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#### 1 Purpose

1.1 To establish a standard procedure for measuring the Downflow Velocity of Class II Biohazard Cabinets.

### 2 Scope

2.1 This procedure applies to Class II Biohazard Cabinets.

### 3 References

- 3.1 NSF Standard 49, 2002.
- 3.2 The Catalog of NSF Listings of Certified Biohazard Cabinetry which contains the Biohazard Cabinet to be tested.
- 3.3 www.nsf.org (world wide web)
- 3.4 The label affixed to the Biohazard Cabinet at the Manufacturing Facility
- 4 Definition
  - 4.1 Uniform downflow cabinet: The average downflow velocity is  $\pm$  5 FPM of the value specified and the individual point readings do not vary more than  $\pm$  25% or 16 FPM, whichever is greater, from the average downflow velocity measurements within the cabinet.
  - 4.2 Non-uniform (zoned) downflow cabinet: The downflow grid of the cabinet is divided into areas or zones. Within each zone, the average downflow velocity is  $\pm$  5 FPM of the value specified and the individual point readings do not vary more than  $\pm$  25% or 16 FPM, whichever is greater, from the average downflow velocity measurements within the zone.
  - 4.3 FPM: Feet Per Minute

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## 5 Responsibility

- 5.1 Test and Balance (TAB) technicians shall record all test measurements on Form FN 8.057.2 (Biohazard Safety Cabinet Test Report Details I) in the Downflow Velocity Test section and indicate the test result, Pass or Fail, on Form FN 8.057.1 (Biohazard Safety Cabinet Test Report Summary Sheet).
- 5.2 All test reports shall be saved in files, located in the TAB department of Therma.
- 5.3 All test equipment utilized shall be in calibration in accordance with National Environmental Balancing Bureau (NEBB) Standards and traceable to the National Institute of Standards and Technology (NIST).
- 6 Materials Requirement
  - 6.1 Ringstand and Clamp
  - 6.2 Marking Pen
  - 6.3 Tape Measure
- 7 Test Equipment
  - 7.1 Thermal anemometer with an accuracy of  $\pm$  3 FPM or 3% of the indicated velocity, whichever is larger.
- 8 Procedures
  - 8.1 Refer to NSF 49, Annex F, Section F.2, Subsection F.2.3 for procedures and Subsection F.2.4 for standards of acceptance.
  - 8.2 Record measurements on the Form FN 8.057.2 (Biological Safety Cabinet Test Report Detail I) in the Downflow Velocity Test section.
- 9 Review and Approval
  - 9.1 TAB technicians shall return the Form FN 8.057.1 (Biohazard Safety Cabinet Test Report Summary Sheet) and the Form FN 8.057.2 (Biohazard Safety Cabinet Test Report Details I) to the TAB Department for review.

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# **Document Approval**

**TAB** Supervisor

Engineering Manager

**Quality Assurance Manager** 

6/26/03

Date

7-2-03

Date

7-2-03 Date

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