

**Conference for Food Protection  
2010 Issue Form**

**Internal Number: 058  
Issue: 2010 III-021**

<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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**Title:**

Packaged Ice Manufacturing at Retail

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

Currently, the Food Code references Ice in Section 3-202.16. It is defined as a food or a cooling medium made from drinking water. However, the Food Code does not appear to reference the manufacture and distribution of packaged ice at the retail level. The International Packaged Ice Association recommends that CFP support recognition in the Food Code of packaged ice manufacturing sold for human consumption.

The International Packaged Ice Association (IPIA) represents more than 400 packaged ice manufacturers and distributors. The IPIA mandates as a prerequisite to association membership that member producers demonstrate compliance with PIQCS (Packaged Ice Quality Control Standards). PIQCS was developed over ten years ago and is based on Good Manufacturing Practices specific to packaged ice and HACCP (Hazard Analysis Critical Control Point). The PIQCS standards are available at:

<http://www.packagedice.com/downloads/PIQCSManualFINAL.pdf>

However, an estimated 40% of the packaged ice sold at retail for human consumption is produced at the retail level without specific guidance or inspection.

**Public Health Significance:**

Ice is widely used in retail food establishments, and is sold as packaged ice from a large number of retail food establishments. Ice receives little attention as a possible source of food borne illness. Packaged Ice is a manufactured food and as such is subject to the Good Manufacturing Practices Regulations for Foods contained in the Code of Federal Regulations, Title 21, Chapter 1, Part 110 [21CFR; Part 110]. Both Congress and the FDA acknowledged this in the "Fiscal Year 2010 Department of Agriculture Appropriations Bill" (the annual legislation that has the authority to fund the Food and Drug Administration). It

contained the following language on packaged ice: *"Packaged Ice Manufacturing: The Committee recognizes that ice is a food product produced in the United States for both interstate and intrastate commerce, and has been made aware of concerns regarding individual retail outlets that manufacture and bag ice. The Committee directs FDA to work to educate manufacturers regarding safe production of ice, including the issuance of a Food Facts sheet informing the public about existing FDA regulations that apply to ice manufacturers. Further, the Committee directs FDA to consider whether or not formal regulations regarding the safe handling, processing, and packaging of packaged ice sold for human consumption would be an appropriate measure."*

The processing of bottled water is subject to the product specific Code of Federal Regulations, Title 21, Chapter 1, Part 165 [21CFR; Part 165]. Many states have adopted and currently enforce these regulations which contain provisions pertinent to ice. However, there are no specific packaged ice processing regulations at the Federal level, and only two states, Florida and Montana, implement such requirements for packaged ice production at the retail and wholesale level, similar to those they enforce for bottled water. The Florida and Montana regulations are attached. Packaged ice plants range in size from the smaller retail packaged ice manufacturing operation to the large commercial wholesale manufacturer. They also include the self service mobile ice vending units.

The list of possible contaminants that could be present in packaged ice by not following proper GMP's is comprised of well known microorganisms and enteric viruses. Source water contamination, contaminated food contact surfaces, with the most common being mold, mildew and slime in the ice machine and unsanitized ice scoops, and cross contamination in the handling process can occur. The manual nature of the bagging process by smaller retail packaged ice manufacturers (an estimated 40% of packaged ice manufactured and sold to the public) speaks to this last possibility of ice contamination from improper personnel hygienic practices, including pathogen transmission by sneezing, coughing, and open sores with bare hand contact. Potential contaminants include chemical, viral, bacteriological and parasitic pathogens.

The number of documented cases of contaminated ice when GMP's were not followed is small in comparison to higher profile foods. The number may be small for two reasons. First, there is a popular misconception that ice is a preservative for other foods and the freezing process kills microorganisms. Second, ice is not one of the first food products looked at if at all when a food borne illness incident occurs. The CDC indicates that over 50,000 cases per year of reported food borne illness are of unknown origin and ice is widely used in retail food establishments.

Annex 2 of the Food Code references two reports on ice contamination:

1. Cliver, D.O., 1988. Virus transmission via foods; A scientific status summary by the Institute of Food Technologists' Expert Panel on Food Safety and Nutrition. Food Technol. 42(10):241-248.

2. Jackson, G.L., 1990. Parasitic protozoa and worms relevant to the U.S. Food Technol. 44(5):106-112.

Other supporting reports:

1. 2002 article from NACS ( National Association of Convenience Stores): *" In the past 25 years, over 475,000 cases of waterborne disease outbreaks have been recorded. To bring this closer to home: "A survey of convenience store, on-premise ice machines indicated that 36 percent of packaged ice produced came from water that did not meet EPA drinking water standards," according to Dr. Debra Huffman of the University of South Florida. She continues to say, "Regardless of the type of microorganism such as E.coli, hepatitis, or protozoa, the results are the same, lack -- of water treatment and/or poor ice processing conditions result in people becoming ill."*

2. Example from January, 2007, Houlihans restaurant in Indiana

Health officials are particularly concerned with those patrons who consumed drinks with ice. *"Restaurant patrons may have been exposed to hepatitis A "*

3. Example attached Anderson Cooper 360, 2008

4. Example attached ABC News Science Fair project

5. AFDO guidelines attached for handling and manufacturing packaged ice

In conclusion, the public is at increased risk of being exposed to contaminated or adulterated ice because there are currently no specific government health and safety standards for the manufacturing of Packaged Ice at the wholesale or retail levels.

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

That a letter be sent to the FDA requesting modification of the Food Code,

- **Add to Section 1-201.10 Statement of Application and Listing of Terms:**

**"Packaged Ice" means food intended for human consumption that is formed from drinking water, spring water or purified water by freezing to a solid state that is sealed in packages and offered for sale for human consumption.**

- **Modify Section 3-202.16, to read:**

**3-202.16 Ice, including packaged ice.**

**Ice, including packaged ice, for use as a food or a cooling medium shall be made from drinking water**

- **Modify Annex 3, Public Health Reasons/Administrative Guidelines to read:**

**3-202.16 Ice, including packaged ice.**

**Freezing does not invariably kill microorganisms; on the contrary, it may preserve them.**

**Therefore, ice that comes into contact with food to cool it or that is used directly for consumption must be as safe as drinking water that is periodically tested and approved**

**for consumption.**

- **Modify Guide 3-B Instructions for Marking the Food Establishment Report-page 19 to read:**

**29. Water and ice, including packaged ice from approved source. Packaged ice meets 21 CFR (Code of Federal Regulations) 101 labeling requirements.**

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**Attachments:**

- "State of Florida regulations for packaged ice"
- "State of Montana Ice Regulations"
- "ABC News Science Fair Project"
- "Anderson Cooper 360"
- "AFDO Guidelines for Handling and Manufacturing Packaged Ice"

*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.*