

# Appendix A

## BSC SOP/Checklist/Training Quiz

### General information

- BSC used for bacteria, viruses, or potentially infectious substances
- Primary barrier especially to reduce exposure to infectious aerosols and respiratory transmission of infectious agents
- Required for BSL2 work/aerosol generating activities of RG2 agents or higher
- BSC certified annually, when moved, or malfunction/repair occurs, ANSI/NSF STD. 49
- BSC should not be placed near doors fume hoods, windows, ductwork. etc.
- Only one person should use the BSC at any given time
- Avoid rapid movements in and out of BSC

### Types of BSCs and Usage

- Class II A2 (Class II Type A/B3) air in from sash, HEPA, exhaust into room, limit chemicals test tube quantities
- Class II B1 air in from sash, HEPA, 30% recirculated, 70% ducted, small volumes of chemicals
- Class II B2 air from above unit/outside fully ducted, but **not** a chemical hood
- UV light use requires eye/skin protection and a closed sash.
- Do **not** use open flames in BSC

### Operation of BSC

1. Turn blower on unit and run 5-10 minutes prior to use to stabilize and purge
2. Assure sash is in the proper position (check with alarm)
3. Be sure certification is current
4. Check magnehelic meter with current certification + or – 10%
5. Purge for 2 minutes after use.
6. Never use if in alarm mode

### Procedures

1. Proper PPE with gloves, lab coat, eye protection
2. Disinfect inside of hood with adequate contact time
3. Rinse with sterile water or 70% ethanol if bleach disinfectant is used
4. Use good aseptic technique/avoid generation of aerosols
5. Plan your work, disinfect materials before placing in BSC
6. Avoid tall and bulky items, minimal amounts of materials in BSC
7. Designate a clean area, work area, and contaminated area and work clean to dirty.
8. Slow and deliberate movements. Move arms straight in and out
9. Do not block grates, work 4-6" back from grate in center of surface
10. Bag and secure waste inside BSC before disposal outside of BSC
11. Leave BSC blower on if a spill occurs, cover with absorbent, add disinfectant, 15-30 minute contact, wipe area, discard outside gloves
12. Disinfect items as removed
13. Disinfect the cabinet, discard PPE
14. Wash hands and forearms with antibacterial soap

**Training Exam- Biological Safety Cabinet (BSC) True or False**

1. Use of the BSC can begin as soon as the blower is turned on. T or F
2. You should move slowly and deliberately while working in the BSC. T or F
3. Aseptic technique is not needed in the BSC. T or F
4. The interior of the BSC should be disinfected before and after use. T or F
5. The operation of the BSC is improved if placed near a doorway. T or F
6. The BSC is a primary barrier for aerosolized potentially infectious materials. T or F
7. It is best to place commonly used supplies on the grate for easy access. T or F
8. Using large volumes of flammables is okay in a Class II B2 BSC T or F
9. If you spill a pathogen in a BSC, immediately shut off the blower. T or F
10. The BSC requires certification annually. T or F

Sign\_\_\_\_\_ Print\_\_\_\_\_ Date\_\_\_\_\_