

# *Idaho State Police Forensic Services*

## *Approval for Quality System Controlled Documents*



Discipline/Name of Document: Controlled Substances Training Manual  
Introduction and Checklist

Revision Number: 5

Issue Date: 5/22/2009

APPROVED BY: \_\_\_\_\_

Quality Manager

5/22/09  
Date Signed

# Controlled Substances Training Manual

## 1.0 Purpose

The following manual is to be used as a guide in training new Forensic Scientists in the analysis of controlled substances. It may be used in its entirety or for just the sections of interest. Each section is to be used with the corresponding analytical method (AM) found in the ISP Controlled Substances AM manual. Special thanks are given to the Kansas Bureau of Investigations for their permission to use their manual as the basis for this manual.

## 2.0 Procedure

As each subsection is completed both the Forensic Scientist and the trainer will sign and date the checklist. Once all training is complete then the analyst will get a copy of the checklist and the original will go to the QA/QC manager to be kept with the analyst's other training records.

## 3.0 General Laboratory

- 3.1 Safety Manual  
Read and pass test of the safety manual
- 3.2 Quality Manual  
Read and pass test of the quality manual
- 3.3 Evidence Procedures  
Review evidence procedures including, but not limited to, evidence receipt and checkout, proper seals, and the LETS system
- 3.4 Review Balcalso, demonstrate competency of theory and use of the various balances in the laboratory including but not limited to the operation of tare features and the monthly calibration check. Read section 28B, pg 533 through 540, of *Analytical Chemistry, by Skoog/West/Holler, 6<sup>th</sup> edition.*
- 3.5 Review General drug AM.

Date of completion \_\_\_\_\_ Forensic Scientist

Trainer

## 4.0 Testimony Training

- 4.1 **Courtroom Decorum**  
Discuss appropriate eye contact, gestures, voice volume, and approach for visual aides during testimony.  
Describe proper attire for courtroom appearances.
- 4.2 **Admission of Evidence**  
Discuss the ramifications of *Daubert v. Merrell Dow Pharmaceutical and Frye v. United States*.  
Discuss the factors that help assure a scientific testing procedure to be established as reliable.
- 4.3 **Observation**  
Attend an actual trial for observation.

Date of completion \_\_\_\_\_ Forensic Scientist

Trainer

## 5.0 Marijuana

- 5.1 **Background reading**  
To include Idaho Code sections 37-2701 (n)(s) and 37-2707 d(27),  
“Drug Identification Bible, 2002”, Pages 617-665.  
Worksheets and reporting format.  
MJ training.doc  
TLC training.doc

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Trainer

**Sections 5.2, 5.3, 5.4 and 5.5 are used with the Marijuana AM.**

- 5.2 **Physical examination**, AM section 5.0.0  
5.2.1 Microscopic examination of cystolithic and unicellular hairs, seed structure.  
5.2.2 Seed germination, AM section 9.0.0

Date of completion \_\_\_\_\_ Forensic Scientist

Trainer

- 5.3 **Duquenois Levine**

AM section 7.0.0.

Date of completion \_\_\_\_\_ Forensic Scientist

Trainer

5.4 Thin Layer Chromatography (TLC)

5.4.1 Basic theory and AM section 6.0.0

5.4.2 Chloroform and Pet ether/ Ethyl ether systems with fast blue BB

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5.5 Hashish and Pipes

Order of analysis and reporting differences

Date of completion \_\_\_\_\_ Forensic Scientist

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5.6 Competency test

100 % correct analysis of various plant, and other, material.

100 % correct answers on the written test.

The competency tests will be provided by the discipline leader.

Date of completion \_\_\_\_\_ Forensic Scientist

Trainer

5.7 Mock Court  
Purpose, layout and critique.

Date of completion \_\_\_\_\_ Forensic Scientist

Trainer

**6.0 Solid Dosage Drugs**

6.1 Background reading  
The Idaho Code, all of section 37-2700.  
Drug Identification Bible, 2000 version or newer. Applicable sections.

Date of completion \_\_\_\_\_ Forensic Scientist

Trainer

6.2 Gas Chromatograph Mass Spectrometer (GC/MS)

- 6.2.1 Hewlett Packard/Agilent GC/MS tutorial
- 6.2.2 Review of maintenance procedures and schedules
- 6.2.3 Review of documentation and filing system
- 6.2.4 HP/Agilent Chemstation software
- 6.2.5 Review of various temperature programs
- 6.2.6 Read GC training.doc and MS training.doc
- 6.2.7 Review GC/MS AM.
- 6.2.8 Review CTMAMPH training.doc
- 6.2.9 Review Cocaine training.doc

Date of completion \_\_\_\_\_ Forensic Scientist

Trainer

6.3 Fourier Transform Infrared Spectrometer

6.3.1 Nicolet tutorial

6.3.2 Nicolet Omni software

6.3.3 Review maintenance procedures, schedules, and documentation

6.3.4 Spectroscopy training.doc, IR training.doc, and the FTIR AM.

Date of completion \_\_\_\_\_ Forensic Scientist

Trainer

6.4 Chemical color (spot) tests

6.4.1 Review Clarke's Analysis of Drugs and Poisons, 3<sup>rd</sup> edition, vol 1, chapter 19.

6.4.2 Spot tests training.doc

6.4.3 Spot tests of known standards with various reagents.

Date of completion \_\_\_\_\_ Forensic Scientist

Trainer

6.8 Mushrooms

6.8.1 Review Psilocyn/Psilocybin AM.

6.8.2 Review CTMHAL.doc

6.8.3 TLC analysis with T1

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Trainer

6.9 Pills, LSD, and general unknowns

6.9.1 Review references i.e. PDR, Logo, etc. DEA and Idaho code scheduling

6.9.2 Review Extractions.doc, CTMHAL training.doc, LSD AM, General unknown AM.

Date of completion \_\_\_\_\_ Forensic Scientist

Trainer

6.10 Clandestine Laboratory Analysis (common)

6.10.1 Review analytical selection sequence.

6.10.2 Phosphorous AM

6.10.3 Iodine AM

6.10.4 Pseudoephedrine and ephedrine extractions and analytical procedures

6.10.5 Methamphetamine extraction and analysis

Date of completion \_\_\_\_\_ Forensic Scientist

Trainer

6.11 Competency test

100% correct identification of controlled substances from a variety of powders, liquids, and or pills. Results will be attained using all aspects of analysis including at least one result from each instrument capable of producing structural information, i.e. MS and FTIR.

100 % correct answers on written test

The competency tests will be provided by the discipline leader.

Date of completion \_\_\_\_\_ Forensic Scientist

Trainer

6.12 Mock court

Purpose, layout, and critique

Date of completion \_\_\_\_\_ Forensic Scientist

Trainer

## History for ISP Forensic Laboratory Training Manual

<u>Revision #</u>	<u>Issue or review date</u>	<u>History</u>	<u>Author or Reviewer</u>
2	6/4/03	Changed format on all sections	D.C. Sincerbeaux
3	1/13/06	Added 3.4 and changed 5.11	D.C. Sincerbeaux
4	5/9/07	added 3.5, section 4 court testimony, reordered numbering, added written tests to competency's; changed SOP to AM.	
5	5/22/09	Dropped 5.8 and 6.13	D.C. Sincerbeaux

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