



Idaho State Police

Service since 1939



Colonel G. Jerry Russell
Director

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To: Idaho Prosecutors of Blood Ethyl Alcohol Cases
From: Major Ralph Powell, ISP Police Services Commander
Subject: Notification of Amended Lab Reports for Uncertainty of Measurement
Date: December 23, 2008

Last week, a letter from ISP Forensic Services discussed how our national accrediting body now required an uncertainty of measurement to be applied to the laboratory measured value and disclosed in blood ethyl alcohol laboratory reports. ISP Forensic Services implemented this new requirement on all analysis performed after September 8, 2008. Before September 2008, no adjustment was made for uncertainty of measurement (the lab measured value was the reported value).

Before implementing this policy change, ISP Forensic Services determined the uncertainty of measurement subtracted should be the equivalent of two standard deviations. One standard deviation is a 90% confidence interval while two standard deviations is a more conservative 95% confidence interval. The laboratory policy is to subtract the determined uncertainty of measurement from the laboratory measured value. This subtraction method is always more favorable to the defense. While it may be scientifically acceptable, the laboratory decided not to add the uncertainty of measurement to create a range for the reported value. Please see the letter from ISP Forensic Services dated December 19, 2008, for further explanation about the calculation.

All blood ethyl alcohol casework in Idaho State is performed in either the Coeur d'Alene or Pocatello ISP Laboratory. The address on the laboratory report discloses which laboratory actually performed the work. On December 19, 2008, the staff in the Pocatello laboratory discovered only one standard deviation was being subtracted from the laboratory measured number, instead of two. After a thorough investigation of the issue, it was determined that the one standard deviation application was limited to the Pocatello laboratory. A complete audit of all cases worked in Pocatello between September 8, 2008 and December 19, 2008 was performed. A total of 194 cases were performed in Pocatello during this time interval. The data for each case was re-evaluated and the second standard deviation equivalent was subtracted from the reported value. Because the correction factor is extremely small, and a truncation is performed as the final step, the reported value in 144 of the 194 cases was unchanged. A very small adjustment was made in the other 50 cases. Because the reported value changed slightly, an amended report was issued for each of these 50 cases. The wording in the amended report states:

"THE ORIGINAL REPORTED ETHYL ALCOHOL CONCENTRATION WAS ADJUSTED FOR UNCERTAINTY OF MEASUREMENT BY SUBTRACTING ONE STANDARD DEVIATION. HOWEVER, ACCORDING TO CURRENT ISP FORENSIC SERVICES PROCEDURE, THE VALUE SHOULD HAVE BEEN ADJUSTED BY SUBTRACTING TWO STANDARD DEVIATIONS. THE TWO STANDARD DEVIATION ADJUSTMENT IS REFLECTED IN THE REPORTED ETHYL ALCOHOL CONCENTRATION FOR THIS REPORT."

ISP Forensic Services is committed to quality casework. The laboratory moved as quickly as possible to identify the scope of the problem, resolve the issue, and inform our customers. If you should require further explanation, please contact the ISP Forensic Services Quality Manager, Matthew Gamette at 208-884-7217.

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