IN THE DISTRICT COURT OF KING COUNTY FOR THE STATE OF WASHINGTON

EAST DIVISION, REDMOND COURTHOUSE

STATE OF WASHINGTON, Plaintiff, vs. AHMACH, SANAFIM, ET AL. Defendants	Case No. C00627921, ET AL. ORDER GRANTING DEFENDANTS' MOTION TO SUPPRESS

Each of the Defendants joined in this motion ask that this three judge panel of the King County District Court suppress the Defendants' breath test readings, arguing that the Washington State Toxicology Laboratory (WSTL) engaged in practices which were both fraudulent and scientifically unacceptable. The State, while agreeing that many of the activities of the WSTL were unacceptable, argues that suppression is not the appropriate remedy, both because none of the Defendants' tests were directly affected at any critical point and because the issues raised by the Defendants could be raised before each trier of fact and given their appropriate weight.

For the reasons stated in this Order, the breath tests in each of the Defendants' cases are suppressed.

Findings of Fact

Each of the Defendants herein were arrested for an alcohol related traffic offense, and each submitted to a test of his or her breath at the request of the arresting officer. These tests

were performed on the Datamaster or Datamaster CDM machines located throughout King County and Washington.

These instruments operate under the principal of comparing the unknown (the breath of the arrestee) to a known standard of alcohol to measure the amount of alcohol in the breath. There are multiple checks performed by the instrument to ascertain the accuracy of the result. One of the checks is the external standard, which measures the headspace alcohol vapor content of an external simulator solution (field solution). This solution is a mixture of ethanol and water in a known quantity prepared by the WSTL.

These instruments are periodically checked, calibrated and maintained by the Washington State Patrol Breath Test Section (breath test section). For this purpose they also use solutions of ethanol and water prepared to known standards by the WSTL (QAP solutions).

The procedure for preparation of QAP and field simulator solutions is set forth in protocols created and/or promulgated by the State Toxicologist, Dr. Barry Logan. An analyst mixes the solutions according to the protocol, and then each of 16 analysts test the solutions by preparing vials of the mixture and submitting them to headspace gas chromatography along with control vials and blank vials. The results are recorded for each analyst, and ultimately published to the web for access by the public. The analysts then "certify" that they have performed the tests, and that the results as published are correct. These certifications are intended to be used in court in lieu of live testimony by the toxicologists.

This three judge panel has found many irregularities in the preparation, use and documentation of these solutions and tests, as set forth below:

False Certifications

1. Ann Marie Gordon (AMG) became lab manager at WSTL by appointment of Dr. Logan.
2. AMG informed Dr. Logan that her predecessor as lab manager had engaged in a practice of having other toxicologists prepare and test simulator solutions for him and yet certify that he had prepared and tested the simulator solutions.
3. AMG told Dr. Logan that she did not approve of this procedure and was then also informed by Dr. Logan that it was not acceptable for a toxicologist to engage in this practice.
4. Nonetheless, AMG did engage in this practice beginning in 2003. Ed Formoso was a lab supervisor; he prepared and tested simulator solutions for AMG from 2003 to 2007. This involved 56 simulator solution tests.
5. Each test was accompanied by a CrRLJ 6.13 certification that AMG had performed the test and that the test was accurate and correct.
6. Melissa Pemberton was the quality control manager at the WSTL during a part of this time, and knew that AMG was not performing tests but was certifying them.
7. This deception was uncovered after two anonymous tips received by the Chief of the Washington State Patrol.
8. The first was received on March 15, 2007. Dr. Logan was directed by Assistant Chief Beckley to investigate this complaint.
9. Dr. Logan directed AMG and Formoso to investigate the complaint.
10. AMG and Formoso discussed the procedure and agreed that Formoso would no longer perform tests on behalf of AMG.

11. AMG informed Dr. Logan that she did not perform the tests of the solutions but that she signed the forms indicating that she did.

12. AMG and Formoso prepared a report stating that there was no problem with the certifications and that no solution had left the lab with an incorrect solution in 20 years.

13. Dr. Logan, AMG and Formoso knew, or should have known, that this report was incorrect and misleading, but took no steps to correct it or provide for another investigation.

14. Melissa Pemberton had run vials prepared for AMG by Formoso through the gas chromatograph along with her own samples, knowing that these were to be attributed to AMG, and that AMG would sign certificates alleging that she did the tests.

15. Dr. Logan was aware of this, by August of 2007.

16. DR. Logan and Pemberton both testified under oath that no one other than Formoso ever ran tests for AMG.

Defective and Erroneous Certification Procedures

17. The software used to perform calculations for simulator solution worksheets was defective from its inception in that it omitted the fourth data entry from the fourth toxicologist who performed the tests.

18. Beginning in August 2005 a change in the software resulted in a failure to include data from 4 of the 16 toxicologists performing tests in calculations to establish accuracy.

19. Lab protocols require the inclusion of all analysts' data in these calculations.

20. No one checked the software program to ascertain accuracy and compliance with protocols. There was no procedure or protocol propounded to check or verify software used by the WSTL.

21. Analysts were not trained or directed to check the calculations performed by the software.

22. Analysts regularly signed declarations which stated the mean concentration of alcohol in the solutions. These declarations were prepared by support staff, and were not checked for accuracy by the analysts before signing. In at least six instances these declarations were in error. At lest one analyst signed them a second time still reflecting the errors.

Software Failure, Human Error, Equipment Malfunction and Violation of Protocols

23. The software used for calculations to determine the acceptability of simulator solutions was developed by computer programmer(s) within the Washington State patrol and was not subject to rigorous testing and/or checking such that substantial errors resulted and significant data was deleted from calculations.

24. No procedure or protocol within the WSTL required this software to be validated for accuracy or fitness for purpose, and no Lab personnel conducted such testing at anytime, nor verified that the data produced was correct.

25. Errors based on software miscalculations existed within almost all field simulator solution certifications issued between August 2005 and August 2007. At least one QAP solution was similarly affected.

26. When analysts conducted gas chromatograph tests, the machine printed results automatically. These were maintained in the test files. Thereafter (sometimes weeks

after), worksheets were prepared by support personnel detailing the testing results for each toxicologist. Thereafter analysts signed the worksheets to acknowledge their correctness. These worksheets were not checked against the original chromatographs to determine if they were accurate before signing, and incorrect data was in fact inserted into some worksheets. These worksheets were posted to the web and relied upon in determining the accuracy and precision of the breath testing machines in the field.

27. Declarations by toxicologists for certification of the solutions are prepared by support personnel and then given to analysts to sign, sometimes weeks after the actual testing. These were not checked against chromatographs or worksheets to insure accuracy. There were at least 150 instances of similar non-software related errors committed by analysts and revealed in the record. These include:

a. Entering incorrect data into certification spreadsheets for use in calculations to determine mean solution values and compliance with protocols.

b. Entering incorrect test values for controls.

c. Entering data for the wrong solutions into certification spreadsheets.

d. Signing declarations indicating testing of the solution prior to the solution even being prepared.

e. Signing declarations indicating that a solution had been tested before the testing had taken place.

f. Incorrect dates for testing and/or signing of declarations.

28. The WSTL was equipped with several gas chromatograph machines for use by the analysts. A machine that malfunctioned was not repaired or maintained adequately

and this resulted in different operational and measurement characteristics and abnormal variations in readings. The machine remained on line for some time even though individual toxicologists knew that it was not functioning properly. Once repaired this abnormality disappeared.

Improper Evidentiary Procedures

29. In 2004 the Washington State Patrol conducted an internal audit of the WSTL. The report included the following conclusions:

a. The WSTL was noncompliant with policies and procedures in 8 major categories.

b. The simulator solution logbooks were not properly kept.

c. The required self audits were not performed.

d. AMG indicated that she did not have time to follow WSP policies and would not do so.

e. "WSP policies and required procedures appear to be of secondary concern to Lab personnel....Accurate recordkeeping and quarterly auditing as required by patrol Policies and CALEA standards is severely deficient."

30. In 2007 another internal audit was conducted by the Washington State Patrol. The report included the following conclusions:

a. "The department is unnecessarily exposed to litigation due to insufficient documentation and disregard for evidence handling policies and procedures."

b. "Mandatory audits are not being completed.... Non-standard evidence handling procedures and insufficient documentation to ensure the same...and failure to perform required audits jeopardizes operational performance as well as CALEA accreditation. "

Inadequate and Erroneous Protocols and Training

31. The accuracy of breath alcohol measurements is determined by the use of simulator solutions. These must be accurately prepared and certified as such to gain the trust and confidence of the courts and public.

32. Accuracy of these solutions is assured by the adherence to proper protocols for their preparation and use.

33. Contrary to protocol requirements, toxicologists were trained to discard data generated by the tests if any single data entry lay outside the range for the mean value of the solution as dictated by the protocol. This tended to create a testing system that would not fail a solution as every value outside the range was discarded and only those that were within the accepted range were included in the calculations of accuracy.

34. Discarding of data is appropriate in some circumstances where identifiable reasons exist or where there is appropriate statistical justification (outliers). However, a decision to discard data must be governed by appropriate protocols and must be properly documented so that these decisions can be reviewed. Such a protocol was not promulgated until this legal proceeding was well underway, and documentation was not required or provided.

35. Several toxicologists discarded data without identifiable or statistical reasons for doing so. Inadequate or no documentation was provided, so that in those situations this Court cannot determine why data was discarded.

36. At least one toxicologist was not taught that testing of simulator solutions followed different procedures than testing of other materials, and conducted multiple tests, discarding the results of at least one test.

37. Protocols for solution preparation and machine testing were contradictory or inconsistent, resulting in field solutions being used for QAP testing in some cases.

Impact on Tests Conducted In the Field

38. Field solution #2018 was never properly certified due to errors committed by the analyst. This solution was used as the external standard in 2,018 tests.

39. Field solution #2019 was never properly certified due to similar errors committed by the same analyst. These two batch errors were likely caused when the analyst switched data. This solution was used as the basis for QAP's performed on at least 39 breath test machines. There were approximately 7,928 tests conducted on the affected machines.

40. QAP batch solution #06028 was certified after data was discarded improperly. QAP procedures were performed on 32 Datamaster machines using this solution. This had an impact on 3,445 tests.

41. Field solution #05008 was used as a QAP solution to test and calibrate the Datamaster. Though, perhaps, not a violation of protocol since the protocols were in conflict, Dr. Logan conceded that field solutions were never intended to be used for the QAP process. This solution was improperly certified by AMG. If the data from her tests were removed, the solution has a mean alcohol concentration of .1022, outside the acceptable range for QAP solutions. The tests conducted using machines tested and calibrated with this solution number 1,679.

42. Field solution batch #06003 was used as a QAP solution. This solution had a mean alcohol concentration of .1024, outside the range deemed acceptable for QAP solutions. Two machines were tested using this solution, affecting 392 individual tests.

43. Field solution #06048 was qualified using software which provided incorrect results. When correct figures are computed, it was determined that the solution would not have qualified as a QAP solution. At least one Datamaster QAP was performed with this solution, affecting 21 individual tests.

44. This same solution was also used as a field solution, but when proper calculations are made, it is apparent that it would have affected all tests conducted using this machine. However, the number of tests affected has not been determined.

45. QAP solution #06037 was certified using software that incorrectly calculated the equivalent vapor concentration. The machines calibrated using this solution affected 2,691 individual breath tests.

46. Field solution #06043 was tested by one analyst using a defective gas chromatograph. The test should have been repeated to determine accuracy. The number of individual test impacted by this has not been ascertained.

47. Not all (or possibly any) of the defective solutions noted above would have resulted in substantial changes in every test result. Some test results would be of greater importance than others if they are at or near the absolute standards for violations created by statues, ie. .02, .04, .08, and .15. However, every test conducted with an improperly certified or defective solution is affected in some way.

Nondisclosure of Machine Bias

48. All measuring machines have some bias, and Datamaster breath test machines have bias which is identified in the QAP process.

49. This bias is not determinable without testing; sometimes creating readings lower than actual and sometimes higher.

50. The bias of any particular machine can be determined from the information created during the QAP process by applying mathematical formulas and calculations. This information is not readily available to the public, though it is published on the web. Due to the complexity of the calculations and formula involved, few in the legal community are aware of this bias. The Breath Test Section of the Washington State Patrol does, however, provide this information to attorneys and defendants when requested.

51. The machine bias information could be easily made available to the defendants, attorneys and public by the State Toxicologist.

Analysis

BAC Admissibility Post Jensen

The Washington legislature conveyed its "frustration with the inadequacy of previous attempts to curtail the incidence of (Driving Under the Influence) DUI" with the adoption of SHB 3055[1] in 2004. City of Fircrest v. Jensen, 158 Wn.2d 384, 388 (2006). Central to SHB

[1] In part, the legislature indicated its intent in the adoption of SHB 3055 as follows:
"The legislature finds that previous attempts to curtail the incidence of driving while intoxicated have been inadequate. The legislature further finds that property loss, injury, and death caused by drinking drivers continue at unacceptable levels. This act is intended to convey the seriousness with which the legislature views this problem. To that end the legislature seeks to ensure swift and certain consequences for those who drink and drive.

To accomplish this goal, the legislature adopts standards governing the admissibility of tests of a person's blood or breath. These standards will provide a degree of uniformity that is currently lacking, and will reduce the delays

3055 were amendments to RCW 46.61.506, by which the legislature sought to curtail pretrial motions seeking the suppression of breath tests in DUI cases. As amended, RCW 46.61.506 required that trial courts assume the 'truth of the prosecution's... evidence and all reasonable inferences from it in a light most favorable to the prosecution." RCW 46.61.506(4)(b). While the amendments would still allow defendants to challenge the reliability or accuracy of breath tests, those challenges would "not preclude the admissibility of the test once the prosecution ... has made a prima facie showing" of each of eight basic admissibility requirements set forth in the statute. RCW 46.61.506(4)(a). Ultimately then, SHB 3055 constituted a legislative attempt to eliminate the trial court's role as the gatekeeper[2] for a critical piece of evidence in DUI prosecutions.

Thus, when the Washington Supreme Court considered this issue in Jensen, supra, the court could have found that the legislation violated the inherent right of the judicial branch to control its own court procedures, i.e., a violation of the Separation of Powers doctrine. Instead, the Court determined that it could harmonize RCW 46.61.506, as amended, with the rules of evidence and give effect to both. Jensen, 158 Wn.2d at 399. The court held that, once the prosecution had met its prima facie burden under RCW 46.61.506(4), the breath test thereafter became "admissible," meaning that the court could still serve in its role as the gatekeeper under the applicable rules of evidence. Id. By analogy, the Jensen court referenced DNA testing:

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caused by challenges to various breath test instrument components and maintenance procedures. Such challenges, while allowed, will no longer go to admissibility of test results. Instead, such challenges are to be considered by the finder of fact in deciding what weight to place upon an admitted blood or breath test result."
Laws of 2004, ch. 68.

[2] A trial court is said to be the "gatekeeper" for the admissibility of evidence under both the Frye test (Frye v. United States, 293 F. 1013 (D.C. Cir. 1923)) and under the standard articulated in Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993); State v. Copeland, 130 Wn.2d 244, 259-260 (1996). "In Daubert, the Supreme Court held that a trial judge should act as a "gatekeeper" to ensure that all scientific evidence admitted is both relevant and reliable." Reese v. Stroh, 74 Wn. App. 550, 559 (1994). The court also acts as the gatekeeper when it rules on motions to suppress scientific evidence under ER 403 or ER 702.

> In the DNA analogy, DNA admissibility has been accepted under Frye[3]; however, challenges to the weight of the DNA evidence, including laboratory error; the size, quality, and randomness of Federal Bureau of Investigation (FBI) databases, and the methodology and practices of the FBI in declaring a DNA match, are subject to ER 702 admissibility as determined by the trial court.

Jensen, 158 Wn.2d at 397. Continuing this analogy to the cases herein, the trial court's determination that the prosecution had, prima facie, met the requirements of RCW 46.61.506(4), would be comparable to acceptance under Frye, meaning that the court would then move on to consideration of any rules of evidence that might be applicable.

ER 702 and Laboratory Evidence

A breath test reading is not admissible absent expert testimony, either in person or by affidavit as allowed by CrRLJ 6.13(c)[4]. Pursuant to ER 702, however, an expert may only testify "if scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue." In a criminal prosecution, a post Frye analysis of the admissibility of expert testimony under ER 702 is a consequential activity with independent force and effect. "In this state ER 702 has a significant role to play in admissibility of scientific evidence aside from Frye." State v. Copeland, 130 Wn.2d 244, 259-260 (1996).

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[3] Frye requires that the court determine whether (1) the scientific theory has general acceptance in the scientific community, (2) the techniques and experiments that currently exist can produce reliable results and are generally accepted by the scientific community, and (3) the laboratory performed the accepted scientific techniques in the particular case. Frye v. United States, Supra.

[4] A breath test technician must testify that the BAC Verifier Datamaster or Datamaster CDM was tested, certified and working properly on the date of the test, and a state toxicologist must testify that the simulator solution was properly prepared and tested. Both would also have to testify that each activity was performed in conformance with the rules established by the Washington State Toxicologist. RCW 46.61.506(3); CrRLJ 6.13(c).
The Defendants here have sought suppression of their breath tests based upon the failure of the WSTL to properly prepare, test and certify simulator solutions. The Defendants have not raised any issues relating to the Washington State Patrol Breath Test Section or Breath Test Technicians.

Under Jensen, therefore, after the prosecution has met its prima facie burden for the admission of a BAC reading, a trial court must engage in a meaningful review of the admissibility of the BAC evidence involving, under ER 702, a two part test. State v. Cauthron, 120 Wn.2d 879, 890 (1993). As in Copland, supra, the Cauthron court was concerned with the admissibility of DNA evidence:

> The 2-part test to be applied under ER 702 is whether: (1) the witness qualifies as an expert and (2) the expert testimony would be helpful to the trier of fact. Part 2 of this standard should be applied by the trial court to determine if the particularities of the DNA typing in a given case warrant closer scrutiny. If there is a precise problem identified by the defense which would render the test unreliable, then the testimony might not meet the requirements of ER 702 because it would not be helpful to the trier of fact.

Cauthron, 120 Wn.2d at 890. In each of the following cases, the Supreme Court engaged in both a Frye analysis and an ER 702 review of challenged forensic laboratory conclusions. In each case discussed, the court began with the proposition that the "determination of whether expert testimony is admissible is within the discretion of the trial court. Unless there has been an abuse of discretion, this court will not disturb the trial court's decision." Cauthron, 120 Wn.2d at 890. In each case the trial court admitted the scientific evidence and none of the ER 702 challenges to the trial court decisions were overruled, both for the factual reasons noted for each below, and because in each case the court was upholding a discretionary ruling of the trial court.

- In State v. Cauthron, supra, the court noted that the defense had only presented "potential problems" with the DNA evidence. Moreover, the court noted that "the defense presented its own experts to rebut the State's conclusions. Dr. Ford and

Dr. Libby both testified that they found the autorads in this case inconclusive, and discussed their reasons at length. In addition, they each pointed out the possible pitfalls of DNA testing, such as degradation, starring, cross contamination, etc., and the lack of controls employed in the testing procedure. The jury was presented with a balanced picture of the DNA evidence[5]." Cauthron, 120 Wn.2d at 899.

- In State v. Kalakosky, 121 Wn.2d 525 (1993), the court quickly dealt with the two errors cited by the defense. (1) "The defense asserts that semen samples taken from the C.F. crime scene were spilled in 'close working proximity to samples of defendant's blood'. The record does not support this". Kalakosky, 121 Wn.2d at 540. (2) "The defense also alleges that there was evidence of a mislabeled autoradiograph which compromised the reliability of the DNA testing. This also is unsupported by the record." Id.

- In Copeland, supra, the court considered the admissibility of lab results which had been challenged for a lack of external testing of lab procedures and for allegedly simplistic proficiency testing procedures. In dismissing these challenges, the court noted that "while a completely independent audit may be ideal, there was no evidence that the FBI procedures compromised the test results in this case." Copeland, 130 Wn.2d at 271. The court concluded that the "issues of laboratory error and lack of proficiency testing can be and were the subject of cross-

[5] The Cauthron court ultimately reversed the trial court, not for lab error, but because a critical underlying assumption for the admissibility of DNA testing was absent. "Testimony of a match in DNA samples, without the statistical background or probability estimates, is neither based on a generally accepted scientific theory nor helpful to the trier of fact." Cauthron, 120 Wn.2d at 907.

examination and defense expert testimony at Copeland's trial. Id.; See also, State v. Cannon, 130 Wn.2d 313 (1996).

Thus, in each of the above cases dealing with potential lab errors and poor lab procedures, the errors and poor procedures were relatively insignificant. Moreover, the Supreme Court stressed the importance of a trial court's role in evaluating lab evidence under the mandates of ER 702.

In Kalakosky, while the court noted that alleged infirmities in the performance of a test will usually to go to the weight of the evidence, not its admissibility, it also stated that:

> If the testimony before the trial court shows that a given testing procedure was so flawed as to be unreliable then the results might be excluded because they are not "helpful to the trier of fact". The issue of human error in the forensic laboratory is analyzed under ER 702 and is not a part of the Frye test....

Kalakosky, 121 Wn.2d at 541. See also, Cannon, 130 Wn.2d at 325; and Copeland, 130 Wn.2d at 270. That this is still the standard in DUI cases post Jensen is reflected in Justice Madsen's concurrence in City of Seattle v. Ludvigsen, 2007 Wash. LEXIS 953 (2007):

> When deviations from additional testing procedures or machine maintenance protocols are so serious as to render test results unreliable, a court has discretion to exclude them in accordance with the rules of evidence.

Ludvigsen, at page 35.

The State argues a violation of protocols by the WSTL could not provide any basis for

suppression of breath tests, citing State v. Mee Hui Kim, 134 Wn. App. 27 (2006). Kim, however, does not stand for the proposition that a breath or blood test may never be suppressed for a violation of WSTL protocols under ER 702. The defendant in Kim did not contend that the WSTL failed to comply with a protocol; rather the defendant in Kim argued that the State had failed to *show* compliance with a protocol:

> Specifically, Kim points to the State's failure to show that preparation of the volatile standards in the "Alcohol Standard Logbook" met the requirements in the Head Space GC Protocol.

Kim, 134 Wn. App. at 35-36. Ann Marie Gordon, testifying at the Kim motion hearing, stated that the protocol had been complied with and that the logbook was available at the lab for defense review. Upon these facts the trail court held that the State had shown compliance with the WAC and that the defense could (when, after the motion hearing they had been able to review the logbook) renew their motion to suppress. Kim, 134 Wn. App. at 36-37. Thus, trial courts are still able to weigh the failure of the WSTL to follow its own protocols in a motion to suppress under ER 702.

In each of the Defendants' cases herein, the defense cannot point to specific errors directly compromising the breath test results at critical BAC levels. For this reason the State argues that this court should decline to suppress the results of the breath tests and should instead admit the evidence at trial and allow the trier of fact to weigh each of the issues raised. While the State's position is generally preferable when disputes arise relating to the quality of scientific evidence, it is not always the last word on the subject. Indeed, if the court were always to admit

questionable evidence at trial, ER 702 would serve little purpose. Here we find, for the reasons documented in this court's findings of fact and more fully explained below, that the decision to suppress or admit tips considerably in favor of suppression.

Under the current statutory scheme, a charge of DUI is most commonly proven by two different means; proving that an individual drove a motor vehicle while under the influence of or affected by intoxicating liquor, or by proof that the person had, within two hours after driving, an alcohol concentration of 0.08 or higher as shown by analysis of the person's breath[6]. RCW 46.61.502 (1). Proof of DUI via analysis of the persons breath is considered a per se violation, i.e., the state is not required to show that the defendant was affected by the alcohol, merely that the level of alcohol in the defendants breath was at or above 0.08. Thus, a crime which carries a potential sentence of one year in jail; carries a mandatory minimum of some amount of jail time, and which will result in the mandatory loss of the privilege to drive a motor vehicle, may be proved by evidence from an instrument alone.

The 0.08 BAC level is not the only critical level for breath alcohol which has been set by the legislature. The first critical level is 0.02, the level at which a person under the age of 21 may be convicted of Driving or Being in Physical Control of a Motor Vehicle After Consuming Alcohol. RCW 46.61.503. The next critical breath alcohol level is 0.04, the level at which a commercial driver will lose his or her commercial drivers license (CDL) for one year. RCW 46.25.090; RCW 46.25.120. Finally, in a DUI prosecution, in addition to the 0.08 breath alcohol level, the 0.15 level is also critical. A breath alcohol level of 0.15 or above carries greater mandatory minimum sentencing requirements. RCW 46.61.5055. Moreover, for breath tests

[6] The state may also prove the charge of DUI by proof that the defendant was under the combined influence of liquor and any drug or by proof that the defendant's blood alcohol concentration was 0.08 or higher. RCW 46.61.502 (1).

registering above 0.02, 0.04 and 0.08, an individual may lose his or her privilege to drive without the benefit of a prior hearing[7]. RCW 46.20.3101; RCW 46.25.120.

Thus, even errors in the range of 1 or 2% can have a profound effect on a breath test reading. Nonetheless, each expert witness who offered testimony[8] stated that there was not a process or a machine that would not insert some amount of inherent error in any result. That is also the case with the Datamaster and Datamaster CDM. In the process of breath test instrument calibration, the protocols indicate that breath test instrument is still functioning properly if it is accurate to within +/- 5%, and if the precision of the readings stand at +/- 3%[9]. Rod Gullberg testified that the lack of accuracy in a breath test machine is referred to as "bias." A breath test machine normally has a bias of 1-2%, with the smaller fraction of the machines registering a bias of 5% or less[10]. The breath test program is not, however, set up to account for any of the potential bias inherent in a breath test machine[11]. Thus, a process that already allows potential bias in each reading only underscores the importance of ensuring that the WSTL eliminates all other possible sources of error.

Throughout Washington State, over 40,000 breath tests are administered annually. In light of the importance of each one of these tests for the state and for individual defendants, it is vital that each aspect of the breath test program operate effectively. As stated in the findings, the WSTL prepares and tests both field simulator solutions and quality assurance procedure

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[7] In the case of a 0.04 reading, a CDL is lost. In each situation the defendant may request a hearing prior to revocation.

[8] The court heard testimony from the following expert witnesses: Rod Gullberg, Dr. Barry Logan, Dr. Ashley Emery and Dr. Nayak Pollisar.

[9] The WAC defines accuracy and precision as follows: "accuracy" means the proximity of a measured value to a reference value; "precision" means the ability of a technique to perform a measurement in a reproducible manner. WAC 449-16-030 (1) & (10).

[10] The bias allowed in the protocols, however, does not include improper procedures or mistakes.

[11] For instance, readings are not adjusted at any of the critical levels to account for actual of for potential bias, nor are defendants informed of the potential bias before or during trial.

simulator solutions. These solutions serve as a critical check on breath test instruments to ensure that each will provide accurate and precise breath alcohol readings. The CrRLJ 6.13 certificates, or a toxicologist's in-court testimony, allow a breath test technician to "close the loop" and testify that the breath test reading was correct.

A Culture of Compromise

The Cauthron, Kalakosky and Copeland cases, discussed above, generally dealt with questions of lab mistakes and process errors. While many of our findings concern lab mistakes and process errors, the remaining findings indicate that the problems in the WSTL are much more pervasive.

Generally, our concerns regarding the WSTL fall into three general categories:

1. The failure to pursue the ethical standard which should reasonably be expected of an agency that operates as an integral part of the criminal justice system;
2. The failure to establish procedures to catch and correct human, and software and machine errors within the lab; and
3. The failure to pursue the rigorous scientific standards which should be reasonably expected of an agency that contributes a key component of critical evidence that may, almost standing alone, result in a criminal conviction.

Ethical Compromises

Ann Marie Gordon falsely signed CrRLJ 6.13 certifications under penalty of perjury indicating that she prepared and tested field simulator solutions and that the solutions were found to conform to the standards established by the State Toxicologist. This and other ethical compromises documented in the findings adopted in this order may at the same time be viewed

as both petty and alarming. The ethical compromises were petty because they were frustratingly unnecessary, and alarming because the WSTL exists primarily to provide accurate information to state trial courts[12]. It is, therefore, reasonable to expect that those employed in an office with such a direct link to courts, whose primary duty is the discovery of the truth, would fully understand the importance of truth in all of their activities. The State has argued that there isn't any evidence that Ann Marie Gordon ever actually testified in court that she had prepared and tested a simulator solution. Yet, CrRLJ 6.13 exists to allow the admission of simulator solutions (via affidavits) in the absence of direct court testimony by the toxicologist who prepared the solution. We do not know whether any false Ann Marie Gordon CrRLJ 6.13 certificates were ever used in court in lieu of live testimony, but considering the number of DUI trials, it is more than likely that some were.

There are several other factors that highlight the disturbing nature of this practice. This was a procedure which:

- Ann Marie Gordon herself had specifically recognized was inappropriate;
- violated the protocols of the WSTL;
- required that she not only state that she performed an activity which she did not perform but also that she sign an affidavit to that effect under penalty of perjury;

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[12] The WSTL was created to provide forensic information to prosecuting attorneys as well as coroners and medical examiners. Prosecuting attorneys will, of course, request information from the WSTL in the hope that it will assist in the prosecution of anyone who may be guilty of committing a crime. In the case of breath alcohol testing, the link to trial courts is strong because the WSTL runs essentially independent of specific requests from individual prosecuting attorneys.
The WSTL was specifically established by RCW 68.50.107:

> "There shall be established in conjunction with the chief of the Washington state patrol and under the authority of the state forensic investigations council a state toxicological laboratory under the direction of the state toxicologist whose duty it will be to perform all necessary toxicologic procedures requested by all coroners, medical examiners, and prosecuting attorneys."

- required the active participation of at least one other member of the WSTL (Edward Formoso) in the fraud (but we have also found that this pernicious fraud ultimately required the participation of toxicologist Melissa Pemberton and perhaps others)[13]; and
- set the ethical tone for the entire toxicology lab[14].

While such fraud can never be justified by necessity, it is, nonetheless, baffling to consider the risk the toxicology lab was willing to take for little, if any, gain. If Ann Marie Gordon never testified in court that she prepared and tested a simulator solution, and if this means that she, perhaps, never intended to so testify, why was she so ready to commit perjury by signing false certifications?

The State Toxicologist, Dr. Barry Logan, is ultimately responsible for the WSTL, and he bears a good deal of the responsibility for its shortcomings. He hired and supervised Ann Marie Gordon. Ms. Gordon testified that she continued to "test" solutions and sign the CrRLJ 6.13 certificates because she believed Dr. Logan wanted her to. Dr. Logan testified that he had been told in 2000 by Ms. Gordon that her predecessor in the WSTL had fraudulently signed CrRLJ 6.13 certificates when he was manager of the WSTL. Yet, not only did Dr. Logan fail to detect that this same fraudulent procedure was occurring from 2003 to 2007, but he also professed not to know that toxicologists even signed CrRLJ 6.13 certificates. Because of this ignorance, he testified that he did not understand the meaning of the first tip that came into the State Patrol. The tip indicated that "Simulator solutions are being falsified as far as the

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[13] Although we cannot know with certainty whether this fraud was known to the other members of the WSTL, we believe that it is unlikely that anyone working in such a small office could have failed to see that one of their members was failing to test a solution and that, nonetheless, her name would appear on the paperwork they all had to sign indicating that they had each completed their testing.

[14] This conclusion is not meant to indicate that all members of the toxicology lab engaged in unethical practices. It is rather, a comment on the culture of the office itself. If the top of the chain of command engages in questionable practices, it should not surprise anyone to find that this poor behavior has infected the culture of the entire office. Again however, we caution anyone from making any specific conclusions about employees of the WSTL. Good people are quite capable of resisting poor behavior, even if a poor example is set at the top; and during the course of this motion we heard the testimony of many competent, dedicated and ethical people from the WSTL.

certification." Thereafter, in a situation screaming with irony, Dr. Logan assigned the perpetrator of the fraud, Ann Marie Gordon, the task of investigating the tip. To complete the circle, Ms. Gordon enlisted the assistance of lab supervisor Ed Formoso, her co-conspirator in the fraud, as her co-investigator. While they both ended their fraudulent practice at the time the first tip was received, their investigation also concluded that no fraud was occurring.

While it is not clear from the testimony of the various parties, just when Dr. Logan knew of the fraud, he should have known after the first tip. As previously stated, it is most likely that everyone in the WSTL was fully aware of the fraud, and if 16 toxicologists knew, why didn't Dr. Logan? When informed that the certifications were being falsified, why didn't he consider the possibility that his current lab manager was engaging in the same activity that had occurred a few years before? Why was Ann Marie Gordon assigned the task of investigating the tip? While these questions may never be answered, they cast a long shadow over Dr. Logan's ability to serve as the State Toxicologist.

Systemic Inaccuracy, Negligence and Violation of Scientific Principals

Dr. Nayak Polissar, an expert called by the State, testified that only superior methods will ensure accuracy, and that the accuracy and precision necessary for a particular laboratory task is dependent upon the particular use intended for the final product. As stated by the National Institute of Standards and Technology (NIST), "accuracy... is judged with respect to the use to be made of the data." NIST Special Publication 260-100, 2 (1993).

Data Transfer

When each of the 16 toxicologists tested simulator solutions, the data from their tests was recorded on documents known as chromatograms. The data was thereafter transferred to worksheets, a problematic step, unless the WSTL required a review to ensure that the data was

correctly transferred. The WSTL did not require that the data transfer be checked, and toxicologists signed certifications which were unverified and later found incorrect. Many errors in diverse areas were subsequently discovered.

Computer Software

The computer software used to enter and calculate simulator solution lab results on the worksheets was not created by an individual with the requisite knowledge and skill necessary to ensure that the data was correctly analyzed and recorded. Moreover, no one checked the software to determine if it was operating properly. Nor was this a mistake that one can charge to an individual employee. The WSTL itself never considered that it was necessary to check the software to ensure that it was fit for its purpose. The software contained errors which were not revealed until the WSTL came under close scrutiny because of the Ann Marie Gordon investigation.

Malfunctioning Gas Chromatograph

The WSTL suffered through a time period during which a gas chromatograph machine was malfunctioning. During this period of time, the gas chromatograph could, under certain circumstances, provide incorrect readings. The WSTL chose to ignore rather than address this issue for a considerable period of time.

Thousands of Tests Affected

Literally thousands of breath tests performed in recent years were affected through a multiplicity of errors in the toxicology lab. A very brief recitation of the errors include: the

improper rejection of data; erroneously switched data; the use of field simulator solutions to conduct quality assurance procedures; the use of software that improperly computed data and that improperly ignored the data of the last four of the toxicologists providing data for field simulator solutions; and, the use of simulator solutions that were outside of the allowable range.

Rod Gullberg effectually ran the breath test section for the Washington State Patrol for 25 years. Mr. Gullberg, who, along with Trooper Ken Denton, completed a lengthy review of the solution preparation worksheets from the WSTL, is also well acquainted with the WSTL and its processes. In his opinion, the problems in the WSTL are not the result of bad faith. Instead, Mr. Gullberg believes that the WSTL failures are the result of carelessness and complacency.

Motion to Suppress Granted

While we agree that trail courts should generally admit scientific evidence if it satisfies the requirements of Frye, we also agree that trial courts should thereafter engage in a meaninginful ER 702 analysis, as we have here, when the circumstances require. Having done so, we conclude that, under ER 702, the work product of the WSTL is sufficiently compromised by ethical lapses, systemic inaccuracy, negligence and violations of scientific principals that the WSTL simulator solution work product would not be helpful to the trier of fact[15]. This litany of problems is indicative of a pervasive culture which has been allowed to exist in the WSTL. In this culture, the WSTL compromises the accuracy of the work product. Accuracy becomes secondary to the accomplishment of the work itself. Thus, because of this culture of the expedient, the WSTL has lost its effectiveness.

[15] Although many of the problems within the WSTL are of a general nature, our decision today concerns only the simulator solutions prepared and tested by the WSTL. Our decision does not, therefore, directly relate to any of the other work of the WSTL.

This conclusion is especially troubling because of the critical role the WSTL plays in combating the crime of DUI. The criminal justice system is appropriately assigned the task of discovering the truth. Simply stated, without the reliable evidence that a correctly functioning breath test instrument can provide, the discovery of the truth in DUI cases suffers; the innocent may be wrongly convicted, and the guilty may go free.

We wish to emphasize that our decision to suppress today results from the unique multiplicity of WSTL problems highlighted during this motion. Because the identified problems are multiple and diverse, and because the WSTL may find it difficult to prove, in any reasonable manner, that they have corrected each individual problem, we are not able to indicate with specificity, each correction required.

Therefore, while we provide a list of our concerns below, we emphasize that the WSTL is not required to show that each has been corrected. Any one or two problems, standing alone, would not likely have resulted in suppression.

While the WSTL has attempted to modify its practices and procedures as a result of many of the problems noted in the findings herein, and improvements have been made,[16] additional effort is required.

Ethics

The WSTL has not been able to explain how Ann Marie Gordon and Ed Formoso (and perhaps the lab manager prior to Ann Marie Gordon), over a multiple year period, decided that it was acceptable to engage in a practice of falsely signing CrRLJ 6.13 certificates. We are not persuaded that this fraudulent activity should simply be laid at their feet. This apparently long

[16] Indeed, in reaction to a continuing series of discoveries, the State Toxicologist, Dr. Barry Logan amended protocols several times within a recent three month period.

standing ethical lapse is more likely a symptom of a greater problem; a WSTL culture that was tolerant of cut corners.

Errors

While the WSTL has made several policy changes to deal with many of the prolific errors within the WSTL, it has not been able to point to the reasons for what Rod Gullberg stated was a sense of complacency in the WSTL. The WSTL has, to date, simply corrected the systemic errors that have been called to its attention or were discovered as a result of a review of other problems called to its attention. The WSTL must establish procedures that, in the years ahead, ensure that their processes are double checked for accuracy[17].

Forensic Science

The State appropriately relies on the WSTL to produce (as is the case with the simulator solutions) and analyze evidence. The WSTL was not created, however, as an advocate or surrogate for the State. While the WSTL will always assist the State, it must never do so at the cost of scientific accuracy or truth.

In City of Seattle v. Clark-Munoz, 152 Wn.2d 39 (2004), the Supreme Court agreed with the statement that:

> If the citizens of the State of Washington are to have any confidence in the breath testing program, that program has to have some credence in the scientific community as a whole.

[17] Here we use the word accuracy in its colloquial, non-scientific sense. By the use of the word accuracy, we mean that the WSTL must establish a system which ensures reliability appropriate to the importance of the purpose of each specific task.

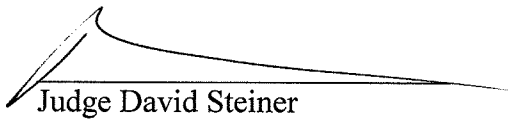
Clark-Monoz, 152 Wn.2d at 47. Although the Clark-Monoz holding has been brought into some question as a result of the ruling in Jensen, supra, the proposition that robust scientific standards are expected in the WSTL still remains. And while Rod Gullberg testified that, after the changes made in the WSTL in the fall of 2007, he now has more confidence in the WSTL, more work is required. In the summer of 2008 the WSTL plans to adopt the General Requirements for the Competence of Testing and Calibration Laboratories, ISO/IEC 17025:1999(E), promulgated by the International Organization for Standardization. These standards are neither required for a toxicology laboratory, nor are they a panacea for the past and current problems in the WSTL. Their adoption, however, is likely to move the WSTL a long way toward the type of reliable forensic science which should be expected of a state toxicology lab.

Conclusion

We hold that, under ER 702, the work product of the WSTL has been so compromised by ethical lapses, systemic inaccuracy, negligence and violations of scientific principals that the WSTL simulator solution work product would not be helpful to the trier of fact. The State, perhaps expecting the suppression of some of the work product of the WSTL, has asked this panel to be as specific as possible in our ruling. Specificity is made difficult, however, because of the nature of the problems identified. The State may, therefore, request that this panel reconvene at such time that the State believes it has sufficient evidence that the WSTL has adequately addressed the issues noted in this Order[18].

[18] The alternative, of course, is to seek the admission of breath test evidence before each individual judge who adopts this ruling and then, when the defendants raise the issue, argue case by case that the WSTL simulator solutions currently meet the requirements of ER 702.

Dated this 30th day of January, 2008



Judge David Steiner

Judge Darrell Phillipson

Judge Mark Chow