

**AFDO GUIDELINES FOR  
HANDLING AND PRODUCING PACKAGED ICE  
within FOODSERVICE and RETAIL ESTABLISHMENTS**  
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**Introduction**

This nation has established very comprehensive standards governing the safety of food. Specifically, the Food and Drug Administration (FDA) maintains the Model Food Code for safeguarding public health and ensuring food is unadulterated and honestly presented to the consumer. The FDA Model Food Code is offered for adoption by local, state and federal governmental jurisdictions that have been delegated compliance responsibilities for food service, retail food stores, or vending operations. By definition within the Food Code, ice for human consumption is considered 'food' and is subject to these same standards. Since beverages are required to be prepared under strict sanitary and safety standards, it is reasonable to expect that these beverages would be poured over ice subjected to the same standards.

**Purpose**

These guidelines provide important information that relates to ice production, packaging and handling operations within retail, food service establishments, and ice vending units (mobile, etc). This information may be used as guidance during inspections of ice packaging and handling operations and should be taken into consideration when violations are evaluated for regulatory follow-up.

These guidelines have been prepared as an adjunct to promulgated regulations and do not replace or supersede them.

**PERMIT/LICENSE**

An establishment where ice is packaged for human consumption should be permitted or licensed by the state or local regulatory agency.

In performance of their permitting and inspection duties, authorized representatives of the regulatory agency shall have access to, and may enter at all reasonable hours, all places where ice to be used for human consumption is packaged.

**SOURCE WATER**

Only potable water or water received from an approved source may be used to manufacture ice that is intended for human consumption. Water from a public water system must meet provisions of 40 CFR 141 (National Primary Drinking Water Regulations) and state drinking water quality standards. Water from a non-public water system must meet state drinking water quality standards, which may include sampling and testing requirements. If testing is required for a nonpublic water system, the most recent sample report must be maintained in the food establishment.

In the event of an emergency situation, the establishment's drinking water system must be tested and approved for use by the public/private water authority. The licensed establishment should thoroughly flush water lines following emergency events, or after construction, repair or modifications before returning cleaned and sanitized equipment into service.

## **MANAGEMENT AND PERSONNEL**

Management is responsible for informing employees of their responsibility to report typical symptoms (vomiting, diarrhea, jaundice or sore throat with fever) or diagnosis of foodborne illness (Norovirus, Hepatitis A virus, *Shigella* spp., certain types of *E. coli*, and *Salmonella* Typhi). The person in charge must exclude or restrict employees who are symptomatic or diagnosed as required by local or state regulations.

Proper hand washing procedures are to be followed by employees involved in the production and packaging of ice. Hand sanitizers may be utilized following proper hand washing, if desired. Direct bare hand contact with ice must be prevented during all phases of ice production and packaging by utilizing acceptable utensils (e.g., scoops, shovels, disposable gloves).

Employees must also observe strict hygienic practices, including maintaining a clean uniform, wearing hair restraints, and refraining from eating, drinking, or using any form of tobacco in production and packaging areas.

The person in charge is also required to verify that regulatory requirements are being met and must properly train employees in food safety as it relates to their assigned duties.

## **PREMISES**

The area surrounding the ice producing area must be free of debris that will harbor rodents, insects, and other pests.

Obsolete or damaged equipment shall be removed, tall grass and weeds shall be cut frequently, and pools of water in the parking or delivery areas shall be eliminated.

An effective pest prevention program shall be instituted for the grounds and the ice production and packaging areas.

Live animals are not permitted in the ice production and packaging areas.

Where ice is produced in facilities in which more than one operation is being conducted and there are employees engaged in both operations, management should make assessments about the potential for cross-contamination of the ice. For example, housing ice manufacturing operations in garages and gas stations is unacceptable unless very carefully controlled conditions are met and the regulatory authority appropriately licenses the facilities.

## **ESTABLISHMENT CONSTRUCTION AND DESIGN**

The establishment must meet all applicable building, plumbing, electrical, fire, and other code requirements.

An adequate number of floor drains or other drainage system must be available in the facility to prevent the pooling of water/or liquid materials. Floors and walls must be in sound repair and constructed of smooth easy to clean material.

Ice production areas should be segregated or separated from other areas by an enclosure to prevent the potential for contamination. Where an enclosure is used, the area must be large enough to allow employees to effectively work and perform the production and packaging

activities within the enclosure and to minimize the potential for cross-contamination. The enclosure must also be constructed to prevent entry of rodents, insects, or other pests.

Doors, windows, and screens must be tight fitting and in good repair.

There must be adequate wastewater disposal for chemicals used for all cleaning activities. All wastewater drainage must go to a wastewater disposal system approved by the regulatory authority. The system must function properly and be maintained to avoid problems with back-ups, back siphonage or overflows that have the potential of contaminating equipment or ice. Backflow prevention/back siphonage is required in accordance with appropriate regulations.

### **SANITARY OPERATION AND CONTROLS**

Establishments producing packaged ice must conduct their operations in a clean and sanitary manner. Inspections of the establishment should include evaluations of the overall facility, equipment and surrounding environment.

Food-contact surfaces (i.e., ice machine, ice bin, scoops) must be maintained in a sanitary condition and must be cleaned and sanitized on a schedule and frequency that prevents accumulation of mold, slime, fungus, and bacteria. Special attention should be paid to equipment that must be cleaned in place to ensure that all interior food-contact surfaces throughout the fixed system are being effectively cleaned.

Ice scoops must be stored between uses in a manner that prevents contamination of the ice.

A cleaning/sanitizing program and schedule shall be developed and implemented and it is recommended that a designated employee or management representative conduct review of the maintenance, cleaning and sanitizing records. If required, records of cleaning and sanitizing procedures should be maintained in the establishment and made available to the representative of the regulatory agency upon request.

Operating instructions and the manufacturer's specification on cleaning, maintaining and operating the equipment should be contained in a written Sanitation Standard Operating Procedure (SSOP). It is recommended these SSOPs be available on site.

A designated employee or management representative should conduct review of maintenance and repair records.

Single-service articles, such as bags and other containers, must not be reused and must be stored in a manner that prevents contamination (i.e., 6 inches off the floor, covered and/or inverted, in an area free from potential contamination, separate from toxic substances and chemicals). These containers must be free from potential contamination from pests such as insects, rodents, and animals.

### **PRODUCTION AND PACKAGING**

Ice cannot be packaged on platforms or other areas open to the environment; nor can it be processed in a truck, unless the truck is specifically dedicated to the packaging of ice and meets the same standards set forth in the licensing agency's regulation.

Ice shall be produced and packaged utilizing methods that preclude contamination of the product. Cleaning chemicals, lubricants, mops, brooms, etc. shall be stored in a segregated location to prevent contamination of the ice, equipment, utensils or packaging materials. Manual packaging of ice is to be conducted in a sanitary manner in order to prevent the contamination of the packaging material and the product. Proper hand barriers, and/or utensils are to be utilized for this purpose. Manual and mechanical packaging operations must be carried out in a manner that prevents contamination of the ice with packaging materials such as bag closures, tramp metal and/or tramp plastic. The ice storage bin shall be kept covered or closed except when ice is dispensed under approved methods.

Adequate air filtration systems must be in place to remove oil, dust, dirt, insects and extraneous material when air is used for water agitation.

Ice shall be packaged in food grade materials. Closures shall be of a non-porous material and designed to insure that the package is properly sealed.

### **LABELING**

Packaged ice produced and sold for human consumption must be labeled in accordance with 21 CFR 101 (Food Labeling) and other state food labeling standards. Specifically, the label affixed to the product must be legible and include the common name of the product, the net weight, and the name and address of the manufacturer, packer, or distributor.

Although not specifically provided for in the Model Food Code, packaged ice should be identified with a legible date or lot code for enhanced traceability.

### **STORAGE AND TRANSPORTATION**

Packaged ice shall be stored, transported, delivered, and merchandised off the floor in a manner that prevents contamination and thawing (i.e., using storage pallets, skids, approved shelving or other best practices).

If transported, packaged ice shall be in a properly designed, maintained and sanitary vehicle. Packaged ice shall be stored, transported, delivered and merchandised in a manner that prevents contamination and thawing.

### **PRODUCT TRACEABILITY AND RECALL**

When the regulatory authority determines that any packaged ice product may pose an immediate health risk, the retailer producing the ice or distributor of these products will be contacted as soon as possible. Product disposition via regulatory actions (i.e., embargo) and/or voluntary actions by the retailer, such as initiating a recall and when appropriate issuing a press release alerting the public and identifying the reason for the recall may be required. The information contained in the recall press release may be determined by the retailer and is subject to approval by the regulatory authority.

### **REFERENCES**

2009 FDA Model Food Code  
1988 AFDO Guidelines For Handling and Manufacturing Packaged Ice  
AFDO Recall Manual