

TECHNICAL BULLETIN GENERAL INFORMATION



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Biological Safety Cabinet Movement and Recertification

Field certification of Biological Safety Cabinets (BSC's) is regulated by the NSF/ANSI 49:2007 Standard, Class II (Laminar Flow) Bio-Safety Cabinetry, Annex F Field Tests. Section F.1, Field Certification Preconditions and Intervals, discusses when it is necessary to certify BSC's. In the second paragraph it states,

“To assure that all cabinet operating criteria in the annex continue to be met, each cabinet should be field tested at the time of installation and at least annually thereafter. In addition, recertification should be performed whenever HEPA filters are changed, maintenance repairs are made to internal parts, or a cabinet is relocated. More frequent recertification should be considered for particularly hazardous or critical applications or workloads. It is customary for the person conducting the designated tests to affix to the cabinet a certificate of satisfactory performance when it meets all field test criteria.”

On this same topic, the CDC/NIH guideline document Bio-Safety in Microbiological and Biomedical Laboratories (BMBL), 5th Edition, Appendix A, Section VII, Certification of BSC's, states,

“The operational integrity of a BSC must be validated before it is placed into service and after it has been repaired or relocated. Relocation may break the HEPA filter seals or otherwise damage the filters or the cabinet. Each BSC should be tested and certified at least annually to ensure continued, proper operation.”

Both of the above references use the term “Relocated” as the measure of requiring recertification. Vertical up and down BSC movement on a motorized basestand is not relocation as intended by either of these documents. The height adjustment up and down movement does not cause the vibration necessary to harm or breach the integrity of the HEPA filters. The height adjustment up and down movement is a very slow and smooth movement typical driven by a hydraulic system. If the height adjustment is used in conjunction with an exhausted BSC (i.e. type B1/B2 or canopy connected type A2), the site assessment certification test should include airflow verification through out the range of motion. The duct connection itself should be made with flexible PVC duct material.

NuAire has been offering both electric and hydraulic adjustable basestands for well over 10 years with no reported issues of HEPA filter leaks during routine field certification. The use of height adjustment for BSC's has many proven ergonomic benefits to aid in reducing workplace injuries. The NIOSH Report, HEPA 95-0294-2594 from the National Cancer Institute specifically recommends the use of adjustability of height on BSC's as an engineering control to reduce Cumulative Trauma Disorders (CTD's). Height adjustment allows the individual researcher to set the BSC height to an optimal position for maximum ergonomic benefit.

If further questions arise regarding this topic, please contact Nuaire technical service.