Task Group on Canopy Connection Set Point
Teleconference Meeting Summary
September 23, 2024

Participating Members:

Bill Sage (NSF)
Bill Peters (NuAire, Inc.)
Steve Williams (NSF)
Tori Fincham (Labconco)
Dave Phillips (Thermo Fisher Scientific)

Absent Members:

Jim Wagner (Controlled Environment Consulting)
Mark Lenart (Clean Air Testing, Inc.)

Participating observers:

Al Rose (NSF)

Supplemental Materials Referenced

- BSC-2024-05 - Canopy Connection Set Point
- BSC JC Meeting Summary - 2024-06-20 – Canopy Connection Set Point Excerpt

Discussion

B.Sage is the TG Chair, welcomed everyone and called the meeting to order. A.Rose read the anti-trust statement and took attendance. Five of the 7 voting members were present (71%) representing a quorum. A.Rose presented the agenda indicating there was one item, specifically issue paper **BSC-2024-05 – Canopy Connection Set Point**.

B.Sage presented his issue paper with the proposed language:

> 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.

He introduced the issue of inconsistent instructions from manufacturers for setting up canopies, proposing the addition of a manufacturer set point to ensure uniformity in testing and field setup.

- **Canopy Setup Inconsistencies:** B.Sage highlighted the lack of clear instructions for canopy setup from some manufacturers, leading to variations in testing and field setups.
- **Manufacturer Set Point Proposal:** B.Sage proposed adding a manufacturer set point in the instructions to standardize the setup process across different manufacturers.
- **Set Point Examples:** Examples of set points like gap velocity or duct pressure were discussed as potential standards for canopy setup.

- **Field Certifier Practices:** although there were no Field Certifiers on the call, the discussion revealed a potential discrepancy between the instructions provided for testing and the actual practices in the field.
- **Ensuring Field Setup Accuracy:** The discussion aimed to align NSF certification testing with field setup practices to ensure accuracy and consistency in canopy installations.

Feedback on Manufacturer Set Points: B.Peters shared his method of using gap velocity for canopy setup, highlighting its simplicity and effectiveness, contrasting with other methods that might be more complex or less precise.

- **Gap Velocity Method:** B.Peters advocated for using gap velocity as a straightforward and effective method for setting up canopies, which he includes in his instruction sheets.
- **Canopy Connection Test:** The current canopy connection test instructions were generally discussed and the need for manufacturers to provide clear set points for calibration.

Concerns About Testing and Certification: the group discussed the challenges and impracticality of using duct traverse for measuring exhaust volume, emphasizing the need for simpler, more reliable methods that can be easily replicated in the field.

- **Duct Traverse Challenges:** concerns were expressed about the complexity and impracticality of using duct traverse for measuring exhaust volume, advocating for simpler methods.
- **Need for Reliable Methods:** The discussion highlighted the necessity for reliable and easily replicable methods for field certifiers to measure exhaust volume accurately.

Action Items:

- B.Sage to update the language in the issue paper based on today's discussion
- B.Sage to discuss this update with J.Wagner and gather his viewpoint and suggestions before finalizing
- A.Rose to send revised language to the task group as a straw ballot.
- Based on results, consider adding additional certifiers to the task group to ensure a broad range of viewpoints are considered.