



# **TENNESSEE BUREAU OF INVESTIGATION**

## *Forensic Services Division*

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### Forensic Chemistry Standard Operating Procedure Manual

### Terms and Definitions

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## **3.0 TERMS AND DEFINITIONS**

### **ANNUALLY (ANNUAL)**

Once per calendar year

### **CERTIFIED REFERENCE MATERIALS (CRM)**

Standards or controls used to check the quality and metrological traceability of products, to validate analytical methods, or to verify the calibration of instruments. These materials have an accurate realization of the units in which the property values are expressed, and for which each certified value is accompanied by an uncertainty at a stated level of confidence, when available and applicable.

### **CRITICAL SUPPLIES AND SERVICES**

Services and supplies that directly affect the quality of analysis.

### **DAILY**

Once per twenty-four hour period.

### **DYNAMIC WEIGHING PROCESS**

A dynamic weighing process involves placing a weighing vessel on a balance, taring the balance, and adding material immediately to the weighing vessel without removing it from the balance.

### **INSTRUMENT WASH**

A solvent that is analyzed on the instrument between casework samples for quality assurance purposes.

### **LEGALLY SIGNIFICANT SUBSTANCE**

A listed compound found either in the Tennessee Drug Control Act of 2011 (TCA Title 39, Section 17, Part 4) or in the rules published by the Commissioner of Mental Health and the Commissioner of Health per TCA § 39-17-403. Controlled substances fall under this definition and are assigned to Schedules I – VII in the TCA.

### **MONTHLY**

Once per calendar month.

### **NONCRITICAL SUPPLIES AND SERVICES**

Services and supplies used in the laboratory that do not affect the quality of analysis.

### **POPULATION**

The TBI FCU defines a population as items that are visually consistent with each other in a single exhibit. Factors that determine visual consistency may include, but are not limited to, size, shape, color, marking(s), imprint(s), and texture.

### **PRIMARY REFERENCE STANDARD**

A primary reference standard is a commercially produced compound that is traceable back to a



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manufacturer and satisfies the criteria for a CRM. Primary reference standards are used for identification and creation of working standards.

#### **PROCEDURAL BLANK**

A solvent or extraction scheme that has been taken through the same analytical process as a unknown sample.

#### **QUARTERLY**

Once per three calendar months.

#### **SECONDARY STANDARD**

A secondary standard is a laboratory produced sample or casework sample that has been compared to a primary reference standard. This type of standard is also known as a Surrogate Reference Material (SRM). Training samples fall under this category.

#### **SOLVENT BLANK**

A blank performed using available solvents that is analyzed prior to running a working standard for a retention time in order to ensure no cross-contamination or carry-over has occurred. This blank differs in that it has not been taken through the same extraction scheme due to the unavailability of the original reagents used to make a working standard.

#### **STATIC WEIGHING PROCESS**

A static weighing process involves removal of the tared weighing vessel, filling with material, and then returning to the balance to obtain the net weight.

#### **TENNESSEE CODE ANNOTATED (TCA) 39.17.4**

Laws and rules that designate the legal status of certain substances within the State of Tennessee. Copies of these laws and rules are available online at LexisNexis and in Ensur.

#### **WEEKLY**

Once per calendar week.

#### **WORKING STANDARD**

A working standard is a dilution or extraction standard created from a primary reference standard for analysis by a particular instrument or method.