Task Group on Design and Construction Requirements
49i173Pr1 Straw Ballot
May 17, 2024

Purpose

The purpose of this ballot is to affirm revised and new language related to the many design and construction requirements throughout Standard 49.

Background

Issue paper **BSC-2022-03 – Design and Construction Requirements** highlighted that the design and construction requirements in sections 4 and 5 haven't seen much evaluation in many years. The issue proponent suggested the establishment of task group (TG) to discuss these sections. This issue was presented to the JC during the 2022 Face-to-Face meeting at which time the TG was motioned into existence. Since that time, the TG has met four times and conducted a straw ballot with feedback in November 2023.

The straw ballot was quite extensive with good feedback, and the TG discussed breaking up the proposal into several subsection ballots to make the work more digestible. During the most recent meeting (April 22, 2024) the issue proponent presented 18 different subsections and the group agreed to send each to straw ballot first with this TG. Any subsections receiving no further revision proposals will then be sent to the full JC for approval ballot. In this manner, some if not all of the proposed revisions will be ready for the next publication and the entire ballot will not be held up by a few subsections.

This ballot language reflects **i173P – Gauges**

The grey highlighted portions of the language are proposed additions to the language of the standard.
The ~~strikeout~~ portions of the language are proposed deletions to the language of the standard.

An affirmative (yes) vote on this straw ballot means you agree with the revised language as submitted.

A negative (no) vote on this straw ballot means you disagree with the revised language as submitted. A negative vote must include an explanation of why you disagree with the revised draft.

[Note – the recommended changes to the standard which include the current text of the relevant section(s) indicate deletions by use of ~~strikeout~~ and additions by grey highlighting. Rationale statements are in *red italics* and only used to add clarity; these statements will NOT be in the finished publication.]

NSF/ANSI International Standard for Biosafety Cabinetry —

Biosafety Cabinetry: Design, Construction, Performance, and Field Certification

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3 Definitions

3.xx Tubing restraint – Device to minimize movement (i.e. +/- ¼") of tubing.

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5 Design and construction

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5.28 Gauges, Pressure Transducers, and Switches

Pressure gauges indicating the differential pressure across the recirculated air filter, ~~if~~ may be provided but are not required~~, shall be installed in accordance with the manufacturer's instructions~~. All tubing shall have an inside diameter less than the outside diameter of the mating connection and ~~Hose connections to the gauge and sampling port~~ shall be secured by one of the following methods when the tubing is coming from a potentially contaminated plenum:

- positive compression clamps
- Tubing restraint, securing the tubing within 4 in (10 cm) of each connection point
- a distance not greater than 1 in (2.5 cm) between connections points opposite each other, with the length of tubing exceeding the distance between the points and each connection point secured to the same solid surface

If threaded connections are used to penetrate the plenum, an engagement of three continuous threads shall be required.

Tubing coming from potentially contaminated plenums shall be protected by an in-line HEPA filter, with a minimum rated efficiency of 99.97 percent.

Rationale: The first sentence implies they gauges are installed in the field. These are factory installed parts.

Note to task group: During our call, we discussed a requirement for tubing restraint within 2 in of each connection point. Bill Peters has requested we make it 4 in, which I accept but didn't want to change without alerting the group to the change.