# Joint Committee Issue Paper

**NSF Standard(s) Impacted:** NSF/ANSI 49

Background:

*Provide a brief background statement indicating the cause and nature of concern, the impacts identified relevant to public health, public understanding, etc, and any other reason why the issue should be considered by the Committee. Reference as appropriate any specific section(s) of the standard(s) that are related to the issue.*

Some canopy connections are sent to NSF with minimal setup instructions. We cannot test every possible airflow, damper, and blower speed configuration. Since field certifiers are not required to check the inflow reduction during a failed external exhaust for listed canopy connections, there is the potential for it to not function properly in the field. Requiring some sort of set point would help ensure the canopy connection will function the same in the field as it was tested in the lab.

Recommendation:

*Clearly state what action is needed: e.g., recommended changes to the standard(s) including the current text of the relevant section(s) indicating deletions by use of ~~strike-out~~ and additions by highlighting or underlining; e.g., reference of the issue to a Task Group for detailed consideration; etc.*

5.4 Canopy exhaust connection

If Type A1, A2, and C1 cabinets are connected to an exhaust system, it shall only be done so via a canopy connection; direct connections are not acceptable. They are exhausted with the assistance of a remote fan to the atmosphere. In normal operation, the volume of room air drawn into the canopy connection's openings or gaps shall be sufficient to ensure the capture of all of the BSC's HEPA filtered exhaust, as verified by a visible medium. The flow of room air into the canopy connection through openings, or gaps, or both, provides assurance of consistent BSC performance during fluctuations in exhaust system flow rate, or room pressure, or both. Canopy connections listed as acceptable options for a BSC shall have a manufacturer specified set point (i.e. gap velocity, duct pressure, etc.), separate from the BSC's inflow and downflow set points, to ensure proper setup and function in the field.

For Types A1, A2, and C1 with a canopy connection, during an exhaust system failure:

— the canopy shall provide properly sized openings or gaps to allow for recirculation of HEPA filtered exhaust into the room;

— the BSC shall maintain an inflow velocity above the lowest value verified by the NSF/ANSI 49 biological challenge testing; and

Alternatively, the Type C1 canopy can direct the HEPA filtered exhaust into the exhaust duct during an exhaust system failure provided:

— the BSC shall maintain an inflow velocity above the lowest value verified by the NSF/ANSI 49 biological challenge testing if the unit is programmed to operate longer than 15 s after an exhaust system failure.

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Supplementary Materials (photographs, diagrams, reports, etc.):
*If not provided electronically, the submitter will be responsible to have sufficient copies to distribute to committee members.*

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