

Forensic Investigations Council Report on the Washington State Toxicology Laboratory and the Washington State Crime Laboratory

April 17, 2008

The Forensic Investigations Council (FIC) was created in 1995 by the Washington State Legislature to oversee Forensic Laboratory Services Bureau that is part of the Washington State Patrol. The Council is composed of twelve members representing county government, city legislative authority, private practice pathologists and the Chief of the Washington State Patrol.

In 2006 and 2007 a number of problems and allegations of problems arose regarding the work of a forensic scientist in the State Crime Laboratory and also employees of the State Toxicology Laboratory. Dr. Barry Logan, the Director of the Forensic Laboratory Services Bureau (FLSB) responded to these issues and a number of audits were conducted to evaluate the services provided by the FLSB and examine the procedures and policies that were in place. These matters were initially reported to the FIC by Dr. Logan and the progression of the audits was passed on to the Council. In addition, the Washington Association of Criminal Defense Lawyers (WACDL) and the American Civil Liberties Union (ACLU) both asked the FIC to investigate allegations relating to the FLSB in October and November of 2007.

The Washington State Crime Laboratories and the Washington State Toxicology Laboratory form the Forensic Laboratory Services Bureau (FLSB) in the Washington State Patrol. The Director of the FLSB was Dr. Barry Logan, who reports to the Chief of the Washington State Patrol and the Forensic Investigations Council. The Crime Laboratory System consists of seven laboratories throughout the State and conducts forensic investigations on evidence secured by law enforcement in criminal cases. The Toxicology Laboratory system consists of one laboratory in the State and conducts testing as requested by County Coroners and medical examiners and law enforcement agencies and also runs the Breath Testing Program. The FLSB has 198 employees and eight laboratories.

Crime laboratory

The Crime Laboratory has a system of peer review for work done by the forensic scientists prior to the issuance of laboratory reports. There are also levels of supervision of these employees. During the ordinary course of peer and supervisory review of the work of Forensic Scientist Evan Thompson, deficiencies were discovered. Due to concerns he was placed on a work improvement program in April of 2006. During this review process an error was discovered on Mr. Thomson's work relating to bullet trajectory analysis. Due to concern raised about this type of work by Mr. Thompson, he was removed from bullet trajectory casework on October 2, 2006. As the review by Crime Laboratory supervisors took place, technical errors and violations of laboratory operating procedures were discovered, and Mr. Thompson was removed from all casework responsibilities on November 13, 2006. Mr. Thompson's case files were reviewed and irregularities were discovered, and then a focused casework review was undertaken of Mr. Thompson's work. During this process Mr. Thompson resigned from the State Crime Laboratory effective April 6, 2007.

In order to fully examine Mr. Thompson's work, Dr. Barry Logan contracted with two independent firearms examiners, Matthew Noedel, and Dwight Van Horn. They were initially directed to examine 13 cases that Mr. Thompson had completed. Other casework was also examined by the two examiners. Mr. Nodell reported that he discovered work that was poorly organized and poorly documented, but the conclusions did not appear to be wrong.

During the pendency of this review an independent Forensic Consultant, Larry Lorschach of American Society of Crime Laboratory Directors/Laboratory Accreditation Board [ASCLAD/LAB] was retained by the Washington State Patrol to audit the firearms function of the Seattle, Spokane, and Tacoma Crime Laboratories. The audit findings related to documentation of findings and for explaining why definite conclusions could not be reached in some cases. These recommendations were reviewed and adopted by the FLSB. The discovery and actions taken relating to Mr. Thompson, and the audit that was conducted, showed that the firearms division of the Crime Laboratory was functioning properly and appropriate safeguards were in place to identify work that was not up to the

standards that the lab requires. Once work quality was questioned, the employee was taken off casework and his work was examined. The process worked well in this instance and peer review and quality control issues were well positioned to insure that if work product was not thorough and professional in nature, it would be observable and remedied.

Problems in the State Toxicology Laboratory

In order to understand the problems that occurred in this section of the FLSB, that became apparent in the month of July, 2007, it is important to review the annual audits as well as the special audits conducted by the Washington State Patrol. As part of normal procedure internal audits are conducted annually on the evidence system at the State Toxicology Laboratory. In addition, independent audits were undertaken after discovering problems with the certifications of simulator test solutions submitted by Lab Manager Ann Marie Gordon relating to the Breath Test Program. The Risk Management Division of the Washington State Patrol conducted an audit of the evidence system at the State Toxicology Laboratory that was completed on September 4, 2007. This audit traced prior audits that had been conducted on the evidence system since 2004.

Evidence Audit in 2004

In 2004 the audit revealed no evidence of theft, tampering, or misappropriation, but outlined a number of findings. One of the major concerns of this audit was the storage of blood tubes and breakage due to freezing of the tubes. The audit also made findings relating to documentation and the shortcomings of the lab in this area. There was no destruction authorization documentation, no recording of discovery requests and no retention schedule relating to records. Ms. Gordon, the lab manager indicated that she did not have the time to follow the Toxicology Lab's Standard Operating Procedure (SOP) Manual relating to documenting disclosure requests. She stated that she would not be able to do this in the future due a lack of staffing. The audit indicated that the Lab Manager expressed frustration with the level of workload that the lab personnel had to deal with while still complying with the paperwork requirements of the agency. There appeared to

be a shortage of personnel to accomplish the tasks the lab was directed to perform. The audit findings were responded to by both Ms. Gordon and Dr. Barry Logan.

Evidence Audit in 2005

Another evidence audit was conducted in 2005 by the Washington State Patrol. This audit specifically commended Ms. Gordon for the effort she had shown in responding to the prior audit concerns. There were no major findings in this audit.

Evidence Audit in 2006

Another evidence audit was conducted by the Washington State Patrol in 2006 and there were no findings for this audit.

Evidence Audit in 2007

Another evidence audit was completed by the Washington State Patrol in 2007 and there were no findings for this audit. The auditors commended Mr. Formosa for managing the sizeable inventory stored by the lab. Responses from the staff during this audit showed that the recommendations from the prior audits had been implemented. In addition, staff had been added to assist in the evidence handling.¹

Breath Testing Section

On March 15, 2007, the Washington State Patrol's anonymous tip line received a call which stated that the "Simulator solutions are being falsified as far as the certification." On March 23, 2007, Dr. Logan was given a copy of the message. He then asked Ann Marie Gordon, the Toxicology Lab Manager to investigate the message. Breath instruments used in the State of Washington are BAC DataMaster and BAC DataMaster CDM. These machines utilize a simulator solution during the initial phases of the breath test to determine whether the breath test machine is accurately measuring

¹ It was apparent from this progression of evidence audits that lack of staffing in the Toxicology Lab was one of the major reasons for problems maintaining the proper documentation of records that had been cited earlier.

breath alcohol content. The external simulator solutions are prepared by the Toxicology Laboratory analysts pursuant to protocols established the State Toxicologist. The process of preparing and testing the solutions is called “certification.” No less than three analysts must certify the simulator solution prior to its certification. The practice of the Toxicology Lab was to have up to sixteen analysts certify the simulator solution, which allowed all to testify if necessary on court cases. This was believed to be less intrusive to the lab work processes, since more analysts were available for trial testimony.

Ms. Gordon and Mr. Formosa responded in writing to Dr. Logan’s request for an investigation on April 11, 2007. They indicated that all data had been reviewed from January 2007, through March, 2007, and all was found to be accurate. Ms. Gordon later met with Dr. Logan and revealed that she had not been testing her simulator solutions and had delegated this to another analyst. Dr. Logan told her that as the manager she should not be testing the simulator solutions and asked her to cease doing this.

On July 9, 2007, the Washington State Patrol’s anonymous tip line received a second call, which stated, “Ann Marie Gordon doesn’t really certify all those simulator solutions. If you look in the file you’ll find a grammetigram with her name on it, but if you also check over the years of where she really was on the days that those things were certified you’ll find once in a while she was in DC or Alaska, or somewhere else. She had somebody else do it and then she’ll sign the form that says, under penalty of perjury I analyzed this. If you don’t think that’s a big deal just think what Francisco Duarte would think of that.” Dr. Logan met with Ms. Gordon after he received the second anonymous message and told her that an investigation would be begun on this matter. Ms. Gordon indicated that there was no need for an investigation since she had signed the documents. She stated that Mr. Formosa had done her testing and she then signed the certification forms. Dr. Logan initiated an internal affairs investigation and Ms. Gordon subsequently resigned on July 20, 2007.

ASCLAD Audit Conducted by Michael Hurley

After these problems were brought to light, the Chief of the Washington State Patrol demanded an audit of the operational and management practices of the Toxicology Laboratory as they relate to the Breath Testing Program. This audit came under the Risk

Management section of the Washington State Patrol, but was contracted to an independent evaluator, Michael Hurley, an assessor with the American Society of Crime Laboratory Directors Consulting.[ASCLAD]. This audit was conducted during September, 2007. The procedures in place for the preparation and testing of simulator solutions and an assessment of the calculation error on breath test results were major areas in which Mr. Hurley concentrated his efforts. Mr. Hurley made a number of findings in this audit relating to the operational and management practices of the breath test program. He found that there was little communication between the Toxicology Laboratory and the Breath Testing Program. He also found that the Toxicology Laboratory management had not applied the same operational and quality control to the Breath Testing Program that had been applied to other parts of the laboratory. In addition, breath testing functions had not been evaluated by external auditors and were not part of the accreditation by ABFT.

The Toxicology Laboratory ordinarily prepares two different types of solutions for use in the breath testing machines: (1) The first is a 0.08 Simulator External Standard Solution mentioned above; (2) The second is a Quality Assurance Solution used to verify the accuracy and precision of the instruments. Both of these solution preparation procedures require a minimum of three analysts to do the required testing to be certified. However, in actual practice 12-16 analysts performed the tests in order to qualify all to testify in court relating to the solutions. During the audit Mr. Hurley found a calibration error on tests run on the breath test solutions. All of the tests were not calculated for the total number of analysts testing the data. In regard to this problem Mr. Hurley stated the following, “The laboratory policy did not create the problem, but the policy of having all analysts do the testing for convenience of having more people to go to court contributed to the subsequent, identified error.”

Mr. Hurley identified a number of findings during this audit. The Washington State Patrol then provided a “Breath Test Audit Summary and Target Date Checklist”, outlining agency action and steps to cure the problems that he found. The findings from this audit and recommendations from Mr. Hurley were adopted by the Chief of the

Washington State Patrol and almost all have been put into place. The remainder that have not yet been completed have completion dates and will be finalized during this year.²

ABFT Data Quality Audit

An additional audit was conducted on October 24-26, 2007 by the Risk Management Division of the Washington State Patrol to test the toxicology files signed or co-signed by Manager Ann Marie Gordon for the period of time from July, 2005, through June of 2007. The Risk Management Division contracted with the American Board of Forensic Toxicology (ABFT) and auditors Dr. Graham Jones, and Dr. Iain McIntyre as external auditors. In conducting this audit the auditors selected 300 cases at random during the target time period that were signed or co-signed by Ann Marie Gordon. During this review the auditors found ten files with reporting issues. Three cases contained clear errors that should have been noticed on review, but were not. Three cases contained errors that fall into the category of “typographical” errors. Four of the remaining ten cases had errors that were classified as “forensically significant.” Some of these may be a matter of differing professional judgment rather than errors.

Drs. McIntyre and Jones congratulated the Toxicology Laboratory and Ann Marie Gordon for establishing two levels of report reviews, which is not done in other labs. The audit report concluded with the statement that although the noted errors were unfortunate, the reviews conducted by Ms. Gordon were professionally done and appear to reflect isolated oversights rather than unprofessional conduct.

Case Law Decisions

The problems associated with Ann Marie Gordon’s false certifications and also the errors in the database and computations culminated in a number of court decisions relating to the admissibility of the breath test results in DUI prosecutions.

² See “Breath Test Audit Summary and Target Date Checklist” attached to this report as Appendix #1.

In Arntson v. Department of Licensing, [DOL case] the court admitted the breath test results, but gave them no weight due to the problems associated with the actions of Ms. Gordon and the culmination of errors dealing with the simulator solution. The action to suspend Mr. Arntson's driving privileges was dismissed.

In State v. Gilbert, et al [Skagit County cases], the court denied the motions to dismiss the charges or suppress the breath test results, but was very critical of the Toxicology Laboratory and Dr. Logan.

In State v. Lang, et al, [Snohomish County cases] the motion to suppress the breath test result was granted due to Ms. Gordon's actions.

In State v. Ahmach, et al, [Redmond cases] the court granted the motion to suppress due to Ann Marie Gordon's actions, and the errors committed by the lab personnel. The case was very critical of the Toxicology Laboratory and Dr. Logan's supervision.

Efforts to Correct Problems Discovered

Crime Laboratory

The FLSB under the supervision of Dr. Barry Logan and the Washington State Patrol has taken very thorough steps to examine and solve the problems in the Crime Laboratory relating to Forensic Scientist Evan Thompson and in the Toxicology Laboratory relating to the Breath Test Program.

The crime laboratory peer review, quality control analysis and supervision, were all adequate to identify problems with a forensic scientist's work and rectify them. This was done in an open manner and was remedied. The systems worked in the way that was intended when the checks and balances were put into place in the crime laboratory. In order to fully understand the checks and balances instituted in the crime laboratory it is important to review the audits that are done annually and also the creation of the Standards and Accountability Section (SAS). In 2006 Dr. Logan decided that it was important to create a section devoted to the demand for quality processes and to increase the vigilance of forensic quality issues such as audits and accreditation oversight. This section has been increased from one person to seven full time positions.

In order to insure compliance with ASCLAD/LAB Accreditation Criteria, Washington State Patrol Regulations, legal criteria, CALEA Accreditation Criteria and

Federal Requirements, many audits are required. The following are audits presently conducted on the crime laboratories:

1. Four Quarterly Evidence Audits per year per laboratory performed by the laboratory manager or designee;
2. One 100% Evidence Audit per year per laboratory performed by the Washington State Patrol Risk Management Division;
3. One 10% Spot Evidence Audit per year per laboratory performed by the Washington State Patrol Risk Management Division;
4. Three Firearms Reference Collection Audits performed by the SAS;
5. Six Controlled Substance Reference Collection Audits per year performed by the SAS;
6. One Quality and Technical Audit per year per laboratory performed by the SAS;
7. Six alternating internal and/or External DNA and CODIS Audits per year as required by the Federal FBI Guidelines; (Set up by the SAS);
8. Yearly ASCLAD/LAB Assessments performed by each of the seven laboratories and performed by the Laboratory Manager, monitored by the SAS.

After each audit is completed the SAS completes a report and the Laboratory Manager must file a response. This puts the focus on problems and their solutions. After a solution is reached the SAS Section conducts follow ups to check and see how the problem has been remedied. This program has changed the laboratory system from a reactive to a proactive environment. In addition, the ASCLAD/LAB is converting from a forensically nationally based Legacy Accreditation Program to the International ISO Program based on ISO testing and calibration laboratory criteria. This change will more than quadruple the essential accreditation criteria used, and is based on international standards and applications. The current Legacy Accreditation Program has an external assessment every five years, while ISO has a yearly assessment for the first five years and then adjusted based on the laboratories record of success. This project is the responsibility of the SAS and will result in a better laboratory system and product for the laboratory users.

Toxicology Laboratory

The external and internal audits that were conducted on the Toxicology Laboratory after the disclosure by Ms. Gordon of her false certifications, are certainly indicative of how seriously the Chief of the Washington State Patrol viewed this problem. In addition, after all of the audits, the Washington State Patrol and the FLSB have adopted all of the audit findings, in an effort to prevent this from ever happening again and to insure that checks and balances will be adequate to forestall this in the future.

In order to insure compliance with ABFT Accreditation Criteria, Washington State Patrol Regulations, legal criteria, CALEA Accreditation Criteria and Federal Requirements, many audits are required. The following are audits presently conducted on the Toxicology Laboratory:

1. Four Quarterly Evidence Audits per year performed by the laboratory manager or designee;
2. One 100% Evidence Audit per year performed by the Washington State Patrol Risk Management Division;
3. One 10% Spot Evidence Audit per year performed by the Washington State Patrol Risk Management Division;
4. One ABFT Accreditation Audit [The Toxicology Laboratory was accredited last year and will go through a mid-year assessment this year];
5. SAS Audit to insure the findings from the lat year's audits are being implemented;
6. One evidence handling audit performed for the CALEA Accreditation.

After each audit is completed the laboratory manager must respond to any findings and make certain that problems are remedied. In addition, the Toxicology Laboratory is converting from ABFT Accreditation Program to the International ISO Program based on ISO testing and calibration laboratory criteria. This change will more than quadruple the essential accreditation criteria used, and is based on international standards and applications. ISO has a yearly assessment for the first five years and then is adjusted based on the laboratories record of success.

Conclusion

It is extremely unfortunate that Toxicology Manager Gordon filed false certifications on tests that were conducted by another analyst. The fact that this was done

by a high level laboratory employee is repugnant and antithetical to the goals and standards of the entire laboratory system. This was not a certification that was essential to any part of the program and truly defies logic. This action has prevented the utilization of breath test results in courts all over the State of Washington, and has raised a cloud of doubt over the Toxicology Laboratory. The crime and toxicology laboratory employees are a very dedicated, hard working, honest group of people and certainly did not deserve to have the actions of two people affect the public perception of their work. Dr. Logan has dedicated many years of his professional life to the goal of creating a laboratory system that is dedicated to the most efficient, well run, and ethical standards of forensic science. Under his leadership the Crime Lab and Toxicology Laboratory systems have grown to attempt to meet the need in this State for such services, and to keep abreast of the cutting edge technology in forensic science. The Toxicology Laboratory has doubled in size under his leadership and has achieved national accreditation. The crime laboratories have greatly increased in size, are fully accredited and have placed a major focus on DNA casework. The focus that Dr. Logan placed on quality assurance and the creation of the SAS division will ensure high quality laboratory processes and results in the future.³

The Forensic Investigations Council makes the following recommendations for the FLSB:

1. Adopt all of the findings of the audits conducted as set forth above.⁴
2. Appoint a State Toxicologist as a separate position from the FLSB Chief.⁵
3. Appoint a Laboratory Manager position for the Toxicology Laboratory.⁶

³ We are not unmindful of the criticism of Dr. Logan by a number of judges in the above-cited opinions. However, everyone who supervises a large number of employees, which does not include the aforementioned judges, realizes that sometimes employees do not follow the rules, do not follow directives and do not follow the law. If this is done in a manner which is not readily apparent, the results can be disastrous. That is exactly what happened here. The captain of the ship ultimately is always responsible, but it does not mean that he was asleep at the helm or was complicit in the activities of the employee or employees. Dr. Logan has built an extremely excellent crime laboratory and toxicology system in the State of Washington. He has contributed more to the forensic laboratory systems than anyone in the State. His vision and organizational ability will be felt in this system for years to come.

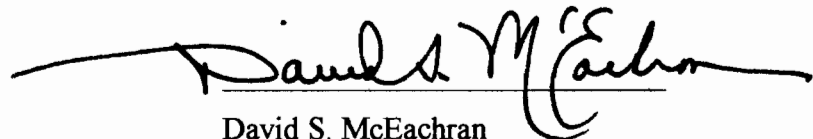
⁴ This has been done by the Washington State Patrol and all will be effective by mid year, 2008.

⁵ The duties associated with the State Toxicologist and the Bureau Chief of the FLSB are too numerous for one person to complete. [This recommendation has been completed and Dr. Fiona Couper was appointed as the State Toxicologist effective on March 10, 2008].

⁶ This position has been filled for the State Toxicology Laboratory and will provide support for the State Toxicologist.

4. Complete the ISO accreditation on both the Crime Laboratory System and the State Toxicology Laboratory System.
5. Expand the current Standards and Accountability Section to ensure vigilance for quality processes and to conduct audits and oversee accreditation over both the Crime Laboratories and the State Toxicology Laboratory.
6. Management of the crime laboratories and the toxicology laboratory should constantly monitor the staffing levels to insure adequate staffing levels to process the lab requests in a timely manner and to insure high quality, thorough casework.

The problems described above that occurred in the Toxicology Laboratory cannot overshadow the excellent, high quality forensic casework that has been completed day in and day out by the employees of the Forensic Laboratory Services Bureau. The above recommendations will ensure that these problems will not reoccur and will increase the quality of the laboratory results.

A handwritten signature in black ink, reading "David S. McEachran". The signature is written in a cursive style with a long horizontal line extending to the left and a loop at the end.

David S. McEachran
Chairman FIC

APPENDIX 1

| Type of Audit | Target Date | Action Step | Completion date |
|---------------|-------------|---|-----------------|
| BTA | 08/01/07 | Breath test attend training for new program offered by ASCLD-LAB for accreditation | done |
| BTA | 09/01/07 | Simulator solution certification database form updated to include date beside analysts name reflects the date analyzed. | done |
| BTA | 10/05/07 | Update & develop procedures for preparing, testing, certifying, and conducting quality control on simulator external solutions and QA solutions | done |
| BTA | 10/05/07 | Quality assurance check performed by breath test section on receipt of solution. Recalculate results. | done |
| BTA | 10/05/07 | Documentation of absolute ethanol w/simulator solution log | done |
| BTA | 10/05/07 | Language standardized to reduce any confusion about what documents are being referred to. | done |
| BTA | 10/05/07 | Revisions to simulator solution & QA procedures dated 10/5/07 and beyond, require to be included in batch file. | done |
| BTA | 10/05/07 | Validation of filemaker database. Old file locked to prevent editing or tampering | done |
| BTA | 10/05/07 | 4-stage process for review of analytical data. Toxicology Supervisor assigned to oversee this process. | done |
| SSA | 11/01/07 | Refrigerator/freezer moved to vault. Evidence moved to vault each night. | done |
| SSA | 11/01/07 | Seattle Crime Lab PEC assigned to ToxLab 40% time. | done |
| BTA | 11/07/07 | Weekly training sessions for Tox Staff | ongoing |
| BTA | 11/15/07 | Analysts divided into 2 teams for simulator solution batches. 8-9 analysts performing tests rather than 16 | done |
| SSA | 11/22/07 | Save sample process assigned to Barry Fung. | done |
| SSA | 12/14/07 | Audit of 2005 Samples | done |
| BTA | 12/19/07 | Joint meeting between Tox staff & Breath test program staff | done |
| SSA | 01/01/08 | Seattle Crime Lab PEC = ToxLab PEC 100% | done |
| SSA | 01/01/08 | Access to evidence vault limited to PEC & Supervisors only | done |
| SSA | 01/01/08 | Filemaker Pro installed on evidence officers computers | done |
| SSA | 1//2008 | Return/disposal of evidence process for PCME & KCME | done |
| SSA | 1//2008 | Steering committee meetings to start for returning ALL SAMPLES | done |
| SSA | 01/01/08 | Development of evidence disposal and return process w/documentation | done |

APPENDIX 1

| Type of Audit | Target Date | Action Step | Completion date |
|---------------|-------------|---|-----------------|
| SSA | 02/01/08 | Identify conflicts between lab & agency policies. | done |
| SSA | 02/01/08 | Draft changes assigned to PEC Linda Edwards & Susan Sabillo | done |
| SSA | 02/01/08 | 2nd ToxLab PEC expected hire date | done |
| SSA | 02/01/08 | Assessment of CITE system before final decision on LIMS | done |
| SSA | 02/01/08 | Recommendations for improvement on save process | done |
| BTA | 02/04/08 | Summary of the process used for calculating with mean and standard deviation - prepared by Breath Test program staff. Incorporate as an appendix in SOP | done |
| SSA | 02/15/08 | Draft policy on state wide evidence policy for Toxicology Laboratory due from steering committee | done |
| SSA | 03/01/08 | 2 PEC's responsible for receiving evidence, entering into evidence system, etc | done |
| BTA | 03/01/08 | IIA compliant quarterly external audits will be developed by FLSB Standards and Accountability Section | done |
| BTA | 04/01/08 | Technical work group to be formed by new Toxlab management staff | |
| SSA | 04/01/08 | Audit of 2006 & 2007 Samples | in progress |
| BTA | 07/01/08 | Application for accreditation ASCLD-LAB | |
| BTA | 07/01/08 | Additional communication venues developed by Technical working group. | |
| BTA | 07/01/08 | Periodic internal audits on simulator solution program | |
| BTA | 07/01/08 | Create new database w/individual passwords and audit capabilities. | |
| BTA | 07/01/08 | Technical group will develop intergrated SOP for all aspects of breath test support functions by lab | |
| SSA | 07/01/08 | Return of all evidence upon completion of analysis | |