# Training Procedure for Drug Chemistry Casefile Reviewer

**1.0 Purpose –** This procedure specifies the required elements to become a case file reviewer in the Drug Chemistry Section.

**2.0 Scope** - This procedure applies to Forensic Scientists in Drug Chemistry at the Raleigh, Triad and Western locations of the State Crime Laboratory. Successful completion of at least 500 cases in the Drug Chemistry Section with no misidentifications and approval from the FSM will be required to begin this module of the Training Program.

## 3.0 Procedure

### 3.1 Objectives

**3.1.1** Review the Laboratory and Section policies and procedures governing evidence handling, Note-taking and report writing.

**3.1.2** Discuss the Lab Wide Procedure for Reviewing Laboratory Reports with the Training Coordinator or his/her designee.

**3.1.3** Discuss the Casefile Review Checklist with the Training Coordinator or his/her designee.

**3.1.4** Successfully complete a practical exercise with a minimum score of 85 %.

**3.1.5** Observe at least two different Forensic Scientists review a total of at least thirty Drug Chemistry case files. (More than two reviewers may be observed and more than thirty case reviews may be observed for this objective.)

**3.1.6** Successfully complete at least ten Drug Chemistry reviews under the direct supervision of the Training Coordinator or his or her designee.

**3.1.7** Successfully complete a written exam with a minimum score of 85 %.

### 3.2 Study Questions

**3.2.1** Who is responsible for ensuring the accuracy of the technical aspects of a case record?

**3.2.2** What are the minimum requirements for the identification of a controlled substance?

**3.2.3** When is a second sample required for confirmation of a controlled substance?

**3.2.4** When is a GC-MS retention time required for confirmation of a controlled substance?

**3.2.5** List at least two important elements to consider when reviewing items worked/not worked in a multi-item, multi-location type case.

**3.2.6** What is required in the FA Case Record when a Forensic Scientist discovers a discrepancy with submitted item(s)?

**3.2.7** What are the five functions of a technical review according to the Procedure for Reviewing Laboratory Reports?

**3.2.8** What is the time difference allowed between two peaks when a retention time match to a standard is required for confirmation?

**3.2.9** How long may a GC-MS standard be used for retention time comparison purposes?

**3.2.10** When is documentation of check weights required in a case record?

**3.2.11** Where can check weights be documented in a case record?

**3.2.12** What items must be reviewed with special care on an amended laboratory report?

**3.2.13** How are handwritten notes documented in the FA system?

**3.2.14** Can pharmaceutical markings be used as a preliminary test on partial tablets when part of the markings are missing, but it is a common preparation seen on a regular basis in casework?

**3.2.15** What is required for microcrystalline tests when they are used as a Category B test (i.e., not in conjunction with a Category A test)?

**3.2.16** When should items be reported as "material containing"?

**3.2.17** What are two drugs that can be modified by the high temperature and pressure of the GC-MS injection port?

**3.2.18** What types of compounds are known to co-elute? Give several examples.

**3.2.19** What types of compounds are volatile in the base form? What must be done during extractions to ensure these type compounds of interest are not lost upon evaporation of solvents?

**3.2.20** Seal status documentation is required for which layer(s) of packaging during note taking?

- (Yes/No) Outer container
- (Yes/No) Middle layers of officer packaging
- (Yes/No) Innermost layer of suspect packaging

### 3.3 Practical/Laboratory Exercises

**3.3.1** The trainee will be given mock casefiles that will include a worksheet, data, CV, and a laboratory report covering various types of cases analyzed in the Drug Chemistry Section. The trainee may use hard copies to complete this task. A typed list of the errors found for each example shall be submitted for grading purposes. Each error will be worth one point. A minimum score of 85 % is required.

## 4.0 References

North Carolina State Crime Laboratory Drug Chemistry Section Technical Procedures
North Carolina State Crime Laboratory Drug Chemistry Section Administrative Procedures
North Carolina State Crime Laboratory Procedure for Reviewing Laboratory Reports

**5.0 Records**

**6.0 Attachments** – n/a

| **Revision History** | | |
|---|---|---|
| Effective Date | Version Number | Reason |
| 01/27/2016 | 1 | Original Document |
| 08/17/2018 | 2 | Fixed numbering<br>Delete study question relating to mailing weights<br>**3.2.18 –** added question about co-elution |
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