

**Conference for Food Protection
2016 Issue Form**

Issue: 2016 I-006

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| Council Recommendation: | Accepted as Submitted _____ | Accepted as Amended _____ | No Action _____ |
| Delegate Action: | Accepted _____ | Rejected _____ | |

All information above the line is for conference use only.

Issue History:

This is a brand new Issue.

Title:

IMC 2 – Request Research on Microbial Contamination in Ice Machines

Issue you would like the Conference to consider:

The Ice Maker Equipment Cleaning and Sanitizing committee surveyed Ice Maker Original Equipment Manufacturers and Ice Vending Manufacturers (Attachment A; attached to Issue titled: Report - Ice Maker Equipment Cleaning and Sanitizing Committee) as to their specific cleaning and sanitizing procedures and frequency. In addition, information regarding field study and laboratory test data supporting the specific recommended cleaning and sanitizing procedure and frequency was requested. The committee received a very limited response. The limited response coupled with online research found that there was a general lack of uniformity and no test data available to validate the cleaning/sanitizing procedures, types of chemicals used and frequencies. The committee also surveyed regulatory agencies (detailed in Committee Report) and asked that a database be provided if available of the inspection records of ice machines. Five (5) jurisdictions provided data sets that identified almost 4,000 violations related to mold or soil accumulation in the ice bin and walls. There were no inspection notations documenting that the internal inaccessible parts of the ice machine were inspected. Also, the committee could not find research regarding the possibility of the growth of pathogenic microorganisms in the internal parts of an ice machine. Thus, research is needed to identify the type of microbial growth and location(s) of concern within the American National Standards Institute (ANSI) / National Sanitation Foundation (NSF) listed ice machines. This data will aid in establishing adequate cleaning and sanitizing procedures and frequencies for ice making equipment as well as provide field verification test methods.

Public Health Significance:

When cleaning and sanitizing of ice machines is not performed following procedures specified by the Food Code, microbial and soil accumulation appears to be a common issue in commercial ice machines. Most of the microbiological data available does not include foodborne pathogens and is limited to total bacteria, yeasts, molds and coliform counts. Ice contamination may occur from various sources including but not limited to the

ice machine, water or ice handling practices. The food contact surfaces within the ice machine could be potential areas for pathogen growth and need to be analyzed as to the types of pathogens present and their food safety impact on the public.

Recommended Solution: The Conference recommends...:

that the Conference Chair submit a request to academic research institutions or interested parties to submit grant funding proposals for conducting research with the objective being a risk assessment which may also necessitate testing and data generation that:

1. Characterizes the type of microbial contamination and the location of areas of concern within commercial American National Standards Institute (ANSI) and National Sanitation Foundation (NSF) listed ice machines and factors contributing to their growth rate. Research is needed regarding the surfaces of the interior of the ice machine which includes but is not limited to ice chutes, cubers, doors, tubing and pumps to determine if there are pathogens of food safety and public health concern.
2. Establishes data driven cleaning and sanitizing frequency.
3. Develops test methods to enable field verification that internal food contact surfaces are clean and sanitary.

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