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| <b>Firearms and Tool Mark Section</b> | <b>Section 4</b>       |
| <b>Quality Assurance Program</b>      | <b>August 23, 1996</b> |

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| <b>SUBJECT: Control of Equipment, Instruments, Materials, Reagents, Chemicals and Supplies</b> |
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4.1 Procurement

All equipment and instruments will be ordered by the Section SAC or his designee.

4.2 Equipment Inventory Log

An inventory log will be maintained on each piece of equipment in the Firearm and Tool Mark Section.

4.3 Operating Manuals

When provided, operating manuals and warranty information will be filed and maintained in the Firearm and Tool Mark Section.

4.4 Training

Operators of scientific instruments will be knowledgeable in their use. Operator training will occur during the in-house training program and will cover the manufacture's instructions, procedures to be used and any calibration requirements.

4.5 Equipment Maintenance

Anytime a piece of equipment requires service or maintenance it will be documented and that documentation will be maintained in a file until that piece of equipment is surplus or no longer utilized.

4.6 Calibration Logs

Each piece of equipment which needs to be monitored and/or checked for calibration, will be checked on an appropriate schedule. The calibration check will be done using appropriate standards and will be documented on a calibration log kept by the section employee responsible for the calibration of the equipment.

Electronic and/or mechanical balances, calipers/micrometers, trigger pull weights and the Starrett, 12 foot tape measures are the only pieces of equipment issued and used by the

Firearm and Tool Mark Section that require calibration checks.

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Refer to the Firearm And Tool Mark Section Technical Procedures Manual, Equipment Calibration Section..

See Appendix A for appropriate forms

#### 4.7 Materials, Reagents, Chemicals and Supplies

##### 4.7.1 Sources of Materials, Reagents, Chemicals, Supplies and Ammunition

The Section Chemical Officer will maintain a list of commercial sources for all materials, reagents, chemicals and supplies used in the Firearm and Tool Mark Section. This listing will show the catalog number, supplier and required grade if appropriate.

The agent in charge of ammunition will be responsible for maintaining a yearly inventory of all stock ammunition.

##### 4.7.2 Procurement

All orders for materials, reagents, chemicals and supplies will be placed by the Section Chemical Officer and approved by the Section SAC or his designee. Copies of all orders will be maintained for a period of three (3) years.

All orders for ammunition will be placed by the agent in charge of stock ammunition.

##### 4.7.3 Receipt of Chemicals, Supplies, Reagents, Materials and Ammunition

All chemicals, reagents, supplies materials and ammunition will be received into the Firearm and Tool Mark Section by the assigned agent to insure that the shipment is correct.

If the Section Chemical Officer finds that a particular supply, chemical, reagent or material does not meet required quality control standards, they will immediately notify the manufacturer and reject the entire lot. This order is not to go into

inventory for use, but will be returned to the supplier.

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**SUBJECT: Control of Equipment, Instruments, Materials, Reagents, Chemicals and Supplies**

All inventory will be stored under the conditions specified by the manufacturer.

Any substance which requires special handling will be handled appropriately and under conditions specified by the manufacturer.

#### 4.7.4 Material Safety Data (MSD) Sheets

Material Safety Data Sheets for all chemical and reagents will be maintained in the Section Library.

#### 4.7.5 Laboratory Prepared Reagents and Solutions

All laboratory prepared reagents and solutions will be made with great care and using prescribed procedures. Each solution prepared will have the following information recorded on the preparation log: Chemical(s) used, manufacture(s) name and lot number(s), date prepared, volume made, expiration date and the initials of the preparing agent.

All containers used for laboratory prepared reagents and solutions will be clearly labeled as to contents. All reagents and solutions will be stored under the appropriate conditions.

#### 4.7.6 Preparation of Glassware

All glassware will be sterilized and cleaned with the appropriate disinfectant and detergent after each use.

#### 4.7.7 Disposal of Materials, Reagents, Chemicals and Supplies

Disposal of hazardous waste and chemical will be done in accordance to Laboratory Policy.

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| <b>Quality Assurance Program</b>      | <b>August 23, 1996</b>    |

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| <b>SUBJECT:</b> | <b>Appendix A</b> |
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Calibration Forms

## Analytical Balance Calibration Check

Check calibration with 154.32 grain (10 gram) weight (Denver Instrument Co. Ser. # 02-47091-1)

Upper Limit 154.37 grains

Lower Limit 154.27 grains

**Any greater deviation requires recalibration of balance.**

Balance Identification :      Make -                      Serial Number -

| Date | Weight Recorded by Balance | Deviation from Known | Comments | Initials |
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## Analytical Balance Calibration Check

Check calibration with 1000 gram (1 Kg) weight (Denver Instrument Co. Ser. # 02-47091)

Upper Limit 1000.05 grams  
Lower Limit 999.95 grams

**Any greater deviation requires recalibration of balance.**

Balance Identification :      Make -                      Serial Number -

| Date | Weight Recorded by Balance | Deviation from Known | Comments | Initials |
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# ***CALIPER***

## **Calibration Check**

**Lead Caliper Serial Number: 2467**

**Upper Limit: +0.004"**

**Lower Limit: -0.004"**

***Any greater deviation requires removal of caliper from service.***

**Caliper Identification:**

**Caliper Serial Number:**

| <b>Date</b> | <b>Deviation from Known</b> | <b>Comments</b> | <b>Initials</b> |
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# ***MICROMETER***

## **Calibration Check**

**Lead Micrometer Serial Number:** 7498

**Upper Limit:** + 0.004"

**Lower Limit:** - 0.004"

***Any greater deviation requires removal of micrometer from service.***

**Micrometer Identification:**

**Micrometer Serial Number:**

| <b>Date</b> | <b>Deviation<br/>from Known</b> | <b>Comments</b> | <b>Initials</b> |
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# **STARRETT 12 FOOT MEASUREMENT TAPE Calibration Check**

**Lead Measurement Tape Serial #:** 02263797

**Upper Limit:** + 1/16" (revised July 17, 2003)

**Lower Limit:** - 1/16" (revised July 17, 2003)

***Any greater deviation requires removal of measurement tape from service.***

**Measurement Tape Identification:**

**Measurement Tape Serial Number:**

| <b>Date</b> | <b>Deviation<br/>from Known</b> | <b>Comments</b> | <b>Initials</b> |
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**Trigger Pull Weight Calibration Check  
for**

Upper Limit +0.05 pounds

Lower Limit -0.05 pounds

**Any greater deviation requires removal of trigger pull weight from service.**

Balance:

Identification:

| <b>Date</b> | <b>Weight Recorded<br/>by Balance</b> | <b>Deviation from<br/>Known</b> | <b>Comments</b> | <b>Initials</b> |
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