Biosafety Cabinet:
Operation and Quality Control

Version:

Adopted:

Prepared by:

Approved by:

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1. PRINCIPLE

1.1. Laminar flow Class II, Type A 3/B biosafety cabinets are used to process infectious material in the Gilman AIDS Research Laboratory, Biosafety Level 3 (BL-3).

1.2. When used properly, these cabinets protect both the operator and the specimens from contamination.

1.3. Routine quality control monitoring, cleaning and maintenance ensures the performance of this equipment and the safety of the operator.

2. STANDARD/CONTROL

2.1. Each day of use, the operator should monitor the manometer reading, to verify that an adequate airflow is present in the hood. This ensures protection for the operator at the work window and a clean air environment for the specimens in the cabinet.

2.2. The manometer should read within 0.1 inches of water of the value specified at certification. Service and re-certification is indicated if the manometer indicates a change in airflow outside of this range. Do not use the hood if the reading is out of range. Post a warning sign and arrange for service. Use another hood as available.

3. REAGENTS AND EQUIPMENT

3.1. Nuaire Class II Type A/3B Biosafety Cabinet

3.2. Disinfectants: 10% bleach, 70% ethanol or equivalent

3.3. Gauze or other material used to wipe the cabinet

4. PROCEDURE

4.1. Operation and daily QC:

4.1.1. Refer to the Gilman AIDS Research Laboratory Policy and Procedure Manual for general operating guidelines. Clean the cabinet daily, before beginning and after finishing work.

4.1.2. Before beginning work, record the manometer reading and take action when appropriate.

4.2. Periodic maintenance of the cabinet: paper trap, cabinet floor, vacuum lines

4.2.1. Periodically inspect the floor of the cabinet under the work tray and clean as needed. Disinfect and remove all materials from the hood. Shut down the blower and remove the work tray and grate. Clean these items and the floor of the hood with 10% bleach followed by 70% ethanol to prevent corrosion and pitting of the stainless steel surface.

4.2.2. Inspect the paper trap at the back of the cabinet and clean as required.

4.2.3. Inspect the vacuum line, traps and in-line filters. Clean, repair or replace as needed.

4.3. Certification:

4.3.1. The Division of Infectious Diseases is responsible for the re-certification of the biosafety cabinets in the BL-3 laboratory. This is performed by and outside vendor every 12 months.

4.3.2. A biosafety cabinet should be re-certified every time it is moved.

5. REFERENCES

5.1. Gilman AIDS Research Laboratories Policy and Procedure Manual.

5.2. Nuaire Operator's Manual.

6. ATTACHMENTS

6.1. Biosafety Cabinet Quality Control Log