

**1. General Introduction:**

All employees will start their first day at DPS headquarters, where they are introduced to the Department, and complete appropriate paperwork. Upon arrival at the laboratory, the Laboratory Director or designee, and appropriate supervisor will introduce the individual to the laboratory and provide a general orientation, to include:

- 1.1 A discussion of the overall operation of the laboratory
- 1.2 The importance of chain of custody in all aspects of laboratory work.
- 1.3 A discussion of the chain of command and the laboratory organization chart, with an explanation of specific positions and reporting relationships.
- 1.4 Confidentiality of case work
- 1.5 What to do if asked by the media about cases
- 1.6 Consequences of not following set guidelines for evidence handling or other laboratory policies
- 1.7 The employee will be issued (and sign for as appropriate) the following:
  - 1.7.1 Laboratory Access magnetic key card coded to the specification of the Laboratory Director
  - 1.7.2 The SOP's for the section in which they are assigned.

**2.0 Safety:** Safety training will be provided by the laboratory Safety Officer, or designee, with an initial laboratory safety walk-through/overview/review provided to any new employee. Method specific training will be provided as individual are trained in the specific disciplines. It is expected that this initial training should take no more than 1 hour, and address issues as noted below:

2.1 Safety Manual: New employees will have access to a copy of the Safety Manual as part of their Training. They will be instructed that they are responsible for the information in the manual, and will be given time throughout their training for reading and review of the manual.

2.2 Location of equipment: New employees will be shown the location and use of:

- A. General Safety Equipment, e.g. emergency showers, eye washes, location of instructions for spill kits.
- B. Hoods
- C. MSDS's

- D. Evacuation routes; gathering areas for drills/emergencies

2.3 Laboratory policy explanations:

- A. lab coats (were appropriate/allowed)
- B. food (where appropriate/allowed)
- C. chemical labeling system
- D. use of PPE (general training)

Note: The employee will sign off that they have been shown the information on the Safety Training worksheet.

3.0 Toxicology Section: This department performs analysis of ethanol, and other volatile materials, drug screening and confirmatory drug testing in biological matrices. Training of new employees may be performed by the section supervisor or their designee.

3.1 Competency: Procedural competency in the Toxicology section will be demonstrated by the successful analysis of control, or proficiency testing materials. Competency is documented on a per-procedure basis as noted in 3.2, below.

3.2 Documentation: following appropriate training and demonstration of procedural competence, the trainer will complete the appropriate training checklist which is then forwarded to the section supervisor for review and sign-off. The training checklist is then forwarded to the Laboratory Director with supporting documentation for similar review/approval. Competency documentation is maintained in the trainees personnel development file.

3.3 Supervisors responsibilities: The section supervisor either performs or oversees the following processes for new employees:

- A. Laboratory Orientation
- B. Assignment of work desk/area
- C. Communicate Section policies
- D. Ensure that the trainee is given adequate time to read appropriate reference materials
- E. Arrange for the trainee to have proper access to, and training on the LIMS system for report writing.

4.0 Procedural Competency: The approach to demonstration of procedural competency is similar for all toxicology procedures. The analyst must prepare a routine batch of samples for analysis, and achieve acceptable batch and control parameters, perform the appropriate level of "analyst batch review," and understand the process of entering approved batch results into the LIMS system. It is anticipated that the analyst will work with their trainer initially while acquiring skills in the toxicology laboratory. Eventually, such an individual may demonstrate their competence in a particular procedure with minimal training required.

4.1. The trainer will introduce the analyst, and/or ensure the analyst is familiar with the method including;

The SOP for the Procedure, including the underlying scientific principles – both for sample preparation, and for instrumental analysis, as applicable.

Evidence retrieval using electronic chain of custody

Procedural calibration, and quality control evaluation

Sample Preparation/extraction/derivitization (as applicable)

Instrument set-up, operation and software

Sequence set-up and initiation

Data evaluation/review

Quality Control/Batch Review

Interpretation of data

Data reporting, including batch preparation, and LIMS report writing

4.2 The Trainer will set up an appropriate series of training exercises, which may include;

Repeat of samples previously analyzed

Analysis of previously utilized PT samples

Literature References;

GC instrument manual

4.3 Competency is shown when the trainee can independently prepare and reanalyze a batch of samples such that all appropriate batch quality control parameters are met, and that previously analyzed, or otherwise known case or PT samples are within an appropriate margin of the initial analysis. (Generally 5% for volatile materials, and 20% with drugs in biological matrices). If the run is acceptable the Laboratory Director with the section supervisor will write a letter of competency based on the batch results. A verbal interview may given by the Laboratory Director and Section supervisor concerning the process, to ensure that the analyst has an appropriate level of understanding of both the

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methodology and instrumentation is optional. If such an interview is performed it will be documented with comments from the Supervisor and Director for the training file.

- 4.4 The Trainer will discuss statutory requirements of the Laboratory for DUI cases. It shall be stressed that Alcohol reports have to be mailed within 24 hours of the final results being known.
- 4.5 The trainee will be instructed in court room testimony. This will whenever possible include moot court based on a laboratory case. Court training will be noted in the individuals training record along with evaluations of the moot court.

### **References;**

Clark's Isolation and Identification of Drugs in pharmaceuticals, body fluids, and post-mortem materials; The Pharmaceutical Society of Great Britain, specifically chapters on GC/MS Instrumental Data for Drug Analysis; 2<sup>nd</sup> edition volumes 1-4, Terry Mills III and J. Conrad Roberson

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Toxicology Section-Training Checklist;

Trainee: \_\_\_\_\_

General for use with New Employees, it is expected that employees transferred to this section

section will have general knowledge of the topics listed in this section. This is to document that the trainee was introduced to the topics listed. There will be no competency examination as a direct result of this basic information.

Topic	Trainee initial	date	Trainer initial	date
General Information				
Maintaining chain of custody				
Evidence storage				
Blue ink/no Pencils on case paperwork				
Forensic corrections				
Laboratory security				
Evidence handling and receipt				
Case assignment through JT				
Electronic transfers through JT				
Verification of agency identifiers				
Handling discrepancies				
Labeling				
Storage of case materials				
Case files and Reports				
Case Reports				
Justice Trax report function				
Components of reports				
Review (draft complete, administrative and technical reviews)				
Standards retrieving and validation				
Retrieving controlled standards				
Retrieving non-controlled standards				
Validation of qualitative standards				
Validation of quantitative standards				

I have reviewed the document and feel that the trainee listed above has a basic knowledge of these topics.

Section Supervisor \_\_\_\_\_ Date \_\_\_\_\_

Form to be filed in the trainees professional development file.

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Toxicology Section-Training Checklist;

Trainee: \_\_\_\_\_

**Basic Drugs Screen Extraction (BDS/WAN) with analyst by GC/MS; Trainer to sign**

and date when they feel they have adequately covered a specific topic; trainee to initial when they feel that they have a basic understanding of the topic

**When signed by the Laboratory Director this document is to serve as a letter of competency for the method stated above.**

Topic	Trainee initial	date	Trainer initial	date
Sample set up				
Sample retrieval and storage				
Sample preparation				
Use of Proper calibrators and controls				
Instrumentation				
GC/MS theory				
Daily maintenance/Set-up				
Software				
Sequence set up				
Sample run program (quantitative)				
Retrieving data				
Data Analysis				
Criteria for run acceptance				
Reporting				
Justice Trax				
Case files				

Competency Batch ID#(s) \_\_\_\_\_ completed and reviewed by section supervisor \_\_\_\_\_ on date \_\_\_\_\_. Review of this batch demonstrates that the trainee has/does not have a basic understanding of the SOP for this method. I recommend / do not recommend this trainee as competent in this method.

Review by Laboratory Director; by signing below I indicate that I have reviewed this document and related materials and feel that the trainee has / has not demonstrated competency in the analysis of biological fluids and other liquids using a Basic Drug Screen extraction with analysis by GC/MS

\_\_\_\_\_  
Laboratory Director\_\_\_\_\_  
Date

Form to be filed in the trainees professional development file.  
Please attach a copy of any relative batch coversheets.

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*Approved by Director: Dr. Guy Vallaro***TX GEN-4**

Toxicology Section-Training Checklist;

Trainee: \_\_\_\_\_

**BENZODIAZEPINE extraction with analysis by GC/MS; Trainer to sign and date when**  
the feel they have adequately covered a specific topic; trainee to initial when they feel  
that they have a basic understanding of the topic

**When signed by the Laboratory Director this document is to serve as a letter of  
competency for the method stated above.**

Topic	Trainee initial	date	Trainer initial	date
Sample set up				
Sample retrieval and storage				
Sample preparation				
Use of Proper calibrators and controls				
Instrumentation				
GC/MS theory				
Daily maintenance/Set-up				
Software				
Sequence set up				
Sample run program (quantitative)				
Retrieving data				
Data Analysis				
Criteria for run acceptance				
Reporting				
Justice Trax				
Case files				

Competency Batch ID#(s) \_\_\_\_\_ completed and reviewed by section  
supervisor \_\_\_\_\_ on date \_\_\_\_\_. Review of this batch  
demonstrates that the trainee has/does not have a basic understanding of the SOP for  
this method. I recommend / do not recommend this trainee as competent in this method.

Review by Laboratory Director; by signing below I indicate that I have reviewed this  
document and related materials and feel that the trainee has / has not demonstrated  
competency in the analysis of biological fluids and other liquids using a Benzodiazepine  
extraction with analysis by GC/MS

\_\_\_\_\_  
Laboratory Director\_\_\_\_\_  
Date

Form to be filed in the trainees professional development file.  
Please attach a copy of any relative batch coversheets.



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Toxicology Section-Training Checklist;

Trainee: \_\_\_\_\_

**Cocaine and Benzoylcegonine analysis by GC/MS; Trainer to sign and date when they feel**  
they have adequately covered a specific topic; trainee to initial when they feel that they  
have a basic understanding of the topic

**When signed by the Laboratory Director this document is to serve as a letter of  
competency for the method stated above.**

Topic	Trainee initial	date	Trainer initial	date
Sample set up				
Sample retrieval and storage				
Sample preparation				
Use of Proper calibrators and controls				
Instrumentation				
GC/MS theory				
Daily maintenance/Set-up				
Software				
Sequence set up				
Sample run program (quantitative)				
Retrieving data				
Data Analysis				
Criteria for run acceptance				
Reporting				
Justice Trax				
Case files				

Competency Batch ID#(s) \_\_\_\_\_ completed and reviewed by section  
supervisor \_\_\_\_\_ on date \_\_\_\_\_. Review of this batch  
demonstrates that the trainee has/does not have a basic understanding of the SOP for  
this method. I recommend / do not recommend this trainee as competent in this method.

Review by Laboratory Director; by signing below I indicate that I have reviewed this  
document and related materials and feel that the trainee has / has not demonstrated  
competency in the analysis of biological fluids and other liquids for Cocaine-  
Benzoylcegonine by GC/MS.

\_\_\_\_\_  
Laboratory Director\_\_\_\_\_  
Date

Form to be filed in the trainees professional development file.  
Please attach a copy of any relative batch coversheets.

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*Approved by Director: Dr. Guy Vallaro***TX GEN 6**

Toxicology Section-Training Checklist;

Trainee: \_\_\_\_\_

**EMIT SCREENING; TRAINER TO SIGN AND DATE WHEN THEY FEEL THEY HAVE ADEQUATELY**

covered a specific topic; trainee to initial when they feel that they have a basic understanding of the topic

**When signed by the Laboratory Director this document is to serve as a letter of competency for the method stated above.**

Topic	Trainee initial	date	Trainer initial	date
Samples set up				
Sample retrieval and storage				
Sample preparation				
Use of proper calibrators and controls				
Instrumentation				
EMIT theory				
Daily maintenance/Set-up				
Software				
Sequence set up				
Sample run program				
Retrieving data				
Data Analysis				
Criteria for batch acceptance				
Reporting				
Justice Trax				
Batch review				
Case files				

Competency Batch ID#(s) \_\_\_\_\_ completed and reviewed by section supervisor \_\_\_\_\_ on date \_\_\_\_\_. Review of this batch including the controls and calibrators demonstrates that the trainee has/does not have a basic understanding of the SOP for this method. I recommend / do not recommend this trainee as competent in this method.

Review by Laboratory Director; by signing below I indicate that I have reviewed this document and related materials and feel that the trainee has / has not demonstrated competency in the use of the EMIT analyzer for the drug screening of biological fluids and other liquids.

\_\_\_\_\_  
Laboratory Director\_\_\_\_\_  
Date

Form to be filed in the trainees professional development file.  
Please attach a copy of any relative batch coversheets.

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Toxicology Section-Training Checklist;

Trainee: \_\_\_\_\_

**Ethanol and Volatiles; Trainer to sign and date when they feel they have adequately**

covered a specific topic; trainee to initial when they feel that they have a basic understanding of the topic

**When signed by the Laboratory Director this document is to serve as a letter of competency for the method stated above.**

Topic	Trainee initial	date	Trainer initial	date
Sample set up				
Sample retrieval and storage				
Sample preparation				
Use of Proper calibrators and controls				
Instrumentation				
GC headspace theory				
Daily maintenance/Set-up				
Software				
Sequence set up				
Sample run program				
Retrieving data				
Data Analysis				
Criteria for batch acceptance				
Reporting				
Justice Trax				
Batch review				
Case files				

Competency Batch ID#(s) \_\_\_\_\_ completed and reviewed by section supervisor \_\_\_\_\_ on date \_\_\_\_\_. Review of this batch demonstrates that the trainee has/does not have a basic understanding of the SOP for this method. I recommend / do not recommend this trainee as competent in this method.

Review by Laboratory Director; by signing below I indicate that I have reviewed this document and related materials and feel that the trainee has / has not demonstrated competency in the analysis of biological fluids and other liquids for ethanol and other volatile substances.

\_\_\_\_\_  
Laboratory Director\_\_\_\_\_  
Date

Form to be filed in the trainees professional development file.  
Please attach a copy of any relative batch coversheets.



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Toxicology Section-Training Checklist;

Trainee: \_\_\_\_\_

**GHB analysis:** Trainer to sign and date when they feel that they have adequately covered a specific topic; trainee to initial when they feel that they have a basic understanding of the topic

**When signed by the Laboratory Director this document is to serve as a letter of competency for the method stated above.**

Topic	Trainee initial	date	Trainer initial	date
Sample set up				
Sample retrieval and storage				
Sample preparation				
Use of Proper calibrators and controls				
Instrumentation				
GC headspace theory				
Daily maintenance/Set-up				
Software				
Sequence set up				
Sample run program				
Retrieving data				
Criteria for batch acceptance				
Data Analysis				
Reporting				
Justice Trax				
Batch review				
Case files				

Competency Batch ID#(s) \_\_\_\_\_ completed and reviewed by section supervisor \_\_\_\_\_ on date \_\_\_\_\_. Review of this batch demonstrates that the trainee has/does not have a basic understanding of the SOP for this method. I recommend / do not recommend this trainee as competent in this method.

Review by Laboratory Director; by signing below I indicate that I have reviewed this document and feel that the trainee has / has not demonstrated competency in the analysis of biological and other liquids for GHB by GC headspace.

\_\_\_\_\_  
Laboratory Director\_\_\_\_\_  
Date

Form to be filed in the trainees professional development file.

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*Approved by Director: Dr. Guy Vallaro***TX GEN-9**

Toxicology Section-Training Checklist;

Trainee: \_\_\_\_\_

**Opioid analysis by GC/MS; Trainer will sign and date when they feel that they have**

adequately covered a specific topic; trainee to initial when they feel that they have a basic understanding of the topic

**When signed by the Laboratory Director this document is to serve as a letter of competency for the method stated above.**

Topic	Trainee initial	date	Trainer initial	date
Sample set up				
Sample retrieval and storage				
Sample preparation				
Use of Proper calibrators and controls				
Instrumentation				
GC/MS theory				
Daily maintenance/Set-up				
Software				
Sequence set up				
Sample run program (quantitative)				
Retrieving data				
Data Analysis				
Criteria for run acceptance				
Reporting				
Justice Trax				
Case files				

Competency Batch ID#(s) \_\_\_\_\_ completed and reviewed by section supervisor \_\_\_\_\_ on date \_\_\_\_\_. Review of this batch demonstrates that the trainee has/does not have a basic understanding of the SOP for this method. I recommend / do not recommend this trainee as competent in this method.

Review by Laboratory Director; by signing below I indicate that I have reviewed this document and related materials and feel that the trainee has / has not demonstrated competency in the analysis of biological fluids and other liquids for opiates by GC/MS.

\_\_\_\_\_  
Laboratory Director\_\_\_\_\_  
Date

Form to be filed in the trainees professional development file.  
Please attach a copy of any relative batch coversheets.



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Toxicology Section-Training Checklist;

Trainee: \_\_\_\_\_

**SMA extraction with analysis by GC/MS; trainer to sign and date when they feel that they have adequately covered a specific topic; trainee to initial when they feel that they have a basic understanding of the topic**

**When signed by the Laboratory Director this document is to serve as a letter of competency for the method stated above.**

Topic	Trainee initial	date	Trainer initial	date
Sample set up				
Sample retrieval and storage				
Sample preparation				
Use of Proper calibrators and controls				
Instrumentation				
GC/MS theory				
Daily maintenance/Set-up				
Software				
Sequence set up				
Sample run program (quantitative)				
Retrieving data				
Data Analysis				
Criteria for run acceptance				
Reporting				
Justice Trax				
Case files				

Competency Batch ID#(s) \_\_\_\_\_ completed and reviewed by section supervisor \_\_\_\_\_ on date \_\_\_\_\_. Review of this batch demonstrates that the trainee has/does not have a basic understanding of the SOP for this method. I recommend / do not recommend this trainee as competent in this method.

Review by Laboratory Director; by signing below I indicate that I have reviewed this document and related materials and feel that the trainee has / has not demonstrated competency in the analysis of biological fluids and other liquids using SMA extraction with analysis by GC/MS

\_\_\_\_\_  
Laboratory Director\_\_\_\_\_  
Date

Form to be filed in the trainees professional development file.  
Please attach a copy of any relative batch coversheets.

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*Approved by Director: Dr. Guy Vallaro***TX GEN-II**

Toxicology Section-Training Checklist;

Trainee: \_\_\_\_\_

**THC analysis by GC/MS; Trainer to date and sign when they feel they have adequately**

covered a specific topic; trainee to initial when they feel that they have a basic understanding of the topic

**When signed by the Laboratory Director this document is to serve as a letter of competency for the method stated above.**

Topic	Trainee initial	date	Trainer initial	date
Sample set up				
Sample retrieval and storage				
Sample preparation				
Use of Proper calibrators and controls				
Instrumentation				
GC/MS theory				
Daily maintenance/Set-up				
Software				
Sequence set up				
Sample run program (quantitative)				
Retrieving data				
Data Analysis				
Criteria for run acceptance				
Reporting				
Justice Trax				
Case files				

Competency Batch ID#(s) \_\_\_\_\_ completed and reviewed by section supervisor \_\_\_\_\_ on date \_\_\_\_\_. Review of this batch demonstrates that the trainee has/does not have a basic understanding of the SOP for this method. I recommend / do not recommend this trainee as competent in this method.

Review by Laboratory Director; by signing below I indicate that I have reviewed this document and related materials and feel that the trainee has / has not demonstrated competency in the analysis of biological fluids and other liquids for THC by GC/MS.

\_\_\_\_\_  
Laboratory Director\_\_\_\_\_  
Date

Form to be filed in the trainees professional development file.  
Please attach a copy of any relative batch coversheet.