THE UNIVERSITY OF TENNESSEE HEALTH SCIENCE CENTER

Office of Research Safety Affairs

What to Expect When Having Your Biological Safety Cabinet Field Certified

Biological safety cabinets, or tissue culture hoods, are designed to provide researchers with protection from exposure to biohazardous material and to provide a contaminant free work surface where sensitive materials can be handled. The UTHSC Institutional Biosafety Committee (IBC) requires that BSCs used for BSL2 work be certified to ensure proper performance. Equipment must be certified at the time of installation and annually thereafter to ensure that it is working properly to protect you and the materials that you are handling. Certification methods are detailed in NSF/ANSI Standard 49, Annex F.

Field certification tests shall include, at a minimum, evaluation of the following:

- Inflow velocity
- Downflow velocity
- HEPA filter leak tests
- Visual smoke test
- Site installation tests and alarm calibrations

The time required for field certification will vary depending on the model, the number of tests conducted, and their complexity and may last between 1-3 hours. Factors that impact the length of time required to test a cabinet include:

- Cabinet Size (4-foot width, 5-foot width, 6-foot width, etc.)
- Whether the cabinet is ducted or exhausted into the room
- Any necessary airflow adjustments and additional airflow measurements
- Test method used for inflow velocity measurements (primary or secondary)

The cabinet should be cleaned out of all equipment and supplies and sanitized prior to the scheduled certification. The work surface, the interior walls (not including the supply filter diffuser), and the interior surface of the window should be wiped with Spor-Klenz® or other disinfectant as determined by the operator to meet the requirements of the particular activity. The use of a UV light should never be a substitute for good decontamination practices.

The field certifier will not remove any research equipment or supplies if left in the cabinet; this is intended to prevent any damage to the owners' research or equipment. If the cabinet is not cleaned out at the time of the certification, it will be scheduled for a later date.

Upon completion of the field certification, a certification sticker will be applied to the top panel portion of the cabinet above the sash. A current annual date will signify a passing certification. If the certification fails, a new sticker with a current date will not be applied and the field certifier will contact you with necessary repair information to meet manufacturer and NSF/ANSI standards for operation. A full certification report will be maintained on file with Research Safety Affairs.

If you have any questions or concerns about biosafety cabinet field certification or would like to request a copy of the certification paperwork, contact the office of Research Safety Affairs at labsafety@uthsc.edu.