

APPENDIX A

Job Description of the Firearm and Toolmark Examiner Classification

Firearm and Toolmark Examiner

Job Description

The primary job duties of the Firearm and Toolmark Examiner are to identify, collect, preserve, examine, and interpret the physical evidence associated with specific criminal acts. Physical evidence is any tangible entity associated with an event under investigation (crime, accident, lawsuit), the analysis of which stands to associate an individual with the event, establish an element of a crime or tort, corroborate or disprove an alibi, and/or determine the manner in which an event occurred.

The job duties of a Firearm and Toolmark Examiner have been grouped into job duty areas. Descriptions of the activities associated with each job duty area are described below.

Collection of Evidence

A Firearm and Toolmark Examiner may examine crime scenes and articles found there related to a crime to identify the evidentiary value or potential of an item or object as it is encountered in an organized search routine. The Examiner must determine and use the appropriate manipulative skills and tools necessary to select, remove, package, and protect the physical evidence in a manner which best maintains the integrity and evidentiary value of the items.

Preservation of Evidence

A Firearm and Toolmark Examiner performs activities to best preserve physical evidence, including: latent evidence, trace and microscopic evidence, and the crime scene in general. Examiners must mark evidence properly and ensure the chain of custody of all evidence collected is consistent with legal and scientific standards.

Examination of Evidence

The examination of evidence is the process of inspecting and/or testing physical evidence by selecting and performing the appropriate techniques to obtain forensically useful information. This necessitates a knowledge of the historical development of firearm and toolmark identification. Examiners must also prioritize procedures and preserve appropriate samples for any subsequent forensic analysis. Examiners must be knowledgeable about appropriate sample sizes, standards, control mechanisms, and testing conditions for performing various types of evidentiary examination procedures

Laboratory Techniques

Firearm and Toolmark Examiners must be proficient in the use of laboratory instrumentation and how they are used in applying valid scientific procedures to the examination of evidence. Examiners use optical, electronic, measurement, and analytical instruments to process and analyze evidence. Such instruments are often used by Examiners to document, sample, examine, analyze, and/or compare various types of physical evidence. Examiners must possess a thorough understanding of the use and limitations of common types of analytical instruments used to examine firearms, toolmarks, and gunshot residues.

Evaluation and Interpretation of Analytical Results

Firearm and Toolmark Examiners must be able to evaluate and interpret the results of physical evidence evaluations. The Examiner must be knowledgeable about the limitations of any methods and procedures used, and of any limitations imposed by federal or state legislation and/or mandates regarding the condition and submission of evidence. This requires Examiners to possess a knowledge of basic probability, statistics, test significance, completeness, the assessment of accuracy, and scientific methodology. Examiners must be able to explain the supportive (or non-supportive) aspects of findings to prove or disprove proposed hypotheses.

Documentation of Physical Evidence and Analytical Results

Firearm and Toolmark Examiners must thoroughly document the nature of the physical evidence as it was discovered, preserved, and analyzed. Also, Examiners must be proficient at properly documenting their interpretations of test results. Documentation requires the use of written notes, sketches, report writing, and still and video photography. Examiners must possess a reasonable mastery of the English language, including the basic rules of punctuation, spelling, grammar, and composition. Examiners must be able to write about technical scientific materials in a clear and succinct fashion that can be understood by readers who do not possess technical expertise. Examiners may sometimes write papers for publication in professional journals and other publications.

Oral Dissemination of Evidence and Analytical Results

Firearm and Toolmark Examiners must orally communicate, both formally and informally, with laypersons as well as with other scientists. Informal oral communication typically takes the form of conveying examination results and their interpretations to investigators, attorneys, and other forensic practitioners. Examiners also may orally report the results of casework and research findings in formal forums with other scientists.

Safe Work Practices

Firearm and Toolmark Examiners must follow all precautionary procedures and observe safe work practices to ensure the safety of the Examiner and all others. Examiners must be aware of all potential hazards to health and welfare that may exist in both the laboratory and in the field.

Maintaining Knowledge of Scientific Developments and Related Literature

A Firearm and Toolmark Examiner must maintain a knowledge of the current developments and practices in: general criminalistics; their appropriate specialty areas; those areas of science that have a direct bearing on relevant physical evidence concerns; and legal decisions that affect the collection, preservation, and presentation of evidence. Activities associated with this job duty area include: reading professional journals and publications; attending professional conferences; obtaining relevant training; and conversing with other professionals in the field. Examiners should also maintain proficiency through participation (either formally or informally) in quality control or quality assurance programs. Examiners may also conduct ad hoc research as casework needs dictate, as well as engage in general research directed to the development of new scientific knowledge.

Testifying in Legal Proceedings

Firearm and Toolmark Examiners must give oral evidence, under oath, through the process of direct and cross-examination during legal proceedings. This involves the summation or elaboration of the Examiner's written reports and examination notes. Such testimony generally includes an explanation of: the testing procedures used to analyze the evidence being presented in the trial; the equipment and/or reagents used; the examination results; the Examiner's interpretations of the examination results; potential sources for variance or error in the test results, and safeguards taken to present such errors. Examiners must possess a knowledge of general courtroom and legal procedures, especially in the areas of expert testimony and the introduction of evidence. As an expert witness, the Firearm and Toolmark Examiner must demonstrate a professional demeanor. The Examiner must speak in a clear, precise, and understandable manner and be able to describe technical procedures in a manner easily understood by lay persons.

Training

Firearm and Toolmark Examiners assist with the training of criminal justice practitioners (such as investigators and attorneys) in the identification, handling, and interpretation of physical evidence. Journey-level Examiners may also assist in the training of entry-level forensic scientists. Activities associated with training include making oral presentations, developing informal and formal training curriculum, interpreting written scientific materials, and evaluating trainees' work on proficiency tests and casework notes/reports.

Maintaining Professional, Ethical Standards of Conduct

Firearm and Toolmark Examiners must subscribe to a code of ethics. Examiners must conduct an unbiased examination and evaluation of the physical evidence, and render interpretations (both orally and in writing) in a fair and unbiased manner. Examiners must be aware of the potential consequences associated with unethical and/or biased behavior.