

Replacing UV Light Tubes in Biological Safety Cabinets

Ultraviolet lights are a common accessory in Biological Safety Cabinets (BSCs). They are used in conjunction with established laboratory decontamination practices to provide a sterile work area within the BSC. UV lights are never intended to replace routine disinfection of the BSC interior surfaces.

UV bulbs need to be replaced periodically as over time they lose their effectiveness. This procedure has been developed to safely guide facilities personnel when changing UV bulbs in BSC's.



Note: Biological Safety Cabinets (BSCs) should not be confused with Chemical fume hoods. Refer to the separate procedure for maintenance of lighting equipment in Chemical Fume Hoods.

Step 1: Notifications

- A. If the Building Facility Operations provides the service of changing out UV bulbs in BSC, lab personnel should notify the appropriate contact to request this repair.
- B. Facilities personnel should notify lab occupants in advance of the date and time that the UV bulb will be replaced to allow sufficient time for lab occupants to prepare the BSC for appropriate access to perform this work.

Step 2: BSC Preparation by Laboratory Personnel

- All materials and equipment need to be removed from the BSC prior to service.
- The cabinet interior must be disinfected using 70% ethanol or other appropriate disinfectants.
- All BL-2 materials must be placed into storage before facilities personnel can enter the lab.
- If radioactive materials are used in the BSC, a contamination survey must be performed. Any fixed contamination identified must be securely covered and shielded to background levels.

Step 3: Facilities Personnel Preparation and Work Practices

- Confirm that all materials and equipment have been removed from the BSC, and that the BSC has been disinfected.
- Ensure that the UV light is shut off before entering the interior of the BSC.
- Cover the work area with a drop cloth. Pay special attention to cover areas upon which you may need to sit or lean against.
- Wear the recommended protective apparel of safety glasses and nitrile gloves.
- Wash hands after completing services.
- Note that UV bulbs are required to be disposed of as universal waste.
- Note that electrical equipment (i.e., ballast) that supports the UV light fixture is designed to be in a compartment that is external to potentially contaminated sections of the BSC (separate from the airflow /HEPA filtration system). **“ Only qualified service personnel are allowed to work in these potentially contaminated areas of the BSC.”** Call the EHS Biosafety Office at **(617) 495-2060** with any questions.