

**Conference for Food Protection  
2016 Issue Form**

**Issue: 2016 I-010**

<b>Council Recommendation:</b>	Accepted as Submitted _____	Accepted as Amended _____	No Action _____
<b>Delegate Action:</b>	Accepted _____	Rejected _____	

*All information above the line is for conference use only.*

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**Issue History:**

This is a brand new Issue.

**Title:**

IMC 6 - Clean in Place (CIP) Committee Formation

**Issue you would like the Conference to consider:**

The Ice Machine Equipment Cleaning and Sanitizing Committee conducted significant research on the issue of ice machine cleanability. Though ice does not comprise a temperature for safety food, it is identified in the 2013 FDA Food Code as a food. It was generally acknowledged by the committee that internal waterlines and other wetted components in American National Standards Institute (ANSI) / National Sanitation Foundation (NSF) 12 listed ice machines cannot be easily inspected, cleaned and sanitized in place. During our review, it came to light that a similar circumstance exists for other food service equipment, such as dispensing freezers as are commonly used for soft serve ice-cream and yogurt. Because equipment other than ice machines was beyond the scope of our committee's charges, it was decided to defer any discussion beyond ice machines back to the CFP for its possible future deliberation.

Annex 3 of the Food Code contains the public health rationale for cleanability of food contact surfaces. It states; "*Food-contact surfaces that do not meet these requirements provide a potential harbor for foodborne pathogenic organisms*". Section 4-202-11 CLEANABILITY of Food Contact surfaces states (paragraph (A) (5)) that reusable food contact surfaces shall be: ". . . accessible for cleaning and inspection by one of the following methods, (a) without being disassembled <sup>Pf</sup>, or, (b) by disassembling without the use of tools <sup>Pf</sup>, or, (c) by easy disassembling with the use of handheld tools commonly available to maintenance and cleaning personnel such as screwdrivers, pliers, open end wrenches, and Allen wrenches <sup>Pf</sup>."

Internal water line surfaces in ice machines are not accessible even with "commonly available" tools. Cleaning and sanitizing of food contact surfaces is the function of clean in place systems (CIP). Ice machine manufacturer's equipment manuals make reference to cleaning instructions that (essentially) comprise clean-in-place instructions. FDA FOOD CODE Section 4-202.12 for CIP Equipment states: (A) CIP EQUIPMENT shall meet the characteristics specified under § 4-202.11 and shall be designed and constructed so that: (1) Cleaning and SANITIZING solutions circulate throughout a fixed system and contact all

interior FOOD-CONTACT SURFACES<sup>Pf</sup>, and (2) The system is self-draining or capable of being completely drained of cleaning and SANITIZING solutions; and (3) CIP EQUIPMENT that is not designed to be disassembled for cleaning shall be designed with inspection access points to ensure that all interior FOOD-CONTACT SURFACES throughout the fixed system are being effectively cleaned.

Neither Ice machines nor dispensing freezers have such inspection access ports. FDA Food Code chapter for ACCEPTABILITY; 4-205.10 states *"FOOD EQUIPMENT that is certified or classified for sanitation by an American National Standards Institute (ANSI)-accredited certification program is deemed to comply with Parts 4-1 and 4-2 of this chapter."*

Note that the preceding ACCEPTABILITY "exemption" for equipment having an ANSI sanitation listing does not relieve FOOD EQUIPMENT from the compliance requirements found in Parts 4-6 and 4-7 of this chapter, which is where criteria for the *OBJECTIVE*, *FREQUENCY* and *METHODS* for cleaning food contact surfaces are found.

The FDA Food Code requires FOOD EQUIPMENT with inaccessible food contact surfaces that depend upon CIP processes for effective cleaning and sanitation to be designed to enable inspection access points for verification purposes, so that it can be readily determined when cleaning is required. Further the ANSI sanitation standards for performance certification of FOOD EQUIPMENT that depends upon CIP processes lack minimum criteria for cleaning and sanitizing frequency. Lastly, it is clear from the Ice Maker Committee's survey of Original Equipment Manufacturer (OEMs), the recommended cleaning and sanitizing procedures are not based on scientific data.

### **Public Health Significance:**

Many of the manufacturer's equipment manuals reviewed stated that ice machines should be cleaned "as needed". With internal food contact surfaces that cannot be inspected, a reasonable determination for when cleaning and sanitizing is needed cannot be made. The prevention of microbial growth in the form of biofilms, milk-stone and other soils on FOOD EQUIPMENT food contact surfaces of this type is not clearly defined by criteria based on scientific test data and presents a hazard to consumers.

Furthermore, current ANSI sanitation standards test brand new equipment only, before food contact surfaces become worn. There is no test to ensure that the design of ANSI sanitation listed equipment enables easy inspection, cleaning and sanitization of its food contact surfaces across the expected service life of the equipment. None of the ANSI sanitation standards provide any criteria for cleaning frequency or processes. Rather, this subject is left up to manufacturers to provide in their owners manuals and instructions for use.

### **Recommended Solution: The Conference recommends...:**

a Clean in Place (CIP) Committee be formed to expand on the work begun by the 2014 - 2016 Ice Maker Equipment Cleaning and Sanitizing Committee, but with a broader focus to include all food equipment known to have designs that depend upon CIP processes for safety yet do not allow for easy inspection, cleaning and sanitizing access of its food contact surfaces. The charges are:

1. Review ANSI sanitation standards for clean in place processes (CIP).
2. Report back to the CFP at the 2018 Biennial Meeting with specific recommendations for:
  - (a) Minimum criteria for CIP systems including suggested revisions to the FDA Food Code.
  - (b) A mechanism for on-going liaison with ANSI sanitation standards development organizations to reduce likelihood of future gaps in our national food safety, security and control programs.

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*It is the policy of the Conference for Food Protection to not accept Issues that would endorse a brand name or a commercial proprietary process.*