TO: NSF Joint Committee on Food Equipment
FROM: Michael Perez, Chairperson of the Joint Committee
DATE: March 26, 2019
SUBJECT: Proposed revisions to:

- NSF/ANSI 2 – Food Equipment (2i34r3)
- NSF/ANSI 170 – Glossary of Food Equipment Terminology (170i24r2)

A combined ballot for revision 3 of NSF/ANSI 2, issue 34 and the corresponding revision 2 of NSF/ANSI 170, issue 24 is forwarded to the Joint Committee on Food Equipment (JCFE) for consideration. Please review the changes proposed to these standards and submit your ballot by April 16, 2019 via the NSF Online Workspace at <www.standards.nsf.org>.

When adding comments, please add all comments under one comment number whenever possible. If additional space is needed, you may upload a Word or .PDF version of your comments online via the browser function.

Purpose
This ballot is to affirm the proposed revised language for Standards 2 and 170, regarding changing the terms IPC and in-place cleaning to CIP.

Background
In late May 2018, NSF International received a letter from the Conference for Food Protection (CFP) requesting terminology in the NSF/ANSI suite of Food Equipment Standards be updated to be consistent with the FDA Food Code. Specifically, the letter requested replacing term in-place cleaning with CIP.

The issue, submitted as FE-2018-14, was presented to the JCFE during its annual meeting in August 2018. The presentation detailed the work undertaken by a CFP subcommittee noting the cleaning and sanitization actions described by both terms were the same. The subcommittee recommended NSF adopt the generally more widely accepted term of CIP.

The JCFE assigned the issues (2i34 and 170i24) to the Task Group on Food Equipment Fabrication (TG). Prior to the TG’s December 4, 2018 teleconference, the issue proponent drafted:

1) A revised definition for Standard 170 (Glossary)
2) Updates within Standard 2 where the current terms In-Place Cleaning and IPC are used
The TG, during multiple meetings, language drafts and straw ballots, has carefully developed revised language applicable to both Standards 2 and 170.

Of particular note during the extensive discussion, is that the term CIP, which in the past stood for Clean-In-Place, is no longer an acronym and is now a term in and of itself. As such, the FDA Food Code only defines the term CIP with no mention of the phrase Clean-In-Place.

The revised language for Standard 2 recirculated to the TG as a revision 2 (2i34r2) straw ballot, received a unanimous affirmative vote (16:0:0). There was however, a minor comment specific to section 5.1.3:

From:

5.1.3 Food zones shall be readily accessible and easily cleanable or shall be designed for in-place cleaning (IPC) as a CIP system when a readily accessible design is not feasible.

To:

5.1.3 Food zones shall be readily accessible and easily cleanable or shall be designed for in-place cleaning (IPC) for CIP when a readily accessible design is not feasible.

The Issue Proponent agreed with this change as it is further in line with the FDA Food Code.

Due to the overlapping nature of the language, the proposed revisions for both Standards 2 and 170 are combined in this single ballot presented here for consideration.

If you have any questions about the technical content of the ballot, you may contact me in care of:

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c/o Joint Committee Secretariat  
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NSF International Standard/
American National Standard –

Food equipment

**Rationale:** The Conference for Food Protection has requested considerations be made for modifying NSF/ANSI Standards cleaning terminology to align with the terminology used in the FDA Food Code. The term in-place cleaning currently used in the NSF Standards is requested to be replaced with the term CIP used in the FDA Food Code. The concept of CIP as defined in the Food Code is currently being applied in the NSF/ANSI Standards under the different term in-place cleaning. The alignment of terminology will provide consistency in the industry.

5 Design and construction

5.1.3 Food zones shall be readily accessible and easily cleanable or shall be designed for in-place cleaning (IPC) for CIP when a readily accessible design is not feasible.

5.1.4 Food zones for which IPC CIP is intended shall be designed and manufactured so that cleaning and sanitizing solutions may be circulated or passed throughout the fixed system. The design shall ensure that cleaning and sanitizing solutions contact all food contact surfaces. The system shall be self-draining or capable of being completely evacuated. Equipment and appurtenances designed for IPC CIP shall have a section of the cleaned area accessible for inspection or shall provide for other acceptable inspection methods. The manufacturer shall provide written instructions for the cleaning and sanitizing of all food zone surfaces for which IPC CIP is intended. The type and concentration of sanitizing agent recommended in the instructions by the manufacturer shall comply with 40 CFR §180.940.

5.52 Food dispensing pumps

The entire pump assembly shall be easily cleanable. The assembly includes all valves and springs. Food dispensing pumps designed as a closed system may be cleaned by an IPC a CIP method.
6 Performance

6.1 Cleaning and sanitization procedures

6.1.1 Performance requirement

Cleaning and sanitization procedures recommended by the manufacturer shall effectively clean and sanitize food contact surfaces.

NOTE — This requirement applies to manual cleaning and sanitizing procedures and to IPC and sanitizing procedures recommended by the manufacturer.

6.1.2.2 The equipment shall be operated so that food contact surfaces are exposed to the E. coli suspension. The equipment shall then be cleaned in place according to the manufacturer's instructions and refilled with sterile buffered dilution water (SBDW). The SBDW shall be dispensed and five 100 mL samples shall be collected at intervals from the start of the dispensing until the unit is empty. When adequate sample volumes cannot be realized, additional SBDW shall be added accordingly. The equipment shall then be operated so that food contact surfaces intended for IPC CIP are exposed to the SBDW. Sufficient SBDW shall then be dispensed. The challenge organisms present in each sample shall be collected and enumerated using the Standard Total Coliform Membrane Filter Procedure in accordance with APHA's Standard Methods for the Examination of Water and Wastewater.

Annex A
(normative)

Methods for preparing and analyzing in-place cleaning (IPC) CIP bacteria surrogate

A.1 Summary

E. coli is used as the challenge organism for the IPC CIP test. Presented in this Annex are the methods used for suspension preparation, controls, and analysis of the challenge organism.
Glossary of Food Equipment Terminology

3 Definitions

3.114 **CIP in-place cleaning**: A method of cleaning and sanitizing equipment surfaces in their assembled form in place by mechanically circulating or passing a detergent solution, water rinse, and sanitizing solution onto or over the surfaces. Equipment designed for manual cleaning such as band saws, slicers, or mixers are not intended for CIP.

**Rationale:** The Conference for Food Protection has requested considerations be made for modifying NSF/ANSI Standards cleaning terminology to align with the terminology used in the FDA Food Code. The term in-place cleaning currently used in the NSF Standards is requested to be replaced with the term CIP used in the FDA Food Code. The concept of CIP as defined in the Food Code is currently being applied in the NSF/ANSI Standards under the different term in-place cleaning. The alignment of terminology will provide consistency in the industry.