "to assure quality control and alert the State Police to problems arising in the field." 2007 N.J. LEXIS at *283-*284. The Special Master also recommended that the data be uploaded to a central State location "either daily or weekly." Id. at *284. Although both the Special Master and this Court were aware that the data was being downloaded onto CD-ROMs, the Special Master did not recommend, and this Court did not order, that the State maintain the practice of downloading the data onto CD-ROMs while also downloading data onto the database.

Data is downloaded from the Alcotest instruments onto the database once per week. The download of the data onto the database is currently scheduled to commence every Sunday night at 3:00 a.m., and takes approximately 8.5 hours to complete. See Alaouie Aff. para. 37. Thus, as contemplated by the Special Mater and this Court, defendants and defense counsel have weekly access to the digital data.

After the data is downloaded onto the database, the data is cleared from the instrument's memory. The process of "clear after retrieve" is necessary to ensure that the database does not contain redundant data for each instrument, to ensure that the rate at which the data is downloaded does not slow down to a near-halt, and to decrease the risk of the database crashing. See Alaouie Aff. para. 38. Because of the necessity to "clear after retrieve", no data is stored on the Alcotest instrument's memory after it is downloaded to the database, and there is no data on the Alcotest in which to create a CD-ROM. See Alaouie Aff. para. 39.

The Court did not require the State to create a centralized database and maintain discs of all data downloads from the instruments. And, to do so would compromise the reliability and viability of the database. Defendants are not entitled to have the data contained on the instruments downloaded onto multiple formats. Defendants can either have a centralized database, or they can have CD-ROMs, but they cannot have both.

POINT VI

DUE TO A CHANGE IN CIRCUMSTANCES, THE STATE REQUESTS THAT THIS COURT MODIFY ITS ORDER OF MARCH 17, 2008, ALLOW THE STATE TO CONTINUE ITS USE OF NEW JERSEY FIRMWARE VERSION 3.11 UTILIZED IN THE ALCOTEST 7110 MKIII-C, AND ALLOW THE STATE TO USE ITS RESOURCES TOWARD FINDING A NEW CHEMICAL BREATH TEST INSTRUMENT TO REPLACE THE ALCOTEST 7110 INSTRUMENTS CURRENTLY IN USE.

In its opinion dated March 17, 2008, this Court found the Alcotest 7110 MK III-C ("Alcotest") with New Jersey firmware version 3.11("the firmware") to be sufficiently scientifically reliable for use as an evidential breath testing device. State v. Chun, 194 N.J. 54 (2008). Although this Court found the Alcotest to be scientifically reliable, this Court ordered the State to forthwith: (1) create and maintain a centralized statewide database comprised of downloaded Alcotest results, and make the data, following redactions of personal identification as needed, available to defendants and counsel; and (2) arrange with Draeger for revisions to be made to the firmware utilized in the Alcotest in accordance with the directives set forth in this Court's opinion. In agreeing that the revisions to the firmware would be beneficial, the Court was clear to note that it "discern[ed] no basis in the record that suggests that any previously-generated report that lacks these additional details is therefore insufficient as a matter of proof of a per se violation. Rather, we agree with the Special Master that updating the firmware to

provide this information in addition to that which it already provides would merely be beneficial." 194 N.J. at 90.

The centralized statewide database was developed by Draeger, Ayoka, and a state-approved private vendor utilizing the firmware currently used by the New Jersey Alcotest instruments. On November 1, 2012, the database was made available to the public, and the first requirement of this Court's order was satisfied.

While working with these entities to develop the database, the OFS also worked with Draeger to make the court-ordered changes to the firmware. In January 2013, Draeger advised the State of two critical pieces of information, set forth below, that have changed the State's ability to roll out the new firmware. The State therefore requests that this Court modify its Order as set forth in Chun, allow the State to maintain the current firmware version utilized in New Jersey's Alcotest 7110 instruments, and allow the State to devote its resources toward finding a new chemical breath test instrument to be used in New Jersey and replacing the Alcotest 7110 instruments currently being used.

A. Background

Since the publication of the Chun decision and Order in 2008, the OFS, the ITB, the ADTU, and the PS&CB, have worked toward satisfying this Court's Order.

1. The Database

Shortly after the Chun decision, the State began to develop the requirements for the database. The ITB, the ADTU and the OFS, in conjunction with Draeger, developed the requirements for

the database. Some of these requirements involved the development of software to upload the data onto, and handle the data within, the servers. Draeger contracted with a third-party software developer, Ayoka Systems, to develop the software to upload and handle the data from New jersey's Alcotest firmware version 3.11 onto the servers. Then, in March 2011, the NJSP entered into a contract with an approved state E-Government vendor, NIC USA, to create a statewide database in conformance with the Chun order. This database was developed by NIC USA, utilizing firmware version NJ3.11, and was made available to the public on November 1, 2012.

2. Relationship between Draeger, Ayoka Systems, and New Jersey

Following the Chun decision, the OFS approached Draeger about providing an automated means of retrieving instrument data, and then subsequently managing the retrieved data in a Central Repository. Draeger did not have the technical expertise for developing a data management application in a reasonable amount of time as dictated by the OFS requirements resulting from the Chun decision. Therefore, Draeger contracted directly with Ayoka Systems, a third-party software group, to design the hardware solution, and to design and develop the ORACLE data transfer software for the Alcotest centralized database. The business relationship was a direct relationship between Draeger and Ayoka. The NJSP provided VPN secured access to the NJSP Alcotest servers for Ayoka developers and deployed the ORACLE database as per the

database table created scripts provided by Draeger via Ayoka Systems.

In September 2012, the ITB determined that some of the database requirements would need to be adjusted to facilitate the import of data generated with the new firmware onto the database. After contacting Draeger to request an appraisal of these new requirements and begin whatever process would be necessary to put the data from the new firmware onto the database, ITB was advised that putting the data from the new firmware onto the database would not be difficult, but programming changes would need to be made to the database. Draeger also advised that because the Alcotest project in New Jersey is out of the initial development stage and is in a maintenance phase, Draeger was not able to accomodate the State's proposed indirect business relationship between New Jersey and Ayoka.

Armed with the information that putting the data from the new firmware onto the database would not be difficult, and cognizant of the amount of time that had lapsed since this Court's Order, the State made the database available to the public on November 1, 2012.

After receiving Draeger's response regarding its unwillingness to continue its direct relationship with Ayoka, in November 2012, members of the OFS and ITB again spoke with Draeger's representatives. At that time, Draeger advised that it wanted the NJSP to establish a direct support relationship with Ayoka Systems, with another third-party software support company,

or have the NJSP maintain the ORACLE Transfer application "in house." The OFS and ITB advised Draeger that it was not possible for New Jersey to either expeditiously contract with Ayoka or a different third-party software company, that the NJSP could not provide "in house" support due to a lack of resources and the required technical expertise, and that the NJSP would therefore not be able to expeditiously deploy the new firmware. The OFS and ITB were advised by Draeger that the continuation of the Draeger/Ayoka Systems direct relationship in overseeing the needed work for the data transfer software enhancements would be investigated.

On January 30, 2013, Draeger advised the OFS that it would not develop a direct relationship with Ayoka to facilitate putting the data from the new firmware onto the current database.

B. Efforts Made by the State to Develop the New Firmware

As ordered by this Court, Draeger engineered changes to the firmware, and a beta version of the new firmware, labeled firmware version 3.12AO, was delivered to the OFS in November 2009. This version of the firmware could not be successfully loaded onto the Alcotest instruments and was therefore never tested. Draeger engineered changes to the firmware, and a beta version of the new firmware, labeled firmware version 3.12AQ, was delivered to the OFS in or around March 2010, pre-loaded onto the OFS Alcotest Instruments used for validation. The OFS conducted a full validation study of the Alcotest firmware version 3.12AQ between April 2010 and June 2011. The OFS completed its

validation of the Alcotest firmware version 3.12AQ in June 2011. Although the firmware functioned as expected and corrected almost all of the outstanding issues from version 3.11, a few issues were discovered during the validation process. On June 27, 2011, Dr. Baum requested that Draeger address these issues.

In October 2011, Draeger sent firmware version 3.12BG to the OFS. The OFS completed its validation of Alcotest firmware version 3.12BG in December 2011. On December 21, 2011, Dr. Baum notified Draeger that the OFS had completed its validation of the Alcotest firmware version 3.12BG and that two concerns had not been corrected. Dr. Baum requested that these concerns be fixed so that the OFS could proceed with field testing. In February 2012, Draeger provided the OFS with Alcotest firmware version 3.12BH. On March 9, 2012, Dr. Baum advised Draeger that although all of the OFS's concerns from the Alcotest firmware version 3.12BG had been addressed, during the validation of the database the OFS discovered that duplicate file numbers were created when the motherboard is replaced and if a simulator does not achieve the required temperature prior to the start of a test. Dr. Baum therefore requested that Draeger fix these concerns so that duplicate file numbers could not be created with the new firmware.

In March 2012, Draeger provided the OFS with Alcotest firmware version 3.12BI. The OFS completed its validation of Alcotest firmware version 3.12BI in April 2012. On April 12, 2012, Dr. Baum notified Draeger that the OFS had completed its

validation of the Alcotest firmware version 3.12BI, and that the current version -- NJ3.13 -- was ready for deployment in the field. The OFS then requested that Draeger provide a written list and explanation of the changes made to the firmware. This explanation was received by the OFS in July 2012.

C. The Effect of the Inability to Put the Data From the New Firmware Onto the Database on the Deployment of the New Firmware.

Without Draeger's direct relationship with Ayoka in overseeing the needed work for the data transfer software enhancements, New Jersey must either contract directly with Ayoka Systems or a different third-party software company, or provide in-house support through the NJSP. The NJSP-ITB is unable to provide in-house support due to a lack of resources and the required technical expertise within the Bureau. Moreover, the State cannot simply contract directly with Ayoka Systems, but rather, would have to put the contract out to bid. This process of entering into a contract with a software company could take an estimated 6 to 9 months, and then an unknown amount of additional time would be needed for that software company to develop a program to put the new firmware onto the current database.

D. The Sunset of the Alcotest 7110

In January 2013, the OFS not only learned that Draeger would not develop a direct relationship with Ayoka to facilitate putting the data from the new firmware onto the database as it had previously done, the OFS also learned of the sunset of the Alcotest 7110. Specifically, the OFS learned from Draeger's

sales representative that Draeger can support the current New Jersey program at the current level for only three more years, that no new warranty extensions will be approved extending beyond the end of 2016, that the Alcotest 7110 will no longer be serviceable beyond the end of 2016, and that New Jersey should change over its breath testing instruments before that time.

E. Request to Modify this Court's Order

The new firmware has been fully validated and is ready to be installed on the Alcotest 7110 instruments. However, the data that will be generated from the new firmware will not be able to be downloaded onto the database without making modifications to the data transfer software. Contracting with a software company to develop such a program can take an estimated 6 to 9 months. The software company that ultimately wins the State contract will then have to develop the data-transfer program. Moreover, this program will have to be validated before it can be deployed. The State will also have to find funding to pay for the development and maintenance of this new software.

In light of Draeger's decision to stop supporting the existing Alcotest 7110 instruments at the end of 2016 and the State's lack of a direct business relationship with Ayoka, the time that it would take to contract with Ayoka or a different third-party software company, develop a software program to put the new firmware onto the database, and roll-out the new firmware will likely be comparable to the time it would take to implement a new breath testing program. Given that the Alcotest 7110 will

become obsolete at the end of 2016, it makes more sense for the State to focus its attention and resources on replacing the Alcotest 7110. The State therefore requests that this Court modify its Order as set forth in Chun, allow the State to maintain the current firmware version utilized in New Jersey's Alcotest 7110 instruments, and allow the State to focus its time and money on replacing the more than 580 Alcotest 7110 instruments with new chemical breath testing instruments.

CONCLUSION

For the foregoing reasons, it is respectfully requested that the Court deny petitioner's motion in aid of litigant's rights. It is also respectfully requested that this Court grant the State's motion, modify the Court's Order, and allow the State to maintain the current firmware version utilized in New Jersey's Alcotest 7110 instruments, while seeking to replace this instrument with a new chemical breath testing instrument.

Respectfully submitted,

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ATTORNEY GENERAL OF NEW JERSEY

Robyn B. Mitchell

BY: Robyn B. Mitchell
Deputy Attorney General

Part V.

Affidavit of Howard Baum, Ph.D.

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SUPREME COURT OF NEW JERSEY
SEPTEMBER TERM 2012
DOCKET NO. 72,341

STATE OF NEW JERSEY,	:	QUASI-CRIMINAL ACTION
Plaintiff-Respondent,	:	AFFIDAVIT OF
v.	:	**Howard J. Baum, PhD.** IN SUPPORT OF OPPOSITION TO
JANE H. CHUN, et al.	:	MOTION IN AID OF LITIGANTS' RIGHTS AND IN SUPPORT OF CROSS-
Defendant-Petitioner.	:	MOTION IN AID OF LITIGANT'S RIGHTS

I, Howard J. Baum, certify that the following statements are true to the best of my knowledge, information and belief:

1. I am the Director of the Office of Forensic Sciences, a Division of the New Jersey State Police (OFS). As the Director, I manage a statewide laboratory system of five laboratories; I am responsible for DNA, serology, drug, toxicology, and trace testing for the State of New Jersey; and I oversee the scientific aspects of the New Jersey Chemical Breath Testing Program, including the development and maintenance of the public database known as the Alcotest Inquiry System. I have served in this position since March 17, 2008. Since that time, I have reviewed with my staff, and with other specialists, the policies and protocols which

were, or are presently, in effect for my areas of responsibility. My Curriculum Vitae is attached as "Exhibit 1."

2. I have received factory training from Draeger Safety Diagnostics, Inc. ("Draeger"), regarding the Alcotest 7110 MKIII-C ("Alcotest"), and training by the New Jersey State Police Alcohol and Drug Testing Unit ("ADTU"). I am familiar with the operation of, and technology employed by, the Alcotest. I have personally operated the Alcotest, performed calibrations, and been present when others have performed various functions on the Alcotest.

3. In my capacity as Director of the OFS, I review and approve scientific protocols, am familiar with the scientific and operations protocol associated with the Alcotest program, and am responsible for promulgating all the protocols associated with the Alcotest program, such as how the machine is operated, how the data is captured, how the data is stored and saved, and the quality assurance of the instrument.

4. I have communicated with Draeger, the manufacturer of the Alcotest, regarding various aspects of the operation and functioning of the Alcotest instrument, regarding the development of new firmware as ordered in State v. Chun, and about the development of the Alcotest Inquiry System. I interact on a regular basis with the ADTU, and I am familiar with the New Jersey Breath Test program.

5. I first became aware that the State was ordered by the Court to create a centralized database and make certain changes to the firmware, in approximately May 2008, when I read the Chun decision and the Special Master's report.

6. After reading Chun in May, I had fact-finding meetings in the summer of 2008 with my staff, with the ADTU, with the IT Bureau of the NJSP, and with DAG John Dell'Aquilo from the Division of Criminal Justice, to digest and decide what the order meant, and to gather what information had to be done. During this time, because I had just become the Director, I was also trying to "get up to speed" on all of my other responsibilities of being the Director of the OFS.

FILE RECORD TYPES 21, 22 AND 58

7. The clearing of three electronic calibration data files (21NJ3-11, 22NJ3-11 and 58NJ3-11) from the Alcotest instruments' memory immediately after the Calibration procedure and after verification that the Calibration Certificates have been successfully printed, was established in 2006 by Dr. Brettell, the former Director of the Office of Forensic Sciences, to address an issue whereby some of the electronic data from the calibration process was not being stored properly in the electronic memory of the instrument. This issue would cause the instrument to sometimes "lock up" in a search mode, thereby prohibiting the instrument from functioning until it was re-set. This

65. A list of the files with exceptional formatting that are not accessible through the database can be made available via a unique link through the Alcotest Inquiry System. The existence of a file that is not found on the database but is suspected to contain exceptional formatting, can be confirmed by contacting the OFS via the contact information found on the homepage of the Alcotest Inquiry System.

THE REVISED FIRMWARE

66. I have worked directly and substantially with several other units and agencies, as well as with Draeger, to have new firmware developed as per the Court's Order in State v. Chun. As such, I am familiar with the steps that have been taken to develop the new firmware.

67. The process of developing and validating the new firmware occurred simultaneously with the process of developing and validating the Alcotest Inquiry System. However, the same, limited staff and resources were used to develop and validate both the Alcotest Inquiry System and the new firmware.

68. On November 13, 2008, I requested that Draeger change and enhance the Alcotest's firmware to comply with the Order in State v. Chun. The exact changes required were specified in this request.

69. Draeger engineered changes to the firmware, and a beta version of the new firmware, labeled firmware version

3.12AO, was delivered to the OFS in November 2009. This version of the firmware could not be successfully loaded onto the Alcotest instruments and was therefore never tested.

70. Draeger engineered changes to the firmware, and a beta version of the new firmware, labeled firmware version 3.12AQ, was delivered to the OFS in or around March 2010, pre-loaded onto the OFS Alcotest Instruments used for validation.

71. The OFS conducted a full validation study of the Alcotest firmware version 3.12AQ between April 2010 and June 2011.

72. The OFS completed its validation of the Alcotest firmware version 3.12AQ in June 2011. Although the firmware functioned as expected and corrected almost all of the outstanding issues from version 3.11, a few issues were discovered during the validation process. On June 27, 2011, I requested that Draeger address these issues.

73. In October 2011, Draeger sent firmware version 3.12BG to the OFS. The OFS completed its validation of Alcotest firmware version 3.12BG in December 2011. On December 21, 2011, I notified Draeger that the OFS had completed its validation of the Alcotest firmware version 3.12BG and that two concerns had not been corrected. I requested that these concerns be fixed so that the OFS could proceed with field testing.

74. In February 2012, Draeger provided the OFS with Alcotest

firmware version 3.12BH. On March 9, 2012, I advised Draeger that although all of our concerns from the Alcotest firmware version 3.12BG had been addressed, during the validation of the database we discovered that duplicate file numbers were created when the motherboard is replaced and if a simulator does not achieve the required temperature prior to the start of a test. I therefore requested that Draeger fix these concerns so that duplicate file numbers could not be created with the new firmware.

75. In March 2012, Draeger provided the OFS with Alcotest firmware version 3.12BI. The OFS completed its validation of Alcotest firmware version 3.12BI in April 2012. On April 12, 2012, I notified Draeger that the OFS had completed its validation of the Alcotest firmware version 3.12BI, that all of our concerns with the Alcotest firmware version 3.12BH had been addressed, and that Alcotest firmware version 3.12BI was acceptable for deployment in the field. I requested that Draeger lock down the firmware for deployment, and send a final version of the firmware to the OFS. I also asked Draeger to provide a formal list of the changes made to firmware version 3.11, to enable the State to provide specific notice of the changes made to the parties, the public, and the New Jersey State Bar Association, as required by Chun.

76. In July 2012, Draeger provided a letter detailing the changes and enhancements embedded in the Alcotest firmware

version 3.13, to the OFS. Draeger also provided a Letter of Acceptance for the new firmware, to be signed by the OFS. I advised Draeger that the State would not sign the Letter of Acceptance until after public notice of the changes made to the revised firmware was given.

77. In September 2012, it was determined that some of the requirements of the Alcotest Inquiry System would need to be adjusted to facilitate the import of data generated with the new firmware. Specifically, some of the fields in the new firmware version 3.13 are different than the fields of the current firmware version 3.11. These different fields make it unlikely that the data from the new firmware can be downloaded successfully onto the Alcotest Inquiry System. Draeger was contacted to request an appraisal of these new requirements and begin whatever process would be necessary to put the data from the new firmware onto the database. Draeger advised that putting the data from the new firmware onto the database would not be difficult, but programming changes to the database would be necessary.

78. In or around September 2012, the OFS contacted Draeger and requested that the State have an indirect business relationship with Ayoka through Draeger, as occurred when developing the Alcotest Inquiry System. Draeger advised that it could not enter into this proposed indirect business relationship because the project in New Jersey is out of the initial development stage and is in a maintenance phase.

79. In November 2012, the OFS again discussed with Draeger the State's request for Draeger to continue the Draeger/Ayoka direct relationship in overseeing the needed work for the data transfer software enhancements. Draeger's representatives advised the OFS that Draeger wanted the NJSP to establish a direct support relationship with either Ayoka Systems or another third-party software support company, or have the NJSP maintain the ORACLE Transfer application "in-house."

80. The OFS advised Draeger's representatives that the State of New Jersey was unable to expeditiously contract with either Ayoka or a different third-party software company, and the NJSP could not provide "in-house" support due to a lack of resources and the required technical expertise. Thus, Draeger was advised that without the needed work for the data transfer software enhancement for the Alcotest Inquiry System that would enable the data from the new firmware to be downloaded onto the database, the NJSP could not expeditiously deploy the new firmware. Draeger's representative advised that he would investigate the continuation of the Draeger/Ayoka direct relationship in overseeing the needed work for the data transfer software enhancements.

81. On January 30, 2013, Draeger advised the OFS that it would not develop a direct relationship with Ayoka Systems to facilitate putting the data from the new firmware onto the

current database.

82. Without Draeger's direct relationship with Ayoka in overseeing the needed work for the data transfer software enhancements, New Jersey must either provide in-house support through the NJSP, or contract directly with Ayoka or a different third-party software company.

83. The NJSP is unable to provide in-house support due to a lack of resources and the required technical expertise.

84. Ayoka is not a State vendor. Thus, the State cannot simply contract directly with Ayoka Systems, but rather, must put the contract out to bid. The process of entering into a contract with a software company could take an estimated six to nine months. Then, an unknown amount of additional time would be needed for that software company to develop a program to put the new firmware onto the current database. The State of New Jersey will have to pay for the development and maintenance of this software. A funding source will have to be secured for the development and maintenance of this software.

85. In January 2013, the OFS was advised by Draeger's sales representative that Draeger can support the current New Jersey program at the current level for only three more years, that no new warranty extensions will be approved extending beyond the end of 2016, that the Alcotest 7110 will no longer be serviceable beyond the end of 2016, and that New Jersey should replace its breath testing

instruments before the end of 2016.

Howard J. Baum

Howard J. Baum

Sworn to and subscribed before me
this 23rd day of May, 2013.

Linda L. DeSantis

Linda L. DeSantis
Notary Public, New Jersey
My Commission Expires 6-17-16

For copies of all the documents from Evan Levow, Esq.

(brief and motions; docket # 72,341)

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