# **Appendix A**

# Biological Safety Cabinet (BSC) Placement Requirements for New Buildings and Renovations

#### Farhad Memarzadeh, Ph.D., P.E.

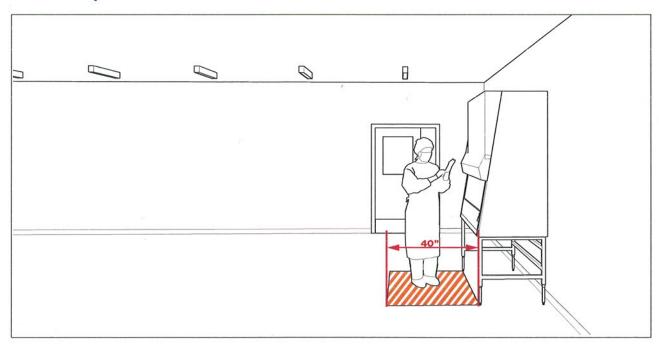
Division of Technical Resourses
Office of Research Facilities
National Institutes of Health

#### References:

Microbiological Safety Cabinets: Recommendations for Cabinet Installation. British Standards Institution, BS 5726:2005.

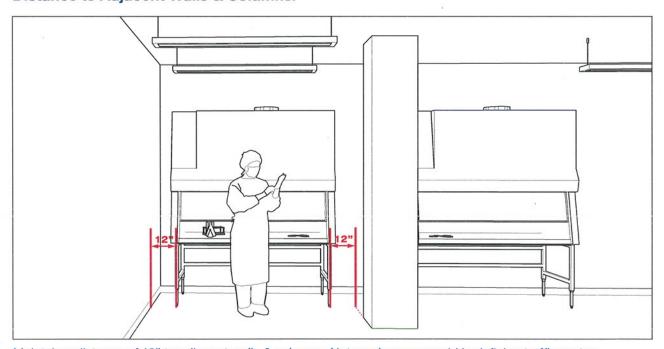
Methodology for Optimization of Laboratory Hood Containment. Memarzadeh, F. National Institutes of Health, 1996.

### **BSC Workspace:**



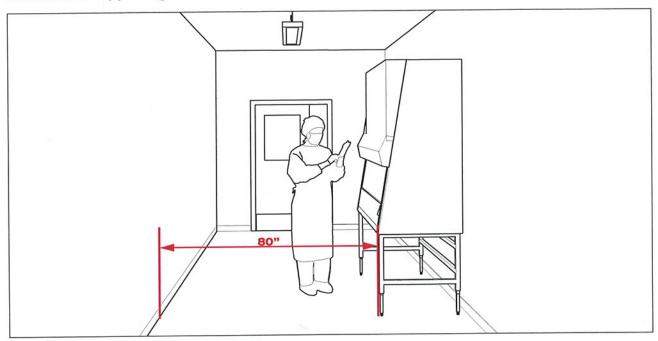
Maintain an undisturbed space of 40" around the BSC.

### Distance to Adjacent Walls & Columns:



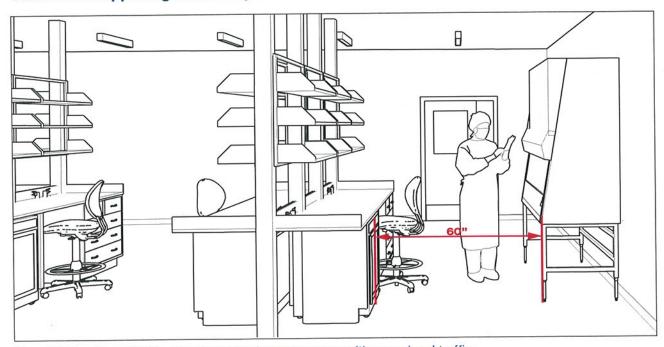
Maintain a distance of 12" to adjacent walls & columns. Note: columns can aid in defining traffic routes.

## **Distance to Opposing Walls:**



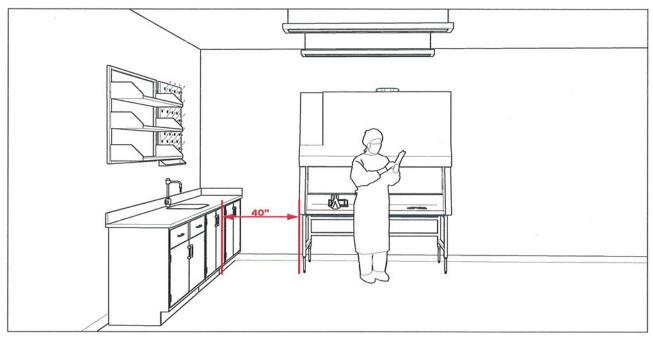
Place BSCs at least 80" from opposing walls.

# **Distance to Opposing Bench Tops:**



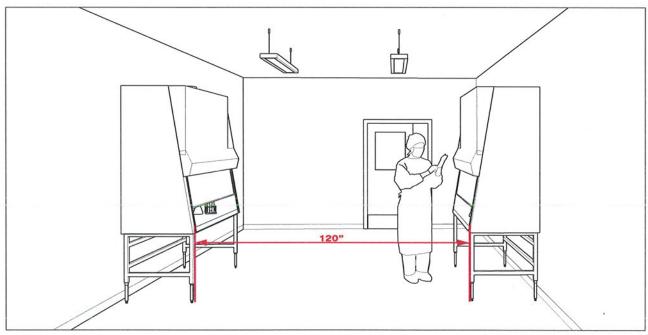
Place BSCs at least 60" to opposing bench tops or areas with occasional traffic.

### **Distance to Adjacent Bench Tops:**



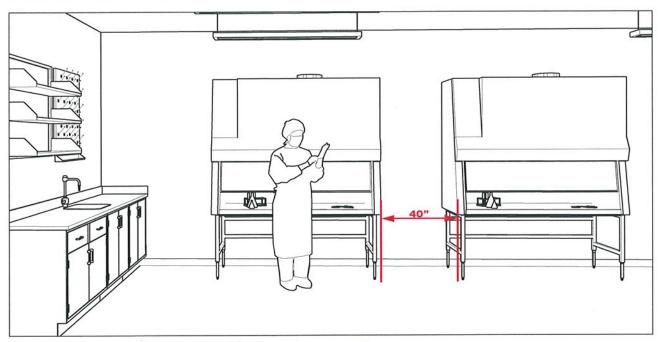
Maintain a distance of 40" between BSC and bench tops along a perpendicular wall.

### **BSC Placement Along Opposing Walls:**



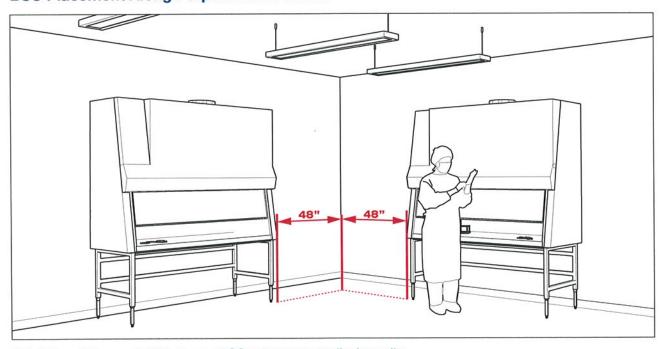
Maintain a distance of 120" between BSCs on opposing walls.

### **BSC Placement Along the Same Wall:**



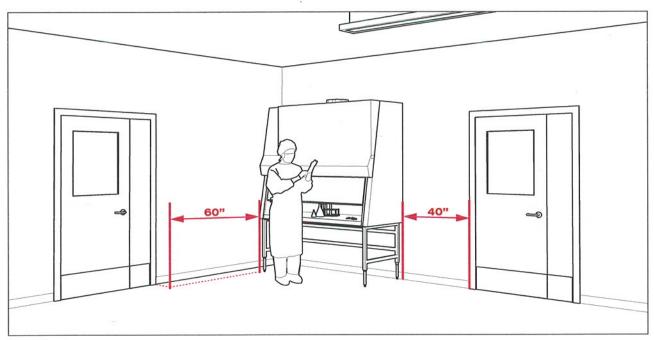
Maintain a distance of 40" between BSCs along the same wall.

# **BSC Placement Along Perpendicular Walls:**



Maintain a distance of 48" between BSCs along perpendicular walls.

#### **BSC Placement Near Doorways:**



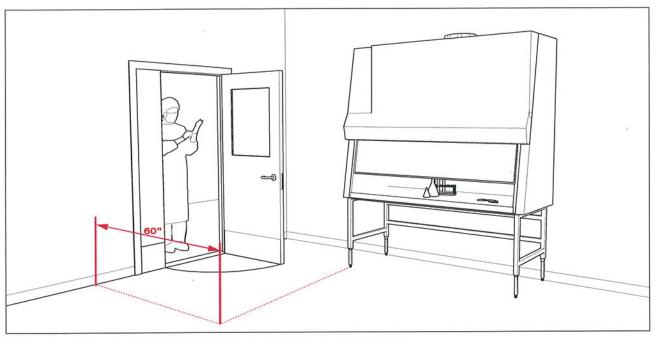
Placing BSCs near doorways is not recommended. If this arrangement is absolutely necessary maintain a distance of 40" to adjacent doorways and 60" to doorways behind the BSC.

#### **BSC & Bench Placement:**



Do not crowd bench tops and BSCs. Too much traffic produces dangerous disturbances to BSC airflow.

### **BSC Distance from Entry:**



Maintain a distance of at least 60" from entry into lab modules to BSC.