



## UNITED STATES MARINE CORPS

MARINE CORPS BASE

QUANTICO, VIRGINIA 22134-5001

MCBO 6240.1  
C 103/k  
28 Jul 93

### MARINE CORPS BASE ORDER 6240.1 w/ Ch 1

From: Commanding General  
To: Distribution List

Subj: SANITARY REGULATIONS

Ref: (a) Manual of Naval Preventive Medicine (NAVMED P5010)  
(NOTAL)  
(b) SECNAVINST 4061.1C (NOTAL)  
(c) Manual of Medical Department (NOTAL)  
(d) Standard Method for Examination of Water and  
Wastewater, (American Public Health Association)  
(NOTAL)  
(e) Naval Supply Systems Command Manual (NOTAL)

Encl: (1) Food Service Facilities  
(2) Medical Examinations of Food Service Personnel,  
Barbers and Beauticians  
(3) Vending of Food and Beverages  
(4) Coffee Messes  
(5) Living and Working Spaces  
(6) Swimming Pools  
(7) Barber and Beauty Shops  
(8) Laundry and Dry Cleaning Facilities  
(9) Garbage and Refuse Disposal  
(10) Standards for Potable Water  
(11) Sewage Waste Disposal  
(12) Disease Vector Control  
(13) Sauna Bath and Steam Room Sanitary Regulations

1. Purpose. To promulgate sanitary regulations and implement policies contained in the references and other pertinent directives from higher authority.

2. Cancellation. MCCDCO 6240.1.

3. Summary of Revision. This revision contains a significant number of changes and should be reviewed in its entirety.

4. Information. The field of sanitation includes the inspection, investigation, laboratory analysis and technical supervision of food service facilities, food products served, water supply, sewage disposal, garbage and refuse disposal, disease vector control, sanitary aspects of living spaces and housing, barber and beauty shops, and those elements not specifically mentioned above which affect the health and well-being of all personnel and their dependents.

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5. Action

a. The Health Care Advisor, Naval Medical Clinic (NMCL) will inspect food service facilities biweekly and more often as required for compliance with this Order.

b. Submit written reports of inspection results to the Commanding General, Marine Corps Combat Development Command (C 051) and activity heads concerned. Include results of sanitation inspections, immunizations, communicable disease control, medical examinations and violations of the enclosures.

c. Report unsanitary conditions or situations which are imminent threats to health in separate reports when deemed appropriate by the Health Care Advisor, NMCL.

  
P. R. HEMMING  
By direction

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UNITED STATES MARINE CORPS

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QUANTICO, VIRGINIA 22134-5001

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MARINE CORPS BASE ORDER 6240.1 Ch 1

From: Commanding General  
To: Distribution List

Subj: SANITARY REGULATIONS

Encl: (1) New page inserts to MCCDCO **6240.1A**

1. Purpose. To transmit new page inserts to the basic Order.
2. Action. Remove present enclosure (9) and replace with the corresponding pages contained in the enclosure hereto.
3. Change Notation. Paragraphs denoted by an asterisk (\*) symbol contain changes not previously published.
4. Filing Instructions. File this Change transmittal immediately behind the signature page of the basic Order.

  
J. W. MCCLUNG  
By direction

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FOOD SERVICE FACILITIES

1. General. The term "**food** service facilities" includes bakery areas, meat cutting areas, dining facilities, food storage and refrigeration space, sculleries, Marine Corps Exchange facilities that deal in food/drink, Dependent Schools System where food/drink is served, child care centers, civilian contracted vending services and all clubs. All food service supervisors are assigned the responsibility for the effective implementation of the contents of this Order.

2. Maintenance and Structural Standards for Facilities and Equipment. The Commander, Naval Facilities Engineering Command prepares design criteria ashore covering all phases of design standards for structures used for dining and supporting facilities. Construction materials will be of such nature, and equipment will be installed in such a manner as to facilitate cleaning and maintenance under various conditions of use. Sanitary standards for the equipment should not be less than those promulgated by the National Sanitation Foundation.

a. Floors. The floors to all food preparation and storage areas, sculleries, walk-in refrigerators, rest rooms, dressing rooms, and locker rooms will be constructed of smooth durable material. These floors will be maintained clean and in good repair.

b. Walls and Ceilings. Walls and ceilings of all rooms will be kept clean and in good repair. Walls and ceilings of kitchens or food storerooms will be finished in light color. The walls of all rooms in which food or drink is prepared or utensils are washed shall have a smooth washable surface up to the level reached by splash and spray. Walls and ceilings should be free of cracks, holes, and openings around piping to prevent entrance by insects and rodents.

c. Doors and Windows. All doors, windows, and other openings to the outside will be effectively protected against the entrance of rodents and insects by use of self-closing doors, closed windows, screens, air curtains or other means. Screens will be tight-fitting, in good repair and not less than 16 to 1 mesh. Doors will open outwards and be self-closing to facilitate fly control.

d. Air Curtains. All food service entrances/exits will have air curtains installed. NSF Standard No. 37 specifications are contained in NAVMED P5010.

e. Lighting

(1) All rooms in which food or drink is stored, prepared, or in which utensils are washed will be well lighted. Specifications are contained in NAVMED P5010.

(2) Shielding to protect food from broken glass **will** be provided for all artificial lighting fixtures located over, by, or within food storage, preparation, service, and display facilities and areas where food service equipment is cleaned and stored.

f. Ventilation

(1) All rooms will be adequately ventilated to keep them free of excessive heat, steam, condensation, vapors, smoke, or gases.

(2) All rooms, areas, and equipment from which aerosols, offensive odors, or noxious gases or vapors may originate will be vented effectively to the outside.

(3) Ventilation hoods and devices will be designed and maintained to prevent grease, condensate, and debris from dripping into food or onto food preparation surfaces.

(4) Intake air ducts will be designed and maintained to prevent the entrance of dust, dirt insects, and other contaminated materials.

(5) Ventilation hoods and grease filters will be cleaned of dirt and grease as often as necessary, and at least weekly to avoid the danger of fire. Filters which cannot be adequately cleaned will be replaced.

(6) The interior of ventilation **ducting** will be cleaned at least quarterly, and as often as necessary to prevent accumulations of grease and dust. Fires in ventilation duct systems are extremely difficult to extinguish and, constitute a significant danger.

(7) Meat cutting and meat preparation rooms at shore facilities will be air-conditioned and maintained at 50 degrees Fahrenheit (10 degrees C) or below. Otherwise all the spaces and equipment must be cleaned and sanitized at midshift.

(8) The galley spaces on ships should not exceed 80 degrees Fahrenheit (26.6 C).

g. Water Supply

(1) Hot and cold running water under pressure will be available in all rooms in which food is prepared or utensils are washed, and the water supply will be adequate and of a safe, sanitary quality. No water line will be connected directly to any piece of equipment, steam table, dishwasher, or dispenser unless such a line is protected by an air gap against the back flow of nonpotable substances into the water system.

(2) Potable water systems will be installed in a manner **which** precludes the possibility of back siphonage of contaminated water. This will be accomplished with either an air gap of at least twice the diameter of the water inlet separating the potable water line from the nonpotable water supply or an appropriate back-siphonage or backflow device.

h. Toilet and Lavatory Facilities

(1) Toilet and lavatory facilities will be provided in convenient locations as necessary to maintain high standards of personal hygiene for food service keep workers and to minimize transmission of diseases. Post **"Wash Hands Before Leaving"** signs in all food service and lavatory facilities.

(2) Toilet rooms will be completely enclosed and will have tight-fitting, self-closing, solid doors which are to be kept closed except during cleaning or maintenance. Toilet rooms shall not open directly into food preparation areas.

(3) Toilet facilities must be kept clean, free of objectionable odors, and in good repair.

(4) The storage of food, equipment, utensils or single service articles is prohibited.

(5) Ample supplies of powdered or liquid soap in appropriate dispensers, and proper hand drying equipment will be provided. These should be kept clean and in good repair.

i. Meat Cutting Facilities. Meat cutting and meat preparation rooms must be air-conditioned and maintained at a temperature of 50 degrees Fahrenheit, or below.

j. Lavatory or Service Sink. A lavatory or service sink with hot and cold running water, soap or detergent in a dispenser and disposable single-service towels will be provided in the galley for the use of food service personnel. In those galleys with several sinks, one sink may be designated as a handwashing sink and will not be used for preparing foods or cleaning utensils.

k. Equipment and Utensils. Only approved cooking utensils will be used in food service areas. All equipment and utensils used in food service facilities will be constructed and mounted as to permit ease of cleaning. Such equipment will not contain inaccessible spaces in which moisture or soil may accumulate or in which vermin may find harborage. Metal sealer strips will be used between nonportable pieces of equipment to prevent food particles from getting into inaccessible spaces. Similarly, equipment and utensils will be so constructed as to be capable of being maintained in a state of good repair. Equipment which is no longer used or is unserviceable shall be removed from the galley spaces.

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1. Permanently Placed Equipment. Permanently placed equipment will be mounted or installed in such a manner as not to interfere with proper cleaning and sanitary maintenance of such equipment, as well as the floor and wall surfaces in the immediate vicinity of such equipment. Permanently placed equipment will be installed 6 inches away from the walls and 6 inches off the floor. If this is not possible, the equipment must be sealed to wall and floor surfaces.

m. Surfaces of Equipment

(1) All surfaces of equipment or utensils which come in direct contact with food will be impervious, corrosion resistant and of smooth construction. Surface areas will be free of cracks, chipped places and crevices.

(2) The use of metal polishes on food contact surfaces is prohibited.

n. Faucets, Drain Valves, Drain Lines and Other Fittings. Faucets, drain valves, drain lines and other fittings will be of seamless construction and easily disassembled for thorough cleaning. Cross connections between fresh water and sewage lines will not be allowed.

o. "NO SMOKING" signs will be placed in all food preparation areas.

p. All refrigerated spaces will be equipped with thermometers.

q. All walk-in reefers must be equipped so they can be opened from the inside when the doors are closed.

r. Structural standards for private dining facilities will conform to those for general dining facilities.

s. Dressing Rooms and Lockers

(1) Dressing rooms or designated areas will be provided outside of food preparation, storage, and serving areas; equipment storage areas; and sculleries when employees routinely change their clothes within the establishment.

(2) Adequate lockers or other suitable facilities will be provided and used for the storage of employees' clothing and other facilities will be located within those areas.

(3) Dressing rooms, designated dressing areas, and lockers will be kept clean and orderly.

t. Garbaae and Refuse Disposal.

(1) Garbage and refuse will be kept in leakproof, **nonabsorbant** containers. Plastic bags or wet strength paper which are NSF approved or equivalent bags may be used to line these containers and may be used for storage inside the food service establishment when protected from insects and rodents.

(2) Containers and compactors will be easily cleanable and provided with tight-fitting lids, doors, or covers. They will be kept closed when not in actual use. Drain plugs, where applicable, will be in place at all times, except during cleaning.

(3) Sufficient numbers of garbage and refuse containers will be provided to prevent overfilling.

(4) Empty containers as necessary during operations and at the close of each working day.

3. Procurement, Receiving and Storage of Provisions

a. Inspection. Any food purchased by any activity head or private organization which is intended for issue, sale, or human consumption will be subject to inspection by the Veterinarian.

b. Dairy Products. Fresh whole milk, cream, chocolate milk drink, and skim milk will be delivered within 48 hours after pasteurization. Cottage cheese, yogurt, buttermilk and other cultured products will be delivered within 72 hours after pasteurization. All fluid milk products, with the exception of canned whole sterilized milk, evaporated or condensed milk will be stored at a temperature between 32 and 34 degrees Fahrenheit. All milk will be coded as to date of expiration. All milk with an expired expiration date will be surveyed as "**unfit** for human consumption." The temperature of milk and milk products on delivery is 45 degrees Fahrenheit (7.2 C) or less per current Defense Personnel Support Center contract.

c. Fresh Fish and Fowl. All fresh fish, fowl, and oysters will be stored at temperatures between 32 and 35 degrees Fahrenheit, and will be used as soon as possible.

d. Fresh and Frozen Meats

(1) Fresh meat will be stored between the temperatures of 32 and 38 degrees Fahrenheit.

(2) Frozen meat will be stored at a temperature of 0 degrees Fahrenheit or below, and will be thawed gradually in a refrigerated space having temperatures between 36 and 38 degrees Fahrenheit.

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(3) Refrigeration coils and units should be defrosted before the thickness exceeds three-sixteenths of an inch. Such accumulation reduces the efficiency of the system leading to a compressor overload.

(4) Tables of safekeeping times, proper storage temperatures, and storage life of perishable and nonperishable items can be found in the Naval Supply Systems Command Manual.

e. Canned Provisions

(1) Canned foods, with the exception of canned cooked whole ham and dried beef, should be stored in dry, well ventilated spaces wherever **practicable** and should be placed on shelves or pallets that are of sufficient height to permit cleaning underneath. It is desirable that they be so arranged that they are used in the order received and with reference to the date of packing, to prevent undue aging of stocks on hand. Canned cooked whole ham and dried beef are not sterile, but perishable, and must be stored in the chill room. The storeroom personnel should check their supplies at least once a month for signs of deterioration. Cans which show signs of being springers, leakers, flippers or swellers should be surveyed and delivered to the Occupational Health/Preventive Medicine (OH/PM), Director, Naval Medical Clinic.

(2) The exterior of the can shall be examined for general appearance, dents, swelling, rust, and pinholes. Cans having dents which cross the ends or side seams or which crinkle the metal to a point should not be used.

(3) Except for coffee and molasses, foods contained in the following types of cans are unsatisfactory and will be surveyed:

- (a) Pinholes
- (b) Swellers
- (c) Springers
- (d) Flippers

f. Dry Provisions. Dry provisions, in general, should be stored in a manner similar to canned goods with the extra provision that rat proof containers or compartments be used wherever practicable. Bread shall be kept in manufacturers original packaging until needed. **Dry** food items must be stored under controlled conditions of temperature, humidity, and air-condition.

g. Fruits and Vegetables. Temperatures and storage must be strictly regulated since most fruits and vegetables will deteriorate rapidly if temperatures are allowed to remain higher than recommended. Undesirable changes will also occur in some fruits and vegetables if they are stored at temperatures lower than those recommended. Most fruits and vegetables will keep best at temperatures ranging

from 36 to 38 degrees Fahrenheit. WARNING: Before entering a closed refrigerator remember that the concentration of carbon dioxide developing from the respiration of vegetables and fruits in a closed compartment may reach a dangerous level (that is 5 percent or above). Deaths have been reported of persons who descended into holes filled with fruit such as bananas.

h. Dehydrated Foods. All dehydrated foods should be stored in clean, dry, covered containers. No dehydrated foods which have been reconstituted will be allowed to remain at room temperature more than 3 hours or a cumulative time of 3 hours during preparation and serving. All food remaining beyond this time period will be discarded.

i. Perishable Foods. All readily perishable foods and drink must be kept refrigerated at the proper temperatures (below 40 degrees Fahrenheit) except when being prepared or served. When being served, food must be kept at 140 degrees Fahrenheit or below 40 degrees Fahrenheit. No prepared food will be permitted to remain at room temperature for more than 2 hours. Cooked ham, chicken ala king, fish of any type, meat or potato salads, dressing and **cream-**filled pastries will not be allowed to remain at room temperature for longer than 3 hours (cumulative time) prior to consumption. Food to be chilled should be placed in shallow pans to a depth of not more than 3 inches to ensure chilling to the center of the food mass.

j. All provisions received and placed in storage should be placid on pallets or shelving for ease of cleaning and insect-rodent control.

k. Decayed or otherwise spoiled food items must be identified and removed from wholesome foods.

4. Preparation and Servins of Food/Drink. All foods will be served in a sanitary manner. Foods on the serving line will be protected by suitable covers at all times (except when the food is actually being served) to prevent contamination. The operation of the cooking and serving system will be so timed that the food can be served as soon after preparation as possible. The food in the serving line, where cafeteria systems are used, will be replenished from the main supply system as needed. Excess quantities on the serving line must not be permitted. All food in the steam tables must be kept at a temperature of 140 degrees Fahrenheit or above until served. Steam table inserts will not be stacked one on top of the other nor placed on the floor while waiting to be placed in the steam table for serving. There will be no smoking by personnel at any time in an area which is used for preparation and serving of food.

a. Fluid Milk Products. All fluid milk products can be easily contaminated on the serving line. It is imperative, therefore, that strict sanitary measures be employed at all times when dispensing these products.

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(1) Single Service. When dispensing milk in individual single service containers, care will be taken to ensure that the top of the carton is clean and that the tops of these containers are not submerged in water or covered with ice for cooling purposes or contaminated by careless handling and storage.

(2) Refrigerated Bulk-Milk Dispensers. The following requirements are applicable to bulk-milk dispensers and containers:

(a) Only pasteurized homogenized milk may be dispensed through bulk-milk dispensers.

(b) An insulated refrigerated cabinet will be provided to hold one or more dispenser containers with sufficient refrigeration capacity to maintain containers filled with milk at a temperature between 38 and 44 degrees Fahrenheit, when milk is placed in the cabinet at or below that temperature. Such cabinets will be equipped with a suitable temperature indicator as an integral part of the cabinet. When the temperature indicator is inoperative a thermometer will be placed within the cabinet to facilitate maintaining the proper temperature.

(c) The dispensing mechanism will be so constructed as to be easily disassembled without the use of tools. When disassembled all surfaces will be visible and accessible for cleaning.

(d) Surfaces with which milk comes into contact will be protected at all times from manual contact, droplet infection, dust and flies. Except while milk container is in the dispenser, the sterilized wrapped delivery tube will be in an enclosed compartment to protect it during filling, transportation and storage prior to use.

(e) All rubber or plastic parts such as tubes or valves will be of single service type, sterilized and applied at the milk plant, and discarded at the place where milk is dispensed before the empty can is returned to the plant. The plastic stopper will be removed from the delivery tube at time of dispensing and discarded immediately. It will not be used again to plug the tube.

(f) When a dispenser of this type is used, compliance with the following sanitary precautions will be required:

**1 Multiuse** dispenser tubes will be strictly prohibited.

**2 Single-service** tubes (other than pre-cut tubes) shall be cut with a clean, cutting instrument only at a point **one-**quarter inch beyond the visible lower termination of the dispensing mechanism and cut at a 45 degree angle to prevent milk from becoming rancid in dispensing tubes.

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b. Cream Dispensing. Cream will be procured in single service disposable containers of not larger than 1-quart capacity. Cream may be dispensed directly from the container, into a small easily sanitized pitcher, or from a single service disposable container. Hand operated cream dispensers currently in use at food service facilities may continue to be utilized under strict supervision, but no new equipment of this type will be procured until such equipment is developed which will meet the requirements set forth in this enclosure. Cream remaining in the dispensers at the end of the serving period will be used for cooking purposes only.

c. Canned Evaporated or Condensed Milk. When canned evaporated or condensed milk is used, tops of cans will be thoroughly cleaned and punctured with a sanitized cutting instrument. Opened canned milk will be refrigerated between serving periods, and at no time remain out of refrigeration for more than a period of 2 hours.

d. Ice Cream. Ice cream will be kept covered and refrigerated to a temperature of 0 degrees Fahrenheit or below. Ice cream will only be served with clean dippers which, when not in use, will be immersed in running water.

e. Frozen Foods. Frozen foods will be thawed in a refrigerated space. Ideal temperature range for thawing is 36 to 38 degrees Fahrenheit. Thawing by exposure to excessive heat or immersion in hot water is prohibited. Frozen food, once thawed, shall not be refrozen.

f. Salads. Salads will be freshly prepared and served as soon as practicable. They will be kept covered in the refrigerator until serving time. Salads containing leftover meat will be freshly prepared, and the meat ingredient thoroughly recooked before being put in the salad.

g. Protein and Other Foods. Poultry, hash, sausage, pork, veal, beef, meat broth, soups, gravies, creamed chicken, dressings, bread puddings, cream or custard filled pastries will be prepared in a minimum period of time before serving and, unless kept at temperatures above 140 degrees Fahrenheit, will be refrigerated (40 degrees Fahrenheit or below) until time of serving. The use of creamed chicken, creamed pastries and like products will be restricted during the hot weather season. Sliced cooked meat, ground meats, peeled boiled eggs and similar foods coming in contact with hands of kitchen help will be prepared just before cooking and/or serving and handling techniques will be carefully supervised. Cooked protein foods which have been held at temperatures between 40 and 140 degrees Fahrenheit longer than 3 hours will be considered unsafe for human consumption and destroyed. If the product is refrigerated at intervals and then permitted to warm up, the total time of the various periods between 40 and 140 degrees Fahrenheit must not exceed 3 hours. Protein foods composed of ingredients which have been peeled, sliced, or diced by hand after cooking will never be used as leftovers. Steam tables

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bain maries, warmers, and other hot food holding equipment shall not be used for the heating of potentially hazardous foods.

h. Ground Food. Food which has been ground or chopped and is to be cooked later or incorporated into a recipe must be refrigerated immediately in shallow pans filled to a depth of not more than 3 inches and shall be kept covered until cooked. cut, sliced, or diced meats will be placed in shallow pans not more than 3 inches deep, covered with lids or waxed paper, and refrigerated immediately. The using of ground or chopped leftovers is strictly prohibited.

i. Green Vegetables. Green vegetables will only be purchased from approved sources and only when the buyer is assured that the product has been approved by the Veterinarian. Vegetables will be thoroughly washed under running water before use. Green vegetables of uncertain oxygen or suspected of being contaminated with pathogenic organisms, shall be chemically disinfected and thoroughly rinsed with potable water before being cooked or served.

j. Pastries. If pastries, especially the cream or custard filled (cream puffs, custard filled pies and cakes, eclairs and other products of like nature), are made in the food service kitchen or bakery, they will be freshly prepared and particular attention will be devoted to the maintenance of scrupulous cleanliness. All cream filled foods will be covered, cooled quickly and placed in refrigeration until ready to serve. When it is not possible to chill cream filled foods as prescribed, they will not be prepared or served. Serving cream or custard filled pastries during the hot weather season will be prohibited. Cream or custard filled pastries including pastries with synthetic filling shall be under refrigeration on the serving line. All leftover items shall be disposed of at the end of the day.

k. Sandwiches. Because of their mode of preparation, type of fillings and methods of handling, sandwiches are considered to be potentially dangerous food to serve. Therefore, the following steps will be taken to render these products safe for human consumption:

(1) Sandwiches will be freshly prepared as close as possible to the time of consumption and not more than 3 hours prior to issue or sale unless refrigerated. Prepared sandwiches will be kept under refrigeration until they are served or heated for serving.

(2) Sandwich fillings containing meat, meat products, poultry, fish or eggs that are to be held more than 3 hours before they are consumed, will be prepared in an air-conditioned room and refrigerated until consumed.

(3) Sandwiches will not be prepared with hot meats or other hot ingredients except those prepared for immediate consumption.

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(4) Mayonnaise, salad dressing, or catsup will not be spread on the sandwiches but issued separately.

(5) Sandwich ingredients, such as spreads used in preparation of sandwiches, will be kept under refrigeration until actual use.

(6) Sandwiches, other than frozen types over 24 hours old, will not be served or sold but will be disposed of as garbage.

(7) The requirement for sanitary practices for other foods as previously outlined in this Order will apply in the preparation of sandwiches.

(8) Commercially prepared sandwiches, sold or served, will be wrapped in clean, sealed, transparent material, and will bear the name and address of the processor together with either plain or coded markings indicating the date and time of preparation.

(9) Class III frozen sandwiches, when removed from freezer will have a maximum shelf life in a reefer or thaw box of 60 hours (See NAVMED **P5010**). This is a change from previous 36 hours and refers only to frozen Class III sandwiches.

1. Leftover Food. Meals will be planned so as to have only a minimum of leftover foods. Although leftover foods must be conserved, many instances of injudicious savings occur. Leftover foods such as ham, chicken salad, creamed chicken, potato salad, macaroni and cheese, spaghetti and meat balls, custard pies and cream puffs are frequently suspected in staphylococcus food poisoning outbreaks.

(1) When there are leftovers, they will be placed in shallow containers not over 3 inches deep, covered and dated as to time and date of preparation and will be refrigerated immediately.

(2) Care must be taken to assure thorough and prompt chilling to the center of the mass of leftover foods.

(3) Such leftovers, when possible, will be used at the next appropriate meal but in no case will such foods be used after 36 hours.

(4) Freezing leftovers is prohibited.

(5) If leftover foods are to be served again, they will be reheated prior to reserving. Cold cut meats, pickled vegetables or acid foods may be served without re cooking if precautions are taken to prevent contamination.

(6) Soup stock and pizza pie fillings may be put up in portions and frozen for further use. Once this portion is defrosted it must be used within 36 hours.

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(7) If, for any reason, food is to be held longer than 2 hours after it has been cooked, it will either be thoroughly chilled to a temperature of 40 degrees Fahrenheit or lower as soon as possible after cooking, or it will be held at temperatures of 140 degrees Fahrenheit or higher. These temperatures hold development of pathogenic bacteria to a minimum.

(8) Food stuffs awaiting preparation or serving will be covered at all times to prevent contamination.

m. Sanitary Precautions for Ice

(1) All ice which comes in contact with food or drink must come from sources approved by competent health authorities and must be kept free from contamination while in storage and when being handled.

(2) Ice must meet the same bacterial standards as water. Bacterial samples will be collected and tested by the OH/PM, NMCL.

(3) Ice making machines will be located, installed, operated, and maintained in a sanitary manner. The motor area and insulation panels will be inspected weekly for evidence of cockroach infestation.

(4) Ice buckets, other containers and scoops will be of smooth impervious material designed for easy cleaning and will be stored and handled in a sanitary manner. Ice scoops will be stored or placed outside the ice machine in an ice scoop receptacle and must be washed/sanitized daily.

n. Display and Service

(1) Where unwrapped food is placed on display in all types of food service operations, including smorgasbords, buffets and cafeterias, it will be protected against contamination from customers and other sources by effective, easily cleanable, counter-protector devices, sneeze guards, cabinets, display cases, containers or other similar type of protective equipment. Self-service openings in counter guards will be so designed and arranged as to protect food from manual contact by customers.

(2) Tongs, forks, spoons, spatulas, scoops and other suitable utensils will be provided and must be used by employees to reduce manual contact with food to a minimum. For self-service by customers, similar implements will be provided. Utensils should not be allowed to remain in food containers during refrigeration or storage, due to formation of condensation under refrigeration, causing contamination by running down the utensil into food.

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(3) Dispensing scoops, spoons and dippers, used in serving frozen desserts, will be stored between uses, either in an approved running-water dipper well or in a manner approved by the health authority.

(4) Sugar will be provided only in closed dispensers or in individual packages.

(5) Individual portions of food, once served to a customer, will not be served again.

o. Transportation

(1) The requirements for storage, display and general protection against contamination, as contained in this Order, will apply in the transporting of all food from a food service establishment to another location for service or catering operations. All potentially hazardous food must be kept at 40 degrees Fahrenheit or below, or 140 degrees Fahrenheit or above during transportation.

(2) During the transportation of food from a food service establishment, all food will be in covered containers or completely wrapped or packaged to protect it from contamination.

5. Equipment, Dish, and Utensil Washing

a. Dinina Tables

(1) Dining tables will be cleaned with a hot detergent solution after each use and should then be wiped with a sanitizing solution such as a standard stock germicide or fungicide, chlorine solution or other acceptable sanitizing agents.

(2) Cloths or similar materials used for washing dining tables will be washed and air dried at the end of each meal period. Sponges, if used, will be washed in hot detergent water and rinsed in hot, clear water and should be immersed in a sanitizing solution for a period of 5 minutes, wrung out and allowed to air-dry. Discard sponges, cloths and other similar items when badly soiled, stained, or deteriorated.

b. Coppers, Steam-Jacketed Kettles, Urns, Meat and Veatable Grinders and Choppers. Steam-jacketed kettles and urns shall be scrubbed inside and outside after each use with a scrub brush and detergent solution, and then rinsed with clean hot water at 180 degrees Fahrenheit. The component parts (drain valves, drain lines, cap or plug on the back end of the drain line, if fitted, and **vapor-**exhaust line, where installed) will be disassembled after each use, then thoroughly cleaned and sanitized. Meat and vegetable grinders, peelers, slicers, and chopping machines which may be disassembled

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shall be taken apart after each use. Each part will be cleaned in hot water, and finally left disassembled to completely air-dry before reuse.

c. Meat Blocks, Cutting Boards. Wooden meat blocks, wooden cutting boards, and wooden service preparation tables are no longer authorized and must be replaced by appropriate authorized nonwooden items. Cutting boards will be cleaned and sanitized after each use. This includes those occasions when different meat products or the same meat product after it is cooked are to come in contact with the same cutting board.

d. Ranges and Grills. Ranges, grills, deep fat fryers, toasters, meat saws and other galley equipment will be thoroughly cleaned at frequent intervals in addition to the usual **afteruse** cleaning. Grease filters in hoods will be washed and changed as often as necessary, at least weekly, to eliminate fire hazards.

e. Stainless Steel Inserts. Stainless steel inserts will be thoroughly cleaned after each use and run through the dishwashing machine or other sanitizing process. They should then be stored inverted in a clean location for air drying until needed. The inserts will be of stainless steel seamless construction with rounded corners.

f. Bake Pans and "Black" Pans. Bake pans, "black" pans, and other utensils used in the cooking processes will be thoroughly cleaned/sanitized after each use. Dirty pans affect the baking quality, are insanitary and often impart objectionable odors and taste to the finished product. Pans may be washed by handwashing, tank washing or with a pan washing machine. Pans will be dried in an oven immediately after washing to prevent corrosion.

g. Food and Dish Carts or Wasons. Food and dish carts or wagons will be thoroughly cleaned/sanitized after each meal. The cleaning and sanitizing will include the tops and bottoms of the trays, trash receptacles, verticle risers, and wheels.

h. Refrigeration Equipment. It is required that waste water from refrigeration equipment be discharged either into a sanitary sewage system through an air-gap funnel or into the ground using a seepage pit for disposal of liquid waste. Equipment will be maintained as follows:

(1) At least once weekly, the duckboards, shelves and racks will be removed and scrubbed with hot soapy water.

(2) Decks will be cleaned daily and will be scrubbed with hot soapy water at least once a week.

(3) Meat hooks will be cleaned and sanitized after each use with hot soapy fresh water. Clean extra hooks should be kept in a box in the refrigerator.

(4) Contents of refrigerators will be so spaced as to ensure a free circulation of air between the pieces of meat, boxes, barrels and tiers. Circulation fans will be kept in operation at all **times**. No containers will be stored in contact with refrigerator coils.

(5) Proper temperatures in refrigerated spaces will be as follows:

(a) Freezers 0 degrees Fahrenheit or lower.

(b) Dairy products box 32 degrees to 34 degrees Fahrenheit.

(c) Chill box 36 degrees to 38 degrees Fahrenheit.

(d) Thaw box 36 degrees to 38 degrees Fahrenheit.

(6) The relative humidity should be maintained at 85 to 90 percent in refrigerated spaces.

(7) All refrigerators/freezers will have an indicating thermometer to assure temperatures are maintained.

(8) Temperature logs will be maintained for all bulk cold storage spaces. Accurate entries will be made at least twice daily.

**i. Dishrass.** Dishrags will never be used in either the manual or machine washing routine since these rags accumulate grease, food particles and stains that serve as ideal culture media for bacterial growths which can be spread to any article with which they come in contact during the washing process.

**j. Dishwashins Methods.** Procedures for manual and machine dishwashing methods are as follows:

(1) **Sorting, Scrapping, and Scraping.** As the soiled dishes arrive at the sink they should be scraped and sorted according to size and type. Chipped or cracked glasses and other eating/cooking equipment in disrepair should be discarded at this point. Scrapping is the removal of gross particles of food or other refuse from food service equipment which will lessen the amount of organic waste entering the wash compartment. Scraping of food service equipment will be done by a rubber scraper or approved brushes. The surfaces of the **dishware** and utensils are flushed with warm water (110-120 degrees Fahrenheit) to remove excess soil and grease.

(2) Prewashing. Prewashing of food service equipment before placing in the wash water may be done by washing the equipment under a stream or spray of warm water. A sink may be used for this purpose provided the sink is drained and cleaned before the washing procedure begins. Flatware (knives, forks, and spoons) should be soaked in warm water (120-125 degrees Fahrenheit) containing **3oz** of handwashing compound per gallon of water.

(3) Sink Dishwashing. All sinks used for dishwashing in a food service facility should be of the three compartment variety. The procedure for sink dishwashing is as follows:

(a) The first sink for washing is filled with hot water (110-125 degrees Fahrenheit) and then a detergent is added. Do not use soap. The glassware will be washed first. Glass washing brushes will be available for use. (These brushes are either the type where two brushes are mounted on a rubber pad which adheres to the bottom of the sink by a vacuum cap, or the type where the brushes are rotated by an electric motor.) After the glasses are washed, the brushes will be rinsed and set aside to air-dry. After each glass is washed it will be lowered into the first rinse water tank. The temperature of this rinse water will be (120-140 degrees Fahrenheit). The basket is then placed in the final rinse (the third tank) for sanitizing. The temperature of this water must be at least 170 degrees Fahrenheit for 30 seconds, or a sanitizing chemical may be used. If a sanitizing chemical is used the basket must be submerged in the solution for at least 1 minute. Following the glasses, the silverware is washed, using a stiff bristled brush. The silverware is followed by the china and trays, and concluded with pots and pans. All items washed in this process will be rinsed in the same manner as the glasses. The water in each tank will be emptied and the sink washed and rinsed when a greasy film starts to form on the surface of the water.

(b) Chemical Sanitizing. Two chemicals are recommended for sanitizing in food service facilities:

1 Calcium Hypochloride, Technical (70 Percent). Strength determinations for attaining the recommended initial dilution of 200 PPM can be made by adding 1 **1/2** teaspoonfuls of calcium hypochloride for each 5 gallons of water in the sanitizing tank and wait 30 minutes before using.

2 Liquid, Iodine-Type Disinfectant. Add 1 ounce or 6 teaspoons of **disinfectant** for each 5 gallons of water in the sanitizing tank. This gives a rich, amber color. When color fades, effectiveness is reduced and solution should be changed.

(4) Machine Dishwashing. The procedures for machine **dish-**  
washing are as follows:

(a) When the dishes are being racked, use separate racks for articles of different types or shapes. Do not pile cups, bowls, glasses, etc., in the same rack at the same time. Cups and bowls will be placed so that the bottoms are up. Silverware should be run through the machine in special holders with the eating end up. All cooking equipment that will run through the machine without causing damage to the machine should be washed in this manner rather than hand washing methods. An acceptable detergent and not soap will be used for washing. As recommended in manual dishwashing, the glasses will be washed first, followed by the silverware, china and trays and concluded with the pots and pans. The wash water temperature in both the single tank and the double tank machines will be 150-160 degrees Fahrenheit, and the items being washed will be exposed to the washing spray for at least 40 seconds in both types of machines. The rinse water temperatures of both types of machines will be at 160 to 180 degrees Fahrenheit. The time each rack of equipment is to be exposed to the rinsing spray is 20 seconds in the double tank type and 10 seconds in the single tank machine. The final rinse temperature is 180 degrees to 195 degrees Fahrenheit. The gauges for checking the water temperatures should be placed at eye level and checked at least three times during the washing procedure. The readings taken at these times should be placed in a log as to time, date, temperature and the person making the readings. Each machine should be checked by maintenance personnel at least once every 30 days.

(b) In facilities where glasses are washed by hand (club bars), a three compartment sink will be used with a soap and brush type glass washer or the automatic cold water glass washer may be used. If these types of washers are used, care should be taken in obtaining only those which bear the seal of approval of the National Sanitation Foundation or those that meet equivalent standards.

(5) Dishwashins Personnel. Personnel who will be assigned dishwashing responsibilities will be properly trained in the public health hazards of improperly washed equipment. Each activity head should appoint a supervisor to oversee the dishwashing operation. The Health Care Advisor, Naval Medical Clinic will frequently check the dishwashing procedures for proper washing and sanitizing methods.

k. Filters and Exhaust Systems. These items will be thoroughly cleaned at least once a week.

#### 6. Securing and Maintenance of Equipment

a. Securing From Manual Dishwashing. The dish cart, drain-boards, braces, sinks, brushes, and so on will be thoroughly cleaned. The shelves, legs, deck drains and the surrounding bulkheads will

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receive a thorough cleaning at least once a week. Before the operator leaves the area all the equipment will be clean and ready for the next operation.

b. Maintenance of Dishwashers. Dishwashing machines will be cleaned thoroughly at the end of each washing period per the operating Manual. Disassembly of spray arms, removal of scrap trays and spray curtains, and a thorough cleaning inside and out after each use is essential for proper maintenance of the machines. The dish carts, drainboards, braces, sinks and brushes will be cleaned thoroughly. The dish tables will be cleaned, using detergent and brushes and rinsed with fresh water. The tables may be wiped with a sanitizing solution. The shelves, legs, deck drain, decks, and adjacent bulkheads will be cleaned frequently to avoid accumulation of grease, slime and food particles. Before the operator leaves the area, all equipment must be clean and ready for the next operation.

c. Cleanina Equipment. Swabs and brooms will be stored in a rack in an upright position outside the facility. These items will be thoroughly cleaned before placing them in the rack. Foxtails and dustpans will be cleaned and placed in a storage cabinet used for storing cleaning equipment only. Detergents, soap, scouring powder etc., should be stored in this space and not in or around spaces being used for preparation or serving of food. The use of metal polish on food-contact surfaces is prohibited. The use of steel wool for cleaning equipment and utensils is prohibited. Metal sponges stocked in the supply system may be used.

d. Storage of Glasses, China, Silverware and Miscellaneous Eairnment. Glasses, cups, mugs, and bowls will be stored inverted and covered with a clean dry cloth or placed in a closed cabinet. Silverware will be stored with the handles upright. Large mixing spoons, bread tongs, carving knives, etc., will be air dried before they are stored. They will then be placed in drawers with the handles facing the front of the drawers or placed on peg boards with the handles upward. Large cooking equipment such as pots and pans will be stored in racks made for this purpose. These pots will be stored inverted and spaced for proper air circulation which will enhance required air drying. All excess equipment, pots, pans, and utensils will be stored in areas other than the galley.

e. Inspection of Eairnment. Silverware will be inspected daily. Forks and spoons which have been badly worn, or of which the tines have been broken or bent, will be discarded from general usage. China that has become cracked or chipped will be discarded.

f. Hours of Operation. All heads of food service **facilites** will scheduled their hours of operation so that employees will have time to hold a complete cleanup of their spaces prior to quitting time. Walls and floors will be free of grease and other food scraps.

Tables, ranges, grills, and other equipment will be scrupulously cleaned and left disassembled for proper air drying. All dirty dishes will be completely cleaned before securing the facility.

7. Poisonous and Toxic Materials

a. Only those poisonous and toxic materials required to maintain the establishment in a sanitary condition, and for sanitization of equipment and utensils, will be present in any area used in conjunction with food service establishments.

b. All containers of poisonous and toxic materials will be prominently and distinctively marked or labeled for easy identification as to contents. Material Safety Data Sheets should be available for each item and prominently located and available for the user of the item.

c. When not in use, poisonous and toxic materials will be stored in locked cabinets outside the food-storage, food-preparation, equipment and utensil storage rooms. Bactericides and cleaning compounds will not be stored in the same cabinet or area of the room with insecticides, rodenticides, or other poisonous materials.

d. Bactericides, cleaning compounds or other compounds, intended for use on food-contact surfaces, will not be used in such a manner as to leave a toxic residue on such surfaces, nor to constitute a hazard to employees or customers.

e. Poisonous polishing materials will not be used on equipment or utensils, nor stored in the establishment.

f. Poisonous compounds, such as insecticides and rodenticides in powdered form, will have a distinctive color so as not to be mistaken for food.

g. Poisonous materials will not be used in any way to contaminate food, equipment or utensils, nor to constitute other hazards to employees or customers.

8. Storage of Linens and Cloths

a. Laundered cloths and napkins will be stored in a clean place until used.

b. Nonabsorbent containers or laundry bags will be provided, and damp or soiled linen and cloths will be kept therein until removed for laundering.

9. Live Birds and Animals. No live birds or animals are allowed in any food service facility.

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10. Food Service Personnel Training. Food service personnel will receive formal food service training per SECNAVINST 4061.1.

a. A minimum of 6 hours for initial training and 6 hours for annual refresher training will be required for all food service personnel employed for periods over 30 days.

b. Those personnel assigned food service duties for 30 days or less will be given on the job training by competent supervisors. Permanent food service personnel will receive continuous on the job training and instruction by competent supervisors.

c. The Director, OHPM, NMCL will schedule food service training on an annual basis.

11. Personal Hygiene. No person, while infected with a disease in a communicable form that can be transmitted by food or who is a carrier of organisms that cause such a disease, while afflicted with, acne, boils, an infected wound, or acute respiratory infection will work in any area. Employees will maintain a high degree of personal cleanliness and will conform to good hygienic practices while engaged in handling foods or food contact surfaces of utensils or equipment.

12. Microwave Ovens. A visual inspection will be performed by the OH/PM, NMCL.

a. **Sprung**, warped, or misaligned door.

b. Missing or loose screws and hinges.

c. Deteriorated condition or absence of door seals, latches, and viewing windows.

d. Poor sanitary condition of ovens, especially grease on door seals or in interior of the oven.

e. Absence or presence of warning signs.

MEDICAL EXAMINATIONS OF FOOD SERVICE PERSONNEL,  
BARBERS AND BEAUTICIANS

1. **Purpose.** Medical examinations are required for the detection of acute and chronic communicable diseases in employees and other personnel when such diseases constitute a health hazard to military personnel and their dependents and civilian and contract employees.

2. **Definitions.** The term "**food** service personnel" includes all persons, military and civilian who supervise, cook, prepare, or serve food or drink at food service facilities. Also included are commissary personnel who prepare or handle food products which are not prepackaged or canned. Barbers and beauticians will include all employees or barber and beauty shops.

3. **Scope of Examination**

a. Medical examination/questionnaire will be thorough in order to rule out the presence of a communicable disease. Tuberculin skin test will be conducted on barber/beauty shop employees (this test is not required for food service employees). The examiner will secure an adequate medical history from each individual during the examination. All medical examinations for food handlers will be performed within 72 hours of assuming such duties.

b. The supervision of the health of food service personnel by the Environmental Health Officer will be concerned with the early detection of any communicable diseases which may develop after the primary physical screening and particularly those susceptible to transmission by food contamination. Food service personnel found with a communicable disease will be excluded from further duty in the food service facility until pronounced fit for resumption of duties by a medical officer.

4. **Time and Frequency of Examination.** Food service personnel will receive a preemployment examination and an annual medical examination thereafter. In addition, a periodic unscheduled on-the-job physical inspection for personal hygiene will be conducted by medical personnel. Barbers and beauticians will receive a preemployment physical and be examined annually thereafter. All food service personnel will receive an examination by a medical officer if they have been absent from their duties in excess of 30 days or have been ill with chronic diarrhea, dysentery or any other known communicable diseases.

5. **Time and Place of Examinations.** Physical examinations of food handlers, barbers, beauticians and child care attendants will be conducted at the Environmental Health Office, NMCL on all weekdays except Thursday between 0730-1100 and 1300-1500.

6. Personal Hygiene and Requirements. The above-mentioned personnel will be physically clean and will wear clean garments while at work. Wash rooms, showers and toilet facilities provided with soap and water will be made available for such personnel. Personnel will keep their nails cleaned and trimmed short, and special attention will be directed to the cleanliness of their hands. Personnel found to have open lesions on the face, neck and hands must be sent to the dispensary immediately and if confirmed by a medical officer, the employee will be temporarily disqualified for employment. It is mandatory for all food service personnel that caps or hair nets completely cover the hair while at work. To ensure compliance with the foregoing, the supervisors will inspect personnel who work in food service facilities. The head barber or beautician will inspect those personnel working in barber and beauty shops prior to starting work each day.

7. Facial Hair. The wearing of facial hair (beards) is permitted so long as they are kept trimmed to no longer than 1 inch and are covered completely by an appropriate mask (snood). Moustaches and sideburns will be neatly trimmed at all times.

## VENDING OF FOOD AND BEVERAGES

1. Introduction. The regulations contained in this Order establish uniform minimum sanitary requirements for machine dispensing of food and beverages and provides guidance for personnel concerned with the sanitary vending of food and beverages. The provisions apply to all vending machines except those dispensing relatively nonperishable food and beverages such as bottled soft drinks; products in hermetically sealed containers processed by heat to prevent spoilage; or packaged, dehydrated, dry or powdered products so low in moisture content as to preclude growth of microorganisms.

### 2. Responsibilities

a. Activity heads are responsible for the sanitary control of all food and beverages dispensed in areas under their respective jurisdiction.

b. The Health Care Advisor, Naval Medical Clinic, or his/her representative shall implement sanitary standards for the operation and maintenance of automatic food and beverage dispensing and shall conduct regular and periodic inspection to be made to insure compliance with the prescribed standards.

c. The Marine Corps Exchange Officer shall insure compliance with the sanitary standards maintaining close liaison with the EHO and ensure that EHO supervisory personnel periodically observe vending machine servicing and operations. All proposed or new installations of vending machines shall be coordinated with the EHO to insure that the machines and the areas of installation meet prescribed sanitary standards.

### 3. Food and Beverage **Manufacturing** and Handling

a. All food, beverage and ingredients intended for sale through vending machines will be maintained, processed and prepared in catering points which are maintained and operated in a sanitary manner. Catering points will be inspected and approved by a medical officer who may utilize the service and/or reports of approval of Army or Air Force veterinary service officers or appropriate civilian health authorities where available.

b. All products and ingredients intended for vending will be clean, wholesome and free of contamination and adulteration. All such products or ingredients will be stored or packaged in clean protective containers and will be handled, transported and vended under sanitary conditions. Wet storage of packaged products is prohibited.

c. Readily perishable food offered for sale through vending machines will be dispensed to the consumer in the individual

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container or wrapper into which it was placed at the catering point or processing plant, or will be dispensed into single service containers.

d. Readily perishable foods or ingredients within the vending machine will be maintained at a temperature of 40 degrees Fahrenheit or below or than 40 degrees Fahrenheit, 140 Fahrenheit or above 140. Automatic controls will be provided to insure the maintenance of these temperatures at all times, provided that an exception may be made for the actual time required to fill and otherwise service the machine and for a maximum recovery time of 30 minutes following completion of the filling or servicing operation. Such controls will also place the machine in an inoperative condition until serviced by the operator in the event of a power failure or other condition which permits the food storage compartment to attain a temperature above 50 degrees Fahrenheit or below 150 degrees Fahrenheit, whichever is applicable. Vending machines dispensing readily perishable food will be provided with a thermometer which, to an accuracy of plus or minus 3 degrees Fahrenheit, indicates 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.

e. Milk and fluid products offered for sale through vending machines will be dispensed only in individual original containers or from bulk containers into which such products were placed at the milk plant.

f. The conveyance used in the delivery of food, beverages or ingredients to vending machine locations will be constructed to protect these products from the elements, dirt, dust, insects, rodents and other contamination. Similar protection will be provided for single service containers and food contact surfaces of equipment, containers or devices used in connection with vending operations.

g. Readily perishable foods or beverages, while in transit, shall be maintained at a temperature of 40 degrees Fahrenheit or below, or 140 degrees Fahrenheit or above, whichever is applicable.

h. All single service containers which receive food or beverages from machines dispensing such products in bulk will be purchased only in sanitary cartons or packages; will be stored in a clean, dry place until used; and will be handled in a sanitary manner. Such containers will be stored in the original carton or package in which they are placed at the point of manufacture until **introduced** into the container magazine of the vending machine. Single service containers within the vending machine will be protected from manual contact, dust, insects, rodents and other sources of contamination.

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i. When condiments are provided in conjunction with food dispensed by a vending machine, they will be:

(1) Packaged in individual portions in single service containers; or:

(2) Dispensed from sanitary dispensers which are cleaned, rinsed and sanitized and filled at the commissary or at the machine location if sanitary facilities are provided; or

(3) Made available from condiment self-service, self-closing dispensing equipment at those locations having an on-duty attendant.

j. Fresh fruits which may be eaten without peeling will be thoroughly washed in potable water at the packing plant by the processor, or at the commissary before being placed in the vending machines for dispensing. The washed fruit will be protected from contamination after the washing process.

k. All food, other than fresh fruit, will be stored or packaged in clean protective containers, and all food will be handled and vended in a sanitary manner.

#### 4. Machine Location

a. Vending machines, ovens and other equipment shall be so located that the space around and under the machine can be readily cleaned and that insect and vermin harborage is not created.

b. The immediate surroundings of each vending machine will be maintained in a clean condition.

c. If food is dispensed in bulk, the machine will be located in a room, area or space reasonably protected from the elements, dust, dirt, overhead leakage, flies, rodents and other contamination. The floor area upon which such machines are located will be smooth, of easily cleanable construction, and capable of withstanding repeated washing and scrubbing.

#### 5. Machine Construction and Maintenance

##### a. Exterior

(1) The vending machine will be of sturdy construction and the exterior will be designed, fabricated and finished to facilitate its being maintained in a clean condition.

(2) Door and panel access openings to the products and container storage spaces of the machine will be tight fitting and, where required, **gasketed** to preclude the entrance of dust, moisture, insects and rodents.

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(3) All necessary ventilation louvers or openings into the machine will be effectively screened against insects and rodents.

(4) In all new vending machines in which a condenser unit is an integral part of the machine, such unit will be sealed from the product and container storage spaces.

(5) Unless the vending machine is sealed to the floor to prevent seepage underneath, one or more of the following provisions will be made for cleaning this area:

(a) The machine will be mounted on legs 6 or more inches in height.

(b) The machine will be mounted on casters, rollers or gliders to allow its being easily moved.

(c) A machine without casters will be small and light enough to permit its being manually moved with ease.

(6) All service connections through an exterior wall of the machine, including water, gas, electricity and refrigeration, will be grommeted or sealed to prevent the entrance of insects and rodents. All connections to the machine will discourage unauthorized or unintentional disconnections.

b. Interior

(1) The nonfood contact surfaces of the interior of vending machines will be designed and constructed to permit easy cleaning, and to facilitate maintenance operations. Inaccessible surfaces or areas will be minimized.

(2) All food contact surfaces of vending machines will be smooth, in good repair and free of breaks, corrosion, open seams, cracks and chipped places. The design of such surfaces will preclude routine contact between food and V-type threaded surfaces. All joints and welds in food contact surfaces will be ground smooth and polished to a finish not less than the adjoining surface. All internal angles and corners of such surfaces will be rounded to facilitate cleaning.

(3) All parts of any bulk milk vending machine which come into direct contact with the product will be effectively cleaned and bactericidally treated at the milk plant, provided that single service dispensing tubes which received bactericidal treatment at the fabricating plant and which are individually packaged to preclude contamination may be excepted from the provision. The bulk milk container may be filled only at the milk plant and will be sealed with two seals to make it impossible to withdraw any part of its

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contents without breaking one seal and impossible to introduce any substance without breaking the other seal. The delivery tube and any milk contact parts of the dispensing device will be attached at the milk plant and will be protected by a moisture-proof covering, or housed in a compartment with a moisture-proof closure, which will not be removed until after the container is placed in the refrigerated compartment of the vending machine.

(4) With the exception of bulk milk vending machines for which separate provisions are provided in subparagraph (3) above, all **multiuse** parts of vending machines which come into direct contact with readily perishable foods, beverages or ingredients will be removed from the machine at least daily or at each serving and will be thoroughly cleaned and effectively subjected to an approved bactericidal process. Such parts will, after bactericidal treatment, will be protected from contamination.

(5) Periodically, all parts of vending machines which come into direct contact with other readily perishable foods will be thoroughly cleaned and effectively subjected to approved bactericidal processes. The frequency of such cleaning and bactericidal treatment will be established by the medical officer based upon the type of product being dispensed. A record of such cleaning and bactericidal treatment will be maintained in each machine by the operator.

(6) All containers, pipes, valves, fittings and other product or ingredient contact surfaces of vending machines will be constructed of nontoxic, corrosion resistant and relatively nonabsorbent material, and will be kept clean. All containers, valves, fittings, chutes and faucets which are in contact with food will be disassembled. All surfaces will be visible for inspection and cleaning. In machines of such design that food contact pipes or tubing are not readily removable, in-place cleaning of pipes and pipe fittings may be permitted, provided they are so arranged that cleaning and bactericidal solutions can be circulated throughout the fixed system. Such solutions will contact all interior surfaces, and the system will be self-draining or otherwise completely evacuated.

(7) The openings into all nonpressurized containers used for the storage of vendable products and ingredients, including water, will be provided with covers which prevent any contamination from reaching the interior of the containers. Such covers will be designed to provide a flange which overlaps the opening and will be sloped to provide drainage from the cover surfaces. Any port opening through the cover will be flanged upward at least three-eighths of an inch and will be provided with a cover which overlaps the flange. Condensation or drip deflecting aprons will be provided on all piping, thermometers, equipment, rotary shafts and other functional parts extending into the container, unless a watertight joint is provided. Such aprons will be considered satisfactory for those openings which are in continuous use. Gaskets, if used, will be made

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of resilient rubber or rubber-like material that is nontoxic, relatively stable, relatively nonabsorbent, and will have a smooth surface. All gasket retaining grooves will be readily cleanable.

(8) The delivery tube or chute and orifice of all bulk food and bulk beverage vending machines will be protected from manual contact, dust, insects, rodents and other contamination. The design will divert condensation or other moisture away from the normal filling position of the container receiving the food and beverage. The vending stage of such machines will be provided with a tight fitting, self-closing door or cover when the machine is not in the process of delivering food or beverage to the purchaser.

(9) The product storage compartment within the vending machine, dispensing packed liquid products, will be constructed to be self-draining or will be provided with a drain outlet which permits complete drainage of the compartment.

## 6. Water Supply

a. All water used in vending machines will be of safe, sanitary quality, and from a source approved by the medical officer. Water used in vending machines will be piped into the machine under pressure, and all connections and fittings will be installed per local or state plumbing regulations or, if none exist, with the National Plumbing Code. If water storage containers are used, they will be designed and maintained as product contact surfaces.

b. If used, water filters or other water conditioning devices will be of types to permit periodic cleaning or replacement of active elements. Replacement elements will be handled in a sanitary manner.

c. All vending machines which dispense carbonated beverages and which are connected to a water supply system will be equipped with two (or a double) check valves, air gaps or a device to vent carbon dioxide to the atmosphere, or other device approved by the medical officer which will provide positive protection against the entrance of carbon dioxide or carbonated water into the water supply system.

d. Where check valves are used for the protection of the water supply system, a screen of not less than 100 mesh to the inch will be installed on the water system immediately upstream from the check valve.

e. In all vending machines which dispense carbonated beverages and which are connected to a water supply system, the ingredient water contact surfaces from the check valve to other protective devices downstream, including the device itself, will be of material to preclude the production of toxic substances which might result from interaction with carbon dioxide or carbonated water.

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7. Waste Disposal

a. Containers for waste cups, wrappers and caps will not be located within the machine. However, self-closing, leak-proof, readily cleanable and plainly labeled waste containers will be provided in the vicinity of each machine. The above provisions do not apply to crown caps from **multiuse** containers.

b. Containers will be provided within the machine for the collection of drip, spillage, overflow or other liquid wastes. Containers or surfaces on which such wastes may accumulate will be readily removable for cleaning, will be easily cleanable, and will be of a material which will resist corrosion. If liquid wastes from drip, spillage or overflow which originates within the machine are discharged into the sewage system, the connection to the sewer will be through an air gap.

8. Personal Cleanliness. Personnel will wash their hands thoroughly with soap and water immediately prior to engaging in any vending machine operation which may bring them into contact with foods, beverages, ingredients or with any product contact surfaces of utensils, containers or equipment. While engaged in such servicing operations, personnel will wear clean outer garments.

9. Disease Control. No persons with any disease in a communicable form, or a carrier of such disease, will be permitted to work in any catering point or in vending machine operations in any capacity which brings them into contact with the production, handling, storage or transportation of food, beverages, ingredients or equipment used in vending machine operations. No person will be employed in any such capacity who is suspected of having a disease in a communicable form or who is a carrier of such disease. Vending company and catering service employees will comply with the same criteria and undergo the same medical examinations as food service employees per enclosure (2).

10. Certification of Compliance. Any proponent, owner, manufacturer, distributor or operator who places a vending machine into operation will be required to furnish a certificate that the particular equipment, identified by a model number and name, complies with the requirements of this Order or "The Vending of Food and Beverages - a Sanitation Ordinance and Code 1957 Recommendations of the U.S. Public Health Service." This certificate of compliance is the responsibility of the proponents of the vending devices. The following agencies are engaged in a sanitary evaluation program leading to an acceptable certificate of compliance:

a. National Sanitation Foundation Testing Laboratory, Inc., Ann Arbor, Michigan.

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b. Indiana University Foundation, Research Division, Bloomington, Indiana.

c. Michigan State University, Department of Microbiology, East Lansing, Michigan.

COFFEE MESSES

1. Definition. "Coffee **mess**" shall mean any room, space, area or facility authorized by an activity head for the purpose of preparing or dispensing of coffee, tea or similar drink for consumption by personnel.

2. Sanitation Requirements. All operators of coffee messes will comply with the following sanitation requirements:

a. Each coffee mess shall be located in an area or space that is easily cleaned and free from dirt and dust. Coffee messes should not be located in certain critical areas such as patient treatment rooms, heads, and food preparation spaces.

b. There must be available to each coffee mess, either at the site or conveniently nearby, adequate facilities for proper washing and sanitizing all equipment and utensils used in the coffee mess. Single service disposable cups and spoons may be used where washing facilities are not available or in lieu of individual china cups.

c. Bulk sugar and coffee will be stored in containers for which a tight fitting cover is provided. Sugar will be served in **single-service** packages or from sanitary, pour-type dispensers.

d. Coffee will be made from potable water and served only in single service containers. Each person in the mess may have his or her own coffee cup where facilities are available to properly wash and sanitize each cup. The use of common **drinking** cups or **spoons** is prohibited. Single service sticks (available from the Self-Service Center) will be used.

e. There will be adequate refrigeration and storage space provided in each coffee mess for perishable items. Coffee, cream and all other readily perishable food and drink will be kept between 32 - 35 degrees Fahrenheit except when in actual use.

f. Personnel are prohibited from cooking or preparing any food in any coffee mess. Cakes, donuts, etc., authorized for consumption within the mess will be thoroughly protected from dust, flies, rodents and insects.

g. Garbage and liquid waste will be kept in tightly covered watertight containers until removed and will be disposed of in an approved place and manner. Refuse will be disposed of at least daily.

LIVING AND WORKING SPACES

1. **Scope.** Whenever large numbers of people live in a common dormitory or berthing space, the possibility of development and spread of communicable disease exists. A habitable and healthful environment in living and working spaces is considered to be essential in maintaining efficiency and morale of personnel. Major factors which pertain to living and working spaces are sleeping arrangements, floor area, ventilation and air volume, heating, sanitary fixtures and related features such as lighting and color.

2. Minimum Habitability Criteria for Barracks. Requirements and allowances for construction and maintenance of sanitary facilities consistent with the highest level of sanitation are available in NAVFACENGCOCOM and BUMED manuals and technical publications.

a. The following are minimum requirements per person in all dormitories or sleeping rooms:

<u>PAYGRADE</u>	<u>ACCOMODATION</u>	<u>SQUARE FOOTAGE</u>
E7-E9	Unshared accomodation with combination sleeping/living room	180 square feet net living area
E5-E6	Room shared by not more than one other person	72 square feet net living area per man
E1-E4	Room, cubicle or open bay	72 square feet net living area per man
	Room shared by not more than one other person combination sleeping/living room	90 square feet net living area per man

b. For units of approximately 200 people, the minimum proportions of plumbing fixtures to the number of people to be **accomodated** are as follows:

- (1) Water Closets. One for every 20 people.
- (2) Urinals. One fixture for every 25 people or one foot of trough for every five persons.
- (3) Showers. One for every 25 persons.
- (4) Lavatories. One basin or two feet of trough or wash sink for every five persons. The preceding proportions may be decreased for larger units, but must be increased for smaller units.

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c. Lighting and colors will adhere to current safety instructions in office and working spaces.

3. Sanitary Reuirements for Living and Working Spaces. The following general measures will be adhered to in maintaining a proper sanitary condition in all living and working spaces.

a. The practice of "dry sweeping" will be avoided by the judicious use of soap and water or other cleaning agents, such as sweeping compounds, in spaces where applicable.

b. Paint work on stanchions, passageways and other areas will be maintained in a clean condition at all times.

c. Dry cleaning and laundering of textiles such as blankets, sheets and mattress covers will be accomplished frequently to keep the bedding as clean and dust-free as possible.

d. Drinking fountains will be cleaned at least once daily with particular emphasis on bowls, orifice guards and orifices. Esthetically undesirable accumulations of slime, rich in organisms of all **types**, result from improper cleaning. Drinking fountains will be of the angle-jet type.

e. Toilet stools, urinals, lavatories and showers will receive a thorough cleaning daily. This scrubbing will include not only the inner and outer surfaces but also all supplementary parts such as connecting piping, valves and other plumbing adjacent to the fixtures. Failure to properly clean the fixtures and appurtenances result in accumulations of discolorations and odors. Thorough cleaning usually obviates the use of deodorant blocks customarily used to screen unpleasant odors caused by inadequate cleaning. Failure to clean in the area of lavatories and showers results in unattractive accumulations of scum, scale, dust, fungus or mold.

f. **Mops**, brooms, brushes, rags and other cleaning gear will be thoroughly cleaned and stowed in a ventilated area after each use.

g. Trash cans in living and working spaces will be provided with covers and be cleaned inside and out at least once daily when emptied. Failure to clean trash cans results in the accumulation of filth which creates odors and attracts insects and rodents. **Self-closing** devices may be provided for the cans.

h. Shower rooms will have plenty of light and be well ventilated to promote cleaning and drying in order to eliminate unpleasant odors. The floors will be constructed to drain readily. Shower curtains, mats, bulkheads, and decks will be free of mildew, odor, and soap accumulation.

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i. All outside openings such as windows, doors, vents and ducts will be screened to prevent the entrance of insects and rodents. Screen doors will open outward and be self-closing.

(1) The use of wooden gratings or duckboards in shower rooms is not recommended. Duckboards contribute to the spread of fungus infections if not cleaned and dried frequently.

(2) Bulkheads and decks in shower rooms will be impervious to water and will be kept free from molds and soap scums.

(3) Tile or terrazzo flooring is the most desirable for shower rooms.

(4) **Antiseptic** foot baths at shower room entrances are not recommended.

j. Plumbing fixtures will conform to Federal specifications. Cross connections with polluted supplies, flushometer toilet valves or siphon jet urinals with flushometer valves without vacuum breakers and submerged inlets are prohibited.

k. The following instructions will be adhered to in order to insure proper mattress sanitation:

(1) Bedding, including mattresses, will be aired outdoors at frequent intervals in sunlight if practicable. While being aired, bedding should be inspected by the EHO for cleanliness, state of repair and insect infestation. Insect infestation or evidence of insects having been present in bedding requires the institution of a thorough control program.

(2) When mattresses and/or pillows are found to be dirty or in a poor state of repair, appropriate action will be taken to have them replaced or thoroughly cleaned and renovated per prescribed methods.

(3) Before using, mattresses will be fitted with suitable mattress covers. Mattresses not in use will be stored where they will not be accessible for lounging and will not collect soil.

(4) Mattresses which have been used by individuals infected with infectious disease will be sterilized if autoclaving facilities are available. Where no facilities are available for autoclaving, mattresses will be recommended for survey and destroyed, preferably by burning.

(5) All used bedding which includes linens, blankets, mattress and pillow covers shall be laundered or dry cleaned before reissue.

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1. Insect and rodent control in living and berthing spaces will be accomplished by the Head, Maintenance Branch, Facilities Division. Emphasis will be directed toward preventive control methods rather than corrective measures. Storage and consumption of food stuffs in actual sleeping areas is prohibited.

ENCLOSURE (5)

## SWIMMING POOLS

1. General. Water can and does transmit disease. The environment of swimming pools and bathing places is peculiarly favorable to the spread of infection. Injury or death may also result from hazards characteristic of these areas. Swimming pools and bathing areas may contain infectious or toxic materials and do become contaminated by those who use them. The skin, eyes, ears, upper respiratory passages and mucous membranes are exposed to any infectious or harmful agent in the water. Because some water gets into the mouth of the swimmer, these agents are also taken into the gastrointestinal tract. Use of the bathhouse, in contrast to that of most public places, involves contact of the uncovered skin with floors, seats, counters, swim suits and towels which are likely to be contaminated by infectious organisms, such as those from boils, impetigo, ringworm and **conjunctivities**.

2. Responsibilities. The Director, Occupational Health/Preventive Medicine Department (OH/PM), Naval Medical Clinic (NMCL) is responsible for vigilant supervision of these aspects of operation, maintenance and laboratory practices which pertain to health protection and for making pertinent recommendations to the Commanding General. The Head, Maintenance Branch, Facilities Division is concerned with the design, construction, maintenance and technical operation of swimming pools and bathing areas. The Special Services Officer is responsible for providing life guards and general operation of the swimming pools.

3. Desisn and Construction of Artificial Pools. The recirculating type of pool is standard because only in this system is water purity controlled with predictability. Recirculating pools use the same water over and over again. The water will be pumped from the pool, passed through a hair and lint strainer, filtered, mechanically chlorinated and returned to the pool. Makeup water is added as required to replace water lost due to evaporation, spillage and cleaning. Filters are used to produce turbidity-free water, to remove biological organisms and to reduce the bacteria load prior to chlorination. They will be rapid filters under pressure using sand or diatomaceous earth. Pressure and gravity filters must be equipped with loss-of-head gauges and these are to indicate when the filters need backwashing or to indicate other irregularities. Specification for design, construction, pumps, water pipe strainers, suction cleaners, heating, filtration and makeup water facilities are located in current NAVFACENCOM instructions.

a. The necessary swimming pool appurtenances will include a hair strainer, vacuum outlets, a vacuum hose for cleaning the pool bottom, chemical feeding devices, mechanical chlorinator and an adequate provision for washing the filters by means of a flow discharging waste water to sewers. Makeup water precautions must be taken to

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prevent a crossflow which might contaminate the pool or drinking water supply. Dangerous cross connections must be prevented by use of devices such as surge tanks and air gaps.

b. The maximum number of swimmers allowed in the pool at any one time will not exceed one bather for each 25 square feet of water surface of the pool.

c. Foot baths will be eliminated. Swimmers must take cleaning showers before entering the pool water, and all walking surfaces will be properly cleaned and well drained.

d. The wading pool will have a **continuously** flowing treated water supply to give a complete water change every hour. The water supply and recirculation must be a part of the **mainpool's** circulation and filter system.

e. The walks, runways and floors of shower and bath houses will have sufficient slope to allow for adequate drainage. Drainage of water from these surfaces into the pool will be prevented.

4. Records. The following records will be maintained and filed at the NMCL and the Maintenance Branch, Facilities Division:

a. Total number of swimmers per day and maximum number of swimmers using the pool at any given time.

b. Length of time pumps and filters are in operation.

c. Time and date the filter is backwashed and cleaned.

d. Amount of chemicals added and time of their addition (chlorine, alum and soda ash).

e. Hourly record of chlorinator and chemical solution feeder settings.

f. Inventory of chemicals on hand.

g. Date of **vacumm** cleaning.

h. The **pH** test results three times daily or as frequently as necessary to assure the pool is within prescribed limits.

i. Temperature readings twice daily or as often as necessary to indicate adequate temperature control.

j. Residual chlorine readings will be taken every 2 hours of operation.

k. The total alkalinity and/or **calium** hardness each time accomplished.

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5. Sanitary Operation of the Pool. Turbidity and organic content of swimming pool water interferes with disinfection, reduces visibility and are unattractive to swimmers. Proper operation requires that:

a. The total volume of the pool will be recirculated every 6 to 8 hours.

b. The pressure sand filter will be backwashed when the **loss-**of-head gauges show 6 to 8 pounds per square inch. Other types of filters should be backwashed per the manufacturer's instructions for a particular filter.

c. Following current NAVFACENCOM instructions, alum will be added to the water of conventional rapid flow pressure filtration systems prior to filtration to produce flocculation which carries down particulate matter and forms a gelatinous layer on top of the filter. This action will assist the filter in its action.

d. Filters will be inspected daily for a clean effluent.

e. Ample time should be allowed before commencement of swimming hours to permit cleaning of pool and pool area.

6. Chemical and Physical Quality of Water. Excessively warm water accelerates dissipation of chlorine and promotes rapid growth of bacteria and algae. The water temperature in swimming pools should be maintained between 65 degrees Fahrenheit - 82 degrees Fahrenheit depending upon the purpose of the pool (i.e., competition or recreational, indoor or outdoor). Air temperature in winter in indoor pool facilities should be kept approximately 3 degrees Fahrenheit higher than the pool water temperature while in summer 8 degrees Fahrenheit above is satisfactory.

a. Chlorination. The minimum requirement for chlorine effectiveness is a free available chlorine (FAC) residual of not less than 0.4 ppm when the **pH** is 7.2. Table 4-4, reference (a) establishes minimum chlorine levels with corresponding **pH** levels. These are minimum allowable FAC concentrations, but pool operators may maintain the FAC at 1.0 ppm or higher to improve the clarity and appearance of the pool.

b. **pH.** Water which is too alkaline reduces the efficiency of chlorine disinfection. Acid water makes the chlorine more noticeable and irritates the mucous membranes of the swimmers. The **pH** will be maintained between 7.2 and 8.0. Testing for chlorine and **pH** will be accomplished by using the most recently approved test kit. This kit will be made available to the operator, who will be properly trained by medical personnel in its use.

c. Fresh makeup water will be added daily to replace water lost through evaporation and spillage.

7. Bacteriological Standards. Collection and handling of samples will be conducted by the Director, OH/PM, NMCL on a weekly basis while the pool is in operation. The Head, Maintenance Branch, Facilities Division will be advised of adverse results.

8. Preopening Reaquirements. Before the pool opens for the season, it must meet all minimum sanitary standards set forth in this Order and be approved as a swimming source by the Health Care Advisor, **NMCL.** During the season these standards must be maintained at all times, and if for any reason the pool area should become a source for the spread of communicable disease, this approval will be withdrawn and reported to the CG.

9. Cleanliness and Good Housekeeping. A swimming pool area is a combination of public toilet, public dressing room and public bathroom and may reach the proportions of a public health hazard if not properly attended. Only the highest standards of sanitation are acceptable.

a. For adequate cleanliness, toilet rooms, dressing rooms, hallways and runways will be swabbed and disinfected at the end of the day, and cleanup inspections will be made during the day. Calcium hypochlorite solution is a suitable disinfectant in a strength providing 50 ppm of free available chlorine.

b. Walls and ceilings must be kept clean and will be light in color.

c. Showers must be supplied with hot and cold running water and soap. Toilets should be supplied with toilet paper.

d. Floating debris in the pool will be removed daily with a hand skimmer or by properly overflowing the pool.

e. Foreign material on the bottom of the pool will be removed daily with a vacuum cleaner.

f. Periodic draining and cleaning, including a scrub down, are governed by the degree of water treatment and the swimming loads. The "disc **test**" will be used as a measure of the clarity of the water. A satisfactory test requires that a black disk of 4 inches in diameter on a white field on the floor of the pool at its deepest point be clearly visible from the pool sides.

g. Spectators will be excluded from the swimming enclosure to prevent contamination of pool water by dirt from feet and shoes.

10. Personal Reaulations for Swimmers. A pool quickly sinks to the level of its least desirable patron. Common sense requires the development of rules of conduct for swimmers. A placard including,

but not limited to, the following rules and regulations pertaining to swimmer sanitation and safety must be posted in a prominent location:

a. All patrons must comply with the directions of lifeguards and/or the pool manager.

b. Personnel must take a cleansing shower prior to entering the pool.

c. No persons with sores, skin diseases or bandages will be permitted in the pool.

d. Spitting, urinating or otherwise contaminating the pool or walkways is prohibited.

e. **Eating, drinking or smoking in the pool or on pool deck is prohibited.**

f. No pets allowed in pool area. (A guide dog escorting a blind person will be permitted on the pool deck and in restrooms. Also, working dogs accompanied by handlers will be permitted in swimming pool areas as required).

g. Boisterous or rough play is not permitted in the pool area.

h. Rafts, air mattresses or flotation devices that could easily become detached from the user are prohibited (Life jackets, water wings or similiar personal safety items may be used by nonswimmers and are permitted in the shallow area only).

i. Nonswimmers are permitted in shallow area only.

j. Diving is permitted in designated areas only.

k. Gymnastics will not be permitted on the diving boards.

l. Swimming is not permitted in diving areas. Double bouncing is not permitted; only one bounce per dive.

m. No fraternizing with lifeguards is permitted.

n. Climbing on lifeguard towers or using lifesaving equipment for other than emergency use is strictly prohibited.

11. **Safety Precautions.** Construction, appliances and operation shall be such as to reduce to a minimum the danger of drowning and of injuries to bathers. Recommendations are as follows:

a. Each lifeguard station shall be equipped with appropriate safety and rescue devices.

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b. One lifeguard is required for up to 50 bathers and an additional lifeguard for each designated diving area.

c. Each pool will have the following minimum first aid equipment:

- (1) Stretchers.
- (2) Blankets.
- (3) First aid kit.
- (4) Drinking water.
- (5) First aid cot.
- (6) Pillow.
- (7) Telephone with emergency numbers.
- (8) Splints.
- (9) Back board.

d. Pool operators and lifeguards will be trained and certified in basic rescue and life-saving techniques.

ENCLOSURE (6)

BARBER AND BEAUTY SHOPS

1. Employees. Employees of barber and beauty shops will adhere to the following personal hygiene or physical requirements:

a. Employees will be given a physical examination prior to starting work and annually thereafter.

b. They will be free of any communicable disease while working.

c. All employees will wear a washable outer coat or uniform which must be clean at all times.

d. They will wash their hands thoroughly with hot soapy water prior to attending each patron.

2. Sanitation Requirements

a. Barber and beauty shops will not be located in food service or sleeping areas.

b. An adequate supply of hot and cold running water with proper lavatory fixtures and waste disposal will be provided all barber and beauty shops.

c. The interior of these shops will be adequately lighted and ventilated.

d. The shops will be maintained in a sanitary manner at all times.

3. Sanitary Practices

a. Only such cosmetics, tonics, lotions, bleaches and dyes which must meet the approval of the U.S. Food and Drug Administration will be used.

b. Therapeutic practices such as treating pimples and ingrown hairs are prohibited.

c. The headrest of barber chairs will be covered with a clean sheet of paper or clean towel for each patron.

d. No materials other than freshly laundered towels or sterile cotton will be used to stop the flow of blood in the case of "nicks."

e. The treatment of eye conditions is prohibited.

f. Common brushes, dusters, shaving mugs and brushes are prohibited. The use of automatic dispensers or brushless shaving cream and clean towels in lieu of brushes or dusters is recommended.

- g. Individual sanitary neck straps will be used for each patron.
- h. Patron-covering cloths will always be clean and changed at least daily.
- i. Clean, covered, sanitary receptacles will be provided for waste materials and used linen.
- j. The removal of cut hair from the decks, cabinets, barbering chairs and walls shall be done frequently by dustless methods.
- k. Barbers or beauty operators will not eat, drink or smoke while attending patrons.

4. Treatment of Instruments. Barbers and beauty operators will clean and disinfect all equipment they use after each patron.

- a. Removable clipper heads and other metallic instruments will be disinfected between each patron with commercially available products intended for that purpose. These products will not contain formaldehyde or produce formaldehyde gas. Manufacturer's label instructions will be followed when using these products. Use only products which display an environmental protection agency registration number on the label.
- b. All combs, hair rollers and other utensils **will** be thoroughly washed with hot soapy water after each patron and then placed in a disinfectant solution for at least 30 minutes, or any other accepted method of disinfecting.
- c. All nonmetallic equipment will be thoroughly rinsed under running water to wash off the disinfectant solution before using on a patron.
- d. All barber clippers which have the nondetachable head will be brushed free of hair after each patron and then disinfected using an Environmental Protection Agency approved spray disinfectant.
- e. The disinfectant solution at some facilities with a heavy load may require changing on a daily bases, while other facilities may not require this frequency. In no instance will the disinfecting solutions be allowed to remain beyond one week prior to changing in any facility.
- f. All barbers and beauty operators will have an adequate number of complete sets of all equipment that comes into direct contact with the patron.
- g. A disinfecting solution equal to disinfectant, Germicidal and funsicidal concentrated GF6840-281-3587 will be used for nonmetallic

instruments. All barbers and beauty operators will have an adequate number of instruments and supplies available to accomplish disinfection during normal operations.

h. All stock solutions will be labeled as to the name of the product and directions for its use.

i. The use of straight razors is prohibited.

5. Abnormal Skin Conditions. The serving of persons with inflamed or infectious conditions of the scalp, face or neck without written consent of the Health Care Advisor, Naval Medical Clinic is prohibited.

6. Posting. Each barber and beauty shop will post this enclosure.

LAUNDRY AND DRY CLEANING FACILITIES

1. General. Establishments for washing clothes range from genuine hand laundries, where open tubs are used, to highly mechanized plants where workers do little more than tend machinery. Sanitary hazards encountered in these establishments are variable throughout the entire process, from delivery of contaminated clothing to the finished products. The purpose is to produce clean garments.

2. Emolovees. Employees of laundry and dry cleaning establishments will adhere to the following requirements:

a. Personnel exposed to dry cleaning solvents will receive preemployment and periodic physical examinations with supportive laboratory examinations on a schedule determined by the medical officer or higher authority.

b. Personnel working in processing areas of laundries or dry cleaning plants will wear clean washable outer garments in lieu of street clothes.

c. Personal hygiene will be stressed; frequent handwashing, particularly after visiting the toilet or handling soiled linen, will be mandatory.

3. Sanitarv Requirements

a. Laundry and dry cleaning premises will be maintained in a clean and sanitary condition, free from infestation by rodents and insects.

b. Floors will be cleaned at least once daily by dustless methods. Grease drip pans will be installed where necessary and cleaned daily; paper and trash will be placed in covered containers; lint will be removed as necessary from bulkheads, overheads, and supporting members.

c. Plumbing fixtures and appliances will be installed per established standards, maintained in good repair, and kept in a sanitary condition. These fixtures and appliances will be connected to prevent backflow or crossconnection with the potable water supply.

d. Adequate drinking water will be furnished by means of a drinking fountain of the sanitary angle-jet type.

e. Adequate toilet facilities with a shower and ample locker space will be provided and maintained in a sanitary condition. A sign stating "**Wash** Hands Before **Leaving**" will be prominently displayed in all toilet areas.

f. Eating, cooking, smoking, and storage of food, drinks, or smoking materials will be prohibited in rooms where clothing is handled, sorted, marked, washed or dry cleaned. If meals or lunches are eaten on the premises, a separate room or space approved by Occupational Health/Preventive Medicine, Naval Medical Clinic will be provided for this purpose.

g. Laundries and dry cleaning plants should have separate areas designated for receiving and issue. Unwashed clothes will not be received, sorted, marked, or handled in close proximity to washed clothes.

h. Rooms or spaces should be designed and machines and equipment arranged so that a separate flow of clean and soiled garments will be maintained through the laundry or cleaning process. This flow requires separate contact surfaces, such as tables, carts, shelves, etc. Ventilation should move air from clean to soiled areas to prevent cross contamination.

i. Vehicles and containers used for the transportation and storage of laundry and dry cleaning will be kept clean and in a sanitary condition.

#### 4. Industrial Hygiene and Safety

a. Workrooms associated with laundry and dry cleaning operations where machinery or apparatus emit steam, vapors or heat will be properly ventilated. Such spaces/operations should be provided with general and/or local exhaust ventilation in order to reduce and/or maintain personnel exposure to potentially hazardous material agents within permissible exposure levels. Clean, tempered replacement or (supply) air should be provided. The ventilation system of all dry cleaning equipment shall be designed to automatically draw air into the machine upon opening the loading door thus preventing the release of vapors into the work area. Any proposed changes/modifications to the ventilation system should be referred to the local Medical Department industrial hygienist.

b. All steam and hot water pipes will be insulated with approved (non-asbestos) lagging.

c. Adequate lighting levels should be provided per appropriate illumination guidelines.

d. When the air concentration of dry cleaning materials exceeds permissible exposure levels, appropriate control measures shall be initiated, i.e., administrative, engineering and/or personal protective equipment. In the event of accidental spills, the proper personal protective equipment to include respiratory protection, gloves, and aprons shall be worn.

e. Machinery producing potentially hazardous noise/vibration levels shall be identified and proper corrective measures initiated. Personnel exposed to sound pressure levels of 84 **dba** (decibels-A scale) or greater shall wear proper hearing protective devices and receive periodic audiometric testing/evaluation.

f. Eye protection (safety glasses, goggles, faceshields, etc.) is required in operation where splashes may occur, such as replenishment of dry cleaning fluid, or the addition of bleaches and detergents. Suitable facilities for quick flushing of the eyes shall be provided within the work area for immediate emergency use.

g. Automatic safety devices on all equipment will be clearly identified, properly maintained, and will not be removed or bypassed.

h. Guardrails will be constructed in connection with ironers, compressors, and other dangerous pieces of equipment. Drive shafts, exposed belts, and gears should be enclosed.

i. Conspicuous signs will be posted to warn unauthorized personnel to stay clear of dangerous or restricted areas.

j. First aid kits for emergency use will be provided when authorized.

k. Slippery floors or decks and cluttered aisles will be prohibited.

l. Only qualified and designated personnel will operate **flatwork** ironing machines.

m. Training will be provided in safety, first aid, and use of personal protective devices.

n. Storage of chemical and flammable materials used in laundry and dry cleaning processes shall be in accordance with current directives.

o. All fire regulations will be prominently displayed and enforced.

##### 5. Germicidal Treatment of Clothing

a. Articles to be laundered will be treated by a process which includes exposure to hot water containing alkalies or detergents, chemical disinfecting agents and physical cleaning terminated with a series of rinses.

b. In the event that either hot water is unavailable or the nature of the fabric prohibits the use of hot water, a suitable germicidal treatment will be provided. The germicidal agent may be

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added during the presoak period, during the washing process or in the final rinse. The concentration of germicides will not exceed that deemed toxic or irritating to the user.

c. Laundered articles will be rendered sufficiently free from animal, chemical and bacterial substances and from other substances that may be harmful to persons handling or wearing such articles.

## GARBAGE AND REFUSE DISPOSAL

1. General. Disposal of refuse, trash and garbage is of medical importance because of the associated hazards to health. Refuse, by improper collection and disposal, becomes an indirect but important factor in the spread of disease. It also becomes a hazard to safety and gives rise to nuisances. Refuse helps to spread disease, chiefly by means of numerous insects and rodents which it attracts. Accumulations of trash and garbage provide insects and rodents with food, shelter and places for breeding.

2. Definitions. The various kinds of waste are classified and defined as follows:

a. Garbage includes those materials of organic substances which are significant to public health in that they are capable of supporting bacterial life and/or are attractive to predatory animals and vectors or pests. This classification would include such materials as meat, fish, fowl, vegetables, fruits and edible oils.

b. Combustible rubbish consists of such unusable, nonsalvageable materials (not disintegrated) which can be destroyed by burning. It includes cardboard and wooden cartons and crates, food cartons, wood scraps, rags, paper, books and medical wastes.

c. Noncombustible rubbish consists of nonsalvageable materials which cannot be destroyed by burning such as glass, cans, metals and pottery.

d. Trash consists of disintegrated combustible rubbish such as **paper**, sawdust and leaves.

e. Ashes are solid inert remains of burned materials.

f. Dead animals includes carcasses and remains.

g. Liquid and semi-liquid combustible wastes includes petroleum sludge, crankcase oils and greases and tars.

### 3. Containers

a. Containers that are properly constructed and maintained reduce the attraction of insects and rodents and prevent their entrance. Containers should be designed specifically for refuse and garbage. To be effective, they, must be constructed of rust-proof metal and must have water-tight bottoms, tight-fitting lids and water-tight seams. Damaged containers must be repaired or replaced.

b. When Dempster-dumpster containers are utilized for the collection of refuse that is wet, they should be of the sump type,

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with a bottom opening constructed to prevent leakage. Where containers of this type are in use, wet garbage will be drained and securely wrapped before placing in the container.

c. Platforms provided for garbage or trash containers should be adequately located, adequate in size, accessible to collection vehicles or personnel and easily cleaned and drained. A solid block of concrete is most easily kept in a sanitary condition and is recommended for permanent installations. Wooden or asphalt platforms are unsatisfactory in that the cracks and crevices will often collect fragments of refuse and may even harbor insect larvae.

d. Routine policing of the area surrounding the platforms of any type is essential so that spillage will be cleaned up immediately to facilitate insect and rodent control.

e. Lids on all dumpsters will be kept closed at all times. Normally personnel utilizing the dumpsters will be responsible for keeping the lids closed. When dumpsters are emptied by collection vehicles the driver of the vehicle will ensure that lids are closed.

#### 4. Collection

##### a. Frequency

(1) Garbage grinders are considered ideal for the removal of garbage in that the food scraps and semi-liquid wastes are discharged directly into the sewage system, thereby eliminating storage and exposure to insects and rodents.

(2) Refuse produced in large volumes at dining facilities, clubs and commissaries should be collected daily. At places such as quarters, collection should be two or three times a week, as the volume of refuse and prevailing temperatures require. Rubbish should be removed as necessary to maintain cleanliness and prevent hazards.

(3) Storage for garbage under refrigeration is not a substitute for frequent collection and disposal.

##### \* b. Collection Vehicles

(1) Vehicles shall be designed and equipped to prevent spillage and odors and must be covered or closed in order to exclude flies.

(2) Hot water and steam should be available at the location for the cleaning of collection vehicles and containers. Collection vehicles shall be cleaned daily and containers shall be cleaned each time they are emptied.

(3) Cleaning of individual GI cans, vehicles and other equipment shall be performed at a central point where facilities designated for that purpose are provided and, preferably, where the refuse is unloaded. Hot water and steam should be available for containers and vehicles inside and out. Floors should be concrete, and adequate drainage for runoff water should be provided. The drain connecting with the sewer should be equipped with a grease trap. Fittings that allow the introduction of liquid soap or detergent into the hose may be desirable.

- \* 5. Scavenging. Scavenging of refuse, either at collection point or disposal point, is prohibited.
- \* 6. Disposal Methods. Refuse shall be disposed of in an approved manner based on accepted principles of sanitation or as otherwise dictated by local area practices.
- \* 7. Insecticidal Treatment
  - a. All Dempster-dumpsters, GI cans and other collection apparatus shall be treated with appropriate insecticides on a monthly basis. During peak insect breeding periods (April through September), insecticidal spraying will be accomplished as necessary.
  - b. If insecticidal spraying is not feasible, insecticidal pest strips (Vapona) may be utilized within Dempster-dumpsters to facilitate adequate insect control.
  - c. For all other insect-rodent related problems, the provisions of enclosure (12) apply.
- \* 8. Only trash generated as a result of base activities is authorized to be placed in base dumpsters. The Base dumpsters may not be used for trash generated off-base by civilian or military households, or from any other unauthorized source.
- \* 9. Use of base dumpsters for any form of hazardous waste is prohibited. Information as to what constitutes hazardous waste is available at the Utilities Engineer office, extension 2065 or the Natural Resources and Environmental Affairs Branch at extension 4030.

STANDARDS FOR POTABLE WATER

1. Quality Standards. The standards for bacteriological quality, physical and chemical characteristics and radioactivity shall be per NAVMED P5010 and Commonwealth of Virginia standards. Where standards conflict Commonwealth of Virginia standards will apply.

2. Definition of Terms. The following terms are defined for clarification in interpretation of standards:

a. Adesuate Protection by Natural Means. This involves one or more of the following processes of nature that produce water consistently meeting the requirements of these standards:

(1) Dilution, storage, sedimentation, sunlight and aeration.

(2) Associated physical and biological processes which tend to accomplish natural purification in surface waters.

(3) In the case of ground water, the natural purification of water by infiltration through soil and percolation through underlying material and storage below the ground water table.

b. Adequate Protection by Treatment. Any one or any **combination** of the controlled processes of coagulation, sedimentation, absorption, filtration, disinfection or other processes which produce a water **consistenly** meeting the requirements of these standards. This protection also includes processes which are appropriate to the source of supply, and facilities which are of adequate capacity to meet maximum demands without creating health hazards, and which are located, designed and constructed to eliminate or prevent pollution.

c. The Coliform Group. Includes all organisms considered in the coliform group as set forth in Standard Method for Examination of Water and Wastewater, prepared and published jointly by the American Public Health Association and Water Pollution Control Federation.

d. Health Hazards. Any conditions, devices or practices in the water supply system and its operation which create, or may create, a danger to the health and well-being of the water consumer. An example of a health hazard is a structural defect in the water supply system, whether of location, design or construction, which may regularly or occasionally prevent satisfactory purification of the water supply or cause it to be polluted from extraneous sources.

e. Pollution. As used in these standards, pollution means the presence of any foreign substance (organic, inorganic, radiological or biological) in water which tends to degrade its quality so as to constitute a hazard or impair the usefulness of the water.

f. The Standard Sample. The membrane filter test standard sample shall consist of 100 ml of potable water.

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**g. Water Supply System.** This includes the facilities and auxiliaries for collection, treatment, storage and distribution of the water from the sources of supply to the free-flowing outlet of the ultimate consumer.

3. Source and Protection

a. The water supply should be obtained from the most desirable source which is feasible, and effort should be made to prevent or control pollution of the source. If the source is not adequately protected by natural means, the supply shall be adequately protected by treatment.

b. Frequent sanitary surveys shall be made of the water supply system to locate and identify health hazards which might exist in the system.

c. Approval of water supplies shall be dependent in part upon:

(1) Enforcement of rules and regulations to prevent development of health hazards.

(2) Adequate protection of the water quality throughout all parts of the system, as demonstrated by frequent surveys.

(3) Proper operation of the water supply system under the responsible charge of personnel who are certified or licensed by the state or Federal authorities.

(4) Adequate capacity to meet peak demands without development of low pressures or other health hazards.

(5) Record of laboratory examinations showing consistent compliance with the water quality requirement of these standards.

4. Standards

a. **Bacteriological Quality Limits.** The maximum contaminated level (MCL) for coliform bacteria (also called total coliforms) is based on the presence or absence of coliforms in a sample rather than on an estimate of coliform density. The presence of coliform bacteria as indicated by samples examined shall not exceed the following limits:

(1) The MCL for systems analyzing at least 40 samples each month is no more than 5 percent of the monthly samples may be total coliform positive.

(2) The MCL for systems analyzing fewer than 40 samples each month is no more than 1 sample per month may be total coliform positive.

(3) When coliform bacteria occur in potable water as noted above, a set of repeat samples must be collected for each total coliform-positive routine sample and have it analyzed for total coliforms. Use the sampling protocol listed in reference (a) Chapter 5.

b. Chemical Characteristics Limits. Drinking water shall not contain impurities in concentrations which may be hazardous to the health of consumers. It should not be excessively corrosive to the water supply system. Substances which may have deleterious physiological effects, or for which physiological effects are not known, shall not be introduced into the system in a manner which would permit them to reach the consumer.

(1) The following National Primary Drinking Water Regulations (NPDWR) shall be adhered to:

NATIONAL PRIMARY DRINKING WATER REGULATIONS (NPDWR)

The MCL for inorganic chemicals are:

Contaminant	MCL (mg/L)
Arsenic . . . . .	0.05
Barium . . . . .	1.00
Cadmium . . . . .	0.010
Chromium . . . . .	0.05
Copper . . . . .	1.00
Lead . . . . .	0.015
Mercury . . . . .	0.002
Nitrate (as N) . . . . .	10.00
Selenium . . . . .	0.01
Silver . . . . .	0.05
Endrin . . . . .	0.0002
Lindane . . . . .	0.004
Methoxychlor . . . . .	0.1
Toxaphene . . . . .	0.01
2,4-D . . . . .	0.1
2,4,5-TP Silvex . . . . .	0.01
Trihalomethanes* . . . . .	0.10

\*The MCL of 100 ppb is based on population and is effective on 29 November 1983 for installations serving 10,000-75,000 persons. For installations serving less than 10,000 persons, the individual states may, at their discretion, adopt an effective date for the MCL.

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The MCL for volatile synthetic organic chemicals are:

<u>Compound</u>	<u>MCL Milligrams/Liter</u>
Benzene . . . . .	0.005
Vinal Chloride . . . . .	0.002
Carbon Tetrachloride . . . . .	0.005
<b>1,2-Dichloroethane</b> . . . . .	0.005
<b>para-Dichloroethane</b> . . . . .	0.075
<b>1,1-Dichloroethane</b> . . . . .	0.007
<b>1,1,1-Trichloroethane</b> . . . . .	0.20
Trichloroethylene . . . . .	0.005

(2) The following National Secondary Drinking Water Regulation (NSDWR) contaminants are those that may adversely affect the aesthetic quality of the drinking water. These secondary levels represent reasonable goals for drinking water quality, but are not federally enforceable:

NATIONAL SECONDARY DRINKING WATER REGULATION (NSDWR)

The secondary MCL are as follows:

<u>Contaminant</u>	<u>MCL (mg/L)</u>
Chloride	250
Color	15 color units
Copper	1
Corrosivity	noncorrosive
Fluoride	2
Foaming Agents	0.5
Iron	0.3
Manganese	0.05
Odor	3 threshold odor #
<b>pH</b>	6.5-8.5
Sulfate	250
Total Dissolved Solids (TDS)	500
Zinc	5
Turbidity	1 turbidity unit

SEWAGE WASTE DISPOSAL

1. Definition. Sewage is the liquid of a community consisting of water, fecal materials, food wastes, laundry and bath water and other liquid or water-transported wastes.

2. Purpose of Disposal. The proper disposal of waste materials is one of the important measures for the control of water-borne diseases and must accomplish the following:

a. Destruction or disposal of material which may contain pathogenic organisms and destruction of such organisms.

b. Destruction or prevention of breeding places of insects and rodents that can spread disease.

c. Removal or prevention of conditions offensive to the senses.

3. Responsibility. Official interest in the sewage system is limited to such inspection and examination as may be required to insure that the collection, treatment and disposal of the sewage does not create nuisance or conditions hazardous to the health of military or civilian personnel. Reports of suspected discrepancies in sewage systems and recommendations for necessary corrective action should properly be discussed and evaluated with the Head, Maintenance Branch, Facilities Division prior to submission, if circumstances permit.

4. The Environmental Health Officer will conduct periodic inspections of sewage treatment plants. Periodic examinations of effluent, bacteriologically, and for chlorine residual, will be accomplished per current directives and Commonwealth of Virginia standards.

5. Chlorination of Sewage

a. Chlorine is normally applied to sewage for prechlorination for the control of the hydrogen sulfide normally found in sewage, and final (or post) chlorination for disinfecting purposes.

b. The hydrogen sulfide which develops in stale sewage, in the presence of water, produces sulfurous deterioration of metal and concrete structures in the plant, and may cause prohibitive maintenance costs. Chlorine is sufficiently active as an oxidizing agent to break down the hydrogen sulfide and liberate free, insoluble sulfur.

c. In addition to corrosion prevention, the odor of hydrogen sulfide and associated organic mercaptans is controlled by the addition of chlorine. When prechlorination is employed, it is important not to use excessive amounts so as to leave a residual of free chlorine, since its bacteriostatic action will interfere with the biological processes of the secondary treatment system.

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d. None of the mechanical or biological methods of sewage treatment removes all of the pathogenic organisms even though referred to as "completed treatment." When water supply inlets are located near the sewer outfall, disinfection of the treated effluent is mandatory.

e. Post chlorination provides an effective disinfection of sewage effluents, which do not contain excessive amounts of organic matter. Chlorine does not have the penetrating ability to disinfect suspended solids. For effective disinfection the rate of chlorine feed should be high enough to establish a residual of 0.5 to 0.7 ppm at the end of a 30-minute contact time. The amount of chlorine is dependent upon the composition of the treated effluent.

f. The character of sewage effluent from any type of treatment is subject to wide variation, and frequent adjustment of the chlorine dosage is required to maintain uniform results.

6. Laboratory Control. Laboratory control of sewage treatment plant operation includes determination for suspended solids, biochemical oxygen demand (BOD) phosphorus, total kjeldahl nitrogen, pH, dissolved oxygen, fecal coliform, and residual chlorine. Plants which serve populations of less than 1,000 do not generally require daily analysis unless the effluent affects public drinking water or recreational waters. At large plants using complicated treatments, the routine analysis should be fairly complete. In cases where public drinking water or recreational waters are affected by small plants, or at plants using complicated treatment methods, routine and special analysis must be conducted on a scheduled or reasonable time interval.

a. Chlorination of sewage is required for a number of reasons as listed in paragraph 5, above.

b. BOD examinations are conducted to determine the quantity of dissolved oxygen required during stabilization of the decomposable organic matter by aerobic biochemical action.

c. Laboratory examinations for suspended solids are conducted to determine the concentration of solids in the effluent.

d. The above listed laboratory tests must be conducted as scheduled by the Virginia State Water Control Board.

e. All laboratory analysis and tests will be performed per the methods described in "Standard Methods for Examination of Water and Waste Water, 1989."

f. Every effort will be made to upgrade effluent waste and, in cooperation and coordination with state and Federal agencies, to eliminate contamination of natural waters.

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7. Cross Connections. All cross connections between potable water supplies and sewage systems are hazardous. The standards contained in this enclosure are designed to eliminate or prevent cross connections, thereby reducing the necessity of backflow prevention devices. Cross connections, with or without such devices, may still be found occasionally at some activities and should be eliminated. When fresh water must be supplied to sewage lines or appurtenances, an **over-**the-rim type of supply must be provided. This type of construction prevents any possibility of flow reversal due to siphonage, pressure or flood. When necessary, water pressure may be produced by means of **a pump**, so applied that it takes suction from the over-the-rim supply and discharges it directly into the contaminated system, rather than by means of cross connections to the pressurized fresh water system. The reason for this precaution is that when check valves are used to prevent the backward flow of sewage, they have been found to be unreliable. The following are the most common cross connections found at sewage treatment plants and pumping stations:

- a. Flushing connections for sludge hoppers or digesters.
- b. Priming connections for pumps or water seals.
- c. Makeup water connections to digester heating coils and systems.
- d. Water ejectors for draining sewage from pits.
- e. Flushing nozzles for screening bins and grit chambers.
- f. Scum spraying or breakup nozzles at digester roofs.
- g. Sewer flush tanks.
- h. Water hoses for flushing and cleanup purposes which may be left with the nozzles submerged in sewage which could permit backflow of sewage into potable waterlines.

DISEASE VECTOR CONTROL

1. General. The term "**vector**" refers to all insects, rodents and related organisms which play a significant role in the transmission of disease to man as intermediate hosts or reservoirs of disease; and present problems of sanitary or hygienic significance which may otherwise affect the health and efficiency of personnel.

2. Responsibility. The Health Care Advisor, Naval Medical Clinic, in coordination with the Head, Maintenance Branch, Facilities Division is responsible for:

a. Inspections and surveys to determine the species, source, location and density of vectors.

b. Recommendations relating to sanitation standards and practices affecting the presence and abundance of vectors and utilization of vector control methods.

c. Evaluation of the effectiveness of vector control measures.

d. Inspections and recommendations to ensure that pesticides are used safely per current directives.

e. Provide information on all appropriate personal protective measures against vectors.

f. Coordination with civilian and other governmental agencies having vector control problems that may affect naval personnel on or in the vicinity of a command.

g. Compliance with all appropriate public health quarantine measures.

h. Reviewing and approving activity pest management plans.

3. The medical department may be additionally charged by the commanding officer with the responsibility for all operational phases of the vector control program as follows:

a. In the event of a vector-borne disease outbreak.

b. In the absence of a public works department, such as at certain chore installations, on board ships and with troops in the field.

c. In the control of vectors actually infesting humans (e.g., lice, mites).

d. In disasters.

4. Renorting. Reporting of vectors in quarters, buildings, dining facilities, grounds and other property may be done by submitting a work request to the Head, Maintenance Branch, Facilities Division.

5. Inspection of Reported Vector Infested Areas. Upon receipt of a reported infestation, an appointment will be made with the complaining party for an inspection of the area.

6. Eradication. The following procedures will be taken to eradicate and prevent future infestation of vectors:

a. An appointment will be made for treating the area. In a quarters building occupied by more than one family, or buildings occupied by more than one activity, the vector control inspector will decide whether or not the entire building will be treated.

b. The following instructions will be given occupants or personnel in charge for preparation of areas to be treated:

(1) Remove all food stuffs and dishes from shelves and place them on a table and cover.

(2) Remove all articles from closets and place them on a bed and cover with a sheet.

(3) Remove all drawers from dressers and cabinets. It is not necessary to empty drawers.

(4) Do all cleaning prior to treatment.

(5) Move all furniture 1 foot from the wall.

(6) The room should be well ventilated for at least 3 hours after treatment.

(7) **Do not** wash off insecticide after treatment. Let residual air-dry or wipe with cloth before putting items back into the cupboards.

c. To prevent further infestation of an area, measures must be taken to eliminate access to food and harborage of vectors.

7. Follow-up and Preventive Treatment of Areas. After heavily infested areas have been initially treated, it may be necessary to retreat the area one or more times. Preventive treatment of an area or building may be done at regularly scheduled times upon request of personnel in charge of an area should it be deemed necessary. These areas will be thoroughly cleaned prior to the scheduled treatment.

8. Insecticide Bait Stations. Insecticide bait can be used in fuse boxes, electrical outlets, around stoves, ovens, heaters, **refrigera-**

tion units, food vending machines, behind false bulkheads and enclosed motor areas. If other treatment choices are available use them first. Use baits only as a last resort in selected areas. Baits can be used in all locations where liquids present the danger of electrical shorting or fire. Avoid placing baits in overhead areas where bait would fall into food preparation areas. Bait should be kept dry to be effective. Remove and replace every two months or as required. The use of Bait Stations has proven to be most effective when the station is changed every 3 months and care is taken to avoid contamination from liquid aerosol residual insecticides. The direction for use must be followed as indicated on the packaging box.

SAUNA BATH AND STEAM ROOM SANITARY REGULATIONS

1. General. Saunas and steam rooms are normally located within a gymnasium or swimming pool facility. These rooms are used for relaxation or as part of an individual physical fitness program. Saunas are based on the principle of inducing perspiration through high temperature dry heat, whereas a steam room uses moist heat. Saunas and steam rooms shall be structurally sound, clean, and free of any potentially dangerous conditions.
2. Structure. Sauna construction shall be no less than industry standards and shall be approved for installation by the cognizant regional division. Naval Facilities Engineering Command. Electrical installation shall be per current Naval Facilities Engineering Command standards. Doors should contain window(s) which allow observation of the entire room. Lighting shall be per current Illumination Engineering Society standards.
  - a. Sauna. Saunas shall be constructed of rot resistant woods (e.g., redwood). The floor shall be covered with duckboards designed for easy removal and cleaning. Benches shall be designed to allow for easy cleaning with no hard to reach locations. Benches shall be maintained in good repair and seating surfaces shall be maintained in a smooth condition without splintering, protruding nails, or other fasteners that may cause injury to personnel.
  - b. Steam rooms. Steam room shall be completely lined with impervious material (e.g., ceramic tile) which will not deteriorate under moist heat conditions. The walls, floors, and ceiling shall be maintained in good repair. Benches shall be installed to allow for easy cleaning.
3. Sanitation. The interior of saunas, steam rooms, and associated changing areas (see Article 2-56) shall be clean and free of debris, foul odors, or other unsanitary conditions. The floor, duckboards, benches, or platforms shall be scrubbed daily using a mild detergent followed by an approved disinfectant (e.g., 50 ppm chlorine solution) or an approved commercial cleaner/sanitizer. The floors shall not be covered by any material (e.g., carpeting). The consumption of food or drink in saunas or steam rooms is strictly prohibited. The sanitary condition of a sauna or steam room located within a gymnasium or swimming pool facility shall be determined in conjunction with each inspection of the gymnasium or swimming pool.
4. Safety. A thermostatic control device shall be installed which prevents the sauna from exceeding the temperature of 200 degrees Fahrenheit (93 C).

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The temperature in the steam room shall not exceed 120 degrees Fahrenheit (49 C) and will be equipped with a thermostatic control device. A sign shall be conspicuously posted listing rules for operation and use. If for any reason a sauna or steam room is equipped with a door lock, the door must be easily opened from inside the room. Steam outlets, piping, and heaters shall be shielded to prevent burns. Saunas and steam rooms which are located in remote sites away from pedestrian traffic should be equipped with an alarm or equivalent system which could be activated in an emergency.