Forensic Biology Section

Receiving and Stocking Supplies

1. Scope

1.1. The ordering, stocking, and storing of consumables, chemicals and kits in the laboratory is a critical step in ensuring the reliability of DNA analysis results. Since the quality of an analysis is dependent on the quality of the kits and reagents, the proper ordering, preparation, labeling, and storage of supplies is very important.

2. Safety

2.1. The "Safety" section of each method should list any hazardous chemicals that are used.

3. Restocking from ~~Third Bay~~Supply Room

3.1. Lab-wide supplies are stored in the ~~third garage bay~~supply area near Evidence Recieving. If a supply is replenished from the supply area~~third bay~~, a sign in the DNA laboratory storage location will specify the level at which more stock will need to be retrieved from the ~~third bay~~supply area.

3.2. A Kanban card should be located with (or near) items stored in the ~~third bay~~supply area. When a defined level of stock is reached, the card is brought to the designated scientist that is responsible for supplies stored in the ~~third bay~~supply area.

4. Ordering

4.1. For any supply ordered by the Forensic Biology Section, a Kanban card containing the reordering information is located with (or near) that item.

4.2. When the stock in the lab reaches a defined level, the Kanban card is brought to the scientist responsible for the Forensic Biology Section orders.

4.3. The supplier and item numbers specified on the Kanban card should be kept up to date.

5. Receiving Consumables

5.1. When consumables (tips, tubes, etc.) are received, the accuracy of the shipment should be confirmed against the purchase order or the Kanban card.

5.2. Consumables are not entered in any log, but the date the item is received should be written on the box/item.

6. Receiving Reagents

6.1. When reagents are received, the accuracy of the shipment should be confirmed against the purchase order or the Kanban card.

6.2. Reagents need to be logged into the Chemical Receipt log. Record the chemical's name, the company that supplied the item, the manufacturer's lot # (if any), the manufacturer's expiration date (if any), and the initials and date of the person entering the item into the log. [see below for details on expiration dates]

6.3. The receipt date and expiration date (if any) should be written on the bottle/container.

6.4. If there is no expiration date, write "no expiration" on the bottle or container.

6.5. The reagents should be stored in the location specified on the Kanban card under the conditions specified by the manufacturer.

7. Receiving Kits

7.1. When DNA extraction kits (QIAGEN QIAamp columns) and DNA profiling kits (PowerPlex Fusion and Y23) are received, the accuracy of the shipment should be confirmed against the purchase order or the Kanban card.

7.2. The kits should be logged into the Promega Kits log or the QIAGEN QIAamp Kit log. Record the initials and date of the person entering them into the log, the MSP lot #, the manufacturer's kit lot #, the expiration date, and the lot #'s of the kit components.

7.3. The DNA profiling kits need to be opened and separated into "pre-PCR" and "post-PCR" storage areas. If the kits cannot be separated immediately, the unopened kits should be stored in the PCR Setup Refrigerator-Freezer until they can be broken down into Pre- and Post-PCR sets.

7.4. The DNA extraction kits need to be opened and separated into Columns (stored in refrigerator) and Reagents (stored in dark room). If they cannot be separated immediately, the unopened kits should be stored in a refrigerator until they can be broken down.

7.5. DNA profiling kits and DNA extraction kits need to marked with Maine State Police Crime Lab Lot numbers. For a given manufacturer lot #, an internal MSP Lot # is written on all the internal components. The MSP Lot is marked as "not for use" until they have passed an internal QC Check. See relevant "Quality Control" protocols for specific kits.

8. Expiration Dates

8.1. If a manufacturer specifies an expiration date, that date will be used for the reagent, with some exceptions listed below.

8.2. The following reagents will be considered "no expiration" until they are aliquoted:

- bottled molecular biology grade water (aliquots expire in 1 year).
- 5 gallon/ 20-liter carboy of deionized/distilled water (aliquots expire in 1 year).
- Hi-Di formamide (aliquots expire in 1 year).
- DPX mounting media (does not expire – replace when media dries out).

8.3. When a reagent that doesn't expire is aliquoted into smaller amounts for storage, the aliquots are marked as expiring 1-year from the date the aliquot is made.

8.4. Besides the reagents listed above, if a manufacturer does not specify an expiration date on a reagent, an expiration date will be assigned:

- "Wet" or liquid reagents will be marked with an expiration date 1-year from the date of receipt.

- "Dry" or powdered reagents will be marked with an expiration date 3-years from the date of receipt.

8.5. Solutions made from various reagents will be marked with an expiration date 1-year from the date the solution is made, regardless of the individual expiration dates of any ingredients in the solution (if they are not expired when the solution is made).

9. Re-certifying Expired Reagents

9.1. If a reagent reaches its expiration date, it can be used after the expiration date if it is performance tested and shown to be appropriate for use.

9.2. Testing should be performed on standards or mock samples of known quality or quantity (preferably like the samples originally used for quality control testing).

9.3. If the new test results are consistent with the original tests, the reagents are considered re-certified for an additional 6 months and should be labeled with the new expiration date.