A. Purpose:

To outline the procedures to be utilized by the latent print section to ensure that chemicals and reagents are of sufficient quality to produce expected results.

B. Responsibility:

Latent Print Examiners

C. Procedure:

1. Fingerprint development and enhancement chemicals/reagents are commercially purchased through an approved vendor. All chemicals and reagents will be stored and kept in appropriate containers. This will include items that need to be refrigerated or kept under other environmental safe guards.
2. When restocking supply chemicals/reagents, the new chemical/reagent packages will be marked with the initials of the receiving examiner and the date they are received. New stock should be placed behind the older stock. Older chemicals/reagents should always be utilized first unless a manufacturer expiration date has passed. Any expired chemicals/reagents should be discarded.
3. When a chemical/reagent is utilized for the first time, the examiner opening/preparing the chemical or reagent will ensure that the container is properly labeled as to its contents and safety information (NFPA or GHS). In addition, the examiner will place the date opened/prepared and his/her initials on the container. Most chemicals/reagents are purchased premixed or in kits.

   a. Chemicals/reagents that are purchased premixed can be used without additional preparation. The date opened will be the lot number (absent a manufacturer's lot number). The date opened shall be in the following six digit month, day, year sequence: mmddyy i.e. 010115 If there is an expiration date, it will also be placed on the container.

   b. Chemicals (such as Indanedione) purchased as a kit need to be prepared for use. The date prepared will be the lot number and will follow the same month , day, year format as above. If there is an expiration date, it will also be placed on the container. The preparation must be documented on QR-LP3 (Reagent Log Form).
4. Before a chemical/reagent can be used on any item of evidence for latent print processing, a control test impression will be processed to ensure that the chemical/reagent will react as expected.

   a. A control test impression will be developed on the day of use by the examiner that is using the chemical/reagent. Separate cases shall require separate test impressions. The examiner will create a test impression using a substrate (i.e. porous, non-porous, adhesive, etc.) capable of retaining a test impression and reacting with the chemical/reagent that is going to be used in the case at hand. The examiner will place an impression on the substrate using a Latent Print Reference or Standard pad to ensure that a proper matrix has been deposited. The chemical is then applied as required.

b. An acceptable result is the development of a latent print with definitive contrast against the background. The examiner will photograph the test impression, and will document the results and the chemical/reagent's lot number on the processing worksheet. The digital image file of the control test impression will be made part of the case file.

This process of conducting a test impression must be done for each case, when the examiner uses chemicals/reagents.

c. An unacceptable result is when there is no development of an impression. The chemical/reagent that didn't produce an acceptable result shall be discarded. The examiner will document the unacceptable result in a log book and indicate that the chemical was discarded. The examiner will then repeat the process with a new lot of the chemical/reagent. If the new lot does not produce an acceptable result, the Unit Lead or Deputy Director will be notified.

d. The only exception to the preceding shall be cyanoacrylate (superglue). The control test impression will be run simultaneously as the processing of evidence.

If the control test impression is acceptable (development of an impression), a photograph of the control test impression will be taken and made part of the case file. If the control test impression is not acceptable (no development of an impression) and there is no development on the evidence, a new batch of cyanoacrylate (superglue) will be used and processing of the control test impression will be repeated. If the control test impression is not acceptable, but there is development on the evidence the Unit Lead or Deputy Director will be contacted to determine the next step.

5. Controls should be re-run by an examiner if one of the following occurs:
   a. Examiner is processing an item of evidence with cyanoacrylate and begins using a different chamber from the original control test impression.
   b. If it has been noted that a chemical was improperly stored or possibly compromised between use on the same day in between testing of items in that examiner's case.
   c. The original chemical has run out and a new lot/bottle needs to be used.
   d. The cyanoacrylate processing bottle was refilled from the stock bottle during the same day.

6. Latent Print Development powders are not considered chemicals/reagents by the Latent Print Unit. Quality Control for powders consists of minimizing contamination and exposure to moisture. An amount of powder should be removed from the stock or working container for each use. Powder removed for use should NEVER be added back to a container. Excessive moisture may cause clumping of the powder. Do not expose powders to high humidity or moisture. Keep all containers closed as much as possible.

The date the original stock container is opened shall become the lot number of the powder. The lot number will be in the following six digit month, day, year format: mmddyy (i.e. 010115). Smaller working containers of powder may be made from the stock container. Any working container will be labelled with the name and lot number of the stock container. Lot numbers of powders do not

need to be recorded because they are not considered chemicals/reagents. The shelf life of development powders is indeterminable; however, if clumping of the powder is observed, it shall be discarded.