



## What to Expect When Having Your Biosafety Cabinet Field Certified

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Biosafety cabinets should be field tested and certified at the time of installation and at least annually thereafter, using the methods detailed in Annex F, “Field Tests”, of NSF/ANSI Standard 49. In addition, recertification of biosafety cabinets should take place when HEPA/ULPA filters are changed, repairs are made to internal parts, or a cabinet is relocated.

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

- Downflow velocity;
- Inflow velocity;
- Airflow smoke patterns;
- HEPA filter leak; and
- Site installation tests

It is recommended that experienced, qualified personnel, such as NSF Accredited Biosafety Cabinet Field Certifiers, perform this work. Refer to NSF’s online Listings at [www.nsf.org](http://www.nsf.org). This website is updated on a daily basis.

The time required for field certification will vary depending on the model, the number of tests conducted and their complexity. In order to perform a thorough field certification of a biosafety cabinet, the field certifier should not feel rushed. To ensure HEPA filter integrity, NSF/ANSI Standard 49 specifies the entire area of a HEPA filter be scanned at a rate of no faster than 2 inches per second. Other 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 vented to the outside;
- Any necessary repairs; and
- Test method used for inflow velocity measurements (primary or secondary)

Inflow velocity can be measured by two methods on most biosafety cabinets. The primary method uses a direct inflow measurement (DIM) instrument that is sealed into the access opening of the cabinet. The secondary method uses an anemometer to measure several individual points for air velocity and then average them. While both methods are acceptable according to NSF/ANSI Standard 49, the primary method is preferred by NSF for its accuracy and repeatability.

If you have any questions or concerns about biosafety cabinet field certification or the accreditation status of your company’s field certifiers, please contact Maren Roush, Business Unit Manager, Biosafety Cabinetry, at 734-827-6821 or [mroush@nsf.org](mailto:mroush@nsf.org).