

SECTION X. MANUFACTURE AND HANDLING OF ICE

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6-45. Manufacture of Ice. This is accomplished aboard ships with ice cube machines or icemakers in most instances. A few small pantries, galleys, general messes and very small ships still maintain ice cube trays for the manufacture of ice. Ice to be used for food or drink and for chilling food must be from a potable water source. Regardless of the end use, all ice must be handled in a sanitary manner and afforded the same protection as water.

6-46. Special Precautions for Handling of Ice

a. Due to the vulnerability of ice to contamination, special precautions regarding handling and storage are necessary.

(1) All ice shall be prepared from potable water.

(2) Ice machines shall be plumbed properly to eliminate the possibility of cross-connections and back-siphonage.

(3) The ice machine drain from the ice storage compartment shall be provided with an air gap between the ice storage compartment and the deck drain.

(4) Ice shall be removed from the storage hop by the use of an ice scoop. The ice scoop shall be stored inside the machine on a bracket above the maximum ice level or outside the ice storage compartment with the handle up in a free draining metal bracket. The design of some ice machines precludes proper storage of the ice scoop inside the machine.

(5) The ice scoop is considered to be food service equipment and, shall be washed, rinsed, and sanitized at least daily as described in NAVMED P-5010-1, Food Safety. For this reason the permanent installation of ice scoops with chains or other permanent attachments is not permitted.

6-47. Cleaning and Disinfecting Ice Machines. Cleaning and disinfection procedures for ice cube machine hops and flaking devices are detailed in Tables 6-7 and 6-8.

Table 6-7. Bulk Ice-Making Machine Cleaning/Disinfection Instructions

STEP	PROCEDURES
1. Turn off motor.	Empty, defrost, and clean. Make certain overflow pipes carry off water used for defrosting.
2. Wash all parts, including ice storage bin.	Use a plastic bristle brush to scrub inside and outside of bins with mild detergent solution.
3. Rinse.	Rinse with water containing at least 50 ppm chlorine to preclude bad odors and the accumulation of film deposits from detergents. Water drain should be clear and free to allow proper rinse.
4. Check Water Control.	Clean to prevent clogging of holes of water flow control.

**Table 6-8. Ice Dispensing Machine Cleaning/Disinfection Instructions
(cleaning instruments without unit disassembly)**

STEP	PROCEDURES
1. Shut off water.	Pour 1 qt. cleaning solution slowly into water reservoir.
2. Place a container below ice chute in bin and start ice machine.	Ice will be formed from cleaning solution. Discard ice. Shut off machine.
3. Flush ice-making system.	Add 1 qt. cleaning water to reservoir. Catch ice in a container. Discard.
4. Wash down storage bin with mild detergent solution. Rinse.	Scrub interior with a plastic brush and detergent solution. Thoroughly rinse with clean water.

6-48. Bacteriological Quality of Ice

a. Samples of ice shall be collected from 1/4 of the ice machines weekly for bacteriological testing. Ice bacteriological quality shall be absent of both total coliform and fecal coliform bacteria.

(1) Ice sample contamination is usually the result of improper ice handling techniques or dirty storage bins. If samples of ice collected for bacteriological analysis are positive for coliform organisms, the storage bin should be emptied, cleaned, and disinfected.

(2) If samples of ice collected for bacteriological analyses are positive for coliform organisms, the storage bin should be cleaned in accordance with NAVSUP Publication 486. Article 6-22 provides guidance for sanitizing if applicable.

b. Bacteriological examinations of ice samples shall be recorded in the potable water log.