



Commandant
United States Coast Guard

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COMDTNOTE 6240
23 MAY 2002

COMMANDANT NOTICE 6240

CANCELLED:
22 MAY 2003

Subj: CH-1 TO FOOD SERVICE SANITATION MANUAL, COMDTINST M6240.4A

1. PURPOSE. This Notice publishes CH-1 to the Food Service Sanitation Manual, COMDTINST M6240.4A. Intended users of this directive are all units which maintain the Manual.
2. ACTION. Area and district commanders, commanders of maintenance and logistics commands, commanding officers of headquarters units, and assistant commandants for directorates, Chief Counsel, and special staff offices at Headquarters shall ensure compliance with the provisions of this Notice. Internet release authorized.
3. DIRECTIVES AFFECTED. None.
4. SUMMARY OF CHANGES. Temperature and time requirements have been changed to bring the Coast Guard up to the guidelines of the FDA Food Code and those used in the Manual of Naval Preventive Medicine (NAVMED P-5010). Maximum temperature for refrigeration has changed from 40°F to 41 °F and maximum time outside of proper temperature has changed from three (3) hours to four (4) hours throughout the Manual. Cleaning and sanitizing temperatures and disinfectant concentrations were also updated. These changes will allow the Food Service Specialist School to use the National Restaurant Association’s ServSafe certification, which will be beneficial to all units and personnel who utilize Coast Guard galleys.
5. PROCEDURES. No paper distribution will be made of changes to this Notice. Official distribution will be made via Coast Guard Directives System CD-ROM and the Department of Transportation website at: <http://isddc.dot.gov/>. An updated electronic version of the entire Manual and noted changes for downloading is available via the Commandant (G-WK) Publications and Directives website at: <http://www.uscg.mil/hq/G-W/g-wk/g-wkh/g-wkh-1/Pubs/Pubs.Direct.htm>. Message notification will announce changes and effective dates.

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JOYCE M. JOHNSON
Director of Health and Safety

Encl: (1) CH-1 to Food Service Sanitation Manual, COMDTINST M6240.4A

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- (1) Safety Precautions for Food Service Personnel
- (2) Chlorine Solutions
- (3) Summary Chart for Minimum Cooking Temperatures and Holding Times

- 1-B-18. "Hot food storage facility" shall mean steam tables, warmers, and other hot food holding facilities capable of maintaining a safe holding temperature of not less than 140° F (60° C).
19. "Kitchenware" shall mean food preparation and storage utensils.
20. "Leftover" shall mean any unserved food remaining at the end of the meal period for which it is prepared. Example: food that is remaining on the steam table, unused or partially used.
21. "Misbranding" shall mean the use of any written, printed, or graphic matter upon or accompanying products or containers of food, including signs, or placards, displayed in relation to such products so dispensed, which is false or misleading or which violates Federal labeling requirements.
22. "Mobile food unit" shall mean a food service establishment that is designed to be readily moveable.
23. "Organoleptical" shall mean acceptable to smell, touch, taste and visual observation.
24. "Packaged" shall mean bottled, canned, cartoned, or securely wrapped at a food processing establishment or food processing plant.
25. "Perishable food" shall mean any food that may spoil easily and present a health hazard when held above 41° F (5° C).
26. "Person" shall include an individual, partnership, corporation, association or other legal entity.
27. "Potentially hazardous food" (PHF) means any food which consists in whole or in part of milk or milk products, shell eggs, meats, poultry, fish, shellfish, edible crustacea (shrimp, lobster, crab, etc.), baked or boiled potatoes, tofu and other soy-protein foods, plant foods that have been heat-treated, raw seed sprouts, or synthetic ingredients. Potentially hazardous foods are capable of supporting rapid and progressive growth of infectious or disease-causing microorganisms. The term does not include foods that have a pH of 4.6 or less, foods with a water activity of 0.85 or less, air-cooled hard-boiled egg with shell intact, shell egg that had been treated to destroy all viable *Salmonellae*, or a food in an unopened hermetically sealed container that is commercially processed to achieve and maintain commercial sterility under conditions of nonrefrigerated storage and distribution.
28. "Pull date" shall mean the expiration of the shelf-life for the product and the date after which the product shall not be offered for sale or consumption and shall be expressed in standard date format, i.e., 16 April 2001.

- 1-B-29. "Reconstitute" shall mean restoring water to a food that has been concentrated by dehydration or freeze drying.
30. "Safe" shall mean materials that are manufactured from or composed of materials that are not food additives as defined in Section 201 (s) or (t) of the Federal Food, Drug and Cosmetic Act as used, or are food additives or color additives as so defined and are used in conformity with regulations established by the Food and Drug Administration.
31. "Safe holding temperature," as applied to potentially hazardous food, shall mean temperatures of 41° F (5° C) or below when refrigerated and at least 140° F (60°C) when heated.
32. "Sanitization" shall mean effective bactericidal treatment by a process that provides enough accumulative heat or concentration of a chemical for enough time to reduce the bacterial count, including pathogens, to a safe level on utensils and equipment.
33. "Sealed" shall mean free of cracks or other openings that permit the entry or passage of moisture.
34. "Shelf-life" shall mean the maximum time elapsed from the time of preparation of the product until the item must be removed from sale or use and discarded.
35. "Single-service article" shall mean cups, containers, closures, lids, plates, knives, forks, spoons, stirrers, straws, napkins, wrapping materials, toothpicks, and similar articles designed for one-time, one-person use after which they are discarded.
36. "Storage temperature" shall mean the temperature at which the food product is stored immediately after preparation and maintained at a safe holding temperature until it is dispensed to the customer.
37. "Tableware" shall mean multi-use eating and drinking utensils.
38. "Temporary food service establishment" shall mean a food service establishment that operates at a fixed location for a period of time not more than 14 days.
39. "Temporary food service personnel" shall mean those individuals who are assigned to a food service establishment for a period of less than three months, such as messcook and scullery personnel.
40. "Utensils" shall mean any tableware and kitchenware used in the storage, preparation, conveying, or serving of food.

CHAPTER 2 - FOOD CARE

- A. Food Supplies. All foodstuffs shall be wholesome and free from spoilage, filth, or other contamination and shall be fit for human consumption. Food shall be obtained from sources approved by the U.S. Department of Agriculture (USDA) or an approved source from a foreign port that complies with all laws relating to food and food labeling. The use of hermetically sealed food that was not prepared in a food processing establishment is prohibited.
- B. Food Protection.
1. At all times (including while being transported, stored, prepared, displayed, or served) food shall be protected from contamination by all agents, including dust, insects, unclean equipment and utensils, unnecessary handling, coughs and sneezes, flooding, draining, and overhead leakage or condensation.
 2. Potentially hazardous food shall be maintained at a temperature either at or below 41° F (5° C) or at or above 140° F (60° C), as appropriate, at all times, except as otherwise provided in this chapter.
- C. Food Inspection.
1. General.
 - a. All foodstuffs procured for the Armed Forces dining facilities undergo rigid inspection and are subject to various Federal and military specifications established to cover sizes, grades, appearances, and types. These inspections are made by technically qualified personnel of the military veterinary services, Defense Personnel Support Center quality assurance representatives, and the USDA inspectors.
 - b. The medical department representative or other qualified personnel designated by the commanding officer is responsible for inspecting all foodstuffs to determine fitness for human consumption and to ensure receipt from approved sources.
 - c. Occasionally, food items are procured and received that have not been inspected by qualified personnel. All food items including fresh bakery and fresh dairy products, other than milk and milk products which are delivered directly to the food service establishment by vendors, will be accepted by food service personnel and inspected in accordance with this manual. Food found not to be in compliance with USDA regulations and specifications or where there is doubt, shall be rejected as unfit for human consumption.

- 2-C-1. d. Inspections shall maintain liaison with local personnel of the military veterinary services or preventive medicine technicians to avail themselves of general information and techniques involved in foodstuffs inspections.
- e. Food inspections shall be made by the medical department representative in company with the food service officer, food service manager, or other individual designated, where a combination of knowledge and training can result in an effective inspection program. The exercise of intelligence and common sense is the keynote to determining what is fit and what is unfit. Usually, foul odor and an unnatural appearance are causes for rejection; suspected foods shall never be taste tested.
- f. In order to effectively perform fitness for human consumption inspections, a basic knowledge of judging foodstuffs is required.

2. Inspection of Meats and Poultry.

- a. The Federal Meat Inspection Act and the Poultry Products Inspection Act provide for the inspection by an official service of U.S. Department of Agriculture of all meats, meat products, poultry and poultry products intended for interstate shipment. All such products prepared in the United States and purchased by the Armed Forces as part of the ration shall have originated in plants under the supervision of an agency of the U.S. Department of Agriculture and be so marked with the stamp of approval of that agency.
- b. Meats, meat products, poultry, and poultry products destined for resale or for use in non appropriated fund activities shall be purchased from approved plants operating under the supervision of an agency of the U.S. Department of Agriculture or under an acceptable state inspection system. To be acceptable, a state inspection system shall afford health protection and safeguards to the consumer which at least equal those provided by the federal systems.
- c. The military veterinary services do not duplicate the inspections performed by federal and state agencies; however, they do complete for the military the inspections at the point of issue or sale.

2-D. Food Storage.

1. General.

- a. Correct storage procedures play a major part in preventing food-borne illness. The maintenance of proper temperatures, air circulation, and humidity is necessary to preserve foodstuffs and prevent spoilage and subsequent growth of pathogenic organisms. High standards of sanitation shall be maintained in storerooms and refrigerated spaces.
- b. Supply storage buildings shall be protected against insect and rodent invasion. Food items shall be placed on pallets to facilitate cleaning, to prevent insect and rodent harborage and to aid in air circulation and shall be stored with a regard to safety, accessibility, and orderliness. Age is a contributing factor in food spoilage. It is necessary to observe the basic principle of storage that oldest items shall always be used first, except when the condition of a newer item is such that it must be given priority.
- c. Only food items shall be stored in food storage spaces (storerooms, reefers, refrigerators, etc.). Storage of non-food items such as medications, vaccines, batteries, glue, greases, urine samples, etc. in reefer spaces is prohibited.
- d. Stored foods, whether raw or prepared, shall be enclosed in the clean container or package in which they were obtained or shall be enclosed in a clean covered container, except during necessary periods of preparation or service. Use of a cloth towel as a container cover is prohibited.
- e. Food shall be stored six inches above the floor or deck on clean surfaces such as pallets, and protected so that the food items will not be contaminated by splash or other means.
- f. Food items shall not be stored under exposed sewer or non-potable water lines.
- g. Food not subject to further washing or cooking before serving shall be stored in a way that protects it against contamination from food requiring washing or cooking.
- h. Packaged food shall not be stored in contact with water or undrained ice.
- i. Unless its identity is unmistakable, bulk food not stored in the container or package in which it was obtained shall be stored in a container identifying the food by common name.

- 2-D-1. j. Decayed items shall be sorted out and removed from fresh fruits and vegetables. Food items such as eggs and butter which absorb odors should not be stored with fruits and vegetables.

2. Refrigerated Storage.

- a. Enough conveniently located refrigeration facilities or effectively insulated facilities shall be provided to assure the maintenance of food at required temperatures during storage. Each cold food storage unit shall be provided with a numerically scaled indicating thermometer, accurate to plus or minus 3° F, and located in the warmest part of the facility to measure the air temperature. It should be mounted so that it can be easily read. Refrigerators and freezers shall be constructed in accordance with current National Sanitation Foundation (NSF) Standards and bear the NSF seal. Details are provided in NSF Standard Number Seven, Food Service Refrigeration and Storage Freezers. Refrigerators and freezers should be provided with thermometers mounted on the unit's exterior, and another placed inside the unit. Temperature logs shall be maintained on all cold storage spaces and accurate entries shall be made at least daily. Any deviations from recommended storage temperatures shall be reported immediately to the food service officer and the medical officer or the medical department representative.
- b. Potentially hazardous foods requiring refrigeration shall be maintained at a temperature at or below 41° F (5° C), except during necessary periods of preparation.
- c. Frozen foods shall be kept frozen and shall be stored at a temperature of 0° F (-17.8° C) or below.
- d. Ice not intended for human consumption shall not be used to cool stored foods, food containers, or food utensils.
- e. There should be nothing stored in ice machines except ice.
- f. All items shall be stored in such a manner as to provide for adequate air circulation. Storage on the deck of walk-in refrigerators or freezers is prohibited.

3. Hot Storage.

- a. Enough conveniently located hot food storage facilities shall be provided to assure the maintenance of food at the required temperature during storage. Each hot food storage facility shall be provided with a numerically scaled indicating thermometer, accurate to plus or minus 3° F, located in the coolest part of the facility and located to be easily readable.

- 2-D-3. b. Potentially hazardous foods requiring hot storage shall be maintained at or above 140° F (60° C) except during necessary periods of preparation.

4. Dry Food Storage.

- a. Dry food items, other than canned goods, are such foods as cereals, dried fruits, vegetables, flour, and meal. They must be stored under controlled conditions of temperature, humidity, and air circulation.
- b. All dry food items shall be stored above the floor, on clean racks, dollies, pallets, or other clean surfaces, in such a manner as to be protected from contamination by splash or other means.
- c. When canned goods and dry food items are received they shall be inspected for correct can labeling, condition of exterior can, signs of rusting, and other conditions such as swellers, springers, and flippers.
- d. Food items shall be stored away from bulkheads where steam or other heated pipes are located. Stacking should be in a manner to permit adequate air circulation.

E. Special Food Precautions.

1. Dry and Liquid Milk Products.

- a. Milk and milk products for drinking shall be provided to the consumer in unopened, commercially filled packages not exceeding one (1) pint in capacity, or served from a bulk milk dispenser.
- (1) Single-service containers of milk and liquid milk products shall be refrigerated at or below 41° F (5° C) until served. Tops of containers shall be clean and shall not be submerged in water or covered with ice for cooling purposes.
- (2) All milk and milk products dispensed from bulk milk shall be pasteurized. Temperature in the dispenser cabinet shall be maintained within the range of 32° F (0° C) to 41° F (5° C) while milk containers are stored within. A metal-stem type thermometer shall be an integral part of the dispenser cabinet
- b. Multi-use dispenser tubes are prohibited. Single-service tubes (other than pre-cut tubes) shall be cut with a clean cutting instrument at a point no more than one (1) inch beyond the termination of the dispensing mechanism and at a forty-five (45) degree angle.

- 2-E-1. c. Milk contact surfaces shall not be exposed to manual contact, droplet infection, dust, flies, or other sources of contamination.
- d. Dispenser cabinets shall be defrosted at frequent intervals to prevent accumulation of more than three-sixteenth (3/16") inch of ice.
- e. When the pitcher method of milk reconstitution is used, care shall be taken to ensure that pitchers have been cleaned and sanitized prior to use. Long handled, corrosion-resistant spoons or electric beaters used for reconstituting shall also be cleaned and sanitized prior to use. Pitchers are allowed only for serving of reconstituted milk.
2. Ground Food.
- a. Potentially hazardous food which has been ground or chopped and is to be cooked later or incorporated into a recipe shall be refrigerated to 41° F (5° C) or below immediately in shallow pans filled to a depth of not more than three (3) inches and shall be kept covered until cooked.
- b. Grinding or chopping food increases the surface area for possible contamination and growth of harmful bacteria. The grinding process also warms chilled food to the point where microbial growth may start. Only the quantity of ground food that will be consumed at each meal period shall be prepared.
- c. To assure a safe product, ground or chopped foods shall be prepared and cooked in accordance with the methods prescribed in the Armed Forces Recipe Service.
3. Green Vegetables. Green vegetables of uncertain origin shall be suspected as being contaminated with pathogenic organisms and shall be chemically sanitized by immersion for at least fifteen (15) minutes in a 100 ppm available chlorine solution or thirty (30) minutes in a 50 ppm available chlorine solution and thoroughly rinsed with potable water before being cooked or served. Head items such as lettuce, cabbage, celery, etc., must be broken apart before sanitizing.
4. Pastries.
- a. Cream puffs, custard-filled pies and cakes, eclairs, and similar products, including those containing synthetic fillings, shall be prepared under strict sanitary conditions, covered, cooled quickly, and refrigerated at 41° F (5° C) or below until served. They shall remain under refrigeration at 41° F (5° C) or below on the serving line and any leftover items shall be disposed of after each meal.

- 2-E-4. b. When these items are procured commercially, they shall be delivered under refrigeration at 41° F (5° C) or below.
- c. These items are highly perishable and provide ideal culture media for pathogenic organisms. Only the quantity of food which will be consumed for the day shall be prepared or procured. To assure uniformity and safe products, foods shall be prepared and cooked in accordance with the methods prescribed in the Armed Forces Recipe Service, NAVSUP PUB 7, stock number 0530-LP-016-1010.

F. Food Display and Service.

1. Potentially Hazardous Foods. Potentially hazardous foods shall be kept either 41° F (5° C) or below or 140° F (60° C) or above during display and service.
2. Display Equipment. Food displayed on salad bars, steam tables, and other serving lines shall be protected from consumer contamination by easily cleanable counter-protector devices, such as "sneeze guards" and display cases. Enough utensils shall be provided to ensure elimination of cross contamination between foods.
3. Reuse of Tableware. Reuse of soiled tableware is prohibited.
4. Dispensing Utensils. Suitable utensils shall be used by employees and provided to consumers who serve themselves to avoid unnecessary contact with food. Between uses, utensils shall be:
 - a. stored in food containers with the food they are being used to serve in a position to ensure the handles will not come into contact with the food item, or
 - b. stored clean and dry, or
 - c. stored in running water; or
 - d. in the case of utensils and ice cream scoops used in serving frozen desserts, they shall be stored either in running water, dipper wells, or clean and dry. At no time shall they be immersed in a pan or container of water and left at room temperature. Dippers immersed in water must have potable water continuing to flow to waste.
5. Condiment Dispensing. Sugar, condiments, seasonings, and dressings for self-service use shall be provided only in individual packages or from dispensers that protect their contents. If condiments containing high protein ingredients are dispensed in other than individual packages, they shall be protected from contamination and be held at temperatures below 41° F (5° C). They shall be

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placed on the line in small amounts and replenished frequently. Any portion remaining at the end of a meal period will be disposed of as garbage.

G. Ice Dispensing.

1. Ice making machines shall be located, installed, operated, and maintained in a sanitary manner to prevent contamination. The machine shall be cleaned and inspected periodically by refrigeration personnel to ensure proper operation. The motor area and insulation panels shall be inspected weekly for evidence of cockroach infestation. Care shall be taken to ensure the absence of submerged nonpotable water inlets. Airgaps in drains from the ice storage bin shall be provided. Overflow pipes shall be provided for defrosting tanks to prevent contamination of the ice with water used for defrosting. Sanitary racks or stowage shall be provided for hoses or lines used to fill freezing trays. Rules of sanitary conduct for personnel manufacturing or handling ice shall also be provided by the supervisor of food service establishment or other designated personnel.
2. Ice for consumer use shall be dispensed only with scoops, tongs, or other ice dispensing utensils or through automatic self-service ice dispensing equipment. Between uses, ice dispensing utensils and ice receptacles shall be stored in a way that protects them from contamination. Dispensing utensils shall not be stored in ice making machines.

H. Food Transportation.

1. During transportation, food shall be in covered containers, or completely wrapped or packaged so as to be protected from contamination.
2. During transportation to another location for serving or catering operations, food shall meet the requirements of this chapter relating to stored foods.
3. All potentially hazardous foods shall be maintained at or below 41° F (5° C) or at or below 140° F (60° C) during transportation.

I. Food Preparation.

1. All food (including ice) will be obtained from approved sources and will be wholesome, honestly presented and labeled per Federal law.
2. Food prepared in a private home may not be used or offered for human consumption in a food establishment. This requirement does not apply to chapel suppers, family child care homes, neighborhood cookouts, unit bake sales, and similar functions, provided the food is identified as home

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prepared food. Serving home canned foods is prohibited at command sponsored events.
3. Food Protection Measures. Minimum food protection measures include:
- a. Applying good sanitation practices in the handling of food.
 - b. Maintaining high standards of personal hygiene.
 - c. Keeping potentially hazardous foods (PHFs) refrigerated or heated to temperatures that minimize the growth of pathogenic microorganisms.
 - d. Inspecting food products for wholesomeness, temperature, and sanitary condition prior to acceptance at the facility.
 - e. Cooking PHFs, as appropriate, to kill harmful microorganisms.
 - f. Providing adequate personnel, equipment, and facilities to ensure sanitary operation.
 - g. Preventing infestation or contamination of food by insects and rodents, and contamination of food with toxic chemicals.
 - h. Use properly designed, cleaned and sanitized equipment for its intended use.
4. Cooking Raw Animal Products.
- a. Except as specified in the paragraphs below, raw animal foods such as eggs, fish, poultry, meat (except roast beef), and foods containing these raw animal foods, shall be cooked to heat all parts of the food to an internal temperatures as identified in Table 2-1.
 - (1) Poultry, poultry stuffing, stuffed meats, stuffed fish or stuffing containing fish, meat or poultry shall be cooked immediately after preparation and without interruption to heat all parts to a minimum internal product temperature of 165°F (74°C) for 15 seconds.
 - (2) Pork, game animals, comminuted fish and meats, injected meats and eggs that are not cooked to order shall be cooked to meet one of the time temperature combinations shown in Table 2-1 below:

2-I-4.a.(2).

Table 2-1 Minimum cooking time and temperature combinations for pork, game animals, comminuted fish and meats, injected meats and eggs that are not cooked to order.

Minimum Internal Product Temperatures	Time
145°F (63°C)	3 minutes
150°F (66°C)	1 minute
155°F (68°C)	15 seconds

- (3) Ground beef should be cooked to a minimum internal temperature of 155°F for 15 seconds or until juices run clear.
- (4) Whole beef roasts and corned beef roasts shall be cooked in an oven that is preheated to the temperature specified in Table 2-2 and is held at or above that temperature; and to a food temperature as specified in Table 2-3 for the corresponding amount of time for that temperature.

Table 2-2 Oven parameters required for destruction of pathogens on the surface of roasts of beef and corned beef.

Oven Type	Oven Temperature Based on Roast Weight	
	Less than 10 lbs (4.5 kg)	10 lbs (4.5 kg) or greater
Still Dry	350°F (177°C) or greater	250°F (121°C) or greater
Convection	325°F (163°C) or greater	250°F (121°C) or greater
High Humidity ¹	250°F (121°C) or greater	250°F (121°C) or greater

¹Relative humidity greater than 90% for at least 1 hour as measured in the cooking chamber or exit of the oven; or in a moisture impermeable bag that provides 100% humidity.

Table 2-3 Minimum holding times required at specified temperatures for cooking all parts of roasts of beef and corned beef.

Temperature/Time ¹ °F (°C)		Temperature/Time ¹ °F (°C)		Temperature/Time ¹ °F (°C)	
130 (54)	121 minutes	136 (58)	32 minutes	142 (61)	8 minutes
132 (56)	77 minutes	138 (59)	19 minutes	144 (62)	5 minutes
134 (57)	47 minutes	140 (60)	12 minutes	145 (63)	3 minutes

¹Holding time may include post oven heat rise.

2-I-4. b. Microwave Cooking

- (1) Raw animal foods cooked in a microwave oven shall be:
 - (a) Rotated or stirred throughout or midway during cooking to compensate for uneven distribution of heat;
 - (b) Covered to retain surface moisture;
 - (c) Heated to a temperature of at least 165°F (74°C) in all parts of the food;
 - (d) Allowed to stand covered for 2 minutes after cooking to obtain temperature equilibrium.

c. Raw, marinated, or partially cooked fish (other than molluscan shellfish), will be frozen before service or sale in ready-to-eat form as follows:

- (1) Frozen throughout to a temperature of:
 - (a) -4°F (-20°C) or below for 168 hours (7 days) in a freezer.
 - (b) -31°F (-35°C) or below for 15 hours in a blast freezer.

d. Safe Egg Handling Guidelines:

- (1) Serving raw eggs and foods containing raw eggs is prohibited.
- (2) Recipes which call for uncooked eggs, e.g., mayonnaise, eggnog, ice cream, Caesar salad dressing, hollandaise sauce, etc., will be prepared using only pasteurized frozen table eggs.
- (3) Shell eggs that are broken and prepared to order and for immediate service, will be cooked to a minimum internal product temperature of at least 145°F for at least 15 seconds or until the white is firm, not running, and the yolk is set.
- (4) Scrambled eggs, in bulk amounts, may be prepared using pasteurized frozen table eggs, pasteurized dehydrated egg mix, or fresh shell eggs. If fresh shell eggs are used, the following provisions are required:
 - (a) Cook bulk amounts of scrambled eggs in small batches of no more than 3 quarts. Cook to heat all parts of the food to a minimal internal temperature of 155°F (63°C) for at least 15 seconds and until there is no visible liquid egg.

- 2-I-4.d.(4). (b) Hold until served at 140°F or higher, such as on a hot food table.
- (c) Do not combine just cooked scrambled eggs to the batch held on a hot food table. A clean sanitized container is required for each 3 quarts of scrambled eggs.

5. Safe Holding Temperatures for Cooked Food.

- a. Potentially hazardous foods which are not served immediately after cooking must be either rapidly chilled to temperatures of 41°F or lower, or held at 140°F or higher. Growth of harmful bacteria and the development of toxins (poisons) formed by bacteria occur rapidly in protein foods when held at temperatures between 41°F and 140°F. Potentially hazardous foods which have been held at temperatures between 41°F and 140°F longer than 4 hours are considered unsafe for consumption and must be destroyed. If the product is refrigerated at intervals and then permitted to warm, the total time of the various periods between 41°F and 140°F must not exceed 4 hours.
- b. Potentially hazardous ingredients for foods that are in a form to be consumed without further cooking such as salads, sandwiches, filled pastry products and reconstituted foods must have been chilled to 41°F or below prior to preparation.

6. Reconstituting or Fortifying Food.

- a. The ingredients and the container must be prechilled to 41°F or below before reconstituting or fortifying a potentially hazardous food with the addition of a dry ingredient such as dry milk or milk product, a dessert mix or similar product if the container is larger than 1 gallon.
- b. A potentially hazardous food which has been reconstituted or fortified by the addition of a dry ingredient such as dried milk, eggs, soup, sauce, dessert mix or similar product, if not for immediate service, must be:
- (1) Held at 41°F or below until served;
 - (2) Immediately placed, after mixing, into either a frozen dessert machine or other liquid product refrigeration unit; or
 - (3) Held at 140°F or above.
- c. A reconstituted or fortified potentially hazardous food that is held between 41°F and 140°F for longer than 4 hours will be discarded.

2-I-7. Time as a Public Health Control.

a. Time only, rather than time in conjunction with temperature, may be used as the public health control for a working supply of potentially hazardous food before cooking, or for ready to eat potentially hazardous food that is displayed or held for service for immediate consumption, if:

- (1) The food is marked or otherwise identified with the time within which it shall be cooked, served, or discarded;
- (2) The food is served or discarded within 4 hours from the point in time when the food is removed from temperature control;
- (3) Food in unmarked containers or packages, or for which the time expires, is discarded; and
- (4) Temperature logs are maintained to document cooling and verify all requirements have been met.

8. Re-service. Once served to a consumer, individual portions of food shall not be served again. Packaged food, other than potentially hazardous food, that is still wholesome, may be reserved.

J. Leftovers.

1. Leftovers. Any unserved food remaining at the end of the meal period for which it is prepared. Served food, or food that has been placed on a serving line does not qualify and must be discarded. Leftovers are categorized as potentially hazardous food and nonpotentially hazardous food.
2. Nonpotentially hazardous leftovers. Items such as individual commercially packaged crackers, condiments, etc., which may be recovered from the serving line, but not dining tables or trays, and be retained for reuse. Bottled condiments that do not require refrigeration (e.g. mustard, catsup/ketchup, steak sauce, etc.) may be retained for reuse. Unsliced, hard skinned fruits may be retained from serving lines for reuse provided they are washed.
3. Potentially Hazardous Leftovers. Potentially hazardous leftovers include any potentially hazardous food prepared for a specific meal period and then retained for a later meal period. The following provisions apply:
 - a. Foods with commercially prepared chopped or ground meat ingredients may be retained as leftovers.
 - b. Potentially hazardous food retained as leftovers must have been held at safe temperatures.

- 2-J-3. c. Potentially hazardous food must not have been placed on the serving line. They must have been held in the kitchen for "hot holding" at 140°F or in "cold holding" at 41°F or below.
- d. Hot items to be retained chilled, must be cooled within a 4-hour period, in the following manner:
- (1) From 140°F to 70°F within 2 hours; and
 - (2) From 70°F to 41°F, or below, within the total 4-hour period.
 - (a) Any food not meeting these temperature requirements at the specified times will be discarded.
 - (b) These food items must be maintained at 41°F or below until removed for service or heating for hot holding prior to service.
 - (3) Rapid cooling of leftovers will be accomplished by using one or more of the following methods to bring the product temperature from the required cooking temperature to 41°F or below within the 4-hour period:
 - (a) Quick chilling with ice bath and agitation (stirring mechanically or manually every 20 to 30 minutes).
 - (b) Portioning to shallow pans (3 inches (7.6 cm) product depth or less) or smaller containers (1 gallon or less).
 - (c) Using prechilled pans and containers for portioning products.
 - (d) Circulating cold water in steam jacket or kettles (where feasible).
 - (e) Short term storage with agitation in walk-in refrigerator operating below 38°F, or in a rapid chill refrigerator to reduce the temperature prior to placing in a standard refrigerator.
 - (f) Immersing the cooking container in cold, running water with product agitation.
 - (g) Spreading sliced or layered solid items in shallow pans, then refrigerating.
 - (h) Distributing the product among several refrigerators.

- 2-J-3.d.(3). (i) Using metal, stainless steel or aluminum, containers. (Metal containers have higher rates of heat transfer than plastic or glass containers.)
- (j) Using reduced water content for recipes such as stews. After cooking add potable ice to make up the volume of water and promote rapid cooling.
- (k) Using ice type paddles.
- (4) Potentially hazardous leftovers must be labeled "Leftover Use Within 24 Hours" with the date and time of original preparation and the discard date and time.
4. Potentially hazardous foods which have been cooked, chilled and reheated for service shall not be saved as leftovers.
 5. Leftover foods may be retained for 24 hours chilled (41°F or below) or for 5 hours if maintained hot (140°F or above). The time limit(s) for leftovers begins when the food is removed from hot holding. No temperature logs are required but foods must not be in the "danger zone" between 41°F and 140°F for more than four total hours from time of preparation until discarded.
 6. Freezing of leftovers is prohibited.
 7. Reheating Leftover Potentially Hazardous Food. Potentially hazardous food that has been cooked and then refrigerated and which is reheated for hot holding must be reheated so that all parts of the food reach 165°F for a minimum of 15 seconds and then held at 140°F or above until served. The time for reheating to 165°F will not exceed 2 hours.
 8. Prohibited Leftovers.
 - a. Foods composed of ingredients which have been peeled, sliced, or diced by hand after cooking must never be used as leftovers, since the 4-hour time limit between temperatures of 41°F and 140°F is usually taken up in preparing, chilling, and serving the food.
 - b. These foods include, but are not necessarily limited to potato salad, chicken salad, turkey salad, macaroni salad, shrimp salad, egg salad, and similar items. Also included are foods that have been creamed or handled a great amount (e.g., hashes, most gravies and dressings, and creamed meats) and items that are highly perishable (e.g., most seafood).
 - c. Nonpackaged or unwrapped potentially hazardous food recovered from a self-service line must not be retained as leftovers.

2-K. Frozen Foods.

1. Thawing Procedures.

- a. Frozen foods must not be thawed by exposure to excessive heat or warm air currents. The ideal procedure is to place frozen foods under controlled thawing temperatures (36°F to 38°F) in their original wrappers or containers.
- b. Frozen foods may be thawed in microwave ovens provided they are immediately cooked thereafter as a part of a continuous cooking process.
- c. At shore based facilities frozen foods may be thawed completely submerged under running water:
 - (1) At a water temperature of 70°F (21°C) or below;
 - (2) With sufficient water velocity to agitate and float off loose particles in an overflow;
 - (3) For a period of time that does not allow thawed portions of ready-to-eat food to rise above 41°F (5°C);
 - (4) For a period of time that does not allow thawed portions of a raw animal food requiring cooking to be above 41°F (5°C) for more than 4 hours including:
 - (a) The time the food is exposed to the running water and the time needed for preparation for cooking, or
 - (b) The time it takes under refrigeration to lower the food temperature to 41°F (5°C).

CHAPTER 5. CLEANING, SANITIZATION AND STORAGE OF EQUIPMENT,
UTENSILS, AND CLEANING GEAR

A. Equipment and Utensils Cleaning and Sanitation.

1. Cleaning Frequency.

- a. Tableware shall be cleaned and sanitized after each use.
- b. Kitchenware and food contact surfaces of equipment shall be cleaned and sanitized after each use and following any interruption of operations when contamination may have occurred.
- c. Where equipment and utensils are used for the preparation of potentially hazardous foods on a continuous or production line basis, utensils and the food contact surfaces of equipment shall be cleaned and sanitized at various intervals throughout the day as deemed necessary by the food service supervisor. This cleaning shall be based on food temperature, type, and amount of particle accumulation.
- d. The food contact surfaces of grills, griddles, and similar cooking devices and the cavities of microwave ovens shall be cleaned after each use and shall be kept free of encrusted grease deposits and other accumulated soil.
- e. Tables and tableware shall be cleaned after each meal and thoroughly scrubbed after the evening meal to remove all residues of food.
- f. All galley equipment shall be cleaned and sanitized thoroughly after each meal. This includes slicing machines, mixers, can openers, milk machines, toasters, etc.
- g. The exterior of all condiment dispensers (sugar spices, salt, and pepper) shall be cleaned after each meal.
- h. When inspecting refrigerated storage spaces, the following guidelines should be used:
 - (1) Any accumulation of frost on refrigerator coils and units shall be observed. A thick layer of frost or ice will reduce the efficiency of the system and may result in overloading the compressors. Defrosting shall be done before frost thickness reaches one-fourth (1/4) of an inch.

5-A-1.h. (2) Non frost-free refrigerators and freezer spaces shall be frequently defrosted and all shall be cleaned at regular intervals or as operations permit. After having been defrosted according to operating instructions, they shall be scrubbed and washed thoroughly with hot detergent solution, rinsed and all surfaces sanitized.

2. Wiping Cloths and Sponges.

- a. Sponges shall not be used in food service areas. Cloths that are used for wiping food spills shall be used for no other purpose. Wet wiping cloths must be stored in a sanitizing solution listed in Table 5-1 between uses. Cloths must be washed and sanitized after each meal period. Wet wiping cloths used with a freshly made sanitizing solution and dry wiping cloths shall be free of food debris and visible soil. When odors or soil cannot be removed from the cloths, they must be discarded.
- b. Cloths that are used with raw animal foods shall be kept separate from cloths used for other purposes, including separate sanitizing solutions.

3. Manual Cleaning and Sanitizing.

- a. Sinks shall be cleaned prior to each use. Equipment and utensils shall be preflushed or prescraped and, when necessary, presoaked to remove gross food particles and soil. Equipment and utensils shall be thoroughly washed in a hot detergent solution that is kept clean and then shall be rinsed free of detergent and abrasives.
- b. Enclosure (2) contains a list of tables giving amount of each stock solution or chlorine compound to be added to water to produce an initial chlorine concentration of 1, 2, 5, 50 and 100 parts per million (ppm).
- c. All tableware and the food contact surfaces of all other equipment and utensils shall be sanitized by one of the following methods:

(1) Immersion for 10 seconds in a solution with temperature, chlorine concentrations and pH according to the following table:

Table 5-1: Requirements for a 10 second chlorine rinse

Minimum Chlorine Concentration	Minimum Water Temperature	
	pH 10 or less (°F)	PH 8 or less (°F)
mg/L (ppm)		
25	120	120
50	100	75
100	55	55

- 5-A-3.c.
- (2) Immersion for at least thirty (30) seconds in clean, hot water at a temperature of at least 171° F (77° C).
 - (3) Immersion for at least one (1) minute in a clean solution containing 12.5 – 25 ppm of available iodine, a pH not higher than 5.0 and having a temperature of at least 75° F (23.8° C).
 - (4) In the case of equipment too large to sanitize by immersion:
 - (a) Treatment by steam. The steam must be free from materials or additives other than those specified by the Food and Drug Administration
 - (b) Rinsing, spraying, or swabbing with a chemical sanitizing solution of at least twice the usual recommended strength.
- d. When chemicals are used for sanitization, they shall not have concentrations higher than the maximum permitted by the Food and Drug Administration. A test kit or other device that accurately measures the ppm and the pH concentration of the solutions shall be provided and used.
- e. A three-compartment sink shall be used if cleaning and sanitization of equipment is done manually. Sinks shall be large enough to permit the complete immersion of the equipment and utensils, and each compartment of the sink shall be supplied with hot and cold potable running water.
- f. Dish tables or drain boards of adequate size shall be provided for proper handling of soiled utensils prior to washing and for clean utensils following sanitizing. They shall be located so as not to interfere with the proper use of the dishwashing facilities.
- g. When hot water is used for sanitizing, the following facilities shall be provided and used:
 - (1) An integral heating device or fixture installed in or under the sanitizing compartment of the sink, capable of maintaining the water at a temperature of at least 171° F (77° C) and,
 - (2) A numerically scaled indicating thermometer accurate to plus or minus 3° F convenient to the sink shall be used for frequent checks of the water temperature; and,

- 5-A-3.g. (3) Dish baskets of such size and design to permit complete immersion of the tableware, kitchenware, and equipment in the hot water.

4. Mechanical Cleaning and Sanitizing.

- a. Cleaning and sanitizing may be done by spray-type or immersion dishwashing machines or by any other type of machine or device that thoroughly cleans and sanitizes equipment and utensils. Such machines and devices shall be properly installed and maintained in good repair. Automatic detergent dispensers and wetting agent dispensers, if any, shall be properly installed and maintained.
- b. The pressure of water supplied to spray-type dishwashing machines shall not be less than 15 nor more than 25 pounds per square inch (psi) on the water line at the machines and not less than ten (10) pounds (psi) at the rinse nozzle. A one-fourth (1/4) inch IPS valve and gauge shall be provided immediately upstream from the final rinse control valve to permit checking the flow pressure of the final rinse water.
- c. Easily readable, numerically scaled indicating thermometers accurate to plus or minus 3 degrees F. shall be provided to indicate the temperature of the water in each tank of the machine and the temperature of the rinse water as it enters the manifold.
- d. Rinse water tanks shall be protected by baffles or other effective means to minimize the entry of wash water into the rinse water. Conveyors in washing machines shall be accurately timed to assure proper exposure times in wash and rinse cycles as determined by specifications attached to the machines.
- e. Drain boards shall be of adequate size for the proper handling of soiled utensils prior to washing and for clean utensils following sanitization. They shall be located and constructed not to interfere with the proper use of the dishwashing facilities.
- f. Equipment and utensils shall be flushed or scraped and, when necessary, soaked to remove gross food particles and soil prior to their being cleaned in a dishwashing machine. After flushing, scraping, and soaking, equipment and utensils shall be placed in racks, trays, baskets, or on conveyors. They shall be placed so that food contact surfaces are subject to unobstructed application of detergent wash and clean rinse waters and to permit free draining. Clean rinse water shall remove particulate detergent residues. All dishwashing machines shall be thoroughly cleaned following each washing period.
- g. Booster heaters, if required, must be installed in accordance with the manufacturers directions.

5-A-5. Machines Using Hot Water Sanitizing.

a. Wash waters and pumped rinse waters shall be kept clean. Water shall be maintained at not less than the following temperatures:

- (1) Wash temperature: 140° - 160° F (60° - 71° C)
- (2) Pumped rinse temperature: 165° - 180° F (74° - 82° C)
- (3) Final rinse temperature: 180° - 194° F (82° - 90° C)

b. Washed and pumped rinse temperatures are measured in the respective tanks, and the final rinse temperature is measured at the manifold.

c. A minimum utensil surface temperature 160° F (71° C) must be achieved.

6. Drying. All equipment and utensils shall be air dried. Fans or forced air shall not be used to dry equipment and utensils.

B. Equipment and Utensil Storage.

1. Handling. Clean and sanitized equipment and utensils shall be handled in a way that protects them from contamination. Spoons, knives, and forks shall be touched only by their handles. These utensils shall be washed with handles down in containers and then transferred (inverted) to storage containers with handles up. Cups, glasses, and bowls shall be handled without contact with inside surfaces or with surfaces that contact the users mouth.

2. Storage.

a. Clean and sanitized utensils and moveable equipment shall be stored above the floor in a clean, dry location in a way that protects them from contamination by splash, dust, and other means. The food contact surfaces of fixed equipment shall also be protected from contamination. Equipment and utensils shall not be placed under exposed sewer or non-potable water lines.

b. Utensils shall be air dried before being stored or shall be stored in a self-draining position on suitably located hooks or racks.

c. Whenever practical, stored utensils shall be covered or inverted. Facilities for the storage of spoons, knives, and forks shall be provided and shall be designed to present the handle to the employee or consumer.

- 5-B-2. d. Cups, bowls, glasses, plates, etc., shall be stored inverted in racks or in closed cabinets.
- e. All waste disposal plumbing or lines, open or closed, which pass over food preparation areas, food storage areas, utensil and equipment washing or storage areas, and areas where food is served, shall be provided with a one piece constructed metal dropleess trough immediately below such waste line and sloped to drain away from such area.

3. Pre-set Tableware.

- a. Tableware shall be set prior to serving a meal only if glasses and cups are inverted, and knives, forks, and spoons are wrapped or otherwise covered.
- b. All unused pre-set tableware shall be collected for washing and sanitizing after the meal period.

4. Single-Service Articles.

- a. Single-service articles shall be stored above the floor on clean shelves and in closed containers that protect them from contamination.
- b. Single-service articles shall be commercially packaged for individual use or shall be available to the consumer from a dispenser in a way that prevents contamination of surfaces that may contact food or the user's mouth. Handling of single-service articles in bulk shall be conducted in a way that protects them from contamination.
- c. Single-service articles shall be used only once.

C. Storage of Cleaning Gear.

- 1. Cleaning gear and cleaning supplies shall be stored only in an area specifically designated for that purpose. These items shall not be stored in food preparation or serving areas, in storage cabinets, or on food storage shelves. To preclude the creation of a fire hazard they shall not be stored in the same cabinet or locker as insecticides.
- 2. Cleaning gear shall include:
 - a. Swabs
 - b. Brushes
 - c. Rags

CHAPTER 8 - MOBILE FOOD SERVICE

A. Mobile Food Units.

1. General. Mobile food units shall comply with the requirements of this manual, except as otherwise provided in this chapter. The commanding officer may impose additional requirements to protect against health hazards related to the conduct of the food service establishment as a mobile operation. They may also prohibit the sale of some or all potentially hazardous foods. Transportation of food from a centralized kitchen to a satellite dining facility poses special hazards which increase in proportion to distance and time. All foods, therefore, shall be transported in covered containers or completely wrapped or packaged so to protect from contamination, and all potentially hazardous food shall be maintained at 41° F (5° C) or below or 140° F (60° C) or above during transportation.
2. Restricted Operation. A mobile food unit shall serve only food that was prepared and packaged in individual servings, transported and stored under conditions meeting the requirements of this manual. Beverages that are not potentially hazardous and are dispensed from covered urns or other protected equipment are authorized. They need not comply with the requirements of this chapter pertaining to the necessity of water and sewage systems, not to those requirements pertaining to the cleaning and sanitization of equipment and utensils, if the required equipment for cleaning and sanitization exists at the commissary. All food service equipment in mobile vans shall meet applicable design and performance standards of the National Sanitation Foundation.
3. Single-Service Articles. Mobile food units shall provide only single-service articles for use by the consumer.
4. Water Systems. A mobile food unit requiring a water system shall have a potable water system under pressure. The system shall be of sufficient capacity to furnish enough hot and cold water for food preparation, utensil cleaning, sanitization, and hand washing. The water inlet shall be located in such a position that it will not be contaminated by waste discharge, road dust, oil, or grease, and it shall be provided with a transition connection of a size or type that will prevent its use for any other service. All water distribution pipes or tubing shall be constructed and installed according to the requirements of this Chapter.

- 8-A-5. Waste Retention. If liquid waste results from operation of a mobile food unit, it shall be stored in permanently installed retention tanks that are at least fifty percent (50%) larger than the water supply tank. Liquid waste shall not be discharged from the retention tank when the mobile food unit is in motion. All connections on the vehicle for servicing mobile food unit's waste disposal facilities shall be of a different size and type than those used for supplying potable water to the food unit. The waste connection shall be located below the water connection to preclude contamination of the potable water system.
- B. Commissary. Mobile food units shall operate from a commissary or other fixed food service establishment that is constructed and operated in compliance with the requirements of this manual.
- C. Servicing Area and Operations.
1. Servicing Area. An enclosed service building separated from commissary operations shall be provided for supplying and maintaining mobile food units. The service area shall be constructed and operated in compliance with the requirements of this manual.
 2. Servicing Operations.
 - a. Potable water servicing equipment shall be stored in a way that protects the water and equipment from contamination.
 - b. The mobile food unit liquid waste tank shall be thoroughly flushed and drained during servicing operations. All liquid waste shall be discharged to a sanitary disposal system in accordance with the Water Supply and Waste Water Disposal Manual, COMDTINST M11300.2(series). The flushing and draining area for liquid waste shall be separate from the area for loading and unloading of food and related supplies.

CHAPTER 9 - TEMPORARY FOOD SERVICE ESTABLISHMENTS

- A. General. A temporary food service establishment shall comply with the requirements of this manual. The commanding officer may impose additional requirements to protect against health hazards related to the conduct of the temporary food service establishment and may prohibit the sale of some or all potentially hazardous foods. Requirements of this chapter may be waived or modified when no health hazard will result.
- B. Operating Restrictions.
1. This section is applicable whenever a temporary food service establishment is permitted to operate without complying with all the requirements of this chapter.
 2. Potentially hazardous foods may not be served, except those that require only limited preparation such as seasoning and cooking, i.e., hamburgers, frankfurters, etc. This prohibition includes pastries filled with cream or synthetic cream, custards (or similar products), and salads or sandwiches containing meat, poultry, egg, or fish. This prohibition does not apply, however, to any potentially hazardous food that has been prepared and packaged under conditions meeting the requirements of this chapter if it is obtained in individual servings stored at a temperature of either 41° F (5° C) or below or 140° F (60° C) or above. The facilities shall meet the requirements of this chapter, and all food items shall be served directly in the unopened container in which it was packaged.
 3. Ice. Ice that is consumed or that contacts food shall have been made under sanitary conditions. The ice shall be obtained only in chipped, crushed, or cubed form and in single use food grade plastic or wet strength bags filled and sealed at the point of manufacture. The ice shall be held in bags until used. When used, the ice shall be dispensed in a way that protects it from contamination.
 4. Equipment.
 - a. Equipment shall be located and installed in a way that facilitates cleaning the establishment and that prevents food contamination.
 - b. Food contact surfaces of equipment shall be protected from contamination by consumers and other contaminating agents. When helpful to prevent contamination, effective shields for equipment shall be provided.

- 9-B-5. Water. Enough potable water shall be available in the establishment for cleaning, sanitizing utensils and equipment, and for hand washing. A heating facility located on the premises and capable of producing enough hot water for these purposes shall be provided.
6. Wet Storage. The storage of packaged food in contact with undrained ice is prohibited.
7. Waste. Liquid waste shall be disposed of in accordance with the Water Supply and Waste Water Disposal Manual, COMDTINST M6240.5(series).
8. Handwashing. A facility shall be provided for employee hand-washing. Where water pressure is unavailable, such facility shall consist of at least a pan, liquid or powdered soap in a mechanical dispenser, water, and individual paper towels.
9. Floors. Floors shall be made of concrete, tight wood, asphalt, or other similar cleanable materials. Dirt or gravel floors may be used if graded to preclude the accumulation of liquids and covered with removable, cleanable platforms and duckboards.
10. Walls and Ceilings of Food Preparation Areas.
- a. Walls and ceilings of food preparation areas shall be constructed in a way that prevents the entrance of insects. Ceilings shall be made of wood, canvas or other materials that protects the interior of the establishment from the weather. Screening material used for walls shall be at least sixteen (16) mesh to the inch.
- b. Counter service openings shall not be larger than are necessary for the particular operation conducted. These openings shall be provided with tight windows or shall be provided with fans installed and operated to restrict the entrance of flying insects. Doors and windows, if any, shall be kept closed, except when food is being served.

CHAPTER 10 - MISCELLANEOUS

A. Salad Bars and Self-Service Items.

1. Salad Bars.

- a. Salad bars may be set up on a self-service basis and shall be equipped with a "sneeze shield." To assure proper refrigeration, all salad bar items shall be placed in pans or in trays and shall be pre-chilled prior to being placed on the salad bar. The pans or trays shall be placed on a bed of ice or an electrically refrigerated salad bar unit. Proper drainage is essential if ice is used to chill salad bar items.
- b. Easily contaminated foods (salad mixtures containing meat, fish, poultry, eggs, cooked salad dressing, and mayonnaise) shall be placed on the salad bar in small quantities and replenished as needed. All such items and any mayonnaise or cooked salad dressing remaining on the salad bar shall be refrigerated at 41° F (5° C) or below and after completion of the meal all remaining food shall be destroyed.
- c. Careful attention shall be given to arrangement of salad bar items to eliminate the necessity of reaching over one container of food to get to another.
- d. An adequate number of proper serving utensils for the salad bar shall be provided to ensure proper sanitation and aid in keeping the salad bar in neat order during self-service.
- e. Certain commercial brands of salad dressings are exempted from the requirement for refrigeration during meal periods. Guidance concerning which brands and products are exempt may be obtained from preventive medicine personnel or by reading the label.

2. Self-Service Items.

- a. Food items permitted in self-service areas are bread, butter, crackers, relishes, condiments, beverages, and certain types of desserts. Desserts which may be self-served are:
 - (1) Desserts in individual dishes,
 - (2) Individually wrapped portions of ice cream,
 - (3) Cookies,
 - (4) Fruits (fresh, canned, stewed, and frozen), and
 - (5) Fruit-flavored gelatin.

- 10-A-2. b. Desserts such as cakes, pies, puddings, and bulk ice cream shall not be self-served unless set up in individual dishes.
- c. Clubs, dining facilities, and exchanges may serve prewrapped sandwiches as self-service items. If not refrigerated during service, sandwiches must be served and consumed within four (4) hours after removal from refrigeration.
- d. The person in charge of the serving line shall ensure sanitary self-service conditions by having an adequate number of appropriate serving utensils near or with the foods designated for self-service. Self-service lines shall be carefully supervised throughout the meal period to keep foods neatly arranged and replenished as needed.
- e. Authority to permit self-service of items other than those listed in the proceeding paragraphs shall be requested in writing from the commanding officer.

B. Preparation and Serving of Sandwiches.

1. Preparation of Sandwiches. Due to the method of preparation, types of filling, handling and storage procedures, sandwiches are potentially hazardous food items. The following requirements shall therefore apply to their preparation and storage:
- a. Sandwiches not prepared at a Coast Guard activity shall be procured from a commercial establishment that is listed in the area Directory of Sanitarily Approved Food Establishments for Armed Forces Procurement as published by the Department of the Army.
- b. Sandwiches shall be freshly prepared and shall be properly labeled. Each sandwich shall be labeled, marked or stamped with the date and time of preparation and a "pull date." Disposable polyethylene gloves or the equivalent shall be utilized by all food service personnel preparing sandwiches.
- c. Sandwiches freshly prepared must be refrigerated immediately.
- d. Sandwiches intended to be eaten hot, such as a Reuben sandwich, shall be prepared upon customer request or in a mass feeding facility, such as a dining facility, immediately prior to serving.
- e. Sandwiches shall be individually wrapped in polyethylene film, wax paper or similar materials except in those instances where sandwiches are made to individual customer order, such as on a galley short order line.

10-B-2. Classification of Sandwiches. For the purpose of discussion, sandwiches are categorized in three classes:

- a. Class I - Fresh, chilled, prepared daily are for sale over the counter, off mobile vending trucks, or via vending machines. This class also includes sandwiches prepared by a ship or shore activity galley for serving as "Mid Rats", utilizing "leftovers" or portions of unused meals, and frozen commercially prepared sandwiches delivered to a user activity in refrigerator equipped trucks at temperatures above 0° F (-17.8° C).
- b. Class II - Sandwiches which are prepared in the Coast Guard dining facility and intended for use in flight or boat meals should be prepared and handled as prescribed in Section 10-C-1 of this Chapter. If this is infeasible, the sandwiches are subject to the following requirements;
 - (1) Only fresh prepared sandwiches containing suitable ingredients for freezing shall be frozen.
 - (2) Each sandwich shall be wrapped and sealed separately in a double thickness of polyethylene film, wax paper, or other moisture vapor resistant material.
 - (3) Immediately after wrapping, sandwiches shall be frozen at 0° F (-17.8° C) or below and stored at the same temperature.
 - (4) Using units shall be informed that sandwiches shall be consumed within five (5) hours from issue (time begins when sandwiches are removed from the freezer).
- c. Class III - Sandwiches, frozen commercial, shall mean that the sandwich material was prepared initially for mass sandwich production; that the central kitchen is designed specifically for mass sandwich production; that the sandwiches are hermetically sealed, individually and immediately frozen to 0 F (-17.8° C) or below and kept at these temperatures in the central storage freezer. It also means that the sandwiches are transported in trucks equipped with freezers, arrive at the destination in a frozen state and are thawed on a daily basis according to consumer demand. These sandwiches containing only the bread and meat or cheese portion, are characterized as requiring thawing in a refrigerator, and are limited to ingredients that are adaptable for freezer storage. The method of serving is to heat or toast the sandwich in conventional, infrared, or microwave ovens.

10-B-3. Storage Requirements.

- a. Class I Sandwiches:
Storage Temperature: 34° to 41° F (1.1° to 5° C)
Shelf Life: 36 hours
- b. Class II Sandwiches:
Storage Temperature: 0° F (-17.8° C) or below
Shelf Life: Freezer - Maximum 15 days
- c. Class III Sandwiches:
Storage Temperature: 0° F (-17.8° C) or below
Thaw Temperature: 34° to 41° F (1.1° to 5° C)
- d. Shelf Life
 - (1) Commercial Freezer - Maximum 60 days from date of production to date of delivery.
 - (2) Freezer - Maximum 15 days beginning date of delivery.
 - (3) Refrigerator - 36 hours beginning when sandwiches are removed from freezer, after which the sandwiches shall be discarded as garbage.

4. Identification of Processor and Dating of Sandwiches.

- a. Each sandwich shall be labeled, marked or stamped with the date and time of preparation and a "pull date."
- b. In addition, each carton or case of sandwiches shall be stamped or affixed with the processor's name, address of the preparation site, and preparation date.

C. Special Meals.

1. The four (4) hour maximum time permitted for holding potentially hazardous foods at temperatures between 41° F (5° C) to 140° F (60° C) is of particular importance in the case of special meals (boat meals, flight meals and recreation parties).
2. When preparing and using sandwich fillings containing meat, meat food products, poultry, fish, or eggs, it is essential that close galley supervision and liaison with using units be maintained to ensure continuous refrigeration. These foods shall be prepared and cooked in accordance with the methods prescribed in the Armed Forces Recipe Service, NAVSUP PUB 7, stock number 0530-LP-0116-1060. Such fillings shall not be held longer than four (4) hours between the temperatures of 41° F (5° C) and 140° F (60° C) (total lapsed time in the galley and aboard aircraft, boats, and ships).

10-C-3. Unopened cans of meat, chicken, and tuna may be used in lieu of meat sandwiches when consumption is not anticipated within the four (4) hour time limit. In these instances bread and butter sandwiches may be issued with the canned items to permit members to make their own sandwiches, if they so desire. All types of flight rations, however, shall be carefully packaged to preclude the risk of contamination and exposure during transit from galley to plane.

4. Further information on special feeding conditions (such as battle meals) and subsistence operations in cases of nuclear, biological, or chemical warfare may be found in Food Service Operations, NAVSUP PUB 421, Stock Number 0530-LP-421-0010.

D. Express Serving Lines.

1. Many activities and commands have installed express serving lines (separate from main serving line) in the Coast Guard dining facility. This allows personnel to have a choice of items rather than the full course meal.
2. Sanitary practices must be observed when preparing, handling, and serving food at these express lines. Most items served are potentially hazardous foods, and the four (4) hour rule for preparing and serving takes on added importance. This includes the time required to prepare the food and the holding time prior to consumption.
3. Adequate refrigeration shall be provided at or near the express serving line. This will avoid the necessity of carrying the foods from central refrigeration and allowing them to remain out of refrigeration for excessive periods of time.
4. Careful surveillance by the medical and supply department personnel is necessary to preclude any possibility of laxness in sanitary measures. Food service personnel working at these express serving lines shall be instructed to use extra precautions in handling, preparing, and serving food, as these potentially hazardous foods require careful and alert attention to safe, recommended food service practices.

E. Coffee Messes.

1. Authorization requests for establishment of coffee messes shall be approved by the commanding officer. The medical department shall be notified when coffee messes are established to ensure compliance with the sanitary standards as outlined in this section.

10-E-2. All coffee messes shall comply with the following standards:

- a. Each mess shall be located in an area that can be easily cleaned and shall be maintained in a clean, sanitary condition at all times. Coffee messes shall not be located in certain critical areas such as patient treatment areas, restrooms, industrial work spaces, and any food service storage spaces or utensil washing areas.
 - b. Adequate facilities at the site of the coffee mess, or located conveniently nearby, shall be provided for washing and sanitizing all coffee mess equipment and utensils.
 - c. Bulk sugar, coffee, and non-dairy creamer shall be stored in containers with tight fitting covers. Sugar may also be served in single-service packages or from sanitary, pour-type dispensers.
 - d. Coffee shall be served in single-service containers, or each person in the mess shall have his or her own coffee cup, provided facilities are available to wash and sanitize each cup. Cups shall be washed thoroughly and sanitized in hot water and then placed on racks or trays and allowed to air dry. The use of common cups is prohibited.
 - e. Adequate refrigeration shall be provided when milk or cream is used. When canned evaporated milk is used, tops of cans shall be cleaned thoroughly and punctured with a sanitized cutting instrument. Opened cans of evaporated milk shall be refrigerated between serving periods and shall not be held unrefrigerated for more than four (4) hours.
 - f. The use of a common stirring spoon is prohibited. Single-service stirrers shall be used.
 - g. Personnel shall not prepare or cook foods in any coffee mess. Garbage shall be kept in tightly covered containers until removed. Coffee grounds shall be disposed of in trash cans which are plastic lined and shall not be disposed of in regular office trash cans. The coffee mess shall be protected from flies, insects, and rodents.
3. Coffee messes shall be inspected at regular intervals by the medical department representative or other personnel assigned by the commanding officer in conjunction with weekly sanitation inspections.

- 10-F-7. e. In those vending machines which dispense potentially hazardous food from bulk, the bulk supplies of such food shall be transferred only to bulk vending machine containers and appurtenances which have been cleaned and sanitized.
- f. Potentially hazardous food within the vending machine shall be maintained at a temperature of either 41° F (5° C) or below or 140° F (60° C) or above, whichever is applicable; provided that:
- (1) Exceptions may be made for the actual time required to load or otherwise service the machine and for a maximum recovery period of 30 minutes, following completion of loading or servicing operation; and
 - (2) In the case of hot food vending machines, a maximum of 120 minutes to heat food through the 41° F to 140° F (5° to 60° C) temperature zone. In hot food vending machines that are not equipped with refrigerated storage, there shall be no time delay to preclude heat from being applied to potentially hazardous food immediately after it is loaded or placed in the machine. Potentially hazardous food once heated to, or held at, a temperature of not less than 140° F (60° C) shall be maintained at such temperature until served or discarded.
 - (3) Vending machines dispensing potentially hazardous food shall be provided with adequate refrigerating or heating units, or both, and thermostatic controls which ensure the maintenance of applicable temperatures at all times. Such vending machines shall also have controls which prevent the machine from vending potentially hazardous food until serviced by the operator, in the event of power failure or other condition which results in noncompliance with temperature requirements in the food storage compartment.
 - (4) Hot food vending machines designed to heat food through the 41° F to 140° F (5° to 60° C) temperature range shall also be equipped with automatic controls which render the machine incapable of vending potentially hazardous food until serviced by the operator in the event that heating through this temperature range is not accomplished in 2 hours or less.
 - (5) Potentially hazardous food which has failed to conform to the time-temperature requirements shall be removed from the vending machine and rendered unusable for human consumption.

- 10-F-7.f. (6) Vending machines dispensing potentially hazardous food shall be provided with one or more thermometers which, to an accuracy of plus or minus 3° F, indicate the air temperature of the warmest part of the refrigerated food storage compartment, or the coldest part of the heated food storage compartment, whichever is applicable.
- g. Milk and fluid milk products offered for sale through vending machines shall be pasteurized and shall be dispensed only in individual, original containers or from bulk containers into which such products was placed at the milk plant. Such products may be reconstituted automatically within the vending machine when the following conditions apply:
- (1) The powder or concentrate is made from a pasteurized milk or milk product and is from an approved source.
 - (2) The mixing chambers or bowls and any food-contact surface downstream from such mixing units are maintained at safe temperatures.
 - (3) The product is reconstituted for immediate dispensing in individual unit servings.
- h. Milk and fluid milk products used as an ingredient in hot liquid beverages dispensed from vending machines may be transferred to a multi-use machine canister at the machine location when the following conditions are provided:
- (1) The location offers adequate protection against dust, insects, and other contamination. The milk or fluid milk product is transferred from a dairy-filled container which shall not exceed one-half gallon (3.8 L) capacity.
 - (2) The entire contents of such dairy-filled container are used in the transfer.
 - (3) Unused portions removed from the machine are discarded as waste.
 - (4) The milk or fluid product is poured only into an empty canister which has been effectively cleaned and sanitized at the commissary.
 - (5) Milk or fluid milk products shall not be used as an ingredient under the terms of this paragraph unless the temperature of the beverage at the point of mixing with the milk product is not less than 140° F (60° C).

10-F-7.h.

- (6) Vending machine canisters and appurtenances used for the transfer of such milk products shall be effectively cleaned and sanitized at approved, fixed facilities at the commissary by methods approved by the medical department. After sanitization, the canister and appurtenances shall be fully wrapped in a single service bag or cover which shall not be opened until the canister unit is installed in the refrigerated compartment of the vending machine. Canisters and appurtenances shall be so designed and constructed that the handling of contact surfaces at the machine location is unnecessary. Such surfaces shall not be handled during canister installation, tube insertion, or product transfer.
- i. All parts of any bulk milk vending machine which come into direct contact with the milk or milk product shall be effectively cleaned and sanitized at the milk plant. However, single-service dispensing tubes which receive sanitizing treatment at the fabricating plant and which are individually packaged to preclude contamination may be exempted from this provision. The can or other bulk milk container shall be filled only at the milk plant and shall be sealed to make it impractical to withdraw any part of its contents or to introduce any substance without breaking the seal or seals. The delivery tube and any milk-contact parts of the dispensing device shall be attached at the milk plant. They shall be protected by a moisture-proof covering, or housed in a compartment with a moisture-tight closure, which shall not be removed until after the container is placed in the refrigerated compartment of the vending machine.
- j. With the exception of food-contact surfaces of bulk milk vending machines for which separate provisions for cleaning and sanitizing are specified in the above paragraph of this section, all multi-use containers or parts of vending machines which come into direct contact with potentially hazardous food shall be removed from the machine daily and shall be thoroughly cleaned and effectively sanitized at the commissary or other approved facility. The requirement for daily cleaning and sanitizing may be waived for those food-contact surfaces which are maintained at all times at a temperature of either 41° F (5° C) or below or 140° F (60° C) or above, whichever is applicable, and an approved cleaning frequency is followed. Such parts shall, after sanitizing, be protected from contamination.

10-F-7. k. All parts of vending machines which come into direct contact with other than potentially hazardous food shall be thoroughly cleaned by approved methods. The frequency of such cleaning operations shall be established by the medical department based upon the type of product being dispensed. A record of such cleaning operations shall be maintained by the operator in each machine, or shall be made available at the time of inspection, and shall be current for at least the past thirty (30) days.

l. All single-service articles shall be purchased in sanitary cartons or packages which protect the articles from contamination, shall be stored in a clean, dry place until used, and shall be handled in a sanitary manner. Such articles shall be stored in the original carton or package in which they are placed at the point of manufacture until introduced in the magazine or dispenser of the vending machine and shall be protected from manual contact, dust, insects, rodents, and other contamination.

8. Delivery of Food, Equipment, and Supplies to Machine Location.

a. Food, while in transit to vending machine locations, shall be protected from contamination. Similar protection shall be provided for single-service containers and for the food-contact surfaces of equipment, containers, and devices in transit to machine locations.

b. Potentially hazardous food, prior to being loaded in the delivery vehicle, shall be maintained at a temperature of either 41° F (5° C) or below or 140° F (60° C) or above, whichever is applicable. Such food shall also comply with the applicable temperature requirements while in transit to machine locations. If potentially hazardous food is stored at machine locations, the applicable safe temperatures shall be maintained during storage.

9. Inspection of Vending Machines.

a. The medical department representative shall inspect the servicing, maintenance, and operation of vending machines dispensing potentially hazardous foods as often as deemed necessary, but at least once every month. Vending machines dispensing other than potentially hazardous food may be inspected by the medical department representative as often as deemed necessary.

- 10-F-9. b. The operator shall make provisions for the medical department representative to have access, either in company with an employee or otherwise, to the interior of all vending machines operated by him/her.
- c. Whenever the medical department representative discovers a violation of any provision of this section, he/she shall notify the commanding officer and the operator concerned using the Food Service Establishment Inspection Report Form (CG-5145). Refer to Chapter 11 of this manual regarding the completion of this form.

G. Clubs, Messes, and Exchanges (Food Service Facilities).

1. Clubs and exchanges shall comply with the sanitary standards and regulations prescribed in this manual. The food service manager or supervisor (military or civilian) shall ensure compliance with all sanitation and food service requirements. The supervisor shall maintain close liaison with the command medical officer or medical department representative to ensure the maintenance of high sanitary standards. Clubs, messes, and exchanges shall be inspected at least twice per month by the medical officer or medical department representative in company with the food service manager or supervisor.
2. All food procured by clubs, messes, and exchanges, for CONUS and overseas, shall be from an approved source. Directories can be obtained from the Commanding General (ATTN: Surgeon) of the major army command within whose geographical area the procurement is to be made. Clubs, messes, and exchanges desiring to do business with companies not listed may officially request the cognizant Army Area Commander to have the companies inspected.
3. All meats and meat products, poultry, and seafoods, delivered to clubs and exchanges shall have been inspected by the U.S. Department of Agriculture or personnel of the military veterinary services.
4. When the fitness of any food item appears questionable, the food service manager or supervisor shall request the medical officer or medical department representative to conduct an inspection to determine the fitness for human consumption. If there is any doubt as to its fitness for consumption, the product shall be discarded.
5. All food service personnel shall receive training in accordance with Chapter 12 of this manual. Food Service Training Certificates indicating current training status shall be in the possession of all food service personnel or in the custody of their supervisors.

10-G-6. All food preparation serving and eating utensils (including glassware) shall be cleaned and sanitized in accordance with Section 5-A of this manual.

H. Commercial-Type Convenience Food Operations.

1. Commercial-type convenience food operation is a procedure whereby food intended for use at a future time is prepared, quick frozen, and then stored at 0° F (-17.8° C) or below.
2. Commercial-type convenience food operations shall comply with the following standards:
 - a. All relevant requirements of this chapter shall pertain including the total four (4) hour time period for food held between 41° and 140° F (5° and 60° C), except the prohibition against freezing cooked protein foods shall not apply.
 - b. Minimum equipment necessary shall include commercial-type rapid freezers, example - blast freezers.
 - c. Raw food ingredients to be used shall not have been previously frozen.
 - d. Ground meat or products containing ground meat shall not be used in this type of operation.
 - e. Authorization for establishing this type of operation or for processing food items not previously authorized shall be obtained from the commanding officer. The medical department shall also be notified to ensure compliance with established sanitary regulations and procedures.
 - f. All foods prepared in this operation shall be labeled with the date, time of preparation and the activity or processor's name and address.

Summary for Minimum Cooking Food Temperatures and Holding Times		
Food	Minimum Temperature	Minimum Holding Time at the Specified Temperature
Unpasteurized Shell Eggs prepared for immediate service Commercially Raised Game Animals Fish, Pork, and Meat Not Otherwise Specified in this Chart or in Chapter 2.	145°F (63°C)	15 seconds
Unpasteurized Shell Eggs not prepared for immediate service Exotic Species of Game Animals Comminuted Fish and Meats Injected Meats	158°F (70°C) 155°F (68°C) 150°F (66°C) 145°F (63°C)	< 1 second 15 seconds 1 minute 3 minutes
Poultry Stuffed Fish; Stuffed Meat; Stuffed Pasta; Stuffed Poultry Stuffing Containing Fish, Meat or Poultry Wild Game Animals	165°F (74°C)	15 seconds
Food Cooked in A Microwave Oven	165°F (74°C)	And hold for 2 minutes after removing from microwave oven