

Annex F – 2004

Class II (laminar flow) biosafety cabinetry – Field testing annex

NSF International Document

**This annex is a normative section of
NSF/ANSI 49 – 2004 Class II (laminar flow)
biosafety cabinetry**



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NSF International Document
for Biosafety Cabinetry –
**Class II (laminar flow)
biosafety cabinetry –
Field testing annex**

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Foreword

The purpose of this Annex is to provide annex F and the figures from annex A of NSF/ANSI 49 – 2004 as a supplementary document for users who do not need all the information provided in the Standard. Users of this document are advised that it does not represent the full content of NSF/ANSI 49 – 2004.

This edition of the Annex contains the following revision:

- changes to the accuracy specification tolerance for DIM instruments have been updated.

This Standard was developed by the NSF Joint Committee on Biosafety Cabinetry using the consensus process described by the American National Standards Institute.

Suggestions for improvement of this Standard are welcome. Comments should be sent to Chair, Joint Committee on Biosafety Cabinetry, c/o NSF International, Standards Department, PO Box 130140, Ann Arbor, Michigan 48113-0140, USA.

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NSF/ANSI International Standard for Biosafety Cabinetry —

Class II (laminar flow) biosafety cabinetry

Annex F¹ (normative)

Field tests

F.1 Field certification preconditions and intervals

This annex contains the field tests that define the methods and acceptance criteria that are appropriately applied for determining qualification for field certification of all Class II biological safety cabinets. These field certification procedures are intended to confirm that an installed cabinet evaluated under the current version of the Standard has met all design criteria contained in NSF/ANSI 49 and currently meets all criteria contained in this annex. All cabinets shall be field tested using the procedures described in NSF/ANSI 49, annex F – 2002, with the exception of the downflow velocity test. When performing the downflow velocity test, the procedure by which the cabinet was certified should be used, however, the acceptance criteria outlined in the 2002 standard shall be applied.

To assure that all cabinet operating criteria contained in this 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.² 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.

Field certification of a cabinet is not intended to provide complete verification that the cabinet complies with all of the requirements of NSF/ANSI 49.

F.1.1 Tests directly related to containment (i.e. personnel and environmental protection) and product protection.

The following physical tests shall be conducted on-site for a certification to be considered for the statement "Field Certified in accordance with NSF/ANSI 49":

- downflow velocity profile test;

¹ Annex F is a normative part of NSF/ANSI 49 – 2004. Figures are provided from annex A of NSF/ANSI 49 – 2004. Users of this document are advised that it does not represent the full content of NSF/ANSI 49 – 2004. The full text of NSF/ANSI 49 – 2004, including annex F and figures from annex A, may be purchased separately at <http://www.nsf.org>.

² Microbiological equipment that has been used with microorganisms should be decontaminated prior to repair or replacement of components located in contaminated plenums, prior to cabinet relocation, and in some cases prior to recertification. See Annex G, Recommended Microbiological Decontamination Procedure. When equipment has been used with chemical or radioactive agents, appropriate protective clothing and safety procedures should be used during chemical decontamination.