Maine State Police Crime Laboratory

Proficiency Testing

1. Scope

This policy outlines the laboratory's proficiency testing program. While proficiency testing is an integral part of an effective quality system, it is not the sole indicator of satisfactory performance. Proficiency testing can never replace the application of standards, controls, and other conventional quality assurance and control techniques. The laboratory will comply with all aspects of the ANAB Proficiency Review Program, including but not limited to meeting proficiency testing requirements, using approved test providers where available, reporting proficiency testing results to ANAB and responding to Proficiency Review Committee inquiries in a timely fashion.

2. Objectives

2.1 The objectives of the laboratory proficiency testing program are:

2.1.1 To verify that the technical procedures used by the laboratory are valid.

2.1.2 To ensure that quality work is being produced by laboratory staff.

2.1.3 To identify areas where additional training would be beneficial.

2.1.4 To demonstrate the current competency of the laboratory.

3. Definitions

3.1 Competency Test: the evaluation of a person's ability to perform work in any functional area prior to the performance of independent casework.

3.2 Functional Area: a major area of casework for which a laboratory may seek accreditation.

3.3 Proficiency Tests: tests to evaluate the competence of scientists/examiners and the quality performance of a laboratory.

4. Frequency of Testing

4.1 Each scientist/examiner within the Crime Laboratory must complete at least one proficiency test annually for each functional area.

4.1.1 Forensic DNA Analysts are required to take two tests annually.

4.2 Each examiner is encouraged to complete one proficiency test in each sub-discipline in which they perform casework. Minimally, each examiner will complete one proficiency test within one calendar year of performing casework analysis and issuing a report in each sub-discipline or at least once every 4-year accreditation cycle, whichever occurs

first. For example, if an examiner conducts gunshot residue analysis and issues a report, a proficiency test must have been completed within the year prior to or the year after the examinations were reported.

4.3   The crime laboratory must participate annually in at least one external proficiency test for each functional area in which it provides services.

   4.3.1 Each Forensic DNA Analyst must participate annually in at least two external proficiency tests from an approved program.

5.   Proficiency Test Ordering

5.1   The crime laboratory will use a proficiency test provider that is ISO 17043 accredited and has the applicable proficiency test on its scope of accreditation. If such a provider is not available, the laboratory will gain approval from ANAB for an alternative means for proficiency testing.

5.2   Each year the Quality Manager will distribute a list of the available proficiency tests. Each Section Supervisor is responsible for selecting the proper numbers and types of tests.

5.3   When funds allow, a separate test will be purchased for each examiner for each sub-discipline annually.

5.4   The Quality Manager is responsible for ordering the tests and ensuring that they are received when needed.

5.5   Each sub-discipline may receive two different tests to take throughout the year. For example:

   •   In Firearms, one examiner takes a Toolmark test in the first half of the year, the other examiner takes a different Toolmark test in the second half of the year.

6.   Proficiency Test Distribution

6.1   Incoming proficiency tests are addressed to the Evidence Receiving Technician or Quality Manager.

6.2   The Evidence Receiving Technician will enter the proficiency test into LIMS with the requisite requests. The test samples will remain in the Incoming Evidence Locker or other appropriate evidence storage location.

6.3   The Evidence Receiving Technician will give the case folders to the Quality Manager to assign.

6.4   The Quality Manager will enter the required information into Paradigm and assign the case in LIMS.

6.5   The Quality Manager will distribute the case folders to the appropriate individuals.

7.   Proficiency Test Responsibilities

7.1   Proficiency tests should be completed according to normal casework protocol, including all typical technical review. In addition, some proficiency tests may require analyses which exceed normal casework expectations.

7.2   The Quality Manager will be responsible for tracking the progress of proficiency tests to ensure that all tests are completed as required.

7.3   The Section Supervisor should notify the Quality Manager if additional tests are necessary. For example, if an examiner needs to take a proficiency test in a sub-discipline where annual proficiency tests are not normally taken.

7.4   All proficiency tests will be completed by the due date. If a proficiency test cannot be completed by the due date, the Section Supervisor will notify the Quality Manager. Acceptable reasons for not completing a proficiency test on time include long term leave, long term training or ongoing equipment issues that prevent the completion of the test. If the examiner does not complete the proficiency test by the due date and does not provide an acceptable reason, the Section Supervisor will initiate a Quality Assurance Report in Paradigm.

7.5   Situations may warrant the Quality Manager to request a deadline extension from the manufacturer. If an extension has been granted and the laboratory returns results by the extension date, then the test is considered completed by the manufacturer's deadline.

7.6   The scientist must allow for enough time for the proficiency test to follow the normal review process.

      7.6.1   If all scientists in a particular discipline / sub-discipline are taking the same proficiency test, all scientists will submit their completed tests to the Quality Manager (or designee) prior to technical review.

7.6.2   Once the Quality Manager (or designee) receives all of the completed tests, the Quality Manager (or designee) will distribute the case folders for technical review.

7.7   Upon completion of technical reviews, all proficiency test folders will be submitted to the Quality Manager for administrative review. Folders should be submitted to the Quality Manager one week prior to the manufacturer's due date.

7.8   The Quality Manager will submit the answer sheets to the proficiency test provider.

7.9   The Quality Manager will hold the proficiency test folders until the results are received from the manufacturer.

8.   Proficiency Test Results

8.1   The Quality Manager will review the manufacturer's information report and compare to the submitted results. If the Quality Manager feels that the manufacturer's report is not consistent with the submitted results, the Quality Manager will consult with the Section Supervisor.

8.2   Upon receipt of the final report and individual results, the Quality Manager will review the results and submit the proficiency test folder to the relevant supervisor for review.

8.3   The case file will then be submitted to the Scientist for review.

8.4   If a test result is determined to be unsatisfactory at any stage of the review process, the Section Supervisor will immediately contact the Quality Manager and Director to discuss the test result. A Quality Assurance Report will be initiated in Paradigm by the Section Supervisor.

8.4.1   If the Section Supervisor and the Quality Manager do not agree as to the satisfactory completion of the test, the Director will be consulted.

9.   Proficiency Test Records

9.1   Proficiency test records must include the following information whether external or internally generated:
- The test set identifier
- Disciplines tested
- How samples were obtained or created
- Expected proficiency test results or consensus results
- Records submitted to an external proficiency test provider

9.2   Proficiency tests records must include the following information as part of the examiner's case notes:
- Identity of the person taking the test
- Date of analysis and completion
- Originals or copies of all data and notes supporting the conclusions (full details of the analyses/examinations undertaken and the results and conclusions obtained)
- Results and / or conclusions

9.3   The proficiency tests will be reviewed by the examiner, supervisor and Quality Manager. The review will be documented in Paradigm. The review documentation will include:
- Evaluation of results and action taken for any discrepancies
- Feedback if applicable
- QAR number, if one is generated