SOP: Labconco Purifier Class 2 Biological Safety Cabinet (BSC) Operation

Approvals:
Preparer: Jason McMillan  
Date: 17JAN14
Reviewer: Dr. Margaret Bryans  
Date: 18JAN14

1. Purpose:
   1.1. Operation of the Biological Safety Cabinet (BSC).

2. Scope:
   2.1. Applies to the use of the BSC for maintaining a sterile environment for media preparation, culture inoculation and culture sampling.

3. Responsibilities:
   3.1. It is the responsibility of the course instructor/lab assistant to ensure that this SOP is performed as described and to update the procedure when necessary.
   3.2. It is the responsibility of the students/technicians to follow the SOP as described and to inform the instructor about any deviations or problems that may occur while performing the procedure.

4. References:

5. Definitions: N/A

6. Precautions:
   6.1. UV Light is damaging to eyes and skin. Avoid exposure.

7. Materials:
   7.1. 70% Isopropanol (IPA) in spray bottle
   7.2. lab towels
   7.3. lab coat
   7.4. gloves

8. Procedure:
   8.1. UV Decontamination – Performed for initial use of the day
      8.1.1. Put on gloves and lab coat.
      8.1.2. Open sash slightly and immediately turn on blower.
      8.1.3. Spray and wipe down the stainless steel work surfaces of the BSC with 70% IPA.
      8.1.4. With gloved hands, spray all necessary materials not affected by UV with 70% IPA and place in BSC.
      8.1.5. Close the sash, turn off the blower, and turn on the UV light. This switch is located on the control panel. Refer to Figure 1.
      8.1.6. Leave the UV light on for at least 15 minutes.
      8.1.7. Place a biohazard waste receptacle adjacent to the cabinet.
      8.1.8. Once the appropriate time has elapsed, turn off the UV light.
      8.1.9. Turn on the visible light. This is located on the control panel.
      8.1.10. Turn on the receptacle power.
      8.1.11. Open the sash slightly, and immediately turn on the blower.
      8.1.12. After blower is on, raise the sash to the safe operating level indicated by a red dot on the left side of the cabinet.
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Note: The alarm will sound if the sash is raised above this level.

8.2. Operation

8.2.1. Replace gloves with new ones.
8.2.2. Spray down hands with 70% IPA prior to entering the BSC.
   Note: Allow 30 seconds for the 70% IPA to dry. This ensures disinfection.
8.2.3. Spray all necessary equipment that needs to go into the BSC with 70% IPA, and allow to dry for 30 seconds.
8.2.4. Place all necessary equipment inside of the BSC.
8.2.5. Perform protocol while working in center of the work surface.
   Note: Do not block the intake grills. This ensures proper airflow. Refer to Figure 3.
8.2.6. Once the protocol is completed, remove all equipment from the BSC.
8.2.7. Place any disposable materials that have contacted any cellular organism into the biohazard waste receptacle.
8.2.8. Spray down the stainless steel work surfaces with 70% IPA. Allow 30 seconds for the IPA to dry, then wipe down stainless steel work surfaces with a lab towel. Spray down the work surfaces once more, but allow the IPA to dry without wiping.
8.2.9. Dispose lab towels used to clean BSC into the biohazard waste receptacle.
8.2.10. Turn off the BSC.

9. Attachments:
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Figure 1: Biological Safety Cabinet Control Panel

Figure 2: Biological Safety Cabinet
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Figure 2: Biological Safety Cabinet Components

Figure 3: Air Flow Diagram

10. History:

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<th>Revision Number</th>
<th>Effective Date</th>
<th>Preparer</th>
<th>Description of Change</th>
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<td>0</td>
<td>17JAN14</td>
<td>Jason McMillan</td>
<td>Initial release</td>
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