A. Purpose:

To determine the functioning condition of a firearm and to obtain fired ammunition components for microscopic comparison examinations and/or NIBIN entry.

B. Responsibility:

Forensic Science Examiners or other laboratory personnel assigned to the Firearms Unit.

C. Safety:

1. Eye and ear protection shall be worn. Additional PPE may be worn at the analyst's discretion.
2. Test firing must be conducted in a designated safe laboratory area.
3. Firearms may only be loaded in the designated safe laboratory areas.
4. Examiners should refer to FA SOP-02 and SOP-02A for safety guidelines.

D. Procedure:

1. An overall photograph of the firearm with a scale should be taken and included in the documentation.
2. Complete a physical examination of the firearm to determine its operability.
    a. For a brief examination, use QR FA-17 Test Fire Operability Label and complete the Justice Trax Firearms Module (QR-FA-3). This may include cases such as Illegal Possession, Found Property, NIBIN Entry, etc.
    b. When the case scenario indicates that a gun "accidentally" fired, the examiner should use a QR FA-17 and a QR FA-2 Firearms Worksheet.
    c. Two (2) copies of the QR FA-17 label should be generated.
        i. One copy is adhered to the test fire container (a #4 coin envelope or similar)
        ii. The second copy is adhered to a worksheet (QR-FA-2, QR-FA-3 or QR-FA-13) in the case jacket.
3. Select the appropriate caliber and type of ammunition. Evidence ammunition should be used first unless it is not suitable. When determining if the evidence ammunition is suitable, the examiner should make sure that there is no damage, corrosion/rusting or markings on the primer/headstamp that may suggest a reload. If the evidence ammunition is acceptable to use, it will be indicated on the QR FA-17. In the event that the evidence ammunition is not suitable, use the ammunition from the laboratory supply. Consideration should be taken in the choice of ammunition if evidence exists for comparison examinations.

a. The use of evidence ammunition or laboratory supply must be documented in the analyst's notes and indicated in the final report. An example of the statement to be used in the report is "Submission XXX revolver was test fired using ammunition submitted with evidence" or "Submission XXX revolver was test fired using ammunition from the laboratory stock".

4. A minimum of two (2) tests should be fired, unless extenuating circumstances apply. Additional tests may be fired at the discretion of the analyst.
5. Render the firearm safe after test firing.
6. Recover the test fired ammunition components.
   a. Test fires from evidence firearms are placed in the #4 coin envelope with the QR FA-17 Label.
   b. Test fires from destruction firearms are placed in a stamped coin envelope that includes caliber, make, model, serial number, SLFU identifying number, and analyst's name.
7. For evidence firearms, sub-itemize the test fires in JusticeTrax.
   a. Log onto JusticeTrax
   b. Open the appropriate case.
   c. Click on the Evidence tab, then select the appropriate firearm submission.
   d. Right click → Itemize Evidence
      i. JusticeTrax will automatically assign the sub-item the correct, sequential number, such as 001-001.
      ii. Select "Test Fires" under the "Evidence Type" dropdown menu.
      iii. Indicate in the description box that the items are test fires, then click "Apply."
      iv. A barcode label will print out. Adhere the barcode to the test fire container.
8. Test fired specimens are maintained in the appropriate storage location in the Firearms Unit.
9. Upon completion of the examination, return the firearm to its original container. Containers for evidence firearms shall be sealed and initialed appropriately.

   When using <u>ammunition that was submitted as evidence</u> to produce the test-fires, the sub-item description must indicate that the evidence cartridges were used. This is done by adding to the description the item number for the original cartridges. See example below:

When using ammunition that was submitted in the case, the analyst should indicate in the report the number of cartridges originally submitted and the number used to produce the test fires.

If you are using ammunition from laboratory stock, the itemization will be as follows:

Note: In both circumstances, the test-fires will be itemized under the gun sub-item. The firearms module will continue to be done under the submission.

Note 1: For cases in which two (2) or more of the same make/model firearms are submitted (e.g. officer involved shootings), or for cases in which items cannot be differentiated by class characteristics alone, the following procedure should be followed:

1. Only one firearm will be opened and processed at a time.
2. The serial number of the firearm and the lab submission number will be scribed onto the ammunition being test fired (if space permits).
3. The examiner will enter the test fire area with the following:
    a. Firearm to be test fired.
    b. Firearm packaging (evidence box).
    c. The Firearm Worksheet (QR FA-2/FA-17/QR FA-13).
    d. The test fire container.
4. At the time of test firing, a second examiner will verify the above information. This will be documented by initialing the appropriate area on the Firearm Worksheet.

Note 2 (Air Guns):

For this SOP, air guns are treated as firearms and functionality will be determined. Documentation will follow the standard documentation process, including the condition of the CO2 canister if present. The examiner will report the condition of the air gun as received and if a charged CO2 canister was used to make the weapon operable.

Note 3 (PMF):

In the event that the weapon submitted may have been made by a firearms parts kit and does not contain any identifying markings that would have placed by a licensed manufacturer at the time of production, the examiner will enter in Justice-Trax in the manufacturer field "PMF*". The notes should include any names or marks/numbers located on the individual components.

In the report, the following language should be used:

*PMF: privately made firearm (PMF) which is a firearm, including a frame or receiver, assembled or otherwise produced by a person other than a licensed manufacturer, and is without a serial number or other identifying markings placed by a licensed manufacturer at the time that the firearm was produced.

Note 4 (Firearm Components):

If the evidence in a case is composed of firearms components, the firearms module will be completed and "N/A" will be included for missing information.

Special consideration should be applied to components that are interchangeable into PMFs. The information present should be reported out in the Submission Description area.

Note 5 (Conversion Device):

In cases in which a conversion-type device is submitted not attached to a weapon, the conversion device information will be recorded on QR FA-23 (conversion device worksheet). The conversion device should be photographed with close-up images of the "fin" and any markings present. These devices are

usually manufactured from stainless steel or plastic material. The documentation of the length of the blade/fin or disconnector is necessary.

The device will be marked by the examiner with DSS #, item number and examiner initials. The analyst should indicate whether this device is magnetic or non-magnetic in nature if made of metal or if it is made of plastic or other material.

The examiner should find a suitable weapon from a reference firearm collection to determine its functionality. The reference collection number, model and serial number should be indicated on QR FA-23. At the present time, the only types of pistol firearms which accept this type of conversion device are those manufactured by Glock, Polymer 80 and similar PMF types. After installing the conversion device in the appropriate weapon, the examiner should photograph the placement of this conversion device and if the device is seated as flush or protruded.

It should be established that in performing the testing, that an examiner/analyst must be aware that the conversion device/switches regardless of the composition are prone to malfunction and breaking. In the testing, examiners should be prepared for this kind of malfunction and report their findings. The examiner will only fire the minimum number of cartridges from the magazine necessary, in a safe environment to satisfy fully automatic test fire.

Note 6 (Flare Gun)

The operability of a flare gun may be determined by conducting a primer fire. The analyst will use FA SOP-10 (Primed Cartridge) as guidance to remove the load from the ammunition that will be used. The flare gun will determined to be operable if the firing pin of the flare gun strikes the ammunition primer igniting the primer.

E. **Reporting:**

The examiner will indicate in the report if the weapon was operable as received. In the event the weapon is not operable, the report should indicate if the weapon was made operable. The report should indicate any issues that may have been present on the weapon as submitted. If the weapon was determined to be inoperable, the examiner will indicate this in the report.

Below is an example of report wording for conversion devices:

ITEMS SUBMITTED:

Submission 001-001 is one conversion device

RESULTS OF EXAMINATION

Submission 001-001 conversion device was installed onto a Glock 17 Ref # 1240 reference firearm from the reference collection to determine its functionality. Test firing was conducted with the conversion device installed. The weapon with the installed conversion device fired in fully automatic action.

If the conversion device is equipped with a switch, the analyst must report the results of firing in the different positions. If the conversion device did not cause the weapon to fire in fully auto, the examiner will report these findings.

F. References:

1. GL 2 - Safety Manual
2. GL 4 – LIMS
3. FA SOP-02 General Firearms Safety
4. FA SOP-32 Weapons Destruction