Facility requirements for tissue culture rooms at the University of Kentucky Approved by the Institutional Biosafety Committee on May 12, 2010

Requirements for tissue culture rooms:

1. Air shall flow from the hallway to the inner lab (negative to the hallway). All room air shall be exhausted through ducts to the outside of the building and not recirculated within the building. Room air which is exhausted to a common plenum is **NOT** acceptable.

2. The number of BSCs, the amount of space within the BSC and amount of room space provided is required to accommodate all of the tissue culture and viral vector work. This is for the protection of the research materials and for the protection of the researchers and facility.

3. The BSCs may be recirculating models (Class II, A2) or thimble ducted or hard ducted
    a. BSCs shall be installed such that:
        i. Fluctuations of the room air supply and exhaust do not interfere with proper operations
        ii. Manufacturers' guidelines are followed
        iii. They can be certified follow the National Sanitary Foundation (NSF) criteria
    b. BSCs shall be certified on an annual basis by a vendor who meets the requirements of the Biological Safety Department, follows NSF criteria, and is on contract with UK
        i. Coordination of this certification is through the Biological Safety Department
        ii. Payment for this service is the responsibility of the Principal Investigator or Department

4. Rooms housing any BSC shall be configured to allow storage of supplies and equipment used with the biohazardous materials. Typical equipment in these rooms includes: incubators, centrifuges, microscopes, CO_2 tanks, vacuum source, refrigerators.

5. A hand washing sink with eyewash shall be present in the tissue culture room facility. The eyewash may be "drench hose" if approved by UK Occupational Health and Safety Department. An exemption from the eyewash requirement may be granted by the Biological Safety Officer if the risk assessment of the proposed research warrants it.

6. There must be restricted entry to the outer laboratory, which is locked when no one is present.

7. All surfaces must be easily cleaned and decontaminated. Room casework shall be easily cleanable, and finishes should be compatible with materials used for cleaning and disinfection. Chairs must be covered with a non-porous material. Rugs or carpets are not permitted.

8. Vacuum lines shall be protected with High Efficiency Particulate Air (HEPA) filters or their equivalent. This applies to central vacuum systems and to individual vacuum pumps.

9. Open flames **SHALL NOT** be used in BSCs. Therefore, gas lines SHALL NOT be connected to BSCs.

10. A functioning and validated autoclave enrolled in the UK Autoclave Verification program shall be available within a reasonable distance of the facilities creating the biohazardous waste.
    a. IBC approved procedures for transport shall be followed when unprocessed waste carried through public hallways and elevators.

11. Tissue culture rooms which will contain research deemed by the IBC to be BSL2+ (enhanced) shall be in an inner lab, with two doors between the BSC and the hallway.

12. Appropriate signage shall be displayed on the door of the main laboratory and of the tissue culture room.

Reference:

Biosafety in Microbiological and Biomedical Laboratories, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Institutes of Health, http://www.cdc.gov/od/ohs/biosfty/bmbl5/bmbl5toc.htm